

# Integrated Infrastructure Services - Update

## Recommendation:

That Executive Committee recommend to City Council:

That the July 6, 2016, Integrated Infrastructure Services report CR\_3346, be received for information.

## Report Summary

**This report provides an overview of the transformation plan associated with the creation of the Integrated Infrastructure Services department, the factors that influenced the organizational redesign, the accomplishments of the past six months and what citizens and City Council can expect going forward.**

## Previous Council/Committee Action

At the November 27, 2015, City Council Budget meeting, the following motion was passed:

That Administration provide a report to Council through Executive Committee with an update on the creation of the new Integrated Infrastructure Services including base funding options for the Corporate Centre for Project Management.

## Report

The City of Edmonton continues to experience rapid population growth and the associated capital program has escalated to meet the needs of its increasingly engaged citizens. In an effort to ensure consistent, efficient and transparent delivery of capital projects, the creation of the Integrated Infrastructure Services department was announced in October 2015.

The department represents a fundamental shift in how the City will develop and deliver capital projects. Aligned with the broader corporate organizational restructuring, the creation of Integrated Infrastructure Services is a transformational change that will integrate concept, design and build functions for all types of infrastructure, including facilities, open spaces, transportation, and utilities, which were previously managed in separate departments. The intent is to work in horizontal alignment, rather than the traditional vertical silos.

Most Canadian municipalities operate a centralized infrastructure and project delivery structure. The City of Edmonton has taken this approach one step further and designed an organization to focus on 'agency based' decision making. Historically, technical expertise would dominate internal decision-making processes. Under the new approach, expertise is valued within the context of serving as agents of the Corporate

Leadership Team, City Council and citizens. In the role of an agent, Administration seeks to align to the interests of Citizens and Council and deliver results for the City as a whole.

This report provides an overview of the transformation plan associated with the creation of the new department, the factors that influenced the organizational redesign and what citizens and City Council can expect going forward. While the slate of current projects stays the same, the approach to deliver capital infrastructure will change.

### Transformation Program

A transformation program was initiated to support the formation of the new department and assist with implementing this new approach. This involved working to align strategy, structure, process, competencies, leadership behaviour and culture. As part of this program, the first step was the development of Vision, Mission and Values statements to guide and inform future decision making, provided in Attachment 1.

The commitment of service to citizens and City Council is foundational to all work delivered by the department. The ability of Integrated Infrastructure Services staff to reliably and consistently deliver on that commitment is paramount. Feedback from a number of sources, including staff, industry, City Council, and the Corporate Leadership Team, was used to inform the development of the Vision, Mission and Values statements, ensuring a broad range of perspectives were considered. Staff were surveyed and responses highlighted pride in being part of capital construction projects and excitement about opportunities to collaborate and deliver current and future projects. There were many stories that emphasized the desire to make a contribution to the community, that conveyed a sense of achievement when projects were completed that resulted in cost savings for the City and pride in delivering a project that resonated with citizens and communities.

### New business model

Following the development of the Vision, Mission and Values statements, a comprehensive business model was also developed to guide the work of the department. The new business model reflects a contemporary approach to capital infrastructure projects delivered in a municipal government context. The business model consists of seven principles:

- **Agency** involves the refocusing of technical skills of managers and front-line staff within their role as agents of the Corporate Leadership Team. As a result of this shift in role from a technical expert to agent there is greater transparency around communication of project health, improved status reporting, better anticipation of risks and implementation of mitigation plans.
- **Integration** breaks down silos and supports horizontal problem solving. The new department structure integrates by function, as opposed to asset type.
- **Sustainability** includes planning, design and construction that reflects a long-term view, including social, environmental and financial outcomes.

- **Comprehensive planning** focuses applying greater attention to early-stage project decision making. By taking additional time in the project life cycle when additional analysis and evaluation can have the greatest impact. Investing in robust project planning results in better decision making later on in the design and deliver phases.
- **Never content with project management expertise** as a core principle demonstrates a clear focus on project management excellence. This involves a consolidation of best practices and a common and consistent approach to advance the collective project management maturity.
- **Continuous improvement** emphasizes the ongoing effort to achieve incremental improvements that support this overall transformation. The result is a more agile organization that is constantly seeking ways to improve efficiency, effectiveness and relevance in the delivery of services to support capital infrastructure projects.
- **Role clarity is the key to accountability.** Clear role definition at leadership and operational levels will underpin the way Integrated Infrastructure Services delivers all capital infrastructure projects. Although challenges may continue to arise due to the dynamic and challenging nature of capital construction, systems will be in place to respond, adjust, and consistently share results.

The principles of the business model have guided a number of current and planned improvements. The department has also sought out and adopted relevant research and best practices from comparable industry and municipal agencies. Collaboration with advisors from the University of Alberta and University of Calgary has resulted in a number of proposed improvements for project delivery at the City of Edmonton. The following list of improvements are currently being undertaken:

- Timely and comprehensive quarterly project performance reporting, in order to support more agile reactions and better decision making and that demonstrates greater attention to evaluation of scope, schedule and budget health. An example of quarterly reporting is provided in Attachment 2.
- Through early project evaluation and development, able to incorporate sustainability improvements into project scope, which supports a number of strategic outcomes and policies such as Complete Streets, Low Impact Development, Edmonton's Community Energy Transition Strategy, and Active Transportation.
- Better project planning and enhanced integration with strategy and operational areas to ensure projects are not presented fragmentally during the budget process.
- Greater emphasis on integration of strategy and diverse perspectives into projects at an early stage and clearly defining desired outcomes to be carried through the project life cycle.
- Developing an embedded Project Management Centre of Excellence to provide corporate governance and strategic direction with respect to advancing our competency in project management. This area will lead improved Project Management training, process standardization, internal auditing of projects,

- application of lessons learned and implementation of continuous improvement. The result is that funding for project management systems has been reallocated within base budgets that already exist for development and delivery of capital projects. Establishing a Project Management Centre of Excellence is an internationally supported best practice recommended by both the Project Management Institute and the National Quality Institute.
- Elevation of leadership roles with a greater focus on planning, leading, organizing and controlling work within their portfolios.
  - Improved clarity of the project manager role, removal of overlapping areas of responsibility, and increased empowerment for decision making to ensure consistent project delivery on time, on budget, and on scope.
  - Clear and measurable outcomes and measures are being established to plan, monitor, evaluate and control the work of the department as part of a strategic performance management framework that enables system accountability and aligns activities, outputs and outcomes. This includes Key Performance Indicators, which are benchmarked to comparable industry and municipal agencies such as Municipal Benchmarking Network Canada and the Alberta Construction Owners Association Major Projects Performance Assessment.
  - Ongoing development and implementation of a capital construction Project Management Information System to compile, coordinate and streamline project status reporting and oversight.

### New organizational structure

Based on the vision, mission, values and business model principles, a revised organizational structure was established to support the new way of working. The structure for Integrated Infrastructure Services consists of the following five branches:

- **Infrastructure Planning and Design**  
Consolidated planning and design functions for all infrastructure assets regardless of type, ensuring that a comprehensive level of analysis is taken prior to advancing for consideration in the budget process, taking into consideration public engagement, policy, strategy, life cycle renewal needs, and programming development.
- **Infrastructure Delivery**  
Consolidation of delivery functions and in-house construction resources with a focus on governance and project and construction management effectiveness to deliver the approved capital budget infrastructure project portfolio.
- **Business Planning and Support**  
Centralization of strategic leadership and core support functions for the department in project management, budget and business planning and engineering services. This area will have a consolidated survey and construction inspection functions, along with quality assurance and material testing resources.
- **Building Great Neighbourhoods**  
Leveraging the industry-leading Neighbourhood Renewal Program, the Building Great Neighbourhoods branch will look beyond hard infrastructure and take a holistic approach to community development and improving citizen quality of life.

This establishes a single point of contact for all neighbourhood-related infrastructure, integrating all elements including roads, utilities, parks, and streetlights to name a few.

- **LRT Delivery**

Focused on the development and delivery of the LRT expansion program. Includes development of a body of knowledge for Public-Private-Partnerships through the delivery of one of the largest capital programs in Canada and the largest in the City's history (Valley Line LRT) for potential future leverage and application.

### Approach to project development and delivery

To support this contemporary municipal infrastructure business model, a different approach to the way we develop project budgets is being investigated. Historically, some project profiles have been advanced for funding with a budget confidence level of +/- 100%. Greater scope and budget certainty ahead of capital budget approval and oversight support to City Council should effect better decision making, and facilitate efficient use of available resources for capital improvement.

A project development and delivery model is being developed, in a collaborative effort between Integrated Infrastructure Services and Financial and Corporate Services, and in consultation with other departments, industry best practices, and national research. The proposed phased approach could include the following key features:

- Project checkpoints to ensure that a defined decision-making process is used consistently to evaluate project readiness, scope, prioritization and funding.
- Integrated Infrastructure Services project intake process to ensure that projects identified as priorities by City Council receive robust evaluation of alternatives and scope identification early in project development.
- Business cases and budget estimates developed based on an enhanced level of design detail in order to support informed capital budget decision making.
- Design budgets developed and approved with sufficient lead time for projects under consideration to be developed and assessed before full budget approval takes place.
- An authorization for expenditure process that leverages industry and internal best practices to ensure that establishment of a budget and scope control baseline and sign-off of projects occurs prior to proceeding to final delivery.
- Evaluation of project outcomes achieved at completion and comparison against project business case and scope baseline.

Budget decisions supported by a greater level of detail in design will require an additional investment in projects at an earlier stage, similar to the recent approach to the Lewis Farms Recreation Centre project, where budget was provided to complete a portion of design to inform a future capital budget request. This potential change in the capital budgeting process will be presented in more detail in Q4 2016.

### Next steps

The department is actively recruiting for five branch manager positions and will proceed with filling the organizational structure in a cascading manner through the fall. Additional work related to improvement in work processes, leadership competency and culture are underway. Looking forward, it is expected that the new organizational model will be operational for Q1 2017.

As mentioned above, a number of changes are already being implemented to realize improvements towards the goal of inspiring the trust of citizens and City Council in the delivery of capital infrastructure projects. Over the last six months, there has been a focus on improvements in transparent communication with City Council, management of strategic risks, and enhancing relationships with industry partners. The commitment demonstrated by these early projects will continue as the broader organizational transition is completed.

Transformation work in the next half of 2016 will be focused on developing more details within the organizational structure and establishing core department processes. One area of focus involves embedding a performance management framework within the department's strategic management framework. Department and branch outcomes, with supporting key performance indicators, will be established that align with the City's corporate outcomes and measures.

### **Budget/Financial Implications**

Historically, the Corporate Centre for Project Management required specific initiative-level funding from various departments that delivered capital projects. With the centralization of capital infrastructure project management and the development of an embedded Project Management Centre of Excellence, this process is simplified. The Project Management Centre of Excellence will have resources funded within the base budget for the department and further work related to the transformation will define approach to cost sharing and approval of specific initiatives with other partners.

The creation of this new centralized Integrated Infrastructure Services department for will have a positive impact on the management of capital budget profiles. Further work is required to clarify necessary adjustments and associated implementation timelines. This work will include the allocation of resources for preliminary design in advance of design/construction approval to improve business cases and decision making.

### **Attachments**

1. Integrated Infrastructure Services Vision, Mission and Value Statements
2. Major Capital Infrastructure Reporting

### **Others Reviewing this Report**

- T. Burge, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services