

Calgary Fire Department Zero-Based Review Implementation Update

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Summary of ZBR Efficiency Improvements

✓ ZBR Target Achieved

	Efficiency Improvements			
	Recommended by ZBR	2016	2017 (Projected)	2018 (Projected)
Management and Leadership Reduce and reorganize management and leadership structure	\$1.0 m	\$800 thousand	\$800 thousand	\$1.0 m ✓
Deployment and Response - Continue to implement the Dynamic Deployment system, including moving to an enhanced, risk-based model with a greater focus on outcomes - Develop a revised performance measurement approach to focus evaluation and service standards on outcomes - Complete medical response unit pilot and expand - Invest in predictive modelling software to support planning and deployment - Use the enhanced dynamic deployment model and revised approach to performance measurement as the basis for planning for future growth	\$4.7 m ¹	\$2.3 m	\$4.2 m (an additional \$1.9 m in 2017)	\$4.7 m (an additional \$0.5 m in 2018) ✓
Training Revenue Develop a Training Academy business plan and market the Training Academy facilities and props to other users	Up to \$992 thousand ²	No new revenue yet	No new revenue yet	\$200 thousand + ✓
TOTAL (not including \$8.4 million in Action Plan efficiencies)	\$5.7 m – \$6.7 m by the end of 2018 ³	\$3.1 m	\$5.0 m	\$5.7 m – \$6.7 m
1 – The ZBR recommendation was a reduction of \$4.7 million from the Action Plan budget, in addition to \$8.4 million in previously approved reductions (through Action Plan) which will also be managed through this series of recommendations. 2 – Facility and prop rentals: a total of \$200 thousand in revenue per year, plus a possible new revenue stream (if feasible) – NFPA 1001 training – to provide up to \$792 thousand a year, for a total of up to \$992 thousand. 3 – Including the Action Plan efficiencies of an additional \$8.4 million, the total ZBR efficiencies will be \$14.1-\$15.1 million annually by 2018.				

Executive Summary

During the first year of the implementation phase of the Calgary Fire Department's Zero-Based Review, CFD has achieved the following in each of the recommendation areas:

Theme #1: Organizational Efficiency and Effectiveness

- Restructured the management team for more effective functioning, and improved reporting and communications, including the reduction of 4 positions for a total operating budget efficiency of \$800 million
- Implemented key strategies from the Diversity and Inclusion Framework to increase awareness and internal communications, provide additional training, develop performance measures, expand recruitment efforts, increase our community presence, and identify support roles and resources

Theme #2: Resource Optimization

- Implemented a work plan to evolve the performance measures used for defining and assessing service levels related to resource allocation (i.e., stations, apparatus, staffing) to shift to a greater focus on outcomes and risks
- Followed through with planned further implementation of the dynamic deployment model, and incorporating risk-based data to enhance the model
- Explored innovative apparatus deployment options, including analysis to support the expanded use of medical response units
- Enhanced the risk assessment data collected through the Community Risk Assessment
- Pursued software advancements to support the new model for resource allocation
- Further reduced the annual operating budget increase tied to FTEs previously allocated to meet the demands of growth by \$2.3 million in 2016
- Maintained emergency medical response
- Explored options for establishing a service level agreement with Alberta Health Services for medical response
- Maintaining accredited agency status with the Commission on Fire Accreditation International
- Reduced the duration of the recruit training program
- Eliminated the recruit practicum
- Continued the use of non-uniformed staff for non-technical training and pursued external partnerships for training initiatives
- Increased investment in training for established CFD members
- Began working on a Master Plan for the Training Academy, including plans for increased revenue generation

Theme #3: Asset and Facility Management

- Led the Community Services Fleet and Equipment Review Project to explore opportunities for improved effectiveness and efficiency across the department
- Conducted a utilization review of CFD light fleet assets
- Implemented advanced lifecycle management software for apparatus and core equipment
- Collaborated with City partners and contributed to City-wide growth management and facility planning processes and initiatives including those related to identifying opportunities for multi-use stations

Background

In 2014, Behr Energy Services Ltd. were contracted to undertake a Zero-Based Review (ZBR) of the Calgary Fire Department (CFD). The ZBR evaluated all of CFD's lines of service, with a number of priority areas undergoing an in-depth analysis. The review resulted in a series of recommendations approved by Council on 2015 November 23.

These recommendations were developed to maintain or improve fire service effectiveness while increasing service efficiency. They will ultimately yield operating budget efficiencies ranging from \$14.1 million to \$15.1 million. In considering the impact on current and future budgets, it should be noted that:

- Of this amount, \$8.4 million had previously been identified as the CFD's efficiency gain in Action Plan; the ZBR provided details on how this efficiency gain would be realized;
- The operating efficiencies identified in the review are expected to be phased in and fully realized by 2018;
- Implementation of the recommendations could require some funding that was not yet identified at the time the recommendations were approved;
- Participation by CFD in The City of Calgary's multi-use facility program will influence future capital planning. Related ZBR recommendations may result in future financial benefits, in addition to the social and environmental benefits.

In addition to the financial gains, the recommendations of CFD's ZBR were designed to:

- Realign the management and leadership structure to support succession planning, improve communications and continuity, and balance workload across the business unit;
- Improve diversity and inclusion practices in order to increase access to potential new recruits and to provide a healthy and supportive environment for all staff;
- Further improve the dynamic deployment system in order to better allocate resources based on risk;
- Increase the focus of future service decisions on outcomes and service performance; and
- Improve the CFD's coordination and alignment with other City services including, in particular, planning for multi-use facilities to maximize economies and service delivery.

The CFD management team integrated the ZBR recommendations into the CFD's business planning processes and work plan for 2016 and beyond. Throughout 2016, progress was made on each of the recommendations, with regular status updates made through internal business unit quarterly reports. This report details the progress made in all recommendation areas, including financial benefits, as well as the continuing plans for those recommendations not yet fully implemented.

Recommendations

The tables below present a summary for each ZBR theme and recommendation, showing the recommended future state, realized progress and benefits to date including financial efficiencies, plans for continued implementation where recommendations are not yet fully implemented, and strategic alignment with Council's Priorities, Action Plan strategies, and CFD Sustainability Plan priorities.

Organizational Efficiency and Effectiveness				
1. MANAGEMENT AND LEADERSHIP				
ZBR Recommendation: Reduce and reorganize the management and leadership structure			Total Efficiency Improvement 2016: \$800 thousand	
			Status:	○ In Progress
			Efficiency Improvement:	\$800 thousand
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved		Direction Forward: Continuing Work Plan	
A leaner management model designed to support succession planning, improve communications, and decrease the budget for the management team. The model is to include a reduction in the size of the senior management team by five positions, with budget savings to be phased in by the end of 2018.	The CFD successfully introduced a new organizational structure in February 2016. The revised structure is in alignment with both the Zero-Based Review recommendation and the Community Services (CS) Departmental Review. The key drivers were: • a simpler and flatter management structure; • increased support for the Fire Rescue Services portfolio, and optimized function and reporting within all divisions; • alignment of non-uniformed position titles with similar roles within the CS department and The City at large; • alignment with the new CS organizational structure. The number of management team positions was reduced from 18 to 14 as compared to the baseline structure referred to during the ZBR analysis, with the executive team currently comprised of the Fire Chief, 4 Deputy Chiefs (DC), 2 Managers (DC level), and 7 Assistant Deputy Chiefs. Reductions were managed through attrition, and resulted in operating budget savings of \$800 thousand (salary, benefits, etc.). In addition to budget efficiencies, the benefits of the new organizational structure include: • improved communication throughout the business unit through optimized reporting relationships; • support to succession planning by maintaining the adequate number of Assistant Deputy Chief positions to act in the Deputy Chief positions; • alignment with City and CS Department organizational structures and initiatives – in particular, the regional servicing model implemented through the CS Department Review.		Savings for the fifth position will be achieved in 2018.	
Strategic Alignment				
Action Plan 2015-2018		CFD Sustainability Plan		
Council Priority: <i>A well-run city</i>		Sustainability Priority: <i>Managing growth</i>		
• W2 Be as efficient and effective as possible, reducing costs and focusing on value-for-money. • W7 Continue to transform the organization to be more citizen-focused in its approach and delivery of service		• We will effectively and efficiently balance the fire and community safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens		

Organizational Efficiency and Effectiveness				
2. DIVERSITY AND INCLUSION				
	Total Efficiency Improvement 2016: Not applicable. While the ZBR found that improving workforce diversity and focusing on inclusiveness in CFD's culture are not associated with direct cost savings, these are expected to improve effectiveness, result in social benefits, and improve long-term sustainability.			
	ZBR Recommendation: Develop internal messaging to accompany rollout of CFD diversity and inclusion program		Status: ☐ In Progress	Not Applicable
	Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Direction Forward: Continuing Work Plan	
Regular and continuing key messages for CFD members explaining the definitions, rationale, and benefits of the Diversity and Inclusion program demonstrate commitment, address questions and concerns that may arise, and integrate the values of diversity and inclusion into CFD's workplace culture.	Since 2015, diversity and inclusion resources have been promoted on CFD's staff website. Resources include a leader toolkit, e-learning modules, events calendar, books, articles, videos, and links to corporate policies. In 2016, a list of employee support resources was also developed and made available on the CFD staff website. Diversity and inclusion messaging was delivered by the Fire Chief through blog posts, presentations at leadership team meetings, video content, and more informally through conversation during station visits. An important component of the Fire Chief's communication to CFD members was a video featuring the Fire Chief and IAFF Local 255 president sharing a message about CFD's culture with respect to diversity and inclusion. The video has been well-received with positive feedback from employees. Internal messaging was also delivered through events and guest speaker opportunities, including through The City's Inclusion Month in October 2016. Additionally, diversity and inclusion messaging was included in training for both recruits and established CFD leaders. The Inclusion Council, a joint committee of CFD and the IAFF Local 255, continued to advise on communication in addition to other aspects of the Diversity and Inclusion Framework. Members of CFD's Diversity and Inclusion Working Group have been instrumental in continuing the rollout of internal messaging through various communications channels since 2015. In addition, a Communication Strategist supported the development of internal messaging and continued throughout 2016 to support the rollout of the communication plan. Change management principles have been integrated into the implementation of the Diversity and Inclusion framework's employee engagement strategies, specifically to guide changes in workplace culture.	The Diversity and Inclusion team, in conjunction with Communications, will continue to engage staff and develop content for internal messaging, specifically aiming for greater engagement with frontline CFD members in 2017. Also in 2017, CFD will expand Training Officer educational skills workshops to incorporate diversity, inclusion, and respectful workplace messages. This is a key component in imparting diversity and inclusion awareness, as Training Officers have a regular opportunity to share this messaging through the training components they provide to CFD members on a daily basis.		
Acceptance and integration are supported through effective strategies for change management.				
ZBR Recommendation: Develop diversity and inclusion awareness training for all CFD members		Status: ☐ In Progress	Not Applicable	
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved		Direction Forward: Continuing Work Plan	
A comprehensive training program, in alignment with corporate Human	Prior to 2016, the CFD had identified opportunities for leadership training in diversity and inclusion. A training plan was developed in 2016 to meet the needs of all CFD members. The plan was reviewed by the Inclusion Council and CFD's executive team and will soon be finalized, though many opportunities were already underway during the year.		CFD will introduce active bystander training with interactive scenarios in early 2017.	

Resources policies and training, for CFD's management level along with targeted training content for all CFD members brings awareness to diversity and inclusion definitions, demonstrates the rationale for the CFD's Diversity & Inclusion Framework, and shares the benefits of a diverse and inclusive workplace for staff and citizens.	• New training components were integrated into the recruit curriculum (e.g., Respect in the Workplace, Active Bystander). A Mentors for Recruits initiative was also developed which supports new recruits in their transition to the fire hall. • Training exercises were designed to provide knowledge of cultures, and practical skills in being an active bystander in supporting respectful workplace communications. The drill will provide an opportunity for discussion and practice in the workplace. • A Diversity and Inclusion Toolbox for leadership and CFD members was developed which includes key messages, definitions, behaviour expectations, and additional resources. • Awareness opportunities for all staff were promoted during The City's October 2016 Inclusion Month. CFD partnered with The City's Human Resources to offer CFD-specific training opportunities. Events included expert-led sessions on diversity and inclusion topics. CFD's own presenter series addressing diversity, inclusion, and respectful workplace topics also continued during 2016. • Human Resources visited CFD workplaces to deliver Respect in the Workplace training to almost 600 CFD employees in 2016. Additionally, all CFD members are required to take the Respect in the Workplace e-learning module to better understand and adhere to The City of Calgary's Respectful Workplace Policy; in 2016, 98% of CFD staff completed this training.	The Mentors for Recruits program will be fully in place in 2017. CFD will continue sharing self-assessment tools for staff regarding inclusive and respectful workplace behaviours, with links to appropriate resources to support employees' awareness, knowledge, and growth. CFD policies and procedures related to workplace behaviour and violence will be reviewed and amended if needed.
ZBR Recommendation: Enhance existing diversity and inclusion draft performance measurement methods and criteria, including data collection and reporting.	Status: Efficiency Improvement:	☐ In Progress ☐ Not Applicable
Recommended Future State A set of performance measures to track the success of diversity and inclusion strategies will ensure milestones are met and key outcomes are achieved. Defining measures, collecting data, and assessing and reporting on performance ensures accountability.	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved Throughout 2016 work was underway to carry out the action plan for the CFD's Diversity and Inclusion framework that was initiated in 2015, including in the area of performance measures. • The first part of this ZBR recommendation covers measures intended to track progress of the Diversity and Inclusion Framework's actions and strategies. This has been accomplished through integrating key deliverables from the plan into CFD's business plan for 2016 and beyond; the business planning process includes regular updating and accountability reporting. • With respect to measuring and reporting on indicators of diversity and inclusion outcomes, the Diversity and Inclusion Framework has been supported by CFD's Strategic Services section and a dedicated Issue Strategist position to work on performance measure development and data collection. During 2016, CFD assessed the data that is currently available to measure outcomes for the diversity and inclusion program, and worked to build a data development agenda where needed. The City's employee engagement survey, which collects demographic data, is included in performance measurement efforts.	Direction Forward: Continuing Work Plan As further development of CFD policies, procedures, and practices designed to reduce barriers to an inclusive work environment is undertaken, measures will be developed to monitor the progress toward the defined outcomes. CFD will continue developing diversity and inclusion performance measures, including data collection methods.
ZBR Recommendation: Include diversity messaging in recruiting campaigns	Status: Efficiency Improvement:	☐ In Progress ☐ Not Applicable
Recommended Future State Using the CFD's Diversity and Inclusion framework to promote	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved CFD's Diversity and Inclusion framework takes a three-pronged approach to build an inclusive workplace: Recruitment is a key pillar, along with Organizational Culture and Service to the Community. Efforts	Direction Forward: Continuing Work Plan CFD is simplifying the recruit presentation, including translating career information

and support diversity among recruit applicants will better equip the CFD to foster a healthy work environment, reflect the community served, and ensure a sustainable workforce through access to a greater pool of qualified applicants.	continued during 2016 to promote the recruitment of diverse populations. • CFD promoted recruiting of diverse populations at various community and culturally-specific events. CFD members from diverse populations joined recruitment staff at events where they reflected the diverse cultures that CFD is striving to attract to build a qualified, inclusive, and sustainable workforce. • New recruitment materials were developed for use at community events and other recruiting opportunities, with a focus on female and visible minority populations. Banner images now better represent diverse populations, and the recruitment qualifications documents have been translated into five languages. • CFD revised the Recruitment web site to make the content easier to read, more user-friendly, and to better reflect our diversity. Using plain language and adding more diversity to images and video offers a welcoming perspective on CFD's inclusive workplace to encourage applicants from diverse backgrounds. • CFD utilized the amended recruit interview process developed in 2016 which includes questions and scenarios regarding inclusive and respectful workplace issues, and aims to reflect diversity in panel interviews and minimize unconscious biases. While no new applicants were accepted in 2016 (2016 recruit classes were made up of applicants from previous years), CFD anticipates opening up the application process again in 2017 and is hopeful that the impact of efforts to recruit diverse populations will be seen.	into additional languages. In addition to the applicants, this will assist their families and communities in supporting them through the recruitment process. In 2017, CFD will also finalize the "Physical Fitness for Applicants" program to support potential recruits – in particular non-traditional applicants – in better understanding the physical aspects of the job and recruit training to increase the likelihood of their application and success. A mandatory learning module for interviewers is also being developed that will include information on unconscious bias and human rights.
ZBR Recommendation: Increase CFD community presence to promote awareness of diversity and inclusion, including introducing the role of an Ombudsperson	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Status: ● Complete/Continuing Efficiency Improvement: Not Applicable
Recommended Future State CFD is a visible presence across all communities and populations to promote diversity and inclusion. This is supported through working with communities, attending events, and other continuing outreach efforts. It is also supported internally through maintaining the profile of diversity and inclusion initiatives, and supporting staff in	During 2016, CFD continued and increased efforts to promote diversity and inclusion within the community and internally. • Community outreach efforts included attending culturally-specific events, acting on additional cultural councils, and continuing participation in activities that celebrate diversity such as the Sikh and Pride parades. • Other examples included: attending the Calgary Police Service Cultural Expo (highlighting various cultures), World Partnership Walk (Ismali Community), and National Aboriginal Week events. • A City-approved Welcome poster was installed in the public areas of all fire halls showcasing the welcoming of diverse members of the community. To support employees in accessing resources related to diversity and inclusion in the workplace, The City of Calgary's Human Rights Specialist provides assistance, advice, and resolution when required. CFD's own Team Lead for Recruitment, Diversity and Inclusion also provides support and resources, and manages the implementation of diversity and inclusion strategies. Furthermore, a full-time Issue Strategist was committed to this work. Additional internal support included strengthening the partnership with CFD's Training, Community Safety, and Wellness sections, for optimal coordination on diversity and inclusion issues.	Direction Forward: Continuing Work Plan Identification of dedicated support roles for diversity and inclusion initiatives, including support for CFD members, is complete. CFD's presence in the community to promote awareness of diversity and inclusions will remain ongoing.

accessing any resources they may need.	
Strategic Alignment	
Action Plan 2015-2018	CFD Sustainability Plan
Council Priority: A well-run city W9 Strive to be an employer of choice with a focus on addressing The City's aging workforce.	Sustainability Priority: Valuing and empowering our workforce Our workforce has just-in-time access to the types of training and development that support our service to citizens. Our human resources management and programs align with our organizational goals and motivate and support staff in achieving our vision. We apply technology as a strategic tool and enabler for public service innovation, productivity growth and reduction of our environmental footprint. Working in concert with our unions, we create service delivery and workforce strategies that protect the safety of our citizens and reflect consideration for all of the factors impacting sustainability.

Theme #2: Resource Optimization

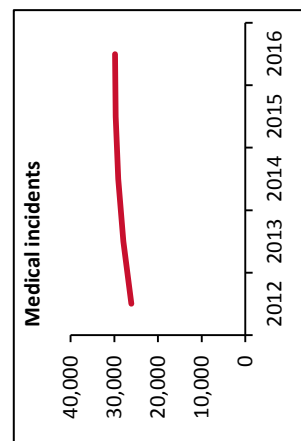
Resource Optimization	
3. DEPLOYMENT AND RESPONSE	
ZBR Recommendations: - Continue to implement the Dynamic Deployment system, including moving to an enhanced, risk-based model with a greater focus on outcomes - Develop a revised performance measurement approach to focus evaluation and service standards on outcomes - Complete medical response unit pilot and expand - Invest in predictive modelling software to support planning and deployment - Use the enhanced dynamic deployment model and revised approach to performance measurement as the basis for planning for future growth.	
Total Efficiency Improvement 2016: \$2.3 million This series of recommendations enables the CFD to slow planned growth through a further reduction of \$4.7 million from the Action Plan budget. \$8.4million in previous reductions will also be accommodated through these recommendations, for a total of \$13.1 million by the end of 2018.	
Status: ☐ In Progress Efficiency Improvement: \$2.3 million	
Recommended Future State A deployment and growth management model where future service needs can be accommodated more efficiently through:	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved Throughout 2016, CFD took steps to move to a deployment and growth management model which optimizes resources through a stronger focus on risks in deploying resources and by emphasizing outcomes in determining and evaluating service levels. Progress included: <u>Performance Measurement for Service Planning and Evaluation:</u> The development and implementation of a work plan to evolve the performance measures used for defining and assessing service levels related to resource allocation (i.e., stations, apparatus, staffing) to shift to a greater focus on outcomes. - CFD developed and presented to Council a work plan, which was received for information in July 2016 - The new approach enhances the existing Council-approved Service Levels and Response Time Targets, by putting more focus on outcome measures such as flame spread, fire loss, the number of injuries and deaths due to fire. It
Direction Forward: Continuing Work Plan In 2017, CFD will continue implementation of an enhanced dynamic deployment model. CFD will continue to review apparatus performance monthly to ensure emerging	

the development of updated performance measures for service standards to guide growth planning and resource allocation (e.g., stations, apparatus, staffing) that incorporate a stronger focus on risk and outcomes; and an enhanced dynamic deployment model that more efficiently manages deployment considering those risks and outcomes. Under the enhanced dynamic deployment model, the planned level and location of apparatus and staffing can be varied by station and/or time of day, based on assessed risk levels. The focus is to balance	expands the series of measures used into a more comprehensive risk-based index which includes demographics and other risk factors based on the CFD's community risk assessment as well as historical response time analysis. - Progress on the work plan to date also includes completion of research, an environmental scan and literature review of best practices throughout North America for performance measurement including data requirements, future station growth models and other outcome-based measurement models. This research, along with input from the newly formed Performance Measures Working Group, has helped to define and develop indicators so that future evaluation efforts can clearly illustrate and support results and the factors that contribute to those results. Data was collected and analyzed for each of Calgary's 300+ communities using the indicators created and reviewed by the Performance Measures Working Group, and has been reviewed by key stakeholders. - In addition, a data development agenda for new measures where data is not currently collected or utilized has been completed. <u>Dynamic Deployment Model:</u> Following through with planned further implementation of the dynamic deployment model, and incorporating risk-based data to enhance the model. - Analysis progressed as planned for further enhancements to the dynamic deployment model. - Quarterly meetings of the Deployment Working Group were held to incorporate data analysis and risk assessment into decision-making for optimal locations of current key apparatus and staffing, and future station, apparatus, and staffing needs. Time-of-day apparatus deployment analysis was incorporated into the model. Individual apparatus moves made during the year considered risk, availability, secondary apparatus support, and enhancements to coverage for both first-in units and effective response force. Performance improved month over month due in part to the resulting apparatus and station deployment decisions. - Working with Calgary 911, CFD implemented a new Emergency Fire Dispatch system to support more effective dispatching of apparatus and staff to emergency incidents. This reduces impacts to district coverage and allows for efficiencies around resource allocation. <u>Medical Response Units:</u> exploring innovative apparatus deployment options, including analysis to support the expanded use of medical response units. - In 2015, medical response units (MRUs) were strategically implemented with great success. The MRU's are an efficient way to respond to an increased demand in medical calls which improves service to citizens by keeping engines available for fire incidents. Since being introduced, reliability and response times have improved, and demand placed on other apparatus has become more manageable. - In June 2016, Council accepted for information the CFD report on the MRU pilot project. The two pilot MRUs were made permanent and analysis was undertaken to determine the optimal location for a third unit which will be introduced in 2017. <u>Risk Assessment:</u> updating and enhancing the risk assessment data collected through the Community Risk Assessment. - CFD's Community Risk Assessment, which assesses 20 layers of risk by station district, was updated and station crews provided with updated risk information. An updated Urban Wildland Risk assessment to evaluate brush and grass fire risks in all communities was also completed. - Also to enhance risk assessment, CFD is investigating the use of software with demographic capabilities to better understand communities and their unique risks.	call volume trends are addressed through resource deployment. Further apparatus moves may be made, depending on analyzed needs and risks. We will also explore options for peak and non-peak staffing. Predictive modelling software will be in place to support the deployment model (product installation is anticipated during the first quarter of 2017.) One additional medical response unit will be put into service in 2017. CFD will begin to use updated performance measures in planning new station locations and determining apparatus moves. These will be integrated into a weighted index to be used in 2017. Other new measures will include an initial Positive Action metric to better track performance that impacts key outcomes.
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resource, risk, and public safety in a more efficient way. Predictive modelling and move-up software supports the model. CFD's future capital planning is enhanced using a more comprehensive analysis of service levels, risks, and outcomes.	Software Advancements: Pursuing software advancements to support the new model for resource allocation and day-to-day deployment. - CFD worked with City partners on the procurement process for predictive modelling software, and collaborated with Calgary 911 on exploring move-up software. - An RFP for the predictive modelling software was published in August. This software will support the enhanced dynamic deployment model by allowing CFD to manage resources based on risks, probability, reliability, and service demands in a way that balances resources, risk, and public safety. Operating Budget Reduction: A reduction in the annual operating budget increase tied to FTEs allocated to meet the demands of growth. - CFD reduced the operating budget increase previously allocated for growth in 2016 by \$2.3 million. The relief factor for firefighter positions was lowered to a point where there is less coverage for sickness, vacations and other staffing level reductions, but constant staffing can still be achieved while balancing overtime costs. Firefighter positions allocated to new stations have been reduced from the previous level, and operating budgets for new stations are more transparent by separating the staffing resources required for engines and secondary apparatus. Impacts: Through these combined initiatives, CFD anticipates being able to accommodate future growth more efficiently, managing through resource optimization a reduction in the previously approved budget to support new stations, apparatus, and staffing over the remainder of the current business planning cycle, and planning to meet the demand of future growth more efficiently in the next business planning and budget cycle. Results for a number of the measures and indicators that demonstrate service and public safety outcomes are shown below.	CFD will manage further reductions in FTEs/operating budget for 2017 and 2018. In order to meet 2017 budget reduction targets, some savings from the ZBR will be accelerated. This may result in a slowing of planned performance improvements in 2017. Once a full analysis of deployment, service levels, and outcomes is completed using the updated measures, including feasibility and impact assessments, CFD will reassess future capital planning needs. This will be done in alignment with CFD's participation in City-wide facility planning initiatives.																																									
	Estimated total loss from fires <table><tr><th>Year</th><th>Estimated total loss from fires (Millions \$)</th></tr><tr><td>2012</td><td>42</td></tr><tr><td>2013</td><td>45</td></tr><tr><td>2014</td><td>32</td></tr><tr><td>2015</td><td>38</td></tr><tr><td>2016</td><td>30</td></tr></table> Percentage of fires where flame spread was limited to within the room or object of origin <table><tr><th>Year</th><th>Percentage of fires where flame spread was limited to within the room or object of origin</th></tr><tr><td>2012</td><td>68%</td></tr><tr><td>2013</td><td>69%</td></tr><tr><td>2014</td><td>70%</td></tr><tr><td>2015</td><td>71%</td></tr><tr><td>2016</td><td>72%</td></tr></table> Civilian fire deaths and injuries <table><tr><th>Year</th><th>Injuries</th><th>Deaths</th></tr><tr><td>2012</td><td>22</td><td>5</td></tr><tr><td>2013</td><td>12</td><td>6</td></tr><tr><td>2014</td><td>27</td><td>6</td></tr><tr><td>2015</td><td>25</td><td>1</td></tr><tr><td>2016</td><td>36</td><td>8</td></tr></table>	Year	Estimated total loss from fires (Millions \$)	2012	42	2013	45	2014	32	2015	38	2016	30	Year	Percentage of fires where flame spread was limited to within the room or object of origin	2012	68%	2013	69%	2014	70%	2015	71%	2016	72%	Year	Injuries	Deaths	2012	22	5	2013	12	6	2014	27	6	2015	25	1	2016	36	8
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Strategic Alignment	
Action Plan 2015-2018	CFD Sustainability Plan
Council Priority: A city of inspiring neighbourhoods - N1 Keep communities safe by meeting and maintaining standards for crime prevention, fire response, and enforcement. - N6 Manage and promote growth to achieve the best possible social, environmental and economic outcomes within financial capacities. Council Priority: A well-run city - W2 Be as efficient and effective as possible, reducing costs and focusing on value-for-money. - W6 Effectively manage The City's inventory of public assets, optimizing limited resources to balance growth and maintenance requirements.	Sustainability Priority: Managing growth - We will effectively and efficiently balance the fire and community safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens. Sustainability Priority: Leading in service to citizens - We have clearly demonstrated the life and safety outcomes, value and efficiency of our service. The means by which fire and community safety service is evaluated reflects the difference we have made in the quality of our citizens' lives, our communities and the social fabric of our city. Our commitment to sound science and research will help reduce fire and community safety risks in Calgary. It will also empower us to effectively advocate for changes to legislation and practices that result in safer infrastructure and buildings in our city.

Resource Optimization	
4. EMERGENCY MEDICAL RESPONSE	
ZBR Recommendation: Maintain emergency medical incident response delivery	
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved
CFD continues to provide emergency medical response while ensuring optimal use of apparatus.	CFD's medical response protocols were updated in March 2016 to ensure technical accuracy. Medical training drills were added to in-station monthly drill program to refresh knowledge, and new training references and materials were added to station libraries.
Total Efficiency Improvement 2016: None at this time	
Status: ● Complete/Continuing Efficiency Improvement: Not Applicable	
Direction Forward: Continuing Work Plan CFD will continue to provide emergency medical response.	



ZBR Recommendation: Establish a Service Level Agreement with Alberta Health Services		Status:	Efficiency Improvement:	Direction Forward:
		☐ In Progress		None at this time
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved			
A formal service level agreement with AHS defines clear roles and responsibilities for both parties, and sets out a collaborative process for ongoing evaluation.	In 2016, CFD and The City of Calgary investigated enrolling in Alberta Health Services' Medical First Response program as a MFR agency, which would provide a more formalized definition of The City's role in the delivery of emergency medical services and could effectively constitute a service level agreement. AHS is requiring agencies which provide emergency medical response services across Alberta to register with the MFR program if they will be continuing to provide these services after January 1, 2017.	Direction Forward: It is anticipated that The City of Calgary will become a formal partner in the MFR program in the first quarter of 2017. More information from AHS will be needed to determine how this agreement may impact future efforts to pursue cost reimbursement from AHS.		
ZBR Recommendation: Seek cost reimbursement from Alberta Health Services		☒ On Hold		None at this time
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved			
An equitable framework for sharing the costs associated with CFD's emergency medical response is established with AHS.	During 2016, The City of Calgary and CFD explored the option to enrol in AHS's Medical First Responder program as a municipal service provider partner, including seeking to understand if our formal participation would preclude future requests for reimbursement from AHS. Options to include a request for medical services reimbursement in the City Charter Fiscal Framework were also explored; however a definitive response from AHS has not yet been verified.	Direction Forward: In 2017, The City and CFD will seek to confirm that the MFR program will be separate from efforts to seek reimbursement.		
ZBR Recommendation: Work with Alberta Health Services to improve medical dispatch		☒ On Hold		Not applicable
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved			
CFD dispatch to medical incidents is clearly defined, optimally in a service level agreement with AHS, and re-evaluated as needed.	Current dispatch protocols for CFD that were developed with AHS input are in place and re-evaluated as necessary. For most of 2016, further discussion with AHS on this recommendation was on hold pending a possible change to dispatching by AHS and the development of a service agreement. In December 2016, AHS announced that Calgary 9-1-1 will maintain dispatch responsibility for medical calls within city limits.	Direction Forward: With medical dispatching now determined to remain with The City, CFD will pursue potential improvement areas.		

Strategic Alignment		CFD Sustainability Plan
Action Plan 2015-2018		Sustainability Priority: Ensuring safe communities
Council Priority: A city of inspiring neighbourhoods - N1 Keep communities safe by meeting and maintaining standards for crime prevention, fire response, and enforcement. - N11 Promote public safety through education, prevention and partnerships. Council Priority: A well-run city - W2 Be as efficient and effective as possible, reducing costs and focusing on value-for-money.		Every Calgarian will live in a safe community. Our programs and services will reflect the growing and changing community safety demands of our citizens, and will be tailored to the risk, diversity and needs of each community. Stations and firefighters are core to our communities and are key to delivering programs, services and education that enhance the health, safety and preparedness of our citizens. We support business in our city by ensuring safe facilities and practices that mitigate risk to their employees and our citizens.
Resource Optimization		
5. ACCREDITATION		
ZBR Recommendation: Maintain CFAI (Commission on Fire Accreditation International) accreditation		Total Efficiency Improvement 2016: Not applicable
Recommended Future State	Current State (1-Year Update):	Status:
CFD will remain an accredited fire service.	Key Initiatives Undertaken and Outcomes Achieved The Commission on Fire Accreditation International Board of Commissioners unanimously accepted and approved CFD's annual compliance report, granting continued accredited agency status.	● Complete/Ongoing Not Applicable
Strategic Alignment		Direction Forward:
Action Plan 2015-2018		Continuing Work Plan CFD will update its Self Assessment Manual, Community Risk Assessment, and Standards of Cover to apply for a new 5-year accreditation term in early 2019.
Strategic Alignment		
Action Plan 2015-2018		CFD Sustainability Plan
Council Priority: A city of inspiring neighbourhoods - N1 Keep communities safe by meeting and maintaining standards for crime prevention, fire response, and enforcement. Council Priority: A well-run city - W2 Be as efficient and effective as possible, reducing costs and focusing on value-for-money.		Sustainability Priority: Leading in service to citizens - We have clearly demonstrated the life and safety outcomes, value and efficiency of our service. The means by which fire and community safety service is evaluated reflects the difference we have made in the quality of our citizens' lives, our communities and the social fabric of our city. Our commitment to sound science and research will help reduce fire and community safety risks in Calgary. It will also empower us to effectively advocate for changes to legislation and practices that result in safer infrastructure and buildings in our city. Sustainability Priority: Managing growth - We will effectively and efficiently balance the fire and community safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens.

Resource Optimization			
6. TRAINING		Total Efficiency Improvement 2016: Budget reductions – Not applicable Revenue – no new revenue yet as a direct result of ZBR recommendations	
ZBR Recommendation: Reduce duration of recruit training and orientation		Status: ● Complete/Continuing Efficiency Improvement: Not Applicable	Direction Forward: Continuing Work Plan CFD will continue to evaluate the changes made to the recruit program to ensure the defined outcomes are being met (e.g., through the post-recruit program participant evaluation). Further testing of the smaller recruit class size will be undertaken as operational needs allow.
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved During 2016, CFD assessed the recruit training program and developed innovative solutions that would make it more efficient to operate while still maintaining the full curriculum. This was pursued in order to ensure the program is as efficient as possible, but it was also determined that changes to the recruit program would support the implementation of other ZBR recommendations related to the Training Academy which included: • <i>Increasing incumbent training</i> – freeing up Training Officer time spent on the recruit training program allows greater focus on developing and delivering training for established CFD members. • <i>Increasing revenue from training facilities and props</i> – again, freeing up training facilities and props due to more efficient use of those resources by the recruit training program results in greater rental availability (along with greater availability of the Training Officer resources needed to support those rentals where applicable). The recruit program was shortened by a further 10 days for 2016 classes (the program is now 20 days shorter than in 2014), which was a challenge due to additional topics added to the curriculum including diversity, inclusion, and respectful workplace. Individual components of the recruit training curriculum have been more tightly scheduled to allow these changes. A reduction in class size also enabled the shorter recruit program. A new smaller class size of 10 recruits was piloted for one 2016 class. (In the five years prior to the ZBR, recruit class sizes ranged from 23 to 40, with an average class size of 36 recruits.) The smaller class size was introduced to reduce the number of Training Officers required for each class (classes would then be held more frequently, as needed), meaning that dedicated Training Officer support can be committed to other ongoing Training Academy activities, including the development and delivery of incumbent training and supporting facility and props rentals for external customers. While the change to shorter, smaller, and more frequent recruit classes is not expected to result in cost efficiencies to the recruit program directly, the benefits of this change are the impacts on Training Officer resources, which allow CFD to implement the related ZBR recommendations to increase incumbent training and increase Training Academy revenue using existing resources.		
This recommendation, as well as the associated amended proposal by Administration, was not approved by Council (CFD was not required to shorten training or to accept NFPA 1001 as a prerequisite for recruits). However, CFD pursued alternate options that would meet the original intention of a more efficient recruit training program, aiming for changes that would support the other related ZBR recommendations for the Training Academy.			

ZBR Recommendation: Eliminate recruit practicum		Status:	● Complete Not Applicable
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Efficiency Improvement:	Direction Forward: Continuing Work Plan
Discontinue the one-week recruit practicum.	The in-station recruit practicum has been eliminated. Following an evaluation of the practicum's intended outcomes, while recruits universally found the practicum helpful, it was determined that similar results could be achieved through related components already included in the recruit training curriculum.		
ZBR Recommendations: Use non-uniformed staff for non-technical training and partner with external training institutions and others	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Status:	○ In Progress Not Applicable
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Efficiency Improvement:	Direction Forward: Continuing Work Plan
CFD uses non-uniformed staff or external agencies to deliver non-technical training in order to benefit from expertise outside CFD's core training competencies and enable the most efficient use of CFD Training Officer time and resources. Developing partnerships with external providers to deliver non-technical components of both recruit and incumbent training provides CFD with access to new and innovative training materials and methods, builds relationships within the training community, and optimizes CFD's own internal training resources. Partnerships with other types of external groups, including private companies, are also pursued in order to provide alternate solutions for funding of Training Academy programs, facilities and props.	A number of training components are designed and/or delivered by non-uniformed trainers. In 2016, non-uniformed CFD staff taught the following recruit topics: telestaff, disability management, customer service, fitness, nutrition, and study skills. Uniformed subject matter experts from areas outside of the Training Academy taught Fire Prevention, Emergency Management, Fire Protection Systems, Public Information, Health and Safety, Fire Cause, and Firefighter On-Scene Rehabilitation. External instructors taught Dispatch, Medical Examiner's Awareness, as well as a number of diversity and inclusion topics including Respectful Workplace, Being an Ally, Active Bystander, and Mental Health/Autism Awareness. These areas are carefully evaluated to ensure that quality control over core training remains, the requirements of labour agreements are met, and that the core competencies of the training program are still taught by uniformed trainers to benefit from their credibility and ability to impart CFD's values and culture. CFD has partnered with a number of educational institutions to enable CFD members to expand their non-technical training and career development through various certificates, Bachelor's, and Master's degree programs. Partners include Bow Valley College, Athabasca University, Grand Canyon College, and Lakeland College. Also during 2016, the partnership that developed CFD's driving program was recognized by the Alberta Ministry of Transport as an internal Professional Driver Improvement Program (PDIC). Additional partnerships opportunities that would benefit the Training Academy were also pursued in 2016, with CFD and a transportation operator entering into an agreement that provides the Training Academy with buses to use as training props in return for facility rental time.		For 2017, a pilot will be run on using non-uniformed staff to run the recruit orientation (COCO) program. Preliminary plans are also being made to have a combination of CFD and external instructors teach the Tactical Leadership to incumbents. CFD will also further explore potential partnerships following the development and direction of a master plan for the Training Academy.
ZBR Recommendation: Increase investment in incumbent training	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Status:	● Complete/Continuing Not Applicable
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Efficiency Improvement:	Direction Forward: Continuing Work Plan
CFD's incumbent training is adequately resourced through the	During 2016, changes to the recruit training program allowed a shift in training officer time to support further investment in incumbent training. Training officer instruction time for recruits		CFD will continue its focus on a strong

optimization of Training Officer capacity in combination with the Field Trainer program and partnerships/external or non-uniformed providers for non-technical training. In particular, specific incumbent training such as rescue and medical response, as well as emerging response training issues, are given increased focus to ensure firefighters are optimally prepared throughout their careers to provide services that keep themselves and citizens safe.	decreased, allowing significantly more time for incumbent training including specialized skill courses, crew training days, and instructor development training. New and expanded monthly drills and a new training bulletin series were also implemented, a new medical training module reflecting 2015 CPR guidelines was developed, a hose handling video series was produced, and development on six new modules for Health, Safety, and Environment began. In addition, the Training Academy continued to oversee the Field Trainer program which delivers training out of all stations through over 170 station-based trainers. This program delivers up to 20 courses including driver training, specialty apparatus operations, radio use, CPR, and medical skills, and provides effective and efficient training that minimizes disruption to station crews' availability to respond to emergencies, decreases overtime, and optimizes Training Officer resources. Training programs are updated regularly based on feedback from participants and industry or legislated standards, as well as to address emerging response needs. In 2016, CFD developed and implemented training in using the nasal spray naloxone to meet the increasing demand for emergency treatment of an overdose caused by an opioid.	training program for CFD members.
ZBR Recommendations: Develop a Training Academy business plan and market the Training Academy facilities and props to other users	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Status: Efficiency Improvement:
Recommended Future State A Master Plan for the Training Academy combines elements of business and marketing plans to optimize training resources, outcomes, and revenues through a long-term strategy. An increase in revenue through a focus on increased marketing of facilities and props, brings the total to \$200 thousand per year. The potential to create a new revenue stream by offering NFPA 1001 (firefighter pre-employment training) could result in additional revenue of up to \$792 thousand, for a total of up to \$992 thousand.	In 2016, CFD began working on a master plan for the Training Academy. This will require funding prior to more detailed scoping, but preliminary work is on track for a completed plan by the end of 2017. CFD began developing a catalogue of training facilities, props and courses, which includes assessing the value of each to inform the analysis required for a marketing plan. Training Academy Revenue for 2016 was just over \$96,000, down from \$126,000 in 2015, reflecting the current local economic situation. There is no dedicated budget for marketing revenue generation, and staff resources have been limited for marketing activities. Changes to the duration and size of recruit classes were made in 2016 to optimize Training Officer capacity to work on activities which may increase future Training Academy revenue. While CFD marketed the Training Academy facilities and props to a number of past and new clients during 2016, many were internal City of Calgary business units or emergency responder partners where full cost recovery is not always achieved or services are provided in-kind. These included forcible entry training and facility use for the Calgary Police Service, boot camps, facility use for CANTF2, CALSARA, and Calgary Water Services, fire extinguisher training for Community Standards (in-kind services provided were valued at \$143,000 in 2016).	Direction Forward: Continuing Work Plan It is anticipated that Training Academy Master Plan will be completed by the end of 2017. Through the development of this plan, CFD will explore options for additional revenue streams, including offering NFPA 1001 training. If analysis indicates that this is a viable option for increasing revenue, work will begin in 2018 to pursue this option.

Strategic Alignment	
Action Plan 2015-2018	CFD Sustainability Plan
Council Priority: A well-run city - Strategy W2 Be as efficient and effective as possible, reducing costs and focusing on value-for-money. - Strategy W9 Strive to be an employer of choice with a focus on addressing The City's aging workforce.	Sustainability Priority: Valuing and empowering our workforce - We fully understand and manage our human capital risk to ensure we meet the evolving service needs of our citizens. Our employees will have the skills and knowledge to deliver a breadth of fire and community safety services to citizens through world-class training, technology, and innovation. Our management and labour work collaboratively to create a safe, engaged and sustainable workforce. Sustainability Priority: Managing growth - We will effectively and efficiently balance the fire and community safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens.

Theme #3: Asset and Facility Management

Asset and Facility Management	
7. FLEET MANAGEMENT	
ZBR Recommendations: Keep specification process for specialty apparatus (e.g., fire engines, etc.) and equipment in-house, and keep maintenance of specialty apparatus in-house.	
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved
The specification process for specialty apparatus and equipment will remain in-house, as opposed to being managed by a third-party provider such as the City's Fleet Services or an external provider. As with the specification for specialty apparatus, their maintenance is also best served by CFD's in-house expertise.	CFD continues to undertake the specification process for specialty apparatus and equipment in-house. The uniqueness of these specialty apparatus and equipment is best served by the level of familiarity and expertise that exists within CFD's operations and fleet divisions. CFD has incorporated a number of enhancements during a recent review of Fire Engine specifications, such as Auxiliary Power Units (APU), 2 stage pumps, increased LED lighting, occupant protection airbags, and an overall reduction in the size of the apparatus. These upgrades enhance the overall apparatus functionality, and increase operator safety, while also improving environmental performance through reduced fuel consumption and extended maintenance intervals. CFD also continues to conduct maintenance of specialty apparatus in-house. In this way, availability and coordination with Operations is also best accommodated to ensure that both scheduled and unscheduled maintenance and repair activities can be conducted.
Total Efficiency Improvement 2016: None at this time Status: ● Complete/Continuing Efficiency Improvement: Not Applicable Direction Forward: Continuing Work Plan	
CFD will continue to re-evaluate apparatus specifications and benchmark performance to ensure ongoing regulatory compliance while improving operational efficiency of the assets.	

ZBR Recommendations: Outsource maintenance of light duty vehicles and engage City Fleet Services to manage the light fleet.		Status:	Direction Forward:
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Efficiency Improvement:	Continuing Work Plan
CFD continues outsourcing maintenance for light duty vehicles, optimizing the balance between City Fleet Services and third-party providers (currently, CFD contracts most of its light fleet maintenance to external, non-City sources), to benefit from the potential cost savings that using City Fleet Service could potentially provide.	Council approved Administration's position to accept these recommendations subject to further analysis as part of the Community Services (CS) Department Review. Through implementation of the CS Department Review, the CFD has progressed toward these recommendations for the light duty fleet by leading the CS Fleet and Equipment Review Project which will explore the management of all CS fleet for opportunities to improve effectiveness and efficiency across the department. Chartering sessions were held during 2016, with a report presented to the Progressing Community Services Steering Committee in October 2016 which outlined key deliverables for the project. In addition to working with the CS Department Review team to investigate potential efficiency gains across the department, CFD conducted an internal utilization review of its own light fleet assets.	CFD's full implementation of these recommendations will be guided by the CS fleet review, with potential efficiency improvements made from the perspective of the entire CS department. While the ZBR found that potential savings for CFD's light fleet were relatively minimal, benefits may extend further when options for the entire CS department are considered. In early 2017, recommendations from CFD's own internal analysis will be reviewed, including options for an enhanced "pool car" strategy to reduce the number of light duty vehicles.	CFD's full implementation of these recommendations will be guided by the CS fleet review, with potential efficiency improvements made from the perspective of the entire CS department. While the ZBR found that potential savings for CFD's light fleet were relatively minimal, benefits may extend further when options for the entire CS department are considered. In early 2017, recommendations from CFD's own internal analysis will be reviewed, including options for an enhanced "pool car" strategy to reduce the number of light duty vehicles.
ZBR Recommendation: Implement advanced lifecycle management software		Status:	Direction Forward:
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	Efficiency Improvement:	Continuing Work Plan
CFD employs an advanced lifecycle management software to track, maintain, and extend the life expectancy of frontline apparatus. This ensures that preventative maintenance is closely tracked, and supports the rotation of apparatus from high usage stations to lower usage stations to avoid early retirement/ replacement.	By mid-2016, CFD implemented Real-Time Infrastructure Valuation Analysis (RIVA) software for fire apparatus and core fire equipment to provide more robust, data-driven information for lifecycle replacement and capital planning. Utilizing RIVA reports CFD conducted an initial rotation of Engine units in 2016, with the goal of optimizing utilization within the established lifecycle parameters for this asset class. Data such as vehicle Life to Date (LTD) hours/kilometres, age, parking location and call volume information, formed the basis of this analysis.	Work continues to incorporate other non-fleet assets into the RIVA system. CFD will also continue to analyse RIVA data to ensure initial lifecycle parameters and replacement triggers are consistent with asset optimization for all apparatus classes.	Work continues to incorporate other non-fleet assets into the RIVA system. CFD will also continue to analyse RIVA data to ensure initial lifecycle parameters and replacement triggers are consistent with asset optimization for all apparatus classes.

Strategic Alignment	
Action Plan 2015-2018	CFD Sustainability Plan
Council Priority: A well-run city - W2 Be as efficient and effective as possible, reducing costs and focusing on value-for-money. - W6 Effectively manage The City's inventory of public assets, optimizing limited resources to balance growth and maintenance requirements. - W8 Increase collaboration across the organization, including alignment of budgets with service delivery to achieve City priorities.	Sustainability Priority: Managing growth We will effectively and efficiently balance the fire and community safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens.

Asset and Facility Management	
8. MIXED USE FACILITIES The recommendations in this section are intended to verify the efficiencies gained by CFD remaining involved in the early planning process for new communities, and result in savings and greater benefit to citizens through combining multiple uses in City facilities including fire and emergency response services.	
Total Efficiency Improvement 2016: While efficiencies for City infrastructure are anticipated as a result of some of these recommendations, the ZBR did not target a specific amount. It is anticipated that the financial impacts, in combination with the changes being made to optimize CFD resources (e.g., enhanced dynamic deployment, the revised approach to measures used for service standards and station planning) will result in efficiencies for CFD's long-term capital development budget and associated operating budgets.	
ZBR Recommendation: Maintain involvement in the planning processes for new communities	
Recommended Future State	Status: ☒ Complete/Ongoing Efficiency Improvement: Not Applicable
Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	
During 2016, CFD continued working with Growth Management on the Growth Management Overlay process change and to determine priority growth areas in the city. CFD is a member of the internal working team on the Industry/City Work Plan within Growth Management. Representation on these initiatives provides CFD with continued and ongoing involvement early in the planning process for all new communities to ensure fire and emergency response service needs are met, as these services must be provided as leading infrastructure. During the year, CFD collaborated with Growth Management and developers on the following communities: Haskayne, Glacier Ridge, Belvedere, South Shepard, Rangeview, and Keystone.	Direction Forward: Continuing Work Plan CFD will continue participation in supporting Growth Management Analysis of growth areas in the City.
ZBR Recommendation: Develop a multi-use compatibility profile for CFD	
Recommended Future State	Status: ☐ In Progress Efficiency Improvement: Not Applicable
Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved	
All new fire station proposals are part of a larger planning process	Direction Forward: Continuing Work Plan CFD will continue participating in the ICFP.

which has considered and assessed the compatibility of multiple internal and external uses at the proposed site.	to growth, is moving The City to a more coordinated approach for planning and delivering civic facilities, including fire stations, one that will enable greater consistency and accountability while identifying opportunities for efficiencies, partnerships, innovation, and investment. As fire stations are leading infrastructure due to the need for public safety response to exist early in communities, CFD plays a key role in this work. During the year, CFD was involved with master planning process with ICFP on the Varsity station replacement learning project and supported the establishment of temporary stations in East and West Macleod, Northeast Industrial, and Keystone.		Status: ☐ In progress ☐ Not at this time
ZBR Recommendation: Identify opportunities for multi-use stations and collaborate with other City partners in the communities of Cornerstone, Varsity, and South Macleod.			
Recommended Future State	CFD works closely with City and external partners to plan and build multi-use stations as leading infrastructure that provides a variety of uses for wider community benefit, while also providing financial efficiencies over the single use fire station model, including possible revenue opportunities.	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved During 2016, CFD continued working with The City of Calgary's Integrated Civic Facilities Program (ICFP), and continues to be a partner in the Community Services Departmental Capital Development team for all Capital projects and programs. Specific project planning during the year included multi-use facility planning opportunities in the communities of Cornerstone, Varsity and South Macleod. The Varsity master Planning project undertaken during the year was an example of an ICFP learning project to which CFD contributed. The project charter was completed and master planning started on Varsity station. Discussions began with Affordable Housing, VECOVA, West Campus Developments, University of Calgary and other business units.	Status: ☐ Complete ☐ Not Applicable
ZBR Recommendation: Designate a CFD liaison to participate in the multi-use facility planning process			
Recommended Future State	CFD is involved as a key contributor to the multi-use facility planning process.	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved CFD's Manager of Capital Development sits on the Manager's Steering Committee for the Integrated Civic Facilities Program to further CFD's facility and service delivery needs and contribute to the multi-use facility planning process for The City as a whole. CFD is also represented on the Directors' Integrated Growth Committee, Accommodation Infrastructure Steering Committee, and Corporate Land Administration Committee.	Status: ☐ Complete ☐ Not Applicable

ZBR Recommendation: Identify opportunities for request provisions from developers			Status:	☐ In Progress
			Efficiency Improvement:	None at this time
Recommended Future State	Current State (1-Year Update): Key Initiatives Undertaken and Outcomes Achieved		Direction Forward: Continuing Work Plan	
CFD and The City of Calgary work with developers to explore options for station spaces in which costs are shared or committed by developers.	During 2016, cost sharing was explored in West and East MacLeod and Keystone temporary stations. Other areas are in very early discussions on how to fund future stations in growth areas.		CFD will continue participation in corporate planning initiatives (e.g. Integrated Civic Facilities Program), and is working with Urban Strategies, ICFP, and developers on supporting future fire stations.	
Strategic Alignment				
Action Plan 2015-2018			CFD Sustainability Plan	
Council Priority: A city of inspiring neighbourhoods - N1 Keep communities safe by meeting and maintaining standards for crime prevention, fire response, and enforcement. - N5 Systematically invest in established neighbourhoods as they evolve to accommodate changing community needs. - N6 Manage and promote growth to achieve the best possible social, environmental and economic outcomes within financial capacities. Council Priority: A well-run city - W6 Effectively manage The City's inventory of public assets, optimizing limited resources to balance growth and maintenance requirements. - W8 Increase collaboration across the organization, including alignment of budgets with service delivery to achieve City priorities.			Sustainability Priority: Managing growth - We will effectively and efficiently balance the fire and community safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens. Sustainability Priority: Ensuring safe communities - Every Calgarian will live in a safe community. Our programs and services will reflect the growing and changing community safety demands of our citizens, and will be tailored to the risk, diversity and needs of each community. Stations and firefighters are core to our communities and are key to delivering programs, services and education that enhance the health, safety and preparedness of our citizens. We support business in our city by ensuring safe facilities and practices that mitigate risk to their employees and our citizens.	