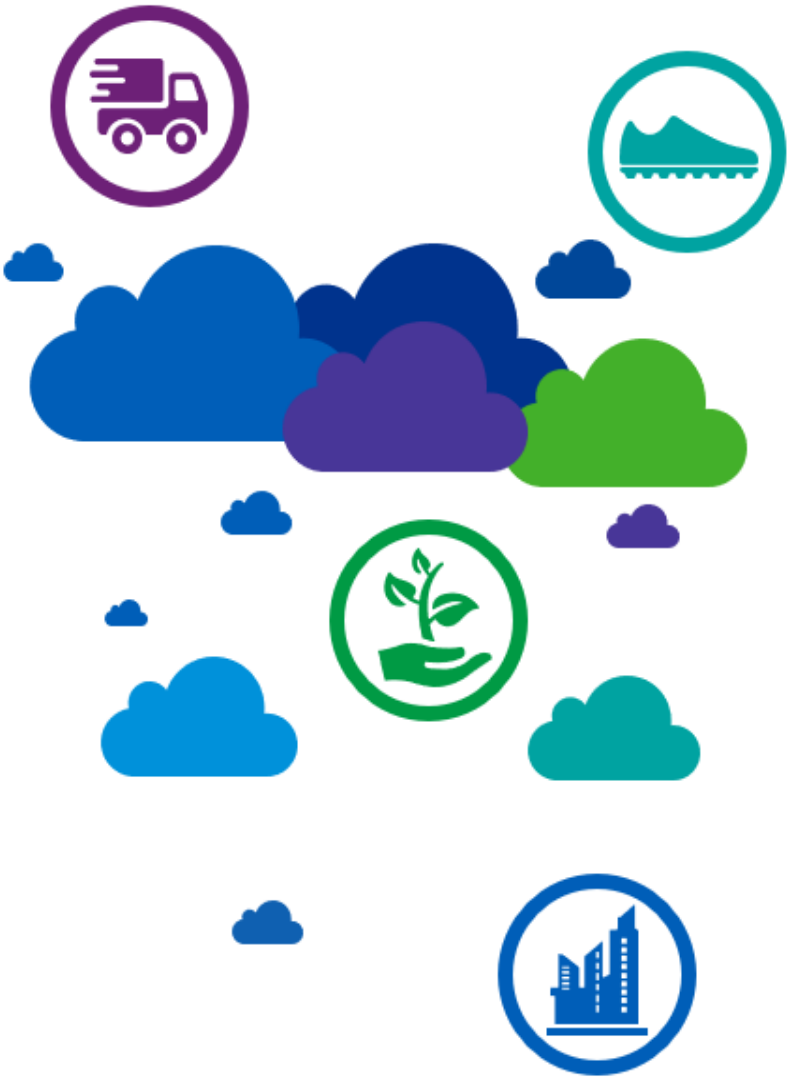
KPMG

Reimagine Services

Business Case: Outsourcing Fabrication and Technologies Shop



CITY OF EDMONTON

MAY, 2021

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Opportunity Summary

The City has an opportunity to explore options to provide fabrication services under different models, including outsourcing all or part of the service. The City operates a Fabrication and Technologies Shop (Fab Shop) that supports the general fabrication and welding needs of both internal departments and external customers. The Fab Shop is intended to operate on a cost recovery basis, billing internal clients for time and materials at a standard rate that is intended to cover both labour and indirect costs. Options were explored for this service, as metal fabrication is not a core municipal service and there are many private metal fabricators in the Edmonton area.

The Fab Shop's largest customers include Parks and Roads Services, Waste Management Services, Facilities Maintenance, and Corporate Procurement and Supply Services. These internal City customers are provided with a range of services that can be grouped into two main categories: *fabrication* of products and parts, and *welding*. Welding includes the preparation, repair, maintenance and disposal of the City's fleet and infrastructure.

Heavy equipment repair and maintenance companies were reviewed as comparators, and it was identified as a common practice to provide welding capabilities internally in heavy-and light-duty repair facilities. Having welding capacity "in house" likely supports timely, reliable and cost-effective fleet maintenance for the City. Fabrication was also identified as a common service that these companies deliver for their customers. As the metal fabrication industry is the largest manufacturing sector in Edmonton, there could also be opportunities for the City to use external vendors to meet fabrication requirements.

There were three options for the Fab Shop that were explored and analyzed as part of this opportunity:

- Refining the current state.
- Maintaining internal welding functions that directly support preparation, repair, maintenance and disposal of fleet and infrastructure – while outsourcing all fabrication work.
- Closing the Fab Shop entirely and outsourcing all fabrication and welding functions.

Preliminary analysis of the Fab Shop's financial performance based on information provided by the City suggested that the Fab Shop was not recovering its full costs. Analysis also showed that the Fab Shop's surplus declined significantly over the last three years. This suggested that there may have been an opportunity to explore outsourced delivery options for the Fab Shop in order to deliver financial benefit to the City. However, through further analysis and the receipt of updated financial information from the City, it was determined that the Fab Shop appears to be generating a surplus from its current operations.

Recommendation: Outsourcing Options for the Fab Shop

Based on analysis of the potential options and the revised financial data provided by the City, **the City should continue to operate the Fab Shop in its current format, with improved financial reporting and ongoing validation of its price competitiveness**. There appears to be no additional financial benefit to the City associated with this opportunity.

Opportunity Background & Context

OPPORTUNITY AND CURRENT SITUATION

The City has an opportunity to explore options to provide fabrication services under different models, including outsourcing all or part of the service.

The functions of the City's Fabrication Technologies shop (the Fab Shop) can be generally grouped into two main categories: fabrication and welding. Welding activities include the preparation, repair, maintenance and disposal of the City's fleet and infrastructure. Fabrication include the fabrication of parts and products. Table 1 highlights examples of different activities provided under each function.

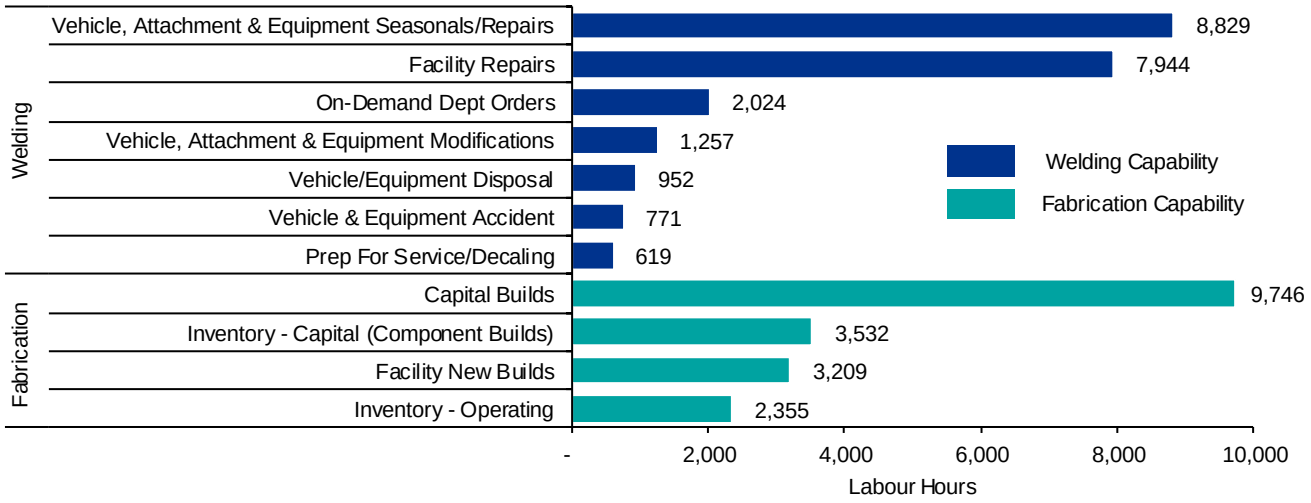
Table 1: Example Activities Performed by the Fab Shop

Fabrication	Welding
– Sander / dump / plow components – Flat-deck and utility trailers – Rooftop access ladders and maintenance platforms – Parts and fixtures for Transit (LRT) – Metal railing, steps, and guard rails – Fire pits	– Remedial work required for fleet to pass Commercial Vehicle Inspection – Fleet modifications, including attachments – Vehicle collision repair – Preparation of units for disposal/auction – Arena and pool shutdowns and repairs

Source: Information provided by the City of Edmonton.

Figure 1 provides a breakdown of the labour hours dedicated to each function performed by the Fab Shop. In 2020, Welding accounted for 54% of the Fab Shop labour hours, whereas Fabrication accounted for 46%.

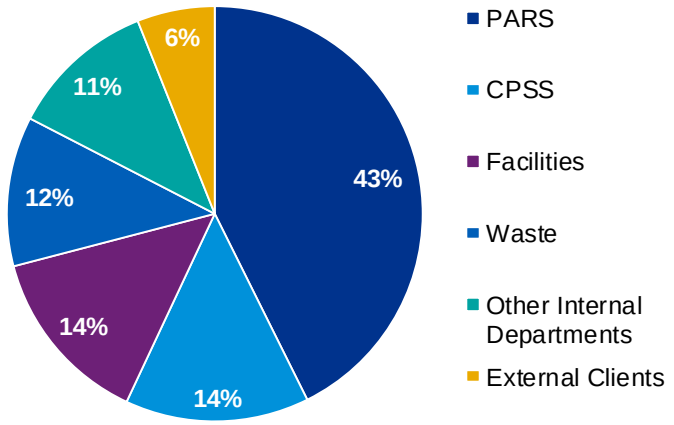
Figure 1: Labour Hour Allocation based on Work Type and Function (2020)



Source: Based on data and analysis provided by the City of Edmonton.

While the Fab Shop provides services to external clients (e.g., [redacted]), approximately 94% of their effort in 2020 was in service of departments internal to the City, as shown in Figure 2. Overall, 43% of work completed by the Fab Shop was in support of Parks and Roads Services (PARS).

Figure 2: Work Order Hour Allocation by Customer (2020)



Source: Based on City information

The Fab Shop is intended to operate on a cost recovery basis, billing their internal clients for time and materials at a *door rate* designed to cover direct labour and indirect costs. Door rates are an effective way to compare to service organizations as they reflect the hourly rates charged for standardized units of service work. They attempt to reflect costs beyond direct labour expenses, including non-productive time like vacations, statutory holidays, and sick time. They also include costs of shop overhead like supervision and facility costs. For service organizations, door rates are traditionally reviewed on an annual basis to ensure they are competitive in the market and reflect changes in direct and indirect costs.

The Fab Shop team periodically conducts pricing comparisons, with the most recently available data from 2017, as shown in Table 2. This information demonstrates that the hourly pricing for services was generally comparable to rates found in the private sector. It is important to note that private-sector providers may charge different rates based upon available resources, and whether the work can be completed in the shop or in the field. The Fab Shop does not differentiate door rates for different work types (e.g., fence fabrication vs. refurbishing). A more comprehensive evaluation could be completed by the City in order to fully understand the extent to which work performed by the Fab Shop is comparable to private sector alternatives.

Table 2: Hourly Door Rate Comparison (2017)

Service	CoE Fleet Services Hourly Rate	Private Sector Hourly Rate
Welder	$139	$135
Machinist	$139	$100 to $150[1]
Sandblaster	$150	$150
Sodablaster	$150	$250
Heavy Duty Technician	$139	$135
Laborer	$128	$140 to $150
Mobile Welding Truck and Welder	$85	$55 to $150[2]
Mobile Crane Truck and Operator	$150	$150

Source: Provided by the City of Edmonton.

In addition to the services listed above, the Fab Shop also serves as a vendor for the City's Corporate Procurement & Supply Services (CPSS) group in the manufacturing of certain pieces of inventory. At the beginning of 2021, CPSS performed a "make vs. buy" analysis to understand what the savings difference could be for parts that have traditionally been manufactured in-house by the Fab Shop. There are currently 20 specific pieces of inventory that are made in-house. CPSS has completed analysis for five of these and found that they could be procured less expensively from the market,

[1] Lower range is for light machining and the higher range is for heavy machining. The Fab Shop provides more heavy machining than light.
[2] External laborer rates are vary based on the type of equipment being operated (e.g., saw versus plasma cutting table).

as outlined in Table 3. The overall value supplied, however, is not material to the Fab Shop's total revenue, and it would not be appropriate to extrapolate the cost differences on these parts to all of the Fab Shop's products and services.

Table 3: Make vs. Buy Analysis for Sample of Fab Shop Manufactured Items (2021)

Item Description	City of Edmonton Fab Shop Cost (per item)	Market Cost (per item)	City of Edmonton Consumption (2020)
BUSHING, ROD END, CYLINDER	$36	$25	9
BUSHING, BARREL END, CYLINDER	$88	$33	5
COUPLING, GEARBOX	$478	$284	16
COUPLING, SHAFT	$647	$284	12
SPROCKET, SANDER CONVEYOR	$357	$205	28

Note: Values rounded to the nearest dollar.

Source: Provided by the City of Edmonton

CITY CONTEXT

- This business case aligns with the City's strategy and objectives as shown in Table 4.

Table 4: Alignment to City Strategy

City Context	Alignment
City of Edmonton Corporate Business Plan	The City of Edmonton's Corporate Business Plan supporting objective states, *"Manage the Corporation for our Community."* This opportunity supports municipal and transit fleets through providing a that ensure assets are maintained for accountable service delivery.

Source: City of Edmonton Corporate Business Plan.

LEADING AND COMPARATIVE PRACTICES

As agreed with the City, the welding and fabrication practices at ([redacted]) were reviewed as a comparison, as these organizations provide similar services related to the preparation, repair, maintenance and disposal of equipment. All three were found to provide heavy- and light-duty welding repairs as well as supporting custom fabrication, machining, and assembly work for their customers.

SUMMARY OF COMMON WELDING CAPABILITIES

Based on the comparator organizations reviewed, welding repair appears to be a common function for equipment maintenance shops. There are frequently repairs that require welding capabilities, such as cracks, rusting or punctures. These welding capabilities include:

- General welding repairs;
- Field repairs with welding trucks;
- Welding maintenance procedures and inspections; and
- Bucket and truck box welding repairs.

SUMMARY OF COMMON FABRICATION CAPABILITIES

Among the comparator organizations reviewed, each provides services related to custom fabrication, machining and assembly to support the equipment they sell and service.

This is considered a core capability for these organizations as they provide an outsourced service for their customers. For example, they might customize rigging machines for a forestry or oilfield company or design and build a custom bucket for a specific construction application.[3] This allows their customers to focus on the core of their business, whether that be logging, mining or road building, while these companies take care of custom modifications to fleet.

ENVIRONMENTAL CONSIDERATIONS

Edmonton is a hub for industrial activity in Alberta as its central location provides opportunities to serve and supply customers across the province, especially the Northern Alberta and Northern Canadian energy sectors. This geographic advantage positions industrial sectors well in the area, and is one of the key drivers behind Edmonton being home to nearly 40% of Alberta's manufacturing.[4] Metal fabrication and machinery manufacturing make up the largest portion of this sector in Edmonton, which includes a range of goods and services.

The COVID-19 pandemic and collapse in oil prices last year have significantly impacted Alberta's economic recovery and employment outlook into the future. However, not all sectors have experienced the same impact of this economic downturn. In terms of labour market indicators, the unemployment rate for the manufacturing sector decreased from 7.7% in March 2020 to 6.5% in March 2021.

This labour market context is important for the City to consider, as the manufacturing sector is expected to continue to benefit in the medium term from the pick-up in business investment and increased export demand that is driving these decreases in unemployment.[5] This means that local capacity would likely continue to be available should the City look to outsource its fabrication capabilities.

[3] SMS Equipment. https://www.smsequipment.com/en-ca/services/custom-manufacturing/. (Accessed April 2021)
[4] Edmonton Industrial. https://www.edmontonindustrial.ca/key-industries/metal-fabrication-and-machinery. (Accessed April 2021)
[5] Edmonton Industrial. https://www.edmontonindustrial.ca/key-industries/metal-fabrication-and-machinery. (Accessed April 2021)

Options

Three options were considered in relation to this opportunity:

Table 5: Opportunity Options

	Option 1: Refined Current State	Option 2: Outsource Fabrication	Option 3: Outsource Fabrication and Welding
Summary	Refine the current state	– Continue welding functions that directly support preparation, repair, maintenance and disposal of fleet and infrastructure (approximately 54% of 2020 labour hours) – Outsource all capital and general fabrication work (approximately 46% of 2020 labour hours) – Close the physical Fab Shop space and reallocate equipment and staff to other facilities or functions	– Outsource all fabrication and welding functions – Close the physical Fab Shop space and accommodate staff to other functions – Dispose of all equipment
Strengths	No estimated changes	– Comparator organizations support in-house welding functions for fleet lifecycle, from preparation to disposal – Welding functions could be removed from the current location and provided at repair facilities or in the field – Fabrication could be considered outside of the core capabilities of fleet management – Preferred vendor relationships could be established to avoid individual sourcing events – Local market capabilities could support the scope of fabrication required; the planned nature of the work could lend itself to a tendering process	– Local market capabilities could support the scope of fabrication required; the planned nature of the work could lend itself to a tendering process – Fabricated products could be sourced as final product as opposed to the current process of sourcing the individual components / raw materials – Preferred vendor relationships could be established to avoid individual sourcing events

	Option 1: Refined Current State	Option 2: Outsource Fabrication	Option 3: Outsource Fabrication and Welding
		– Fabricated products could be sourced as final product as opposed to the current process of sourcing the individual components / raw materials	
Weaknesses	No estimated changes	– Increased complexities for the procurement process that would have to manage additional fabrication vendors	– Outsourcing welding functions could be expected to lead to a degradation in service levels for fleet management; from a repair and maintenance perspective, aligning the timing and availability of skilled trades is complex due to the emergent nature of repairs – Outsourcing all welding and fabrication would require establishing new contracts for work required and could delay implementation delays due to the estimated volume of contracts required

Source: Based on information provided by the City of Edmonton and assumptions outlined in Appendix B.

Impact Assessment

SERVICE IMPACT

The following service impacts would be anticipated for each of the outsourcing options:

Table 6: Service Impact

	Option 2: Outsource Fabrication	Option 3: Outsource Fabrication and Welding
Impacted Business Units	– PARS, CPSS, Facilities, Waste and other internal departments that require capital and general fabrication	– PARS, CPSS, Facilities, Waste and other internal departments – External clients ([redacted])
Service Impact	– It appears that the local market could fill the gaps left by the reduction in internal fabrication without impact on service levels – Capital and general fabrication work is planned in advance, lending itself to a tendering process – Preferred vendor arrangements could be identified that include established terms for labour rates and service levels	– Outsourcing welding functions could be expected to lead to a degradation in service levels due to the integrated nature of welding and fleet maintenance – Potential delays in completing repair and maintenance activities could be expected to have a disproportionately negative impact on PARS

Source: Based on information provided by the City of Edmonton and assumptions outlined in Appendix B.

DELIVERY IMPACT

Outsourced model options are anticipated to have the following delivery impacts:

Table 7: Delivery Impact

	Option 2: Outsource Fabrication	Option 3: Outsource Fabrication and Welding
Delivery Impact	– Preferred vendor arrangements with local fabricators could minimize the impacts on City operations for impacted business units – Fabrication activities that currently take place on site or close to the point of use, would need to be completed further away and require additional transportation requirements	– Maintenance and repair delays could be expected in an outsource option and would have a high impact on returning units to service – There would be an impact on employees currently employed under fabrication and welding functions – This option would impact PARS, CPSS, Facilities, Waste and other internal departments that require

	Option 2: Outsource Fabrication	Option 3: Outsource Fabrication and Welding
	– This option would impact PARS, CPSS, Facilities, Waste and other internal departments that require capital and general fabrication	welding, and capital and general fabrication capacity

Source: Based on information provided by the City of Edmonton and assumptions outlined in Appendix B.

VIABILITY

Each option has the following viability considerations:

Table 8: Viability

	Option 2: Outsource Fabrication	Option 3: Outsource Fabrication and Welding
Viability	– Based on the environmental analysis, the capacity and capability of the local market likely exists to fulfill the City's fabrication requirements	– This option is likely not viable because welding is an integral part of the City's maintenance function and delays in sourcing could lead to degradation in service levels

Source: Based on information provided by the City of Edmonton and assumptions outlined in Appendix B.

GBA+ IMPACTS AND MITIGATIONS

The level of impact on vulnerable groups for any of the options considered is expected to be negligible. Given the terms of the collective agreements, the City would likely need to accommodate Fab Shop employees should there be any FTE reductions as a result of the outsourcing options.

FINANCIAL IMPACTS

Based on the analysis of information provided by the City, **it appears that there would be a negative financial impact to the City if it were to outsource Fab Shop activities** (Options 2 and 3). Financial projections associated with each option are summarized in Table 9 and Table 10. As these figures indicate, the increased costs projected from outsourcing far exceed current operating surplus for the Fab Shop. Highest and lowest loss scenarios for Options 2 and 3 are dependent on assumed differences in market door rates. See Appendix B: Financial Projections for further information on financial estimates, and the notice to reader and significant assumptions.

All projections shown attempt to reflect the full cost of delivering fabrication and welding repair services, including the facility operating and maintenances costs, utilities, depreciation and overheads.

Table 9: Five-Year Financial Projection for Refined Current State Option ($ in thousands)

Option 1: Refined Current State	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Cost of Fabrication and Welding Services to the City	$7,799	$7,947	$8,114	$8,317	$8,525	$40,703
Net Surplus / (Deficit) of Fab Shop	$289	$295	$301	$308	$316	$1,509

Table 10: Five-Year Financial Summary – Potential Change from Current State ($ in thousands)

Option	Scenario	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Change from Current State: Projected Increase in the City's Cost of Fabrication and Welding Services							
Option 2: Outsource Fabrication	Highest Cost	$708	$774	$788	$805	$822	**$3,897**
	Lowest Cost	$454	$515	$524	$534	$545	**$2,571**
Option 3: Outsource Fabrication and Welding	Highest Cost	$1,728	$1,867	$1,908	$1,955	$2,004	**$9,462**
	Lowest Cost	$1,172	$1,301	$1,329	$1,363	$1,397	**$6,562**

Source: Based on data and analysis provided by the City of Edmonton and assumptions outlined in Appendix B.

Note: Figures rounded to nearest thousand.

RISKS

There is a medium level of risk associated with this opportunity, due to the potential operational impacts of outsourcing Fab Shop capabilities. Some key risks are described in Table 11. Additional potential risks and mitigations can be found in Appendix C: Risk Analysis.

Table 11: Key Risks

Potential Risk	Potential Mitigation
Market Premiums There is a risk that outsourcing may result in higher costs to the City. Specifically, there may be premiums on labour, parts and costs associated with the administration of these vendor relationships by the City.	The probability of this risk occurring may be reduced based on the City's adherence to strong procurement and contract management practices. Historical analysis completed by FFS found that door rates are generally comparable between the City and the private sector, an RFI / RFQ could be released to better understand current rates.
Procurement There is a risk that on-demand fabrication services for internal City departments may not be sourced in a timely manner through the market, causing down time and delays in service delivery.	The probability of this risk occurring may be reduced if the City were to enter into preferred vendor agreements and capability-specific contracts with vendors for on-demand services.
Workforce Accommodations There is a risk that the City may not be able to find meaningful accommodations for its displaced Fab Shop workers if the function were to be outsourced.	The probability of this risk occurring may be reduced if the City were to perform an analysis on the capacity or productivity associated with other skilled trades at the City to better understand where displaced Fab Shop workers may be moved.

Source: Based on information provided by the City of Edmonton and assumptions outlined in Appendix B.

Opportunity Assessment

OVERALL ASSESSMENT OF OPPORTUNITY AGAINST CRITERIA

The assessment of all options is summarized below in Table 12, where green, grey and red represent a positive, neutral and negative impact respectively.

Table 12: Opportunity Assessment

	Impact						Implementation			
Options	**Service**	**Delivery**	**GBA+**	**Financial**	**Risk**	**Estimated Potential Five-Year Costs of Fabrication and Welding to the City (Millions)**	**Time**	**Cost**	**Risk**	**Estimated Potential of Implementation Cost (Millions)**
1. Refined Current State	●	●	●	●	●	$40.7	●	●	●	$0
2: Outsource Fabrication	●	●	●	●	●	$43.3 to $44.6	●	●	●	$0
3. Outsource Fabrication and Welding	●	●	●	●	●	$47.2 to $50.1	●	●	●	$0

Source: Prepared by KPMG.

CONCLUSION AND RECOMMENDATION

Based on analysis of the potential options and the revised financial data provided by the City, the City should continue to operate the Fab Shop in its current format, with improved financial reporting and ongoing validation of its price competitiveness.

Recommended Action #1

Based on analysis of the potential options, the City should continue operating the Fab Shop in its current format. There would be no changes required to support this option.

Although the initial analysis for this opportunity suggested a potential financial benefit to outsourcing, further financial information provided by the City showed a surplus from current operations.

Recommended Action #2

It is recommended that the City prepare ongoing financial reporting for the Fab Shop that includes the allocations of corporate and branch overheads, as well as facility costs in order to monitor ongoing financial performance and cost competitiveness.

The City may also consider completing a full cost accounting review of the Fab Shop to determine the accuracy of financial information that City staff identified during the course of this Review, and to determine what if any changes are needed to create more appropriate and comprehensive financial reporting on the Fab Shop's activities and net results on a go-forward basis.

Recommended Action #3

It is recommended that the City undertake an annual market scan to ensure its Fab Shop is competitive with the market.

The City could perform an annual market scan to better understand competitor comparisons in terms of door rate and capability. Comparisons could also be achieved in cases where the City is submitting a competitive bid along with the private sector.

Appendix A: GBA+ Assessment

EVALUATION SUMMARY

What is the overall GBA+ assessment?

The level of impact on vulnerable groups for any of the options considered is expected to be negligible. Overall, this idea does not appear create or reduce existing barriers. The composition of staff who could be impacted is not known.

What are the main groups that could be affected (including those with no vulnerabilities), and what impacts are noted?

The main groups involved with this opportunity are the Fab Shop employees that perform the service, the internal and external clients that utilize the service, and private sector fabrication providers that could pick up all or part of the demand for fabrication services by the City. Demographics of staff positions that could be impacted are not known.

What do we know about the people who would be affected by this change?

-2. Very little known about them or their characteristics	**-1. Some general idea of numbers or types of people affected**	0. Good idea of overall numbers and some other aspects (e.g., time / nature of needs)	+1. Good information on the numbers of people affected and some key characteristics	+2. Good information on numbers, demographics groups, and contact lists (e.g., email / phone lists)

What impact would there be from this change on the staff members of the City or other agencies who may be from these groups?

Given the terms of the collective agreements, the City would need to accommodate Fab Shop employees should there be any FTE reductions as a result of the outsourcing options.

What equity measures could we use or implement to improve or positively mitigate impact for one or more of the groups identified?

If the City were to outsource all or part of their fabrication function, the City would be required to accommodate affected employees in other roles. This would depend on factors such as position availability and staff experience / expertise.

How confident we are in the information we are basing our decisions on? What could we do to check or confirm our assumptions?

Demographic and tenure information about current Fab Shop staff positions would support more detailed GBA+ analysis of impacts.

IMPACT OF THIS CHANGE ON PEOPLE BY KEY IDENTIFIED VULNERABILITIES

Consider how you would expect this change to affect people with various types of characteristics that may give rise to vulnerabilities:

Personal Characteristics	-2 Could create new barriers	-1 Could exacerbate existing barriers	0 Limited effect or impact unknown	+1 Could reduce existing barriers	+2 Substantially improved access
People who are not physically strong or confident in their movements			0		
People with vulnerable people with them			0		
People who currently have very limited or no income			0		
People who may experience fear or distress due to threats or violence			0		
People with additional language or communication needs			0		
People who may find mainstream activities unwelcoming or not appropriate for their needs			0		
Total Score	**0 Limited effect or impact unknown**				

Appendix B: Financial Projections

NOTICE

The financial projections contained in this document provide future-oriented financial information. The projections are based on a set of circumstances and the City's assumptions as of April 2021. Significant assumptions are included in the document and must be read to interpret the information presented. Should events differ from the stated assumptions, actual results will differ from the financial projections and such differences may be material.

The financial information and assumptions contained herein has been prepared to assist readers in deciding whether or not to proceed with their own in-depth investigation and evaluation of the options presented, and does not purport to contain all the information readers may require. Readers should conduct their own investigation and analysis of the options.

KPMG accepts no responsibility or liability for loss or damages to any party as a result of decisions based on the information presented. Parties using this information assume all responsibility for any decisions made based on the information.

FIVE-YEAR PROJECTIONS

OPTION 1: REFINED CURRENT STATE

As this option would not expect see no net changes related to fabrication services at the City, there were no high or low scenarios modelled.

Table 13: Option 1 Financial Projections ($ in thousands, rounded to nearest thousand)

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Revenues / Recoveries	**$8,088**	**$8,242**	**$8,415**	**$8,625**	**$8,841**	**$42,212**
Expenses	**$7,799**	**$7,947**	**$8,114**	**$8,317**	**$8,525**	**$40,703**
Direct Expenses	$6,495	$6,618	$6,757	$6,926	$7,099	$33,895
Facility Costs	$144	$147	$150	$154	$158	$752
Depreciation	$106	$108	$110	$113	$116	$553
Overheads	$1,054	$1,074	$1,097	$1,124	$1,152	$5,503
Potential Net Surplus (Deficit)	**$289**	**$295**	**$301**	**$308**	**$316**	**$1,509**

Source: Based on data and analysis provided by the City of Edmonton and outlined assumptions.

OPTION 2: OUTSOURCE FABRICATION

This option would continue internal welding functions that directly support preparation, repair, maintenance and disposal of fleet and infrastructure. The City would outsource all capital and general fabrication work, and close the Fab Shop. The highest and lowest loss scenarios for Options 2 and 3 are dependent on key differences in market door rates.

Table 14: Option 2 Financial Projections – Potential High Loss Scenario ($ in thousands, rounded to nearest thousand)

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Current State						
Revenues	**$8,088**	**$8,242**	**$8,415**	**$8,625**	**$8,841**	**$42,212**
Expenses	**$7,799**	**$7,947**	**$8,114**	**$8,317**	**$8,525**	**$40,703**
Direct Expenses	$6,495	$6,618	$6,757	$6,926	$7,099	$33,895
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Overheads	$1,054	$1,074	$1,097	$1,124	$1,152	$5,503
Net Surplus (Deficit)	**$289**	**$295**	**$301**	**$308**	**$316**	**$1,509**

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Option 2						
Change in Net Assets	**$309**	**$0**	**$0**	**$0**	**$0**	**$309**
Proceeds on disposal	$319	$0	$0	$0	$0	$319
Disposal Costs	$(10)	$0	$0	$0	$0	$(10)
Change in Internal Costs	**$3,645**	**$3,662**	**$3,741**	**$3,837**	**$3,936**	**$18,821**
Reduction in existing costs	$2,968	$3,024	$3,088	$3,165	$3,244	$15,488
Reduction in facility costs	$144	$147	$150	$154	$158	$752
Reduction in depreciation	$52	$54	$56	$59	$62	$283
Reduction in overheads	$482	$491	$501	$514	$527	$2,514
Lapse in depreciation on disposed assets	$0	$(54)	$(54)	$(54)	$(54)	$(216)
Change in costs associated with outsourcing	**$(4,353)**	**$(4,436)**	**$(4,529)**	**$(4,642)**	**$(4,758)**	**$(22,718)**
Increased cost of output at City rates	$(3,696)	$(3,766)	$(3,845)	$(3,941)	$(4,040)	$(19,288)
Increased cost of labour differential	$(460)	$(469)	$(479)	$(491)	$(503)	$(2,401)
Increased cost of parts differential	$(197)	$(201)	$(205)	$(210)	$(216)	$(1,029)
Increased cost of administration differential	$0	$0	$0	$0	$0	$0
Subtotal: *Net impact on cost of fabrication and welding*	*$(708)*	*$(774)*	*$(788)*	*$(805)*	*$(822)*	*$(3,897)*
Potential Estimated Net Change from Current State – City's net surplus (deficit)	**$(109)**	**$(479)**	**$(487)**	**$(497)**	**$(506)**	**$(2,079)**

Source: Based on data and analysis provided by the City of Edmonton and outlined assumptions.

Table 15: Option 2 Financial Projections – Potential Low Loss Scenario ($ in thousands, rounded to nearest thousand)

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Current State						
Revenues	**$8,088**	**$8,242**	**$8,415**	**$8,625**	**$8,841**	**$42,212**
Expenses	**$7,799**	**$7,947**	**$8,114**	**$8,317**	**$8,525**	**$40,703**
Direct Expenses	$6,495	$6,618	$6,757	$6,926	$7,099	$33,895
Facility Costs	$144	$147	$150	$154	$158	$752
Depreciation	$106	$108	$110	$113	$116	$553
Overheads	$1,054	$1,074	$1,097	$1,124	$1,152	$5,503
Net Surplus (Deficit)	**$289**	**$295**	**$301**	**$308**	**$316**	**$1,509**

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Option 2						
Change in Net Assets	**$309**	**$0**	**$0**	**$0**	**$0**	**$309**
Proceeds on disposal	$319	$0	$0	$0	$0	$319
Disposal Costs	$(10)	$0	$0	$0	$0	$(10)
Change in Internal Costs	**$3,645**	**$3,662**	**$3,741**	**$3,837**	**$3,936**	**$18,821**
Reduction in existing costs	$2,968	$3,024	$3,088	$3,165	$3,244	$2,968
Reduction in facility costs	$144	$147	$150	$154	$158	$752
Reduction in depreciation	$52	$54	$56	$59	$62	$283
Reduction in overheads	$482	$491	$501	$514	$527	$2,514
Lapse in depreciation on disposed assets	$0	$(54)	$(54)	$(54)	$(54)	$(216)
Change in costs associated with outsourcing	**$(4,099)**	**$(4,177)**	**$(4,265)**	**$(4,371)**	**$(4,481)**	**$(21,393)**
Increased cost of output at City rates	$(3,696)	$(3,766)	$(3,845)	$(3,941)	$(4,040)	$(19,288)
Increased cost of labour differential	$(206)	$(210)	$(214)	$(220)	$(225)	$(1,076)
Increased cost of parts differential	$(197)	$(201)	$(205)	$(210)	$(216)	$(1,029)
Increased cost of administration differential	$0	$0	$0	$0	$0	$0
Subtotal: *Net impact on cost of fabrication and welding*	*$(454)*	*$(515)*	*$(524)*	*$(534)*	*$(545)*	*$(2,571)*
Potential Estimated Net Change from Current State – City's net surplus (deficit)	**$145**	**$(220)**	**$(223)**	**$(226)**	**$(229)**	**$(753)**

Source: Based on data and analysis provided by the City of Edmonton and outlined assumptions.

OPTION 3: OUTSOURCE FABRICATION AND WELDING

This option would see the City outsource all fabrication and welding functions. The highest and lowest loss scenarios for this option relate specifically to the estimated labour premium associated with outsourcing all fabrication and welding functions. The highest and lowest loss scenarios for Options 2 and 3 are dependent on key differences in market door rates.

Table 16: Option 3 Financial Projections – Potential High Loss Scenario ($ in thousands, rounded to thousands)

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Current State						
Revenues	**$8,088**	**$8,242**	**$8,415**	**$8,625**	**$8,841**	**$42,212**
Expenses	**$7,799**	**$7,947**	**$8,114**	**$8,317**	**$8,525**	**$40,703**
Direct Expenses	$6,495	$6,618	$6,757	$6,926	$7,099	$33,895
Facility Costs	$144	$147	$150	$154	$158	$752
Depreciation	$106	$108	$110	$113	$116	$553
Overheads	$1,054	$1,074	$1,097	$1,124	$1,152	$5,503
Net Surplus (Deficit)	**$289**	**$295**	**$301**	**$308**	**$316**	**$1,509**
Option 3						
Change in Net Assets	**$583**	**$0**	**$0**	**$0**	**$0**	**$583**
Proceeds on disposal	$601	$0	$0	$0	$0	$601
Disposal Costs	$(18)	$0	$0	$0	$0	$(18)
Change in Internal Costs	**$7,799**	**$7,839**	**$8,004**	**$8,204**	**$8,409**	**$40,256**
Reduction in existing costs	$7,799	$7,947	$8,114	$8,317	$8,525	$40,703
Lapse in depreciation on disposed assets	$0	$(108)	$(110)	$(113)	$(116)	$(447)
Change in costs associated with outsourcing	**$(9,527)**	**$(9,708)**	**$(9,912)**	**$(10,159)**	**$(10,413)**	**$(49,719)**
Increased cost of output at City rates	$(8,088)	$(8,242)	$(8,415)	$(8,625)	$(8,841)	$(42,212)
Increased cost of labour differential	$(1,007)	$(1,026)	$(1,048)	$(1,074)	$(1,101)	$(5,255)
Increased cost of parts differential	$(432)	$(440)	$(449)	$(460)	$(472)	$(2,253)
Increased cost of administration differential	$0	$0	$0	$0	$0	$0
Subtotal: *Net impact on cost of fabrication and welding*	*$(1,728)*	*$(1,867)*	*$(1,908)*	*$(1,955)*	*$(2,004)*	*$(9,462)*
Net Change from Current State – City's net surplus (deficit)	**$(855)**	**$(1,573)**	**$(1,607)**	**$(1,647)**	**$(1,688)**	**$(7,370)**

Source: Based on data and analysis provided by the City of Edmonton and outlined assumptions.

Table 17: Option 3 Financial Projections – Potential Low Loss Scenario ($ in thousands, rounded to nearest thousand)

Option	2022	2023	2024	2025	2026	Potential Estimated Five-Year Total
Current State						
Revenues	**$8,088**	**$8,242**	**$8,415**	**$8,625**	**$8,841**	**$42,212**
Expenses	**$7,799**	**$7,947**	**$8,114**	**$8,317**	**$8,525**	**$40,703**
Direct Expenses	$6,495	$6,618	$6,757	$6,926	$7,099	$33,895
Facility Costs	$144	$147	$150	$154	$158	$752
Depreciation	$106	$108	$110	$113	$116	$553
Overheads	$1,054	$1,074	$1,097	$1,124	$1,152	$5,503
Net Surplus (Deficit)	**$289**	**$295**	**$301**	**$308**	**$316**	**$1,509**
Option 3						
Change in Net Assets	**$583**	**$0**	**$0**	**$0**	**$0**	**$583**
Proceeds on disposal	$601	$0	$0	$0	$0	$601
Disposal Costs	$(18)	$0	$0	$0	$0	$(18)
Change in Internal Costs	**$7,799**	**$7,839**	**$8,004**	**$8,204**	**$8,409**	**$40,256**
Reduction in existing costs	$7,799	$7,947	$8,114	$8,317	$8,525	$40,703
Lapse in depreciation on disposed assets	$0	$(108)	$(110)	$(113)	$(116)	$(447)
Change in costs associated with outsourcing	**$(8,971)**	**$(9,141)**	**$(9,333)**	**$(9,567)**	**$(9,806)**	**$(46,818)**
Increased cost of output at City rates	$(8,088)	$(8,242)	$(8,415)	$(8,625)	$(8,841)	$(42,212)
Increased cost of labour differential	$(451)	$(460)	$(469)	$(481)	$(493)	$(2,354)
Increased cost of parts differential	$(432)	$(440)	$(449)	$(460)	$(472)	$(2,253)
Increased cost of administration differential	$0	$0	$0	$0	$0	$0
Subtotal: *Net impact on cost of fabrication and welding*	*$(1,172)*	*$(1,301)*	*$(1,329)*	*$(1,363)*	*$(1,397)*	*$ (6,562)*
Potential Estimated Net Change from Current State– City's net surplus (deficit)	**$(299)**	**$(1,006)**	**$(1,029)**	**$(1,054)**	**$(1,081)**	**$(4,469)**

Source: Based on data and analysis provided by the City of Edmonton and outlined assumptions.

SIGNIFICANT ASSUMPTIONS

COMMON ASSUMPTIONS

1. Base year for projections is assumed as the normalized 2020 level.

2. The Fab Shop Allocation of facility utilities and operating / maintenance costs was derived as the percent of the Westwood Facility's footprint occupied by the Fab Shop, based on total square footage. This value is 14.7%.

3. Proceeds on disposal of assets equal net book value minus the costs for administration of asset disposition of 3%. The 3% is inclusive of auction commission and shipping.

4. Utilities provided as of November 2020 for the Westwood Facility. Proration performed to calculate full 2020 statistics based on average monthly utilities charge in 2020. This estimated value is $519,000.

5. The demand for fabrication services, represented as 2020 Fab Shop revenue / recoveries, is to remain constant, with increases based on Consumer Price Index (CPI) projections until 2026.

6. The costs of outsourcing and procuring fabrication services and fabricated parts would be applied to the assumed fabrication services demand listed above.

    a. Parts differential. Assumed to be 15% across all scenarios for Option 2 and 3, this is consistent with City of Edmonton provided documentation.

    b. Labour Differential: Considered variable for the highest (27%) and lowest (12%) loss scenarios in Option 2 and 3. Door rates used in the evaluation of labour differential were collected by the City of Edmonton for external service providers and include direct and indirect costs. Historic labour rate are assumed to increase at the Bank of Canada's target interest rate of 2% per year.

    c. Administration Differential: Assumed to be 0%.

7. The City provided overhead percentages for branch overhead (10.1%) and corporate overhead (6.1%). Overheads are applied to direct expenses.

    a. Corporate Overhead includes the percentage of Shared Services personnel's time spent on different FFS revenue streams (e.g., Transit Fleet Maintenance, Municipal Fleet Maintenance, Fuel, Procurement, Facilities Maintenance) and applied to the % of time spent on Municipal Fleet Maintenance activities to the Fab Shop's operating budget. Shared Services include Corporate Services such as Communications, Payroll, HR, Legal, IT - Services, Materials Management; Infrastructure Maintenance; and Financial Services.

    b. Branch Overhead includes the percentage of each Fleet personnel's time spent on FFS different revenue streams and applied to the percentage of time spent on Municipal Fleet Maintenance activities to each area's operating budget.

8. Inflation is adjusted for in each year at the following rates:

	2022	2023	2024	2025	2026
Inflation Rate (%)	1.7%	1.9%	2.1%	2.5%	2.5%

9. Given the terms of the collective agreements, the City would need to accommodate Fab Shop employees should there be any FTE reductions as a result of the outsourcing options. The table following shows the demographic breakdown of the Fab Shop employees.

Table 18: Potential Estimated FTE Impacts with Outsourcing the Fab Shop

	Number of Regular Employees (FTEs)	Number of Temporary Employees (FTEs)	Total Number of in Employees (FTEs)
Number of FTEs	**-**	**-**	**-**
Estimated Impact by Age			
Under 20	0	-	0
20 – 29	1	-	1
30 – 39	8	-	8
40 – 49	6	-	6
50 – 59	8	-	8
60 and over	6	-	6
Estimated Impact by Sex			
Female	3	-	3
Male	26	-	26
Estimated Impact by Tenure			
Under 5 years	2	-	2
5-10 years	8	-	8
Over 10 years	19	-	19

Source: Based on KPMG analysis of information and assumptions provided by the City of Edmonton.

Note: Analysis is performed at a point in time.

OPTION 1: REFINED CURRENT STATE

10. There are no assumptions related to Option 1 that are not considered in Option 2 and 3.

OPTION 2: OUTSOURCE FABRICATION

11. To estimate the impact of outsourcing part of the Fab Shop, a taxonomy exercise was performed to allocate the Fab Shop's current capabilities and labour hours (e.g., facility repairs, service prep, vehicle repair, etc.) into welding or fabrication.

12. The model assumes that capital assets that support welding capabilities would not be disposed of, and that there is a decrease in depreciation costs for those assets that support the fabrication capabilities that are disposed.

13. This option assumes that the physical space associated with the Fab Shop is to close down, and the remaining welding capabilities and staff are to be absorbed by the remaining maintenance garages.

14. Employees impacted by the outsourced functions would be meaningfully accommodated within the City.

OPTION 3: OUTSOURCE FABRICATION AND WELDING

15. This option assumes that the physical space associated with the Fab Shop is to close down.

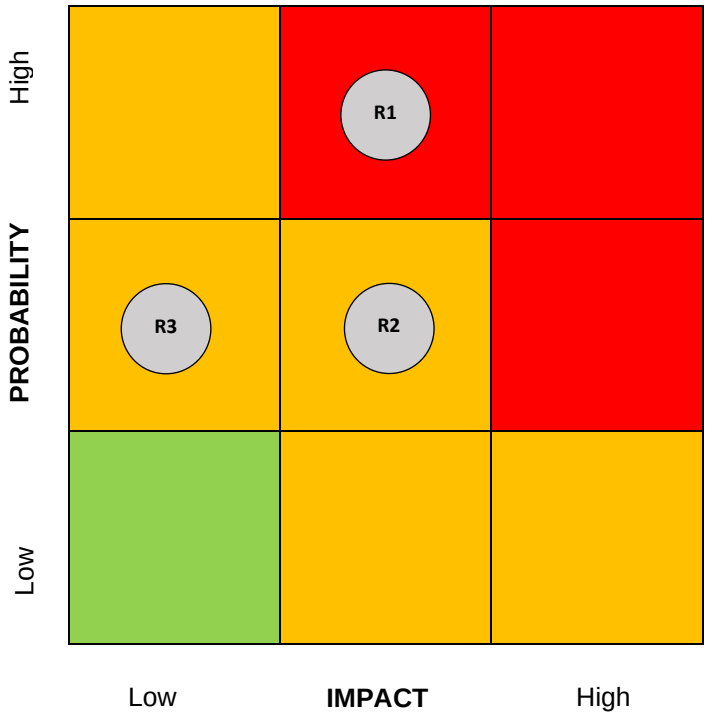
16. Employees impacted by the outsourced functions would be meaningfully accommodated within the City.

Appendix C: Risk Analysis

RISK ASSESSMENT

There is a medium level of financial, legal / compliance, operations and reputation risk associated with this opportunity, due to the potential operational impacts of outsourcing Fab Shop capabilities.

Figure 3: Risk Matrix



RISK ASSESSMENT AND MITIGATIONS

A summary of the key potential risks identified and proposed approaches to mitigate identified risks to an acceptable level.

Table 19: Risk Register

Risk	Relevant Categories	Highest Rating	Mitigation	Residual Risk
Market Premiums There is a risk that outsourcing may result in higher costs to the City. Specifically, there may be premiums on labour, parts,	Financial Operations	**Financial** Impact: Medium Probability: High Overall: High	The probability of this risk occurring could be reduced based on the City's adherence to strong procurement and contract management practices. Historical analysis	**Operations** Impact: Medium Probability: Medium Overall: High

Risk	Relevant Categories	Highest Rating	Mitigation	Residual Risk
and costs associated with the administration of these vendor relationships by the City.			completed by FFS found that door rates are generally comparable between the City and the private sector, an RFI / RFQ could be released to better understand current rates.	
Procurement There is a risk that on-demand fabrication services for internal City departments may not be sourced in a timely manner through the market, causing down time and delays in service delivery.	Operations Reputation Supplier / Market	**Operations** Impact: Medium Probability: Medium Overall: Medium	The probability of this risk occurring could be reduced if the City were to enter into preferred vendor agreements and capability-specific contracts with vendors for on-demand services.	**Reputation** Impact: Low Probability: Low Overall: Low
Workforce Accommodations There is a risk that the City may not be able to find meaningful accommodations for its displaced Fab Shop workers if the function were to be outsourced.	Legal / Compliance Reputation	**Legal / Compliance** Impact: Low Probability: Medium Overall: Medium	The probability of this risk occurring could be reduced if the City were to perform an analysis on the capacity or productivity associated with other skilled trades at the City to better understand where displaced Fab Shop workers may be moved.	**Reputation** Impact: Low Probability: Low Overall: Low

Source: Based on information provided by the City of Edmonton and assumptions outlined in Appendix B.

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