



**Community Planning, Regulation and Mobility Committee Meeting
Revised Agenda**

Date: January 10, 2023
Time: 9:30 a.m. and 6:30 p.m.
Location: Hybrid meeting- virtual and Council Chambers, City Hall
Contact: Committee Clerk, Jo-Anne.Rudy@burlington.ca, 905-335-7600, x7413

Pages

1. Declarations of Interest:

2. Statutory Public Meetings:

Statutory public meetings are held to present planning applications in a public forum as required by the Planning Act.

- 2.1 Official Plan and Zoning By-law Amendment applications for 789-795 Brant Street (PL-04-23) 1 - 22

Note: this item will be discussed at 6:30 p.m. and will be considered at the January 12, 2023 Council meeting to meet Planning deadlines

Direct staff to continue to process the submitted Official Plan and Zoning By-law amendment applications for 789-795 Brant Street in an effort to bring forward a subsequent recommendation report. This report provides a description of the subject applications, an update on the technical review that is underway, and a summary of the technical and public comments received to date.

- a. *Staff presentation regarding Official Plan and Zoning By-law Amendment applications for 789-795 Brant Street (PL-04-23)* 23 - 34
- b. *Delegation from Michele Camacho, Chair of the Heritage Burlington Advisory Committee, regarding Official Plan and Zoning By-law Amendment applications for 789-795 Brant Street (PL-04-23)*

3. Delegation(s):

Standing committee and City Council meetings are held using a hybrid model, allowing members of Council, city staff and the public the option of participating remotely or in-person at city hall, 426 Brant St.

Requests to delegate to this hybrid meeting can be made by completing the online delegation registration form at www.burlington.ca/delegate, by submitting a written request by email to the Office of the City Clerk at clerks@burlington.ca or by phoning 905-335-7600, ext. 7481 by noon the business day before the meeting is to be held. It is recommended that virtual delegates include their intended remarks, which will be circulated to all members in advance, as a backup to any disruptions in technology issues that may occur.

If you do not wish to delegate, but would like to submit correspondence, please email your comments to clerks@burlington.ca. Any delegation notes and comments will be circulated to members in advance of the meeting and will be attached to the minutes, forming part of the public record.

4. Consent Items:

Reports of a routine nature, which are not expected to require discussion and/or debate. Staff may not be in attendance to respond to queries on items contained in the Consent Agenda.

- 4.1 Land Management Database Platform Review overview and results (IT-01-23) 35 - 153

Receive and file I.T. services department report IT-01-23 providing an overview of the results of, and the next steps resulting from, the provincially funded Land Management Database Platform Review.

- 4.2 Web Architecture Review (CX-01-23) 154 - 202

Receive and file customer experience report CX-01-23 transmitting the Enterprise Web Architecture and Modernization Review report and recommendations from KPMG completed through the Audit and Accountability Fund.

5. Regular Items:

- 5.1 Beachway Park parking operations update (TS-01-23) 203 - 210

Direct the Director of Transportation Services to discontinue the Parking Ambassador program at Beachway Park, include holidays in the paid parking period, and cease the Halton Beach Exemption program.

- 5.2 Lowville Park summary and recommendations (TS-02-23) 211 - 218

Direct the Director of Transportation Services to discontinue the Parking Ambassador program at Lowville Park, effective 2023, revert to the pre-pandemic operational model, and report back in Q1 2023 on alternative uses for the gate system; and

Direct the Director of Transportation Services to report back in Q1 2023 on the feasibility of implementing paid parking at Lowville Park inclusive of cost to implement and projected revenues.

5.3 Streamline Development Approval Fund (PL-02-23) 219 - 302

Receive and file community planning department report PL-02-23 which summarizes the methodology and outcomes of the Streamline Development Approval Fund project.

a. *Staff presentation regarding Streamline Development Approval Fund (PL-02-23)* 303 - 317

6. Confidential Items:

Confidential reports may require a closed meeting in accordance with the Municipal Act, 2001. Meeting attendees may be required to leave during the discussion.

7. Procedural Motions:

8. Information Items:

9. Staff Remarks:

10. Committee Remarks:

11. Adjournment:



SUBJECT: Official Plan and Zoning By-law Amendment applications for 789-795 Brant Street

TO: Community Planning, Regulation & Mobility Cttee.

FROM: Community Planning Department

Report Number: PL-04-23

Wards Affected: 2

File Numbers: 505-07/22, 520-08/22

Date to Committee: January 10, 2023

Date to Council: January 12, 2023

Recommendation:

Direct staff to continue to process the submitted Official Plan and Zoning By-law amendment applications for 789-795 Brant Street in an effort to bring forward a subsequent recommendation report. This report provides a description of the subject applications, an update on the technical review that is underway, and a summary of the technical and public comments received to date.

PURPOSE:

The purpose of this report is to provide background information to the committee and the public for a Statutory Public Meeting for the lands known as 789-795 Brant Street and to seek direction from Council to continue processing the applications in an effort to bring forward a subsequent recommendation report.

Vision to Focus Alignment:

The subject applications related to the following focus areas of the 2018-2022 Burlington's Plan: From Vision to Focus:

- Increase economic prosperity and community responsive city growth
 - Improve integrated city mobility
 - Support sustainable infrastructure and a resilient environment
-

Executive Summary:

RECOMMENDATION:		Continue to process application	Ward:	2
Application Details	APPLICANT:	MHBC Planning, Urban Design & Landscape Architecture		
	OWNER:	Camarro Developments Inc.		
	FILE NUMBERS:	505-07/22 & 520-08/22		
	TYPE OF APPLICATION:	Official Plan Amendment & Zoning By-law Amendment		
	PROPOSED USE:	A 31-storey residential building with a 7-storey podium with retail at grade.		
Property Details	PROPERTY LOCATION:	Southeast corner of Brant Street and Prospect Street		
	MUNICIPAL ADDRESS:	789-795 Brant Street		
	PROPERTY AREA:	0.219ha (789 Brant Street: 0.089ha; 795 Brant Street 0.13ha)		
	EXISTING USE:	Commercial		
Documents	1997 OFFICIAL PLAN Existing:	Mixed Use Corridor - General		
	1997 OFFICIAL PLAN Proposed:	Mixed Use Corridor - General with site-specific policies for height and Floor Area Ratio		
	2020 OFFICIAL PLAN Existing:	Upper Brant Precinct		
	ZONING Existing:	Mixed Use General (MXG)		
	ZONING Proposed:	MXG-XXX with site-specific regulations		
Processing Details	APPLICATION MADE AND COMPLETE AS OF:	September 23, 2022		
	STATUTORY DEADLINE:	January 21, 2023 <i>(not subject to application fee refunds under Bill 109 if timeline is exceeded)</i>		
	PRE-APPLICATION COMMUNITY MEETING:	October 21, 2021		
	PUBLIC COMMENTS:	The notice was circulated December 6, 2022 to 724 addresses.		

Background and Discussion:

On September 23, 2022, the City received complete applications from Camarro Developments Inc. requesting Official Plan Amendments and Zoning By-law Amendments to permit a mixed-use development a 31-storey building with a 7-storey podium with retail at grade.

On December 6, 2022, the Community Planning, Regulation, and Mobility Committee recommended that City Council state its intention to designate the property at 795 Brant Street under Part IV, Section 29 of the Ontario Heritage Act in accordance with the Heritage Evaluation of 795 Brant Street by AECOM, dated November 23, 2022. The report provided at the Committee meeting stated that AECOM Heritage Evaluation found that the property at 795 Brant Street met six out of the nine criteria required for heritage designation. The Committee's approved motion is as follows:

State an intention to designate the property at 795 Brant Street under Part IV, Section 29 of the Ontario Heritage Act in accordance with the Heritage Evaluation of 795 Brant Street prepared by AECOM, dated November 23, 2022; and

Direct the Director of Community Planning to provide notice of Council's intention to designate 795 Brant Street, in accordance with section 29 (3) and 29 (4) of the Ontario Heritage Act; and

Direct the City Clerk to present the draft designation by-law to Council for approval within 120 days after the date of publication of the notice of intention to designate 795 Brant Street, provided there is no objection or withdrawal; and

Direct the City Clerk to take the necessary actions in the event of any objection to the notice of intention to designate pursuant to Part IV of the Ontario Heritage Act, sections 29 (5) and 29 (6).

On December 13, 2022, Council ratified the Committee motions of December 6th, and stated its' intention to proceed with designating the property at 795 Brant Street. On December 14, 2022, the City circulated a Notice of Intention to Designate 795 Brant Street and provided a Statement of Cultural Heritage Value or Interest, which is provided as Appendix B to this report.

The purpose of this report is to provide an overview of the applications, an outline of applicable policies and regulations, a summary of technical and public comments received to date, and a recommendation that Council direct staff to continue to proceed with processing the subject applications in an effort to allow for the heritage resource to be integrated into the proposed development. It should be noted that the Zoning By-law application was deemed complete on September 23, 2022, and therefore is not subject to the Bill 109 application refund requirements in the event that the application processing timelines exceed 120 days.

Description of Subject Property and Surrounding Land Uses

The subject property is located at the southeast corner of Brant Street and Prospect Street. The property has an area of 0.21 hectares, with 50.55 metres of frontage on Brant Street. The site is currently occupied by two separate 2-storey buildings that contain commercial units with driveway access to both Brant Street and Prospect Street. At the time of writing this report, the 2-storey building at 795 Brant Street is listed on the City's Municipal Cultural Heritage Register. On December 13, 2022, Council decided to move forward with the intent to designate the property at 795 Brant Street and the Notice of Intention to Designate 795 Brant Street was circulated December 14, 2022.

Surrounding uses are as follows:

- North: Immediately to the north of the Subject Lands is a medical office building. Further to the northeast beyond Fairview Street is the Burlington GO Station and surface parking lot.
- East: To the east of the Subject Lands is a residential area with a mix of residential uses including high, medium and low density buildings. Residential uses to the immediate east include an eight storey apartment building, three storey apartment building, and duplex dwellings. Further east down Prospect Street is Optimist Park.
- South: To the south of the Subject Lands is a one-storey retail commercial unit in a single-detached house along a mixed use corridor. The lands to the south are subject to applications to facilitate a 25-storey mixed use development. Also to the south is Burlington Square Plaza which includes high density residential uses.
- West: To the west of the Subject Lands is a mixed use corridor with retail commercial units and mixed use three storey buildings.

Burlington GO is an approximately 950-metre walking distance from the subject property, to the northeast. Optimist Park is located to the northeast, being an approximately 500-metre walking distance from the subject property.

There are northbound and southbound bus stops at the intersection of Brant Street and Prospect Street. These bus stops are serviced directly by route 2 which connects to Burlington GO, Highway 407 GO Bus Terminal, and the Downtown Terminal.

Description of Applications

The applications propose to amend the Official Plan and Zoning Bylaw to permit the development of a 31-storey mixed use building with a 7-storey podium with retail at grade. The residential building use is permitted, and the Official Plan and Zoning By-law Amendments are requested for the proposed increases in Floor Area Ratio and height, as well as reductions in parking, accessible parking, parking dimensions, amenity area,

setbacks, and landscape areas, as outlined in further detail in the 'Zoning By-law 2020' section below.

The proposed development includes 356 residential units ranging from 1 to 3 bedrooms and 485 square metres of at-grade retail space. 279 vehicular parking spaces and 196 bicycle parking spaces are proposed within the underground parking and surface parking areas. Vehicle access is proposed from Prospect Street. Amenity space is proposed both indoor and outdoor. The outdoor amenity area (2,704m²) is provided on the 6th, 7th and 8th floors and the indoor amenity space (583m²) is provided on the 7th and 8th floors.

Application materials are posted on the City's Development Project webpage at burlington.ca/789brant.

Supporting Documents

The applicant has submitted the following materials in support of the subject applications:

1. [Cover Letter \(September 2022\)](#)
2. [Planning Justification Report \(September 2022\)](#)
3. [Renderings \(September 2022\)](#)
4. [Survey \(September 2022\)](#)
5. [Landscape Plan \(September 2022\)](#)
6. [Housing Impact Study \(September 2022\)](#)
7. [Heritage Impact Assessment \(September 2022\)](#)
8. [Urban Design Brief \(September 2022\)](#)
9. [Height Survey \(September 2022\)](#)
10. [Functional Servicing Report \(September 2022\)](#)
11. [Grading and Servicing Plan \(September 2022\)](#)
12. [Hydrogeological Report \(September 2022\)](#)
13. [Geotechnical Investigation \(September 2022\)](#)
14. [Construction and Mobility Management Plan \(September 2022\)](#)
15. [Noise Report \(September 2022\)](#)
16. [Shadow Study \(September 2022\)](#)
17. [Wind Study \(September 2022\)](#)
18. [Transportation Impact Study \(November 2022\)](#)
19. [Waste Management Plan \(September 2022\)](#)
20. [Sustainability Checklist \(September 2022\)](#)
21. [Environmental Site Screening Questionnaire \(September 2022\)](#)

22. [Phase 1 ESA \(September 2022\)](#)
23. [Phase 2 ESA \(September 2022\)](#)
24. [Reliance Letter Phase 1 & 2 ESA \(November 2022\)](#)
25. [Arborist Report \(September 2022\)](#)
26. [Tree Inventory Plan \(September 2022\)](#)
27. [Outdoor Amenity Plan 6th \(September 2022\)](#)
28. [Outdoor Amenity Plan 7th \(September 2022\)](#)
29. [Outdoor Amenity Plan 8th \(September 2022\)](#)

Application materials are posted on the City's website at burlington.ca/789brant.

Strategy/process

This section provides information on staff's ongoing review of the subject applications, including the applicable policy framework, and the comments received to date from technical reviewers and members of the public.

Policy Framework

The subject applications are subject to the policy framework described below.

Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) provides broad policy direction on land use planning and development matters of provincial interest. All planning decisions must be consistent with the PPS.

The PPS promotes the achievement of healthy, livable, and safe communities through various means including by promoting efficient development and land use patterns; accommodating an appropriate and market-based mix of land uses; preparing for the regional and local impacts of a changing climate; and promoting the integration of land use planning, growth management, transit-supportive development, intensification, and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs.

The importance of cultural heritage is outlined in Section 2.6 of the PPS. Section 2.6.1 of the PPS states that significant built heritage resources shall be conserved. To that end, a Notice of Intention to Designate 795 Brant Street was issued by the City on December 14, 2022.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)

A Place to Grow: Growth Plan for the Greater Golden Horseshoe ("the Growth Plan") provides a policy framework for managing growth in an area of Ontario that includes the City of Burlington. All planning decisions within the Growth Plan area must conform to the Growth Plan.

The Growth Plan is intended to support the achievement of complete communities with access to transit networks, protected employment zones, and an increase in the amount and variety of housing available. The Growth Plan also envisions a healthy natural environment and agricultural lands, which will contribute to the region's resilience and our ability to adapt to a changing climate. To accomplish its vision, the Growth Plan establishes policies regarding how land is developed, resources are managed and protected, and public dollars are invested.

The Growth Plan also states that cultural heritage resources will be conserved in order to foster a sense of place and benefit communities, particularly in strategic growth areas (Section 4.2.7.1). Staff are seeking additional time to continue to process the applications, which would provide an opportunity to conserve the remaining heritage building on the property by incorporating the resource appropriately into a development proposal for this site.

Halton Region Official Plan

The Halton Region Official Plan (ROP) outlines a long-term vision for Halton's physical form and community character. To achieve that vision, the ROP identifies an Urban Area and a Regional Urban Structure that are intended to manage growth in a manner that fosters complete communities, enhance mobility across Halton, address climate change, and improve housing affordability, sustainability, and economic prosperity. All planning decisions in Halton Region, which includes the City of Burlington, must conform to the ROP.

Regional Official Plan Amendment (ROPA) 48 was approved by the Minister of Municipal Affairs and Housing on November 10, 2021. This amendment is the first amendment to be advanced as part of the Regional Official Plan Review under section 26 of the Planning Act. ROPA 48 defines specific elements of a Regional Urban Structure including Strategic Growth Areas.

ROPA 48 implements components of the Regional Urban Structure to establish a hierarchy of strategic growth areas in the Regional Official Plan. The Minister of Municipal Affairs and Housing approved ROPA 48 with limited changes November 10, 2021. The subject property is located within Burlington's Downtown Urban Centre. Map 1H "Regional Urban Structure" of the ROP, as amended by ROPA 48, identifies the Burlington Downtown Urban Centre as an Urban Growth Centre and within a Major Transit Station Area (MTSA). Urban Growth Centres are "planned to achieve a minimum development target of 200 residents and jobs combined per gross hectare by 2031 or earlier" (ROP 80.2). MTSA's "provide a range and mix of transit-supportive uses, such as residential, retail, office and public uses, as well as public service facilities and parks and open spaces that support the area in a pedestrian-oriented urban environment" (ROP 81(2)).

ROPA 49 is the second amendment to be advanced as part of the Regional Official Plan Review. ROPA 49 was adopted by Regional Council on June 15, 2022 and approved and modified by the Minister of Municipal Affairs and Housing November 4, 2022. The purpose of ROPA 49 is to implement the results of the Region's Integrated Growth Management Strategy (IGMS), which considered how to accommodate growth in Halton to the year 2051. ROPA 49 also updates policies and mapping related to the Regional Urban Structure and Strategic Growth Areas.

Part IV Healthy Communities Policies outlines the policies for Cultural Heritage Resources. The goal for Cultural Heritage Resources is to protect the material, cultural and built heritage of Halton for present and future generation (Section 165). Staff have recommended that Council direct staff to continue to proceed with processing the subject applications which may allow for the heritage aspects of the property to be integrated into the proposed development.

City of Burlington Official Plan (1997, as amended)

The City's Official Plan (1997, as amended) (the OP) outlines a long-term vision of the community and quality of life for Burlington residents and provides policy direction to the public and private sectors on land use, development and resource management matters to guide the future planning and development of the City towards the desired community vision.

As shown on Schedule B of the OP, the subject property is located within the Mixed-Use Corridor - General. This designation permits mixed-use development including retail, office, and high-density residential uses. The maximum building height is 6-stories and maximum Floor Area Ratio is 1.5:1.

The applicant proposes to amend the Official Plan (1997) to create a site-specific Mixed-Use Corridor - General designation to permit a maximum building height of 31-stories and a maximum floor area ratio of 11.55:1.

Section 8.0 of the OP states that cultural heritage resources of significant cultural heritage value shall be identified and conserved (Section 8.1 a)). Council has stated an intention to designate the property at 795 Brant Street and a notice was circulated to December 14, 2022. Staff are seeking additional time to process these applications to allow for the opportunity to conserve the existing heritage resource.

City of Burlington New Official Plan (2020)

On November 30, 2020, Halton Region issued a Notice of Decision approving a new City of Burlington Official Plan (2020) ("the new OP"). The new OP is subject to appeals, including an appeal by the owner of the subject property. Appeals are currently before the Ontario Land Tribunal (OLT). For up-to-date information on the status of the new OP and relevant appeals, visit www.burlington.ca/officialplan.

The new OP outlines a long-term vision of the community and quality of life for Burlington residents through statements of objectives and policies. The new OP provides policy direction to both the public and private sectors on land use, development, and resource management to guide the future planning and development of the City towards the desired community vision.

The City of Burlington's new Official Plan (2020) ("new OP") designates the subject property as Upper Brant Precinct, as shown on Schedule D "Land Use – Downtown Urban Centre". The Urban Centres designation permits mixed-use development. This designation permits residential, retail, service commercial, office, employment, hotel, entertainment, public service facilities and institutional uses, and open space uses. The maximum building height permitted is 25-storeys.

As shown on Schedule B-1, "Growth Framework", of the new OP, the subject property is located within a Primary Growth Area. Primary Growth Areas are planned to accommodate the majority of the City's forecasted growth and consequently will experience the greatest degree of change. Primary Growth Areas shall be regarded as the most appropriate and predominant location for new tall buildings (in accordance with the underlying land use designations) and shall be priority locations for investments in transit as well as other types of infrastructure and public service facilities, including parks, to support population and employment growth. Primary Growth Areas shall support the frequent transit corridors and accommodate development that is compact, mixed-use, and pedestrian-oriented in nature.

Cultural Heritage Resources policies are outlined in Section 3.5 of the OP (2020). As mentioned throughout this report, staff are recommending that Council direct staff to continue to process the subject applications to allow for the opportunity to incorporate the heritage building into the plans.

Zoning By-law 2020

The City's Zoning By-law zones the subject property as Mixed Use Corridor – General (MXG). This zone permits mixed-use development with a maximum building height of 6-storeys and a maximum Floor Area Ratio of 1.5:1.

The applicant is proposing to amend the Zoning By-law to rezone the property to a site-specific Mixed Use General (MXG-XXX), that permits development with a maximum Floor Area Ratio of 11.55:1; maximum building height of 31-storeys; reduced parking; reduced accessible parking; reduced amenity area to a minimum of 9.2m² per dwelling unit; reduced setbacks for the underground parking structure; reduced setbacks to the property lines; reduced landscape areas; and reduced parking space dimensions.

Table 1 below summarizes the site-specific regulations that have been requested by the applicant, in comparison to the base requirements set out in the MXG zone.

Table 1: Summary of site-specific regulations requested by applicant, compared to MXG zone regulations

	MXG zone requirements	Site-specific regulations requested by applicant
Maximum building height	2 storeys minimum, 6 storeys maximum	31-storeys
Maximum Floor Area Ratio	1.5:1	11.55:1
Parking	1.25 spaces per unit inclusive of visitor parking	0.79 per unit consisting of: 0.64 for residents 0.15 for visitors and retail
Accessible Parking	3% of the required parking	3% of the required parking
Minimum Amenity Area	15 m ² per efficiency dwelling unit 20 m ² per one-bedroom dwelling unit 35 m ² per two or more bedroom dwelling unit	9.2m ² per dwelling unit
Setbacks for underground parking structure less than 1.6 metres above grade	3 metres from the street line	0.8 metres abutting north property line 0.8 metres abutting east property line
Minimum Setbacks	4.5 metres yard abutting any street 3 metres rear yard No minimum side yard	1.1 metres abutting Brant Street 2.2 metres abutting Prospect Street 0.8 metres abutting south property line 3 metres abutting rear property line
Landscape Areas	3 metres abutting a street	1.1 metres abutting Brant Street
Parking Space Dimensions	Minimum width of 2.75 metres and a minimum area of 16.5 m ²	Minimum width of 2.6 metres and a minimum area of 14.5 m ²

As of the time of writing this report, Zoning staff have not yet completed their review of the subject applications. Through their ongoing review of the applications, Zoning staff

will confirm the extent of zoning conformity issues and the detailed amendments to the Zoning By-law that would be required to permit the proposed development. A subsequent recommendation report would describe all zoning conformity matters and the required Zoning By-law amendments.

Urban Design Guidelines

The proposed development is subject to the following Council-approved urban design guidelines:

- Tall Building Guidelines (2017)
- Shadow Study Guidelines and Terms of Reference (2020)
- Pedestrian-level Wind Study Guidelines and Terms of Reference (2020)
- Sustainable Building and Development Guidelines (2021)
- Stormwater Management Design Guidelines (2020)
- Keeping Places: Heritage-Based Design Guidelines for Downtown Burlington (2006)

The subsequent recommendation report will include an assessment of the proposed development against the applicable urban design guidelines.

Technical Comments

A request for comments has been circulated to external agencies and relevant City departments. As of December 14, 2022, staff have received comments from the City's Heritage Planner, City's Finance Department, City's Accessibility Coordinator, and Halton District School Board. The comments are as follows:

City's Heritage Planner

The City's Heritage Planner has raised concerns that the applications, as submitted, are not consistent with nor do they conform to the applicable policy framework as the applications have not appropriately addressed policies relating to the conservation of significant built heritage resources. The building at 795 Brant Street is listed on the City's Heritage Register and Council stated its intention to designate the building at its meeting of December 13, 2022.

City's Finance Department

Property taxes to be paid in full including all installments levied.

Halton District School Board

It has been identified that students in this area are within the Tom Thomson PS, Burlington Central HS catchment. The Burlington Central SS is projected to be at or under building capacity and it is expected that the development can be accommodated in the respective schools with minimum impact on the facility. The Tom Thomson OS is projected to be over building and portable capacity, and an option for student accommodation will be reviewed for this school. Attendance is not guaranteed for existing and new students. A standard list of conditions has also been provided.

City's Accessibility Coordinator

Comments received state that any reduction in barrier-free parking is not supported. Additionally, the application is not accessible due to the permeable surface, and zig zag direction in the walkway.

As of December 14, 2022, no other technical comments have been received. A future recommendation report will provide a summary of technical comments received.

Public Comments

Members of the public who wish to provide comments on the subject applications should submit their written comments to the Planner on file, using the contact information provided at burlington.ca/789brant. Public input will be considered by staff in the review of the subject applications.

As of December 14, 2022, Planning staff have not received written comments. Any written submissions received after December 14, 2022 will be appended to a future staff report for consideration by Council.

Financial Matters:

All application fees have been received in accordance with the Development Application Fee Schedule.

Climate Implications

In February 2020, City Council approved the City of Burlington Climate Action Plan to support the City's path to a low-carbon future, focusing on mitigating greenhouse gases and reducing energy consumption. The Plan identifies seven implementation programs, including programs to enhance energy performance for new and existing buildings; increase transit and active transportation mode shares; electrify City, personal and

commercial vehicles and other currently gas-powered equipment; and support waste reduction and diversion. A future recommendation report will include a discussion of the climate implications of staff's recommendation concerning the subject applications.

Engagement Matters:

A virtual Pre-Application Community Consultation Meeting was held by the applicant on October 21, 2021. This meeting was attended by approximately 16 members of the public as well as by City staff, Mayor Marianne Meed Ward, and ward 2 Councillor Lisa Kearns. At this meeting, the applicant sought feedback from the public on the proposed development.

Since receiving a complete application for the subject lands, City staff have engaged members of the public through the City's standard public notification and consultation practices for an Official Plan Amendment and/or Zoning By-law Amendment application:

- A webpage with information about the subject applications was published on the City's website at burlington.ca/789brant;
- Notice signs were erected on the subject property in December 2022;
- A notice was mailed to all property owners and tenants within 120 metres of the subject property (a total of 724 addressees) on December 6, 2022;
- A Statutory Public Meeting will be held on January 10, 2022. This report has provided information about the subject applications to inform discussion at the Statutory Public Meeting.
- Notice of the Statutory Public Meeting was published in the City Update section of the Burlington Post on December 15, 2022. Notice of the meeting was also posted on the website and sent by mail to owners and tenants within 120 metres of the subject property.

Interested members of the public can continue to provide written comments to City staff using the contact information provided on the webpage linked above or by contacting the Community Planning Department.

More information on the planning process in Burlington, including opportunities for public consultation, can be found at www.burlington.ca/planningprocess.

Conclusion:

This report provides a description of the subject applications, an update on the technical review that is underway, and a summary of technical and public comments received to-date. Planning staff recommend that Council direct staff to continue to process the subject applications for 789-795 Brant Street in an effort to bring forward a subsequent recommendation report.

Respectfully submitted,

Jaclyn Schneider

Planner II

(905) 335-7600 ext. 7326

Appendices:

- A. Zoning and Concept Plans
- B. Notice of Intention to Designate 795 Brant Street

Notifications:

MHBC Planning, Dana Anderson and Melinda MacRory

442 Brant Street, Suite 204

Burlington, Ontario, L7R 2G4

Report Approval:

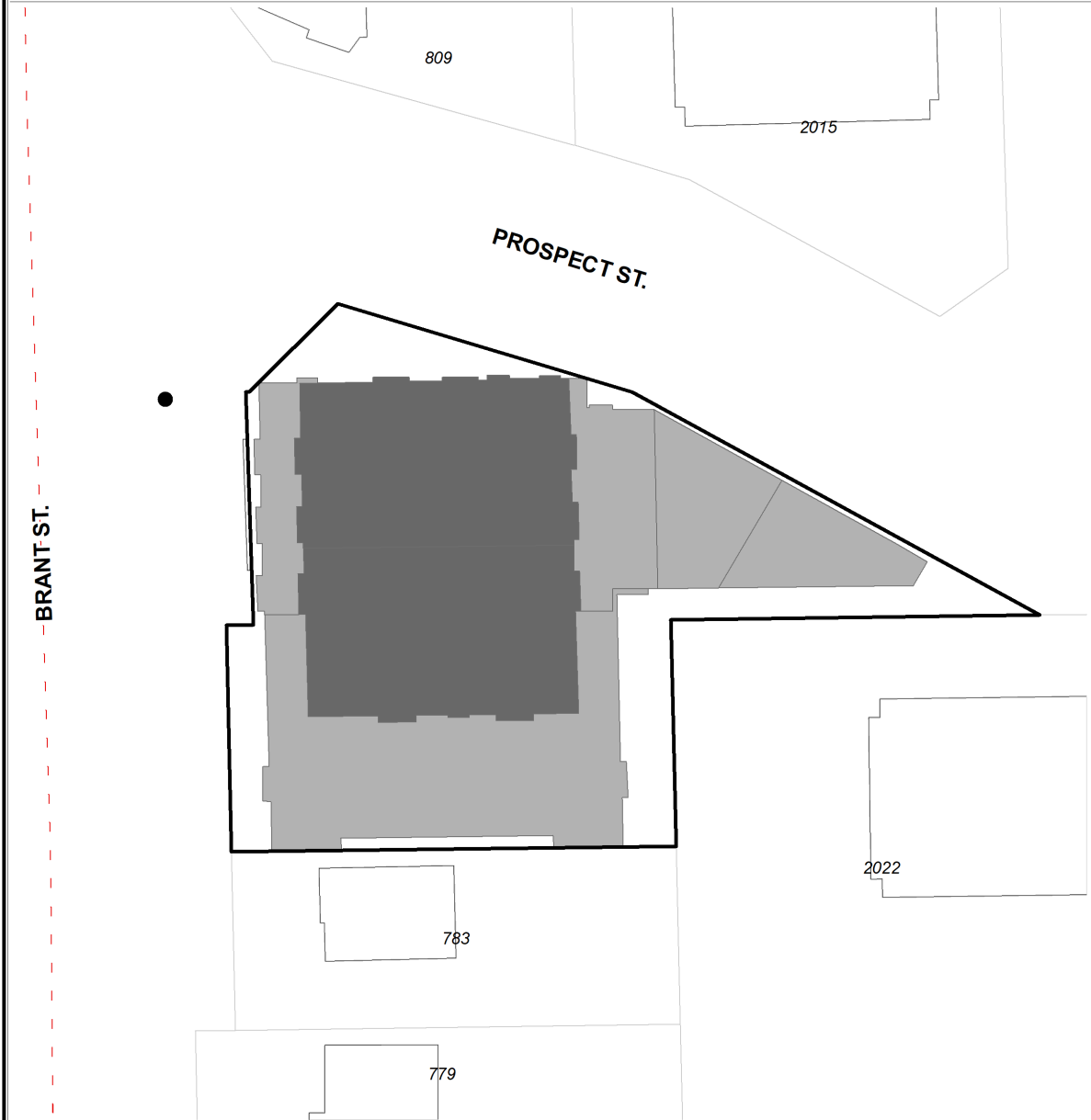
All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.

CONCEPT PLAN



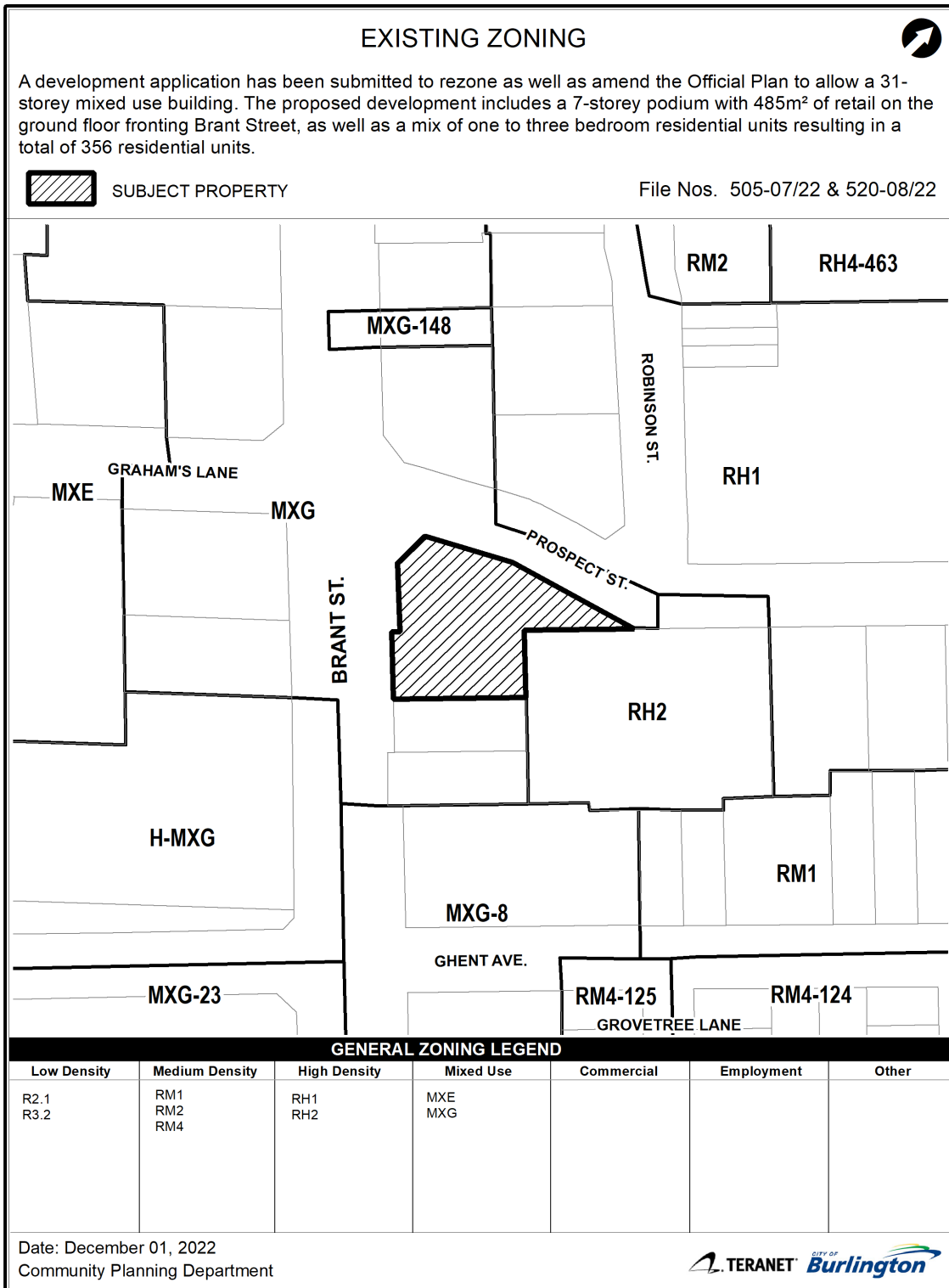
A development application has been submitted to rezone as well as amend the Official Plan to allow a 31-storey mixed use building. The proposed development includes a 7-storey podium with 485m² of retail on the ground floor fronting Brant Street, as well as a mix of one to three bedroom residential units resulting in a total of 356 residential units.

SUBJECT PROPERTIES - - - Bus Route ● Bus Stop File Nos. 505-07/22 & 520-08/22



Date: December 01, 2022
Community Planning Department





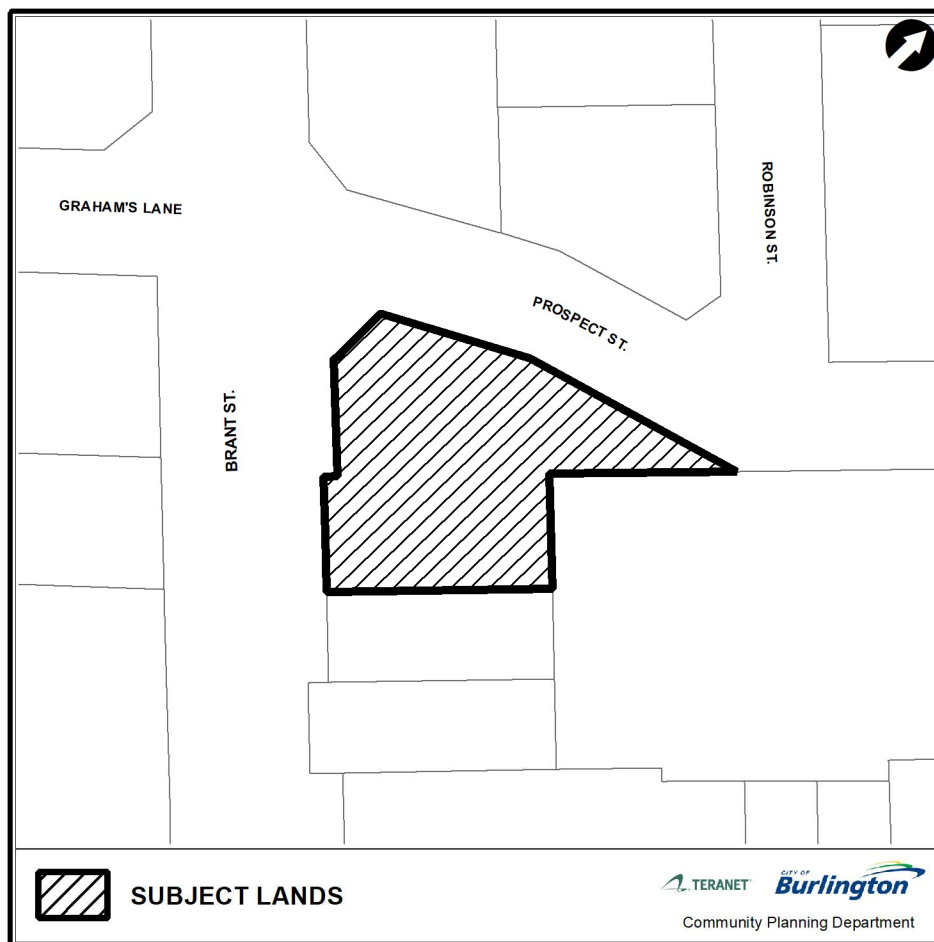
NOTICE OF INTENTION TO DESIGNATE- 795 BRANT STREET

IN THE MATTER OF THE *ONTARIO HERITAGE ACT* AND IN THE MATTER OF the lands in the City of Burlington known municipally as 795 Brant Street.

NOTICE IS HEREBY GIVEN that the City of Burlington intends to designate the above-noted property under section 29 of the *Ontario Heritage Act*

Description of Property

795 Brant Street is located at the corner of Brant Street and Prospect Street. It is occupied by a two-storey Georgian style brick house built between 1854 and 1855 with a rear extension and later additions. A map has been provided below for your reference.



Legal Description: PLAN 99 PT LOT 85 PLAN 125 PT LOT 1 AND RP 20R2754 PART 2; City of Burlington, Regional Municipality of Halton.

Statement of Cultural Heritage Value or Interest:

The Statement of Cultural Heritage Value or Interest is attached.

Further information respecting the proposed designation is available for viewing in the Clerks Department, First Floor, City Hall, 426 Brant Street, during regular business hours or can be requested electronically by contacting heritage@burlington.ca.

Notice of Objection

Any person may, within 30 days after the date of the publication of this notice, serve written notice of objection to the proposed designation, together with a statement for the objection and all relevant facts to Mr. Kevin Arjoon, City Clerk, The Corporation of the City of Burlington, 426 Brant Street, P.O. Box 5013, Burlington, Ontario, L7R 3Z6.

Dated at the City of Burlington this 14th day of December, 2022.

5. Draft Statement of Cultural Heritage Value and Heritage Attributes

Based on the background research, including a historical overview of the property, the field review, and application of Ontario Regulation 9/06 as part of this CHER, the following Statement of Cultural Heritage Value has been drafted.

Name: 795 Brant Street

Alternative Names: Maple Lodge, William Ghent House, Bray-Ghent House, Bent-Bray-Ghent House

Description of the Property

795 Brant Street is an irregular shaped property that is 0.33 acres in size. It consists of a two-storey Georgian style brick house with a rear extension and later additions. The property is located at the southeast corner of Brant Street and Prospect Street. The property is historically located on part of Lot 85, Plan 99 (Brant's Block), and later in 1909, part of Lot 1, Registered Plan 125 (Ghent's Survey) in the former Township of Nelson, Halton County, now in the City of Burlington, Regional Municipality of Halton, Ontario.

Draft Statement of Cultural Heritage Value

The property at 795 Brant Street has design/physical value, historical/associative value and contextual value.

Design/Physical Value

The property has design value as an early example of a brick-built vernacular two-storey Georgian style house built between 1854 and 1855. The original house retains its overall form, scale and massing, with its symmetrical front façade. The symmetry of the Georgian style is expressed through its three-bay façade with a window on either side of the central entrance. The original house is rectangular in form with a shallow-pitched end gabled roof, wide eaves, and two inset unadorned brick chimneys balanced on the end walls. Typical of the Georgian style, the rectangular shaped windows with jack-arched brick voussoirs are small in relation to the brick surface of the front façade. The house retains its original fenestration on the front façade. The house, constructed of hand-made brick made on-site, was laid in Flemish bond on the front façade. Other elevations of the 1854-1855 house were laid in common bond. The main entrance is slightly recessed and includes a panelled door with windowpanes surrounded by a wood door surround. The windowpanes may be a later addition to the original door. A decorative geometric pattern has been applied to the door surround, which is not likely original to this Georgian style

feature. A narrow transom only as wide as the main entrance is present, which is typical of the Georgian style.

The original house has a two-storey rear addition (Addition 1) which includes an original one-storey rear wing as evidenced by the continuation of brick laid in common bond and jack-arched voussoirs visible on the north elevation along length of the ground level. A second storey was added in 1864 to the one-storey rear wing and is designed in accordance with the vernacular Ontario farmhouse style which complements the original house but is distinct from it. The second storey has a brick veneer laid in stretcher bond. The addition features two medium pitched gables with segmentally arched windows and voussoirs. One window has been infilled but the segmentally arched voussoirs are still present.

The late 20th century rear one-storey commercial additions do not support the property's representation as a Georgian style house; however, the additions are reversible and do not diminish the integrity of the original house and the 1864 rear addition.

Given 795 Brant Street was constructed by a brickmaker and mason, Jabez Bent, and by his brother, James Cushie Bent, a master builder, the property displays a high degree of craftsmanship for its era as a substantial brick structure. In particular, the original 53 acre property containing this house included a brickyard run by Jabez, and the house would have been built from hand-made bricks manufactured on-site. The brick is laid on the front façade in Flemish bond which took a skilled bricklayer, such as Jabez Bent, to execute. Ultimately, the house at 795 Brant Street reflects the architectural ideas of the Bent brothers, who brought from England a deep knowledge of their respective trades, which they used to assist in building up the local community during a pivotal time of development.

Historical/Associative Value

The property at 795 Brant Street has historical value and direct associations with a theme and persons who are significant to the community of Burlington. The property and the nineteenth century owners of 795 Brant Street played a significant role in the City of Burlington's brickmaking and market gardening industries. The Subject Property was included in the purchase of a 53 acre property in Lot 85, Plan 99 within Brant's Block that was purchased by Jabez Bent in 1854. With his brother James Cushie Bent, Jabez Bent constructed the original two-storey brick house on the Subject Property, known as "Maple Lodge." Jabez Bent earned a sterling reputation as a craftsman in the community. His brother, James Cushie Bent, was a master builder with an aptitude for joinery. Both Bent brothers contributed to the development of Burlington, constructing buildings, some of which remain standing and are considered significant to the community today. Structures built by the Bent brothers in collaboration include: two houses at 247 Malvern Road (moved from 466 Elizabeth Street) and 3265-3269 North Service Road, one hotel at 400 Brant

Street (now The Queen's Head Pub), and a brick wall for the Union Burying Ground, all of which are remain extant in Burlington.

In 1859, Jabez Bent sold the 53 acre property containing two-storey Georgian style brick house to Frederick Bray, a farmer and small fruit grower who resided there until 1896. William Ghent, a third generation descendent of the Ghent family whose grandfather helped establish the fruit growing industry to the area, purchased the 53 acre property from Frederick Bray in 1896. After that, Ghent continued operating the fruit farm established by Bray on the property. Under William Ghent, the house was named "Maple Lodge" and the agricultural output of the property was substantial, as well as featuring extensive orchards. The farm at 795 Brant Street contributed significantly to the nineteenth century market garden industry in Burlington. In 1909, William Ghent sold a 5 acre parcel of land containing "Maple Lodge" to Edward Harmon, who was a gardener and maintained the property as a market garden despite its reduced size until 1919.

Despite the changes to the property over the last century, including its use as a commercial establishment beginning in the 1970s, 795 Brant Street is a physical reminder of the significant role that the Bent, Bray, Ghent, and Harmon families played in Burlington's early industries of building and market gardening. The history of the property at 795 Brant Street yields information about the lives of the masons, builders, and market gardeners who played a significant role in the economic development of Burlington.

Contextual Value

Although the house is screened by a variety of vegetation, the property has contextual value as a local landmark. Despite this reversible obstruction of views of the house, the house is seen by the community as a landmark at the corner of Brant and Prospect Streets, based on the community's interest outlined in heritage reports beginning in 1995. 795 Brant Street is one of three heritage properties (1134 Plains Road East, 2021 Blairholm Avenue, 736 King Road) currently within the City of Burlington that were nineteenth century fruit farms of early settlers that produced goods for the market garden industry.

Heritage Attributes

The following heritage attributes contribute to the cultural heritage value of 795 Brant Street:

1854-1855 Original house:

- Style, form, scale and massing of the two-storey brick Georgian style house
- Symmetrical design of the three-bay front façade (west elevation) with windows on either side of the central entrance
- Shallow-pitched end gabled roof with wide eaves and inset brick chimneys at each end wall
- Recessed main entrance with panelled door and wood surround on the front façade (west elevation)

- Narrow transom as wide as the main entrance on the front façade
- Rectangular window openings with jack-arched brick voussoirs
- Original fenestration on the front façade (west elevation)
- Front façade (west elevation) laid in Flemish bond
- North and south elevations (side) laid in common bond
- Window fenestration on the front façade (west elevation)
- Proportion of windows to brick face of the front façade

1864 Addition and original 1854-1855 rear wing:

- Style, form, scale and massing of the two-storey addition
- Two gables on the north elevation with windows and segmentally arched voussoirs
- Ground floor with brick laid in common bond

Statutory Public Meeting

Applications to amend the Official Plan and Zoning By-law

**Applicant: MHBC Planning, Urban Design &
Landscape Architecture**

Addresses: 789-795 Brant Street

Date: January 10, 2023

Report: PL-04-23

File no.: 505-07/22, 520-08/22

Overview of Development Site



789-795 Brant Street
Site Area: 0.2 hectares

Policy Context

- Provincial Policy Statement (PPS), 2020
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)
- Halton Region Official Plan (ROP)
- City of Burlington Official Plan (1997, as amended)
- City of Burlington New Official Plan (2020)
- City of Burlington Zoning By-law 2020

Proposed Development



- Mixed-use, tall building
- 31-storey's with a 7-storey podium
- 485sqm retail at grade
- 356 dwelling units
- Proposed Floor Area Ratio: 11.55:1
- Indoor amenity space on the 6th, 7th, and 8th floors
- Outdoor amenity space on the 7th and 8th floors
- Parking: 279 vehicle parking spaces

Burlington Official Plan

Current Official Plan (1997 as amended)

Designation:	Mixed Use Corridor – General
Permits:	Maximum height: 6-storeys Maximum Floor Area Ratio: 1.5:1

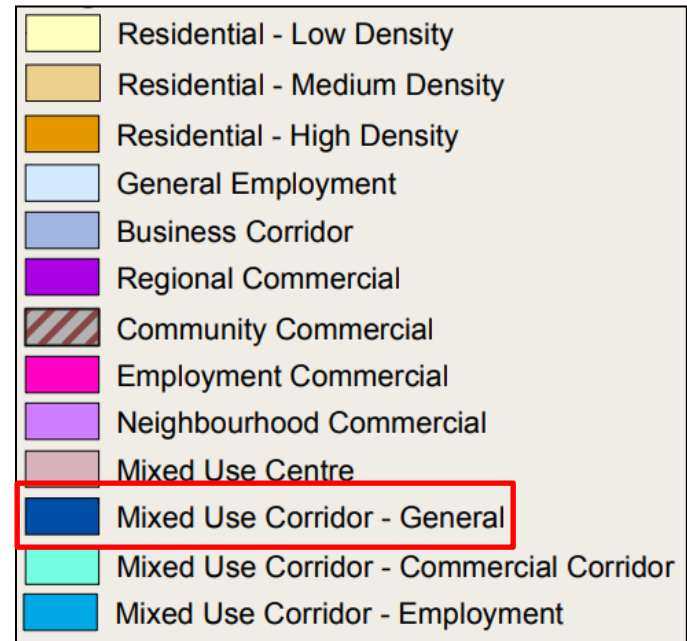
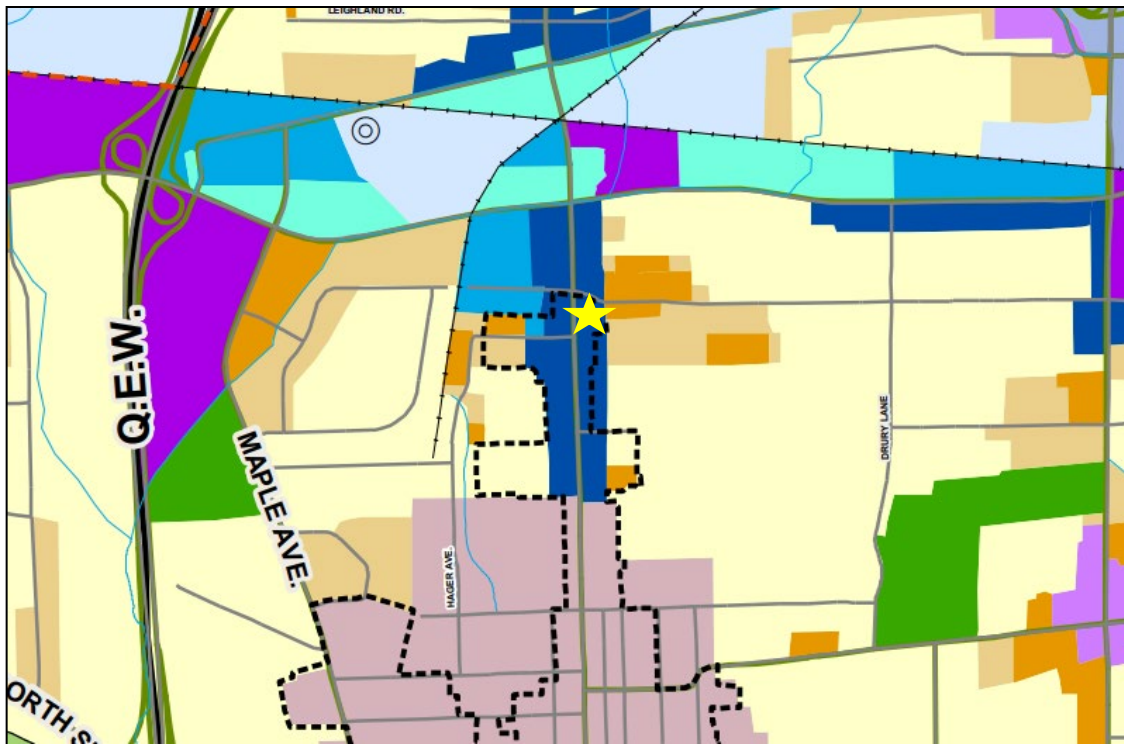
New Official Plan (2020) (subject to appeals)

Designation:	Downtown Urban Centres – Upper Brant Precinct
Permits:	Maximum height: 25-storeys

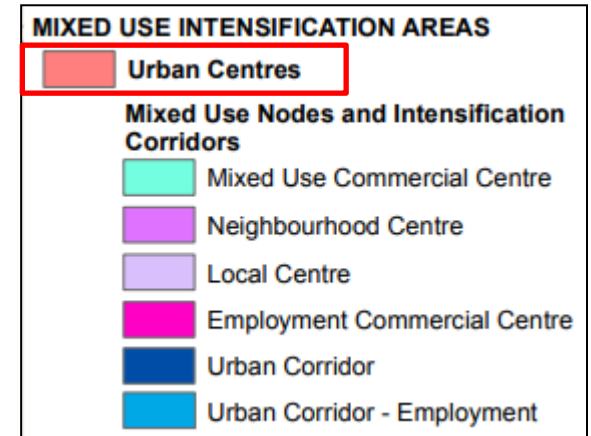
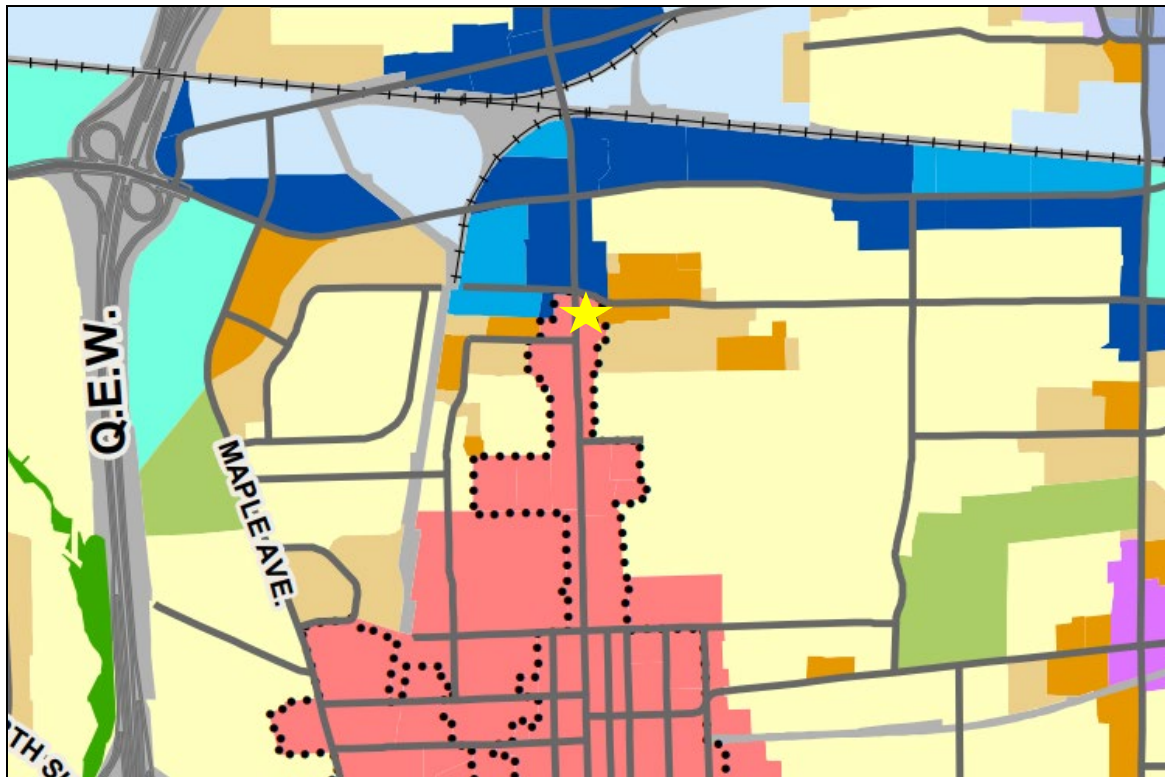
Requested Official Plan Amendment

Designation:	Mixed Use Corridor General with site-specific policy
Permits:	Maximum height: 31-storey's Maximum Floor Area Ratio: 11.55:1

Burlington Official Plan, 1997



Burlington Official Plan, 2020



Burlington Zoning By-law

Zoning By-law

Zone:	Mixed Use General (MXG)
Permits:	Maximum height: 6-storey's Maximum Floor Area Ratio: 1.5:1

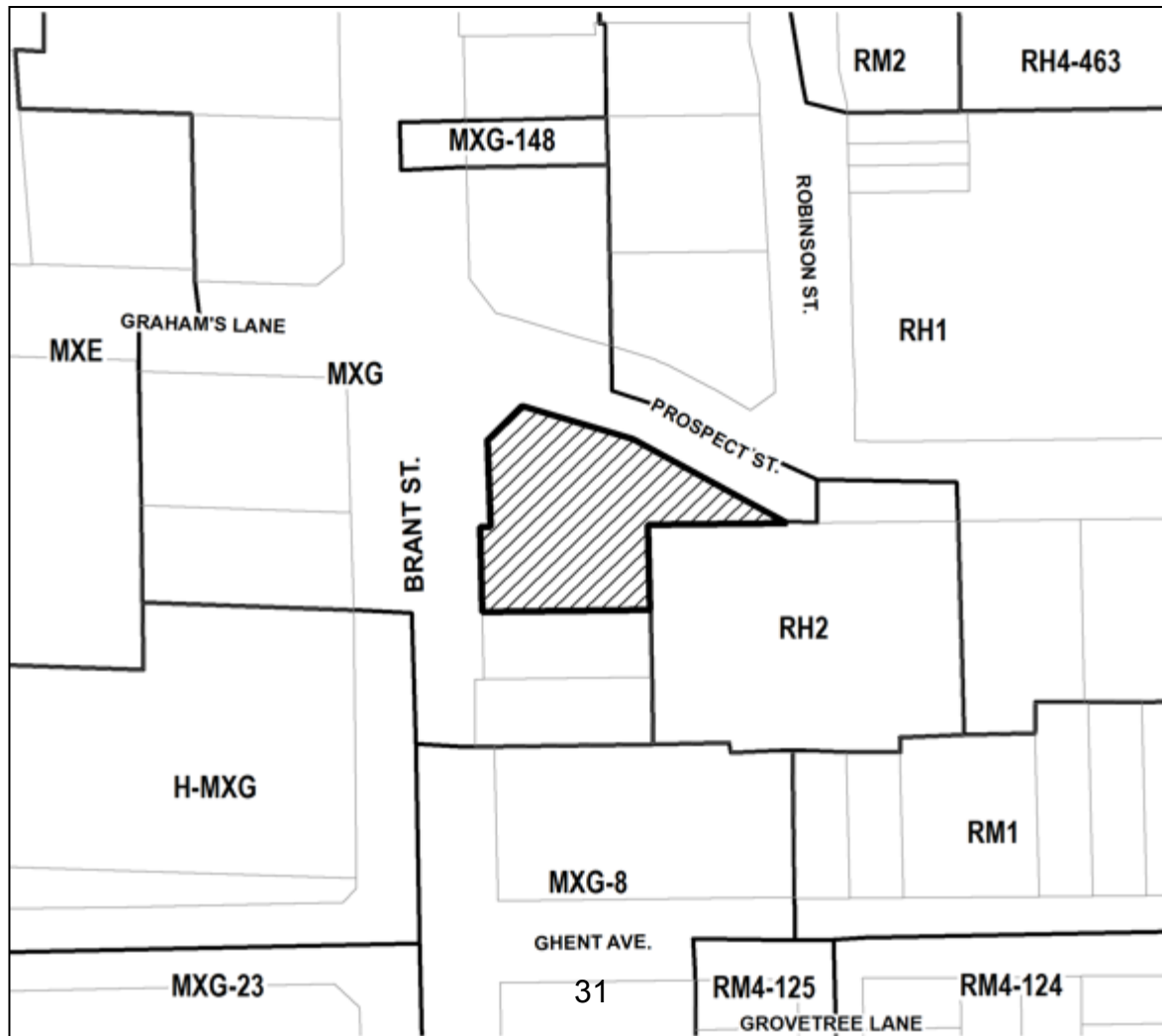
Requested Zoning By-law Amendment

Zone: MXG-XXX (Mixed Use General with site-specific exception)

Permits:

- Maximum height: 31-storey's
- Maximum Floor Area Ratio: 11.55:1
- Reduced amenity area
- Reduced parking supply and dimensions
- Reduced yards and setbacks
- Reduced landscape areas

Burlington Zoning By-law



Notice of Intention to Designate 795 Brant Street

- December 6, 2022: Eligibility of 795 Brant Street for Heritage Designation (PL-80-22) report was supported by the CPRM Committee
- December 13, 2022: Council ratified the Committee motions of December 6th, and stated its' intention to proceed with designating the property at 795 Brant Street
- December 14, 2022: Notice of Intention to Designate 795 Brant Street was circulated

Public Consultation

- October 21, 2021: Pre-Application Community Meeting
- September 23, 2022: Complete application submitted
- December 2022:
 - Notice sign on property
 - Notice mailed to neighbours
 - Notice in Burlington Post
 - Webpage created: www.burlington.ca/789brant
- January 10, 2023: Statutory Public Meeting
- 724 notices were mailed to the public
- Technical comments are continuing to be received and reviewed by staff

Recommendation:

Direct staff to continue to process the submitted Official Plan Amendment and Zoning By-law Amendment applications for 789-795 Brant Street in an effort to bring forward a subsequent recommendation report. This report provides a description of the subject applications, an update on the technical review that is underway, and a summary of the technical and public comments received to date.

For more information:

Visit www.burlington.ca/789brant

Contact: Jaclyn Schneider, Planner II,
jaclyn.schneider@burlington.ca

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SUBJECT: Land Management Database Platform Review overview and results (provincially funded)

TO: Community Planning, Regulation & Mobility Cttee.

FROM: I.T. Services Department

Report Number: IT-01-23

Wards Affected: All

File Numbers: 200-02

Date to Committee: January 10, 2023

Date to Council: January 24, 2023

Recommendation:

Receive and file I.T. services department report IT-01-23 providing an overview of the results of, and the next steps resulting from, the provincially funded Land Management Database Platform Review.

PURPOSE:

Vision to Focus Alignment:

- Increase economic prosperity and community responsive city growth
 - Building more citizen engagement, community health and culture
 - Deliver customer centric services with a focus on efficiency and technology transformation
-

Background and Discussion:

On October 19th, 2021 Council approved report CS-12-21, Audit and Accountability Fund – Intake 3. That report included the following recommendation:

“Direct staff to submit an Expression of Interest to the Ministry of Municipal Affairs and Housing regarding the Audit and Accountability Fund Intake 3 for a Web Architecture and Modernization Review and a Land Management Database Platform Review, by the October 28, 2021 deadline.”

Report CS-12-21 indicated the scope of the Land Management Database Platform Review as:

“The land management database platform review will investigate available options for a new integrated land management database platform, or web-based collaboration software, and associated infrastructure. This new platform would provide a solution to connect all the City’s land management data so both the public and staff can access it and easily search and work within it. The new solution that will be recommended through the land management database platform review will provide a public portal for the development industry to submit development and permit applications easily and efficiently online and allow for collaboration between staff and customers.”

Report CS-12-21 also included the following direction from the province regarding the usage of the funds.

“The funds are only available for reviews conducted by independent third-party reviewers. The types of review projects that are eligible can take the following forms:

- A line-by-line review of the municipality’s entire budget.
- A review of service delivery and modernization opportunities.
- A review of administrative processes to reduce costs.

The reviews must result in a final report that includes specific and actionable recommendations for cost savings and efficiencies.”

In a letter dated January 24, 2022 the Ministry of Municipal Affairs and Housing provided their approval of the funding request. That letter included this paragraph:

“I am pleased to inform you that your municipality’s project, *City of Burlington Land Management Technology Review*, has been approved for funding of up to \$101,760 towards the cost of an independent third-party reviewer to deliver a final report with detailed and actionable recommendations for efficiencies and cost savings.”

Related Projects

The Province has approved funding for three related City initiatives through two separate funding sources, including:

- 1) Enterprise Web Architecture & Modernization Review (Audit and Accountability Fund – Intake 3)
- 2) Land Management Database Platform Review (Audit and Accountability Fund – Intake 3)
- 3) Streamline Development Approval Initiative (Streamline Development Approval Initiative Fund)

The Enterprise Web Architecture and Modernization Review is delivering recommendations for a high-level architecture to align online customer service delivery across City services and systems and a review of the current customer relationship management solution. The Land Management Database Platform Review is delivering a comprehensive workplan to review business processes and enabling information technology related cost savings and efficiencies to the Development Approval, Permitting, Licensing, other application services and the management of the technology platform. The online customer service delivery component of the LMDPR workplan is aligned with the recommendations for a high-level Web architecture. The Streamline Development Approval Initiative Fund (SDAF) project is a project delivering specific improvements to the low density residential development approval service. The LMDPR workplan takes into account the learnings from the SDAF project.

All three initiatives share the objective of finding efficiencies and cost savings in the provision of City services related to Planning and Building. The recommendations of each report will be considered together in order to align future work and to ensure effective planning and utilization of resources and technology.

This report (IT-01-23) provides an overview of the Land Management Database Platform Review and the resulting next steps.

Strategy/process

This consulting engagement delivered a comprehensive workplan which resulted in a set of broad-based business process and information technology related cost savings and efficiencies for both staff and customers. These benefits are across all of the studied business areas: Development Approvals, Permitting, Licensing, other applications services, and management of the technology platform. These are the services that are supported by the City's Land Management Database Platform. At the core of this platform is AMANDA and the platform includes other related solutions: ESRI's Geographic Information System (GIS), Bluebeam for Electronic Plans Review (EPR), and SmartGuide for a customer portal for the services. The cost savings, efficiencies and the workplan were developed through the following process.

This project first issued an RFP for consulting services. The engagement was awarded to Perry Group Consulting Ltd, experts in Land Management Database Platforms in municipalities. The consulting engagement has been conducted through 3 phases:

- Discovery
- Analyze/ Strategize
- Plan

Discovery Phase

The Discovery Phase dove directly into identifying the Art of the Possible for information technology support of the Development Approval, the Permitting, and Licensing services with a goal of achieving cost savings and efficiencies for staff and our customers.

In the Discovery phase, staff and customers of the indicated services were interviewed to determine how the Land Management Database Platform is utilized to support their work and what opportunities they considered for cost savings and efficiencies. Approximately 100 individuals were interviewed. Among the staff interviewed both business delivery and information technology teams were engaged. Individuals were surveyed for information on how the products are managed and their thoughts on opportunities of cost savings and efficiencies in that management. In depth business process analysis was done for 8 representative services to ensure opportunities were identified and to support the cost savings model. The Red Tape Red Carpet initiative findings and discoveries in the Web Architecture and Modernization Review project and a Streamline Development Approval Initiative Fund project also informed this phase.

The current uses of, and the opportunities for, information technology to support the services were then benchmarked with peer municipalities, with vendors and with the large body of knowledge that the Perry Group has built up as the state of the art in technology supporting these services.

The key deliverable of the Discovery Phase was the Art of the Possible vision of the City's services as enabled by information technology that is currently available in the market. The vision included a list of the opportunities for that will result in cost savings and efficiencies for the Development Approval, Permitting, Licensing and the other application services. Part of the vision was the identification of opportunities in managing the Land Management Database Platform and how those opportunities could provide direct and indirect cost savings and efficiencies. These management efficiencies could lead to shortening the time to benefit resulting from each improvement in the platform destined to support the business services.

The Art of the Possible vision will result in experience improvements in all the business services for 3 key groups of people:

Customer Experience

- Online information (how to, application guides)
- Online bookings and meetings
- Online applications, document & drawing submission
- Online fees and payments

- Online manage my application (status, communications)
- Automated notification of technical deficiencies

Staff Experience

- Automated/ reduced data entry
- Automated workflow management and geo-enabled workflows
- Simple file management
- Agency and partner commenting
- Transparency and direct communication with customers
- Automated notification of technical deficiencies
- Electronic Plans Review (EPR) – digital drawings and markup and processes

Mobile Staff Experience

- Fully connected to Back Office
- Smartphone, Tablet, Laptop access
- Real time and offline
- Photos and videos
- Routing
- Dictation/ -hands free

This Art of the Possible vision, which includes the specific cost savings and efficiencies opportunities, was handed over as the starting point for the next phase.

Analyze/Strategize Phase

The Analyze/Strategize Phase took the Art of the Possible vision as detailed through the opportunities identified for cost savings and efficiencies and identified the information technology required and the workplan required to achieve the vision.

The information technology solution was addressed first. The start of this phase focused on a Fit Gap Analysis between the technologies the City has in place and the opportunities identified. This analysis determined that the City's core of the Land Management Database Platform (AMANDA and the GIS) has the core functionality needed to achieve the cost savings and efficiencies and is competitive in this market segment. The supporting products for a customer portal and EPR could be upgraded or replaced to support the delivery of the cost savings and efficiencies. Overall, it became apparent that the City is underutilizing the technology it has to support and enhance these services.

Using an agile approach, therefore, the scope and objectives of the project were adjusted to use the subsequent stages to map out a plan for implementing

enhancements to AMANDA to meet the City’s needs, rather than assess alternative solutions.

The remainder of this phase focused on the preparation of the workplan (see the work packages below) that would deliver on the opportunities for cost savings and efficiencies identified by aligning business practices to better utilize the existing technology, the Art of the Possible. It includes revisiting and putting in place the upgrade of a customer portal which would be in the context of a broad City Services Portal and revisiting and putting in place the upgrade or replacement of the EPR product. The workplan presents the principles, concepts and approach that will guide executing each of the work packages and will result in an upgraded product management model for the Land Management Database Platform. This workplan includes the staffing required to execute the workplan and the costing to achieve the vision. The workplan is made up of the following work packages that could be delivered over a 3 year time period with cost savings and efficiencies over the same period as the work packages are completed.

Recommended Work Packages

Work Package	Benefits
<p>Enabling Work – Putting in place the product management model for the platform, empowering department technical staff, and shifting work to an agile and simple product process for the project and ongoing</p>	<p>-Direct efficiencies that will result from this work package is in the staff time involved in delivering changes and enhancements to the IT platform supporting the business services.</p> <p>-The indirect efficiencies that will be realized is this will result in shortening time to benefit to business services that will come from the changes and enhancements of the IT platform which includes the work of this proposed project.</p>
<p>Training Program – Train staff and customers as part of the project and establish an ongoing training program</p>	<p>-This work package will deliver indirect efficiencies by ensuring optimal benefit of the IT is achieved in supporting the services by using the IT as designed on an ongoing basis</p>
<p>Development Applications Tracking – Undertake initial AMANDA and process enhancements to track and report on all development applications and site plan pre-consultations (to support Bill 109)</p>	<p>-Direct efficiencies that will result from this work package is in the staff time involved in reporting on development applications and site plan pre-consultations</p>

<p>Initial Development Applications Online – Installing the Citizen Portal (the upgraded customer portal), integrating it with the GIS, AMANDA and process enhancements, and leveraging the portal for public search of development applications and for online applications, payments, and status tracking for pre-consultation, Site Plan, and Committee of Adjustment</p>	<p>Direct efficiencies that will result from this work package include:</p> <ul style="list-style-type: none"> -Staff time in implementing and maintaining online portal services -Staff time in responding to public queries on development applications as public moves to self-serve -Staff time in responding to applicant queries on pre-consultation, Site Plan and Committee of Adjustment as the applicant moves to self-serve -Staff time in reviewing Site Plan and Committee of Adjustment applications as the online submission will include quality checks and the process improvements will shorten the reviewing time -Staff time in processing payments for Site Plan and Committee of Adjustment applications -Note that the customers will have efficiencies in their time involved in applications, status tracking, and payments for Site Plan, Committee of Adjustment and Building Permits.
<p>GIS Integration – Setting up and configuring the AMANDA GIS interface</p>	<p>-Direct efficiencies that will result from this work package is in staff time involved in using the IT platform as the increase in ease-of-use results in a decrease in time to undertake and complete tasks. This is across all the business services using this IT platform.</p>
<p>Agency review – Put in place the agency portal for external agency circulation and commenting and leverage it for Site Plan and Committee of Adjustment development applications with AMANDA and process enhancements</p>	<p>-Direct efficiencies that will result from this work package is in the staff time involved in external agency circulation and commenting for Site Plan and Committee of Adjustment development applications</p>
<p>EPR and Document Management – Confirm or replace the current Electronic Plans Review solution, install the AMANDA document management integration and leverage these solutions for Site Plan, Committee of Adjustment</p>	<p>-Direct efficiencies that will result from this work package is in the staff time involved in plans review for Site Plan, Committee of Adjustment and Building Permits.</p> <p>-Note that the customers will have efficiencies in their time involved in plans</p>

<p>and Building Permits with AMANDA and process enhancements</p>	<p>review for Site Plan, Committee of Adjustment and Building Permits.</p>
<p>Building Permits – Enhance AMANDA and the processes for all building permits, leverage the Citizen Portal for online applications, payments and status tracking, and leverage the EPR solution for document reviews, comments (automated notification of technical deficiencies), and changes. For inspections enable online inspection booking and enable mobile inspections and deficiency identification.</p>	<p>Direct efficiencies that will result from this work package include:</p> <ul style="list-style-type: none"> -Staff time in responding to public queries on building permits as public moves to self-serve -Staff time in responding to applicant queries on pre-permit approvals and building permits as the applicant moves to self-serve -Staff time in reviewing building permits as the online submission will include quality checks and the process improvements will reduce the reviewing time -Staff time in processing payments for building permits -Staff time involved in booking inspections -Staff time accessing approved permit drawings while in the field -Note that the customers will have efficiencies in their time involved in applications, status tracking, plans review, inspection booking, addressing inspection identified deficiencies, and payments for Building Permits.
<p>Remaining Development Applications – Enhance AMANDA and the processes for the remaining development applications, leverage the Citizen Portal for online applications, payments and status tracking, leverage the Agency Review Portal for document reviews and comments, and leverage the EPR solution for document reviews, comments and changes.</p>	<p>Direct efficiencies that will result from this work package include:</p> <ul style="list-style-type: none"> -Staff time in responding to applicant queries on the remaining development applications as the applicant moves to self-serve -Staff time in reviewing the remaining development applications as the online submission will include quality checks and the process improvements will reduce reviewing time -Staff time in the external agency circulation and commenting for the remaining development applications

	<ul style="list-style-type: none"> -Staff time in plans review for the remaining development applications -Staff time in processing payments for Site Plan and Committee of Adjustment applications -Note that the customers will have efficiencies in their time involved in applications, status tracking, plans review, and payments for the remaining development applications.
<p>Licensing – Enhance AMANDA and the processes for licenses (including Animal Licenses and Death Registration), leverage the Citizen Portal for online applications, payments and status tracking and leverage the EPR solution for document reviews if required.</p>	<p>Direct efficiencies that will result from this work package include:</p> <ul style="list-style-type: none"> -Staff time in responding to applicant queries on licenses as the applicant moves to self-serve -Staff time in reviewing the license applications as the online submission will include quality checks and the process improvements will reduce reviewing time -Staff time in the external agency circulation and commenting for the licenses -Staff time in plans review for the licenses -Staff time in processing payments for licenses -Note that the customers will have efficiencies in their time involved in applications, status tracking, plans review, and payments for licenses.
<p>Forestry, Engineering, By-Law Enforcement, Fire and Vital Stats – Enhance AMANDA and the processes for Forestry, Engineering, By-Law Enforcement, Fire, and Vital Stats services, leverage the Citizen Portal for online applications and the mobile capability for By-Law Enforcement</p>	<p>Direct efficiencies that will result from this work package include:</p> <ul style="list-style-type: none"> -Staff time in responding to public queries on these applications as public moves to self-serve -Staff time in responding to applicant queries on these applications as the applicant moves to self-serve -Staff time in reviewing these applications as the online submission will include quality checks and the process improvements will reduce the reviewing time

	<ul style="list-style-type: none">-Staff time in plans review for these applications-Staff time in processing payments for these applications-Staff time involved in booking inspections and undertaking inspections for By-Law Enforcement-Note that the customers will have efficiencies in their time involved in applications, status tracking, plans review, booking and addressing concerns from By-Law Enforcement inspections, and payments for these applications.
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Plan Phase

This phase consolidated the findings from the first 2 phases and generated the final report. In order to achieve the Art of the Possible vision and the resulting cost savings and efficiencies, a 3-year workplan at an approximate budget of \$3 million has been identified through the consulting engagement. The report from the consultant is attached as Appendix A.

Next Steps

This consulting engagement has produced an Art of the Possible vision utilizing our existing platform and proposed a 3-year work plan for efficiencies in the Development Approval, Permitting, Licensing and a set of additional applications services. Staff will be analyzing the recommended workplan for viability and feasibility and assess against other priorities creating demand for staff, funding and oversight. A staff report outlining a schedule and budget for this initiative will be delivered to Council by the end of Q2 2023.

Financial Matters:

The City of Burlington Land Management Database Platform Review project was approved under the third intake of the *Audit and Accountability Fund* program for funding in the amount of \$101,760. Actual cost of the project is within the approved budget.

The forecasted costs identified in the consultant’s report will be reviewed and considered as part of future capital and operating budget deliberations.

Total Financial Impact

N/A

Source of Funding

N/A

Climate Implications

During the COVID-19 pandemic, the City like many other institutions and businesses, was forced to deliver even more services online. The projects being recommended will help improve the online customer experience for several City services. This will ultimately reduce the number of trips to City Hall and lead to a reduction in GHG emissions with a major factor being the reduction of paper usage.

Engagement Matters:

Engagement was an important aspect of this consulting engagement and is an important aspect of the proposed workplan. The proposed workplan will have consultation with the following key stakeholder groups: council, the senior management team, development and design, building permit services, by-law enforcement, animal services, licensing, fire services, development industry stakeholders such as architects, engineers and designers, residents and other municipalities.

Conclusion:

The City of Burlington is grateful to the Province of Ontario for the continuation of the Audit and Accountability funding program. Through the various intakes the City has been able to conduct reviews of several City services to find efficiencies and opportunities to deliver services in innovative cost-effective ways.

Respectfully submitted,

Brynn Nheiley
Executive Director, Community Planning, Regulation & Mobility
905-335-7777 ext 7638

Chad MacDonald
Chief Information Officer
905-335-7777 ext 7776

Brent Stanbury
Business Analyst, Information Technology Services Department
905-335-7777 ext 7864

Appendices:

- A. Perry Group Land Management Database Platform Review Final Report

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.



Land Management Database Platform Review

Final Report

November 2022



www.perrygroupconsulting.ca
647-669-9540

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Version History

Version #	Date	Prepared By	Prepared For	Comments
1	Nov 26, 2022	Ben Perry, Prasanna Gunasekera, Lesley Pavan, John Grassby	Core Team, Sponsors	
2	Dec 8, 2022	Ben Perry, Prasanna Gunasekera	SRT	Incorporates feedback and corrections.
3				
4				
5				

Note to the Reader

Although we have attempted to use accessible language as much as possible, some technical terms and acronyms are used throughout this document. A [Glossary Of Terms](#) is available in Appendix 1.

1.0 Introduction, Context and Approach to the Project

1.1 Introduction

In 2022, the City initiated a review of its Land Management Database Platform and associated systems. The project was funded through the award of a provincial Audit and Accountability Fund – Phase 3 grant.

Through an RFP process, Perry Group Consulting Ltd was selected to conduct the review.

This Report presents the results of the review and a recommended path forward for the implementation of service enhancements, including the introduction of online services for users of the City’s Planning, Permitting, and Licensing (PPL) functions. This is expected to result in improved services, increased transparency and engagement opportunities with the community, back-office process and efficiency enhancements, alongside mobile technologies to enable increased efficiency of inspectors and enforcement officers.

1.2 Context

1.2.1 The Current Environment – the Land Management Database Platform (LMDP)

The City’s current LMDP is Amanda. Originally implemented in 1999 to support Building, Amanda has evolved to now support over 140 City processes across various departments and teams.

Amanda has long been established as the City’s core land/property and land/property-related process management system.

The City completed a major upgrade to the system in 2022 and runs the most current version of Amanda, v7.x.

Over a decade ago, the City added an early version of Amanda Public Portal, using Alphinat SmartForms. This web portal provides a connection between Amanda and the City’s website and has been used to implement a limited set of online services for customers (e.g., business license renewals, property information requests).

Progress on expanding the range of online services has been slow, and to date no Planning or permitting processes are available online. This product is now deprecated and has been replaced by a new Granicus product offering the Citizen Portal.

In addition to the core Amanda system, a constellation of other software also supports Planning, Permitting, and Licensing processes.

The City implemented Bluebeam during COVID. Bluebeam is a digital plans markup solution that has helped with coordination of commenting and redlining of drawings and has been particularly valuable with staff working remotely. This tool and associated process currently operates independently of Amanda.

The City uses its internal GIS system, which is partially integrated with Amanda, to look up spatial data, e.g., confirming locations, checking aerial imagery, and reviewing zoning status.

The City’s website is also a key way users of the respective services find out about how to use the service, get copies of forms, standards and guidelines, and how members of the community find out the details of development proposals.

A wide range of service areas use the LMDP to manage some or all their processes, including the following areas: Animal Services, Building, Bylaw Enforcement, Planning and Development, Engineering, Finance, Forestry, Parks, Fire.

1.2.2 The Drivers for this Review

Formerly built and sold by CSDC Inc. (a Canadian company based in Mississauga for over 20 years) the Amanda product is widely used by municipalities across southern Ontario, including at Markham, Oakville, Guelph, and Whitby, across Canada, and in the US and Australia.

However, the product has been sold twice in the last decade and is now with new owners – Granicus¹ – a large, government technology vendor based in the US. This has raised some concerns about the future focus of the firm and sustainability of the product.

Further, and perhaps more importantly, is the increasing pressure for the City to speed up Planning, Permitting, and Licensing service delivery, while internally dealing with resourcing pressures and the need to increase efficiency and productivity of staff.

¹ Granicus also owns Bang the Table, the platform that powers Get Involved Burlington, and recently purchased Rock Solid, the provider of the City’s CRM solution.

These factors – coupled with perceived limitations and shortcomings of the current LMDP (seen as an anchor to progress) and the lack of digital service offerings – prompted this review which was initiated to look at:

- How is the City doing today?
- What are the City's current and future needs?
- How are the technologies and solutions that are currently in place suited to meet our future needs?
- Is Amanda (and the associated solutions) the right platform for the City to build on, or should the City be looking at an alternative solution to power the City's service delivery improvement and digital aspirations?
- How do we get to a more digital, efficient, and effective regulatory management systems model?

1.2.3 Streamlining Development Approvals Fund (SDAF) Alignment

Although initiated separately and funded from different sources, the project worked closely and in parallel with the SDAF projects.

There was significant crossover between team members that aided with cross pollination of ideas and concepts.

1.3 Project Approach

1.3.1 Project Approach

Based on the City's requirements, Perry Group proposed approach the project in three phases with the following activities.

Phase	Activities
Discovery	<ul style="list-style-type: none"> • Systems walkthroughs – Amanda, Bluebeam, GIS, Web, etc. • SCOR workshop session with key players • Interviews with program areas • Meet with external representatives – Building and development industry and service users • SMT and Council input – group and/or one-on-one meetings • Conduct business process reviews – 7 current and to-be state • Summarize all opportunities (people, process/policy, technology) • Discovery Report – current state – gaps opportunities
Analyze / Strategize	<ul style="list-style-type: none"> • Market and peer review scan – review existing / refresh and target specific peers • Requirements and fit-gap analysis • Identify potential solution options (e.g., enhance, add, replace) • Develop cost estimates for viable potential solutions • Cost benefit analysis • Socialize and review with City teams • Identify recommendations and review with key stakeholders • Confirm strategic directions
Plan	<ul style="list-style-type: none"> • Develop Implementation Plan • Draft Report – summarizing recommendations and identify key considerations • Socialize, seek feedback, and revise draft • Present to SMT • Publish Final Report

1.3.2 Adjustment to Project Scope and Approach

In practice, once the Discovery work was complete, the consulting and City teams agreed that sufficient work had been done to confirm that Amanda, the City's existing LMDP, could meet the City's needs going forward.

Using an agile approach, therefore, the scope and objectives of the project were adjusted to use the subsequent stages to map out a plan for implementing enhancements to Amanda to meet the City's needs, rather than assess alternative solutions.

A Comment About Bill 109 and Subsequent Provincial Government Announcements

It should also be acknowledged that, during this project, a series of provincial announcements were made that altered the landscape of municipal Planning significantly. Nonetheless, the core recommendations contained here remain relevant – increasing efficiency and the speed of processing, tracking of timelines and conditions pre and post approval are perennial benefits. Nonetheless, some recommendations and sequencing of the Work Plan has been adjusted to better support recent changes.

1.4 Participants

The project was sponsored by the City's CIO, Chad MacDonald, and led by Brent Stanbury, from ITS.

A core team, including the following members were actively involved throughout this work:

- Brent Stanbury, ITS
- Jackie Murphy, Building
- Jamie Tellier, Planning
- Ann Marie Coulson, Finance
- Anthony Campese, Engineering
- Tina McHugh, ITS
- Chris Koabel, ITS
- Jeanette Bax, Continuous Improvement

The City's Amanda Steering Committee, which includes the Director of Planning (Mark Simeoni), Chief Building Official (Nick Anastasopoulos), CFO (Joan Ford) and CIO (Chad MacDonald), oversaw the work and ensured alignment with other City initiatives.

A series of interviews were conducted with members of each City department that interacts with or supports the LMDP, including:

- Animal Services
- Building
- Bylaw Enforcement and Parking
- Capital Works
- COA
- Community Planning and Development
- Councillors' Office
- Engineering
- Finance
- Fire Services
- Forestry
- GIS/Geomatics
- IT
- Legal
- Licensing
- Parks Planning and Design

And more detailed Business Service Optimization (BSO) workshops were performed for eight selected services:

- COA (Committee of Adjustment)

- Site Plan Application Process
- OPA/ZBA (Official Plan Amendment or Zoning Bylaw Amendment) Application Process
- Building Permit Applications
- Tree Permit Applications
- Business Licensing
- Animal Licensing
- Death Registrations

In addition to internal input, the consulting team also sought input from users of the City's services, and from the development and building communities through the City's Housing and Development Liaison Committee (HDLC) as well as reviewing previous user and community consultations such as the Red Tape Red Carpet Task Force recommendations.

Over the following pages, the Report lays out the:

- Results of our current state assessment.
- Agreed target state which will meet staff, user, and community needs.
- Benefits and value of pursuing that target.
- Results of our fit-gap assessment of the existing Amanda LMDP, and
- Recommended strategy and implementation plan, along with the budget and resources needed to achieve the target state.

2.0 Current State Assessment

The current state of the LMDP is informed by our interviews with management and staff, our discussions with service users, and our detailed process Discovery work.

Broadly speaking, we found that teams are frustrated that the current system does not accurately reflect current business processes (the last major update was in 2007), that modern features (including online portal, integrated EPR, and mobile technologies) are not implemented, and that there is limited momentum around enhancements to the system.

The findings are described in more detail through four perspectives – people, processes, tools or technology and data – to assist in understanding the breadth, scale, and interconnectedness of the various issues.

2.1 People

2.1.1 Limited Commitment to Systems and Systematization

The consulting team observed a lack of commitment or a recognition of the strategic importance of the use of systems as evidenced by:

- A broad lack of awareness of what is possible with modern digital Planning, Permitting, and Licensing systems among staff, supervisors, and managers in business units.
- A lack of a clear, consistent vision for how the LMDP should or could evolve to address future opportunities and challenges.
- An uncoordinated approach to systemization or a recognition of the benefits of digital processing.
- No clear understanding of how the system could serve the various business units' needs, especially downstream processes that depend on digital information gathered and generated upstream in the process.
- Poor awareness of the true impact of not using the existing tools to capture information and to manage processes, especially back-office or downstream processes.
- Limited understanding of the negative impact of the complexity of the current system on its use or ability to make improvements.

On a more practical level, this lack of commitment is also evident in the absence of:

- Encouragement for/enforcement of staff to use the system (e.g., some people “prefer” not to use systems and record their information in an Excel spreadsheet without pushback from management).
- The implementation (or awareness) of the basic features of Amanda, e.g., automated emails.
- An understanding of how tools and processes could change to better serve the organization’s needs.
- Resources, attention, or cultural norms committed to data quality or the need for capturing real-time, accurate and complete records.
- A lack of training for staff on how to use systems in the context of the business process and to understand what capabilities the systems provide (e.g., there is a lot of unstructured, word-of-mouth training).

We also noted there has been a significant recent loss of knowledge (due to retirements) that is resulting in long-established processes – long-managed in Amanda – breaking down.

2.1.2 Limited Resources

We noted that there are, in practice, somewhat limited IT resources available to tackle systems change requests which has contributed to a lengthy backlog of requested changes that further drive staff to lose faith in the system.

Enhancements identified by staff often take a couple of years to be addressed, notwithstanding that the method for selecting those to work on, is not transparent or well -aligned with business priorities.

From a product management perspective, the limited IT capacity (which, despite appearances of 1 coordinator, 3 Business Systems Analysts (BSA) and 1 contractor) is spread thinly, has staff assigned to various other solutions and projects, has a lack of in-house capacity to keep up with demands and makes limited use of external resources (contractors, consultants, vendors) to support/extend Amanda.

We also note that the City has no Quality Assurance (QA) capabilities or methods in place today to automate regression testing – this could reduce pressure on IT and business areas for testing, should improve the quality of deliverables and speed the ability to deploy enhancements.

Some support work could also be better done in departments versus in centralized IT (e.g., template or list maintenance, conditions management, training and support, procedure documentation) because of local subject matter expertise and a sensitivity for immediate attention needed, but there are limited resources within the operating departments (except for one example in Licensing) dedicated to performing such functions.

2.1.3 Misconceptions Act as a Barrier to Digitization

There are various tropes, misconceptions or opinions that act as barriers to greater digital adoption, or even thinking about the opportunities. For example:

- There is a belief that physical chain of evidence requirements mean that enforcement officers must use a physical notebook rather than electronic notes.
- Information access must be restricted or controlled to avoid staff from misusing it.
- Reference numbers cannot be assigned until we determine if it is a complete application because this impacts fee calculation and collection and may impact the initiation of regulatory timeframes.
- There is no point in adding information into the system until we've got all the supporting documentation.
- We can't accept online comments from community on Planning applications.
- We can't stray from the exact letter of the various governing Acts (Building, Planning), even though some of these perceived restrictions might be out-of-date, misinterpreted or worthy of challenge or effort to change.
- If we put these services online (report a problem/complain) we will get more requests and we will be overwhelmed with requests that will overburden our resources and distract us from more important duties.
- We need wet/physical signatures for this service.
- We cannot disclose this information about a Building permit (due to privacy rules).
- We cannot allow uploading of documents by applicants for security reasons.

These ideas need to be objectively reviewed and discounted where appropriate. Understanding must be established about how they could be accommodated as digital processes are adopted.

It is interesting to note that some of the process changes (e.g., discontinuance of receipt of paper drawings) forced on the City during the pandemic shows the types of changes that *can* be made, rapidly and with few consequences when the organization is forced to be decisive.

2.2 Process

2.2.1 Process Complexity

The LMDP attempts to support many complex, siloed, organization-centric versus customer-centric processes that originally led to many original Amanda different folder types being set up – over 140 folder types are in place today. These many folder types multiply the already-extensive support requirements when changes to processes – whether caused by pandemic, market conditions or regulatory changes – are needed.

Even though the specific folder types and processes were originally set up to facilitate processes in each department, there is now inconsistent adherence to these processes because the Amanda tool has not kept up-to-date with the changing circumstances.

Furthermore, we found that many of the processes designed and built in Amanda have been constrained by history/reflect old ways of doing things – in many situations, processes in Amanda somewhat follow original paper processes / concepts / constructs (e.g., first submission, second submission) and don't take advantage of digital capabilities.

2.2.2 Workarounds

Many examples of workarounds exist where many elements (e.g. sub-processes, tools, tasks, etc.) have been assembled to compensate for the lack of configured capabilities in the system.

For example:

- Many process steps happen outside of Amanda (often without formal recordkeeping). These wasteful parallel disconnected systems do not support a single source of truth as information is spread over several tools, e.g., Amanda, Outlook, shared drives, spreadsheets, etc.
- Emails are the main source of communication but there is time-consuming and unstructured capture of these emails into appropriate files, even though Amanda could be configured to manage this process.
- Information often doesn't go into Amanda until the application is deemed complete. This approach often leads to incomplete summarization or untimely capture of pertinent details.

2.2.3 Lack of Integrated Fee Handling and Processing Automation

A good example of a needed workaround because Amanda has not been set up to handle them, is fees.

Fees are largely calculated, communicated to users, payments collected and registered outside of Amanda and are hard to audit. For example:

- Fees are paid to Finance (through eTransfers, cheque, etc.) which registers the payment into shared Excel spreadsheets (sometimes without identifying reference numbers) that operating departments must monitor to see if payments have been received.
- Calculations for parkland or development charges are performed in external spreadsheets and are not visible to applicants.
- Credits of fees to be applied toward future applications fees (e.g., Site Plan fee) are often not done.

When there are two phases of fee collection (e.g., Forestry) these convoluted processes impose a double impact on the time to complete the overall process. Payment reconciliation is similarly cumbersome as it is time-consuming and error-prone due to the requirement to reference multiple sources of information.

In all these cases, the lack of integrated payment processing creates significant administration overhead, customer inconvenience and possibility for error.

2.2.4 Quality of Application Submissions

The pandemic drove a rapid transition to remote submission of applications. Most of the new application processes were semi-digital versions of the older paper-based application processes without any new capabilities to improve application quality. Submission quality is measured in terms of completeness of information and content validity.

Submitting incomplete applications – or ones with erroneous information – has been a long-standing issue that leads to resource-wasting completeness checks, time-delaying resubmissions or multiple requests for additional information.

Applications are generally guided by submission checklists that appear to be ineffective, but the City has not collected any data to learn of the main sources of poor-quality applications nor does it have the tools to passively collect submission quality data that might assist in targeting solutions or measuring the effectiveness of any adopted process changes.

2.2.5 Circulations (Internal and External)

The current processes of sending application materials to subject matter experts for review and comment depends heavily upon email, the use of shared file drives or publicly accessible- files on accessible websites. Although this is an improvement on the distribution of paper files and drawings, it still suffers from the following drawbacks:

- No automatic capture of the distribution information (such as the time of the circulation, the list of recipients, the fact that a circulation has been started).
- Manual efforts involved in assembling the circulation, sending updates, or tracking the status of comments.
- Manual efforts on the part of the reviewers to seek out the relevant files.
- No document version control awareness.
- Makes use of non-standardized distribution rules and lists that are adjusted/built for each circulation.
- No automated notification deadlines for review requests.
- No automatic customer awareness of the progress of the technical review.

2.2.6 Automated Notifications

A significant gap in managing the system of various processes and people is the limited use of automated notifications functionality. Notifications or reminders could be more widely used, for example:

- The expiry of the 2-year approval window for Consents.
- Reminders to staff and agencies that comments are due.
- Reminders to Applicants that the City is awaiting some information.
- Informing Applicants about the progress of their applications in the system.

2.2.7 Public Sharing of Planning Information

The City has a strong commitment to making Planning information available online to the public, but the processes to do so (assembling information, requesting maps, sending instructions, information, images and files to website team, etc.) are completely manual, requires coordination between different departments and consumes significant time and resources.

2.3 Technology

2.3.1 Amanda Product

The main process and data management tool in the LMDP, Amanda was originally configured in the early 2000s to serve many separate processes in separate departments.

In our opinion, the many folder types were built with too much granularity to reflect and support the older silo and paper-based processes in existence at the time. In many cases, these folder types have not been updated and do not reflect current business practices, process steps, or templates, etc.

Examples of some of the impact associated with these varied folder types, includes:

- A single project that proceeds through multiple application stages will have to have a separate folder for each stage.
- Each stage folder requires separate and repetitive data entry by both the client and staff.
- The information in the previous stage folder may not be readily available and may require clients to supply the same information multiple times.
- A change in a single piece of information may have to be inserted into multiple folders.
- A change in folder type design would have to be done for each folder type affected.

A major folder update was done only for Building folder types in 2007 to support Bill 124, but there have been many changes since then and ongoing support is generally limited to maintaining the existing tool.

There is a backlog of open support tickets (100+) but Amanda team members who are involved in various other systems and projects are not able to devote significant time to this backlog.

As a result of this backlog, numerous templates (letters, reports, etc.) and process steps are out-of-date causing staff to engage in repetitive editing activities. Additionally, the templates probably don't meet AODA compliance requirements.

Although Amanda received an upgrade to Amanda 7 in 2022, the City continues to operate an old version of the Amanda Public Portal which does not provide basic features (login, status checking), and has not been implemented for Building or Planning processes.

Furthermore, we discovered that, although Amanda is available on Toughbook computers to inspectors and enforcement officers, in practice they are not used.

Perception is reality – and users’ experience of the current Amanda limits their awareness of what Amanda could be doing to support their processes. In reality, Amanda has far more capabilities than are being used at the City.

Based on our observations, the following chart represents in the smaller blue triangle the capabilities that are being used, against the capabilities that are available, represented in the larger orange triangle.

Taking Advantage of Amanda Capabilities

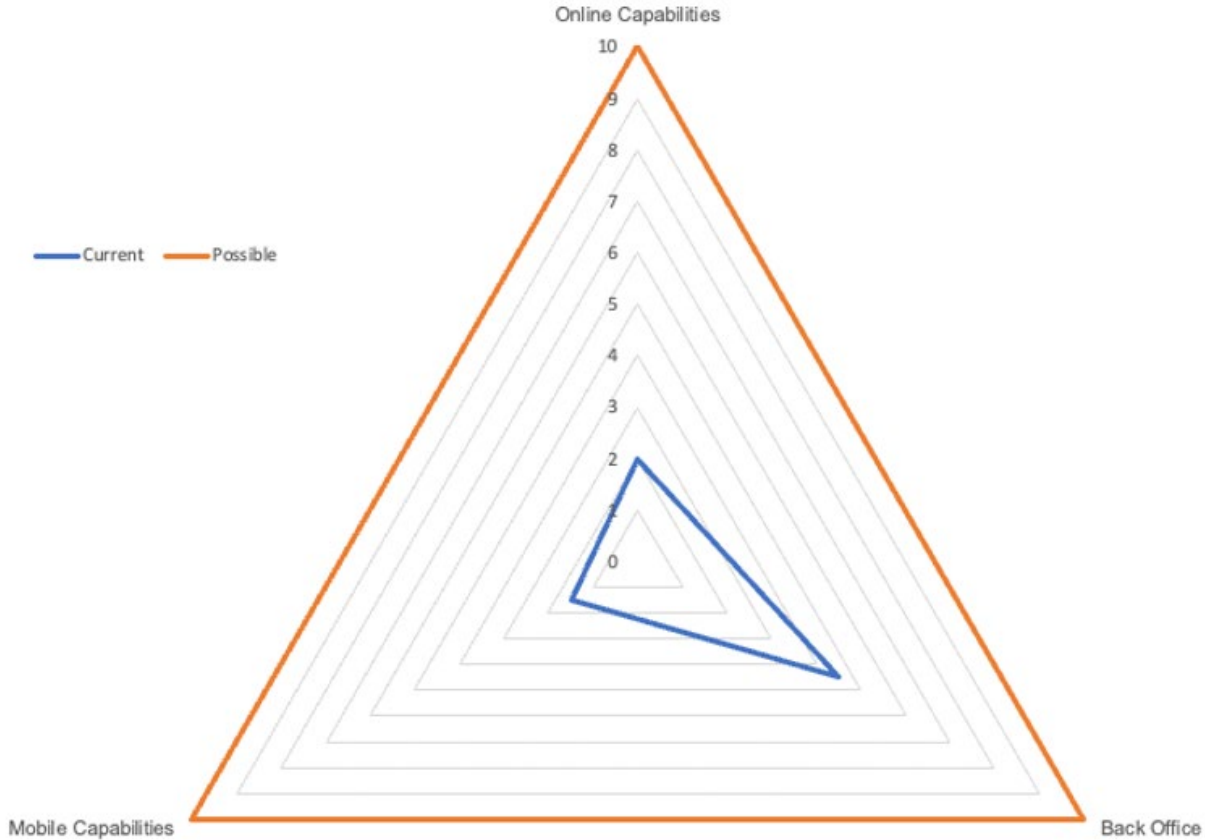


Figure 1: Amanda Usage vs. Amanda Capability

Simply put, a significant number of Amanda capabilities (in online, back-office and mobile spheres) are not being utilized or contemplated.

Examples of capabilities in Amanda that are not being fully utilized include:

- Portal – Up-to-date portal could provide ability to rapidly launch online Planning and Permitting capabilities.
- Agreements – Registered agreements are stored in Amanda, but non-registered ones are not.
- Conditions – This is a very important part of the Planning process, and although this module/capability is available in Amanda, many conditions are tracked outside of Amanda (in documents). The completion of required actions are haphazardly tracked.
- Deficiency module for inspections (standardized deficiencies) is not actively used.
- Email automation is not fully utilized as several processes are not managed in Amanda.
- Circulations capabilities are not utilized.
- Mobile Capabilities (smartphone or tablet) are underutilized, in part because outdated mobile technology is considered more cumbersome and is not used by staff. The Toughbook, car-mounted remote access to the full Amanda client is perhaps no longer suited to expectations of staff as they can't easily attach photos, voice notes, or use dictation software, etc.
- The Letters of Credit (LCs) module is used but reports are unavailable thus requiring the use of a spreadsheet to keep track of LCs.

2.3.2 Limited Reporting and Visualization Capabilities

In addition to these capability gaps, there is also very limited reporting available from Amanda in Amanda 7. This means that managers and staff simply do not have access to information, basic performance metrics and trends such as:

- Applications approaching deadlines.
- Average application queue time.
- Workloads and workload distribution.
- Average number of resubmissions, common reasons for resubmission.
- Types and volumes of development in the pipeline (e.g., how many new residential buildings are projected).
- Trends that are developing in the application flow.

- Evolving market demands.

Amanda reporting capabilities have been deferred while waiting on a business intelligence (BI) tool but apparently reporting appears to be absent from the BI tool – is this still the right approach?

Data gaps and dispersal of data across various electronic and paper-based systems also contribute to the limited capacity for meaningful reporting. There are no examples of dashboards or visualizations of data.

2.3.3 Lack of Integrations

Files, Documents and Drawings

Client supplied- files, drawings and documents are stored in several locations (Bluebeam, Amanda, local drives, shared drives, etc.) as there is no single integrated document management system or practice that is linked to the central Amanda repository.

Staff spend a lot of time shifting files between locations for various reasons (e.g., links to the website, zipping files for circulations, managing version control, moving final versions to Amanda, etc.) or clients are asked to re-submit files because their previously submitted files are stored in a place that is inaccessible to the file requester.

GIS

A fully-integrated Amanda and GIS could be exceptionally powerful (e.g., a fully-embedded bi-directional map view of all data in Amanda) but GIS has only partial or episodic integration with Amanda:

- The GIS viewer within Amanda is not fully implemented/integrated.
- Some data is pushed out from Amanda into GIS but this has been on a request basis and is far from comprehensive.
- Some data is loaded into the Amanda database on a nightly batch basis from GIS.

In some ways, GIS and Amanda are somewhat separate (competing) entities, but they should be viewed as part of a holistic whole with data flowing back and forth between the systems freely. The issue of different definitions of a “property” between GIS and Planning systems, and what systems should be the master source are issues that must be properly addressed to allow for greater interoperability and complementarity.

Payment Systems

There is a range of disconnected payment processing approaches (PerfectMind, eTransfer, Wire Transfer, Credit and Debit, Cheques, etc.) dependent on the specific process involved (initial fees, extra fees, deposits, development charges, payments in lieu, etc.) and the average transaction amount. There are onerous manual methods that use various tools to notify, capture, process, alert, reconcile, etc. payments.

A comprehensive review of the options, best practices and payments policies should be undertaken to ensure the customer and staff experiences are efficient and effective.

SAP (Workday)

Closely related to the issue of payment systems integration is the lack of automatic updates of transactions initiated in Amanda, processed in a payment system and then reflected in the City's financial reporting system.

2.3.4 Related Tools

Electronic Plans Review (EPR)

The City currently uses the Bluebeam EPR tool with limited functionality. It is used in Planning for Site Plan and Building for Permit reviews but only as a markup tool to redline drawings.

Deficiency letters are manually prepared to accompany the redline drawings as the tool does not currently generate an automatic report. The drawing files are stored in several places (local drives, shared B drive, some final versions in Amanda, etc.).

Website (Applications)

For application submission, there is a mix of static guidance and downloadable, fillable or online forms that use the current portal tool (SmartGuide) that often require separate or offline payment processing. These forms have been limited in their use because they are difficult to manage, develop or to rapidly add new services.

The information gathered by these forms often has to be re-entered by staff into Amanda to make the information available for sharing across the system or in a format that is suitable for reporting. There are no current online services set up for Planning or Building.

Website (Citizen Engagement)

The City uses its website to provide extensive information to the public regarding Development Applications. The presentation of this public information relies on a highly manual process involving multi-departmental coordination.

The City's Public Engagement Portal provides easy access to the Development Applications page (where applications can be searched using various criteria or can be selected from an interactive map) as well as the Public Engagement Calendar that lists public or other meetings related to the applications.

eScribe

eScribe is a tool for authoring and circulating reports to be presented to Council or Committees. Departments that prepare items for consideration at Council meetings must load (cutting, pasting or re-writing) their reports and materials into eScribe although that material already exists in Amanda.

Often, departments will perform their own review and approval prior to it being inserted into eScribe. There is no current method of automatically transferring materials or reports from Amanda to eScribe.

2.4 Data, Data Entry and Data Quality Issues

Data and application information are stored in multiple disconnected platforms (both paper-based and electronic, both structured and unstructured) which leads to duplication of files, difficulty in accessing specific files and challenges with version control. A comment we received from one staff member highlights this issue; *"It is sometimes easier to ask the client to re-submit the same drawing (possibly several times) than search for it internally"*.

In activities that require a series of applications over several months or years (e.g., Development Planning Applications) there is no cross-referencing- of related project files or sharing of information. The work completed in previous stages of a project (information supplied by an applicant or comments provided by the City) may not be available to inform later stages and may cause errors, contradictions or incur redundant efforts on the part of the Applicant and the City.

Although the concept of having parent and child relationships between related files is recognized as valuable, current tools and practices do not fully support the concept. This disconnect between approvals, conditions and permissions perpetuates the silo separation of individual processes which leads to inferior outcomes or the need for rework.

It was observed that there is inconsistent practice regarding the single entry of data or information at the initial point and time of capture. For example, information is often entered into Amanda at the conclusion of a review (in Planning) or at the conclusion of a work day (Building inspections). These behaviours often lead to inaccuracies and inefficiencies, such as:

- Multiple data entry leading to increased keying errors.
- Duplicate efforts in capturing or entering information into a database.
- Multiple locations of information – no single source of truth.
- Extra effort correcting errors or seeking the most valid information.
- Summaries of information rather than details are captured.
- Timeliness of information suffers such that users may not have access to the most current version.

There is some inconsistency with what should be stored in Amanda, for example, while registered agreements are stored in Amanda, non-registered agreements are not.

There does not appear to be any formal data quality checking, or any commitment or resources assigned to actively monitoring and managing data quality. As a result, employees have learned that data integrity is suspect and they should not rely on it (e.g., a statement made in Planning – *“50% of applications are missing something, or the data is wrong”*).

A large part of the data quality problem is that a lot of historical data is not in the system and the task to get the data into the system is perceived to be overwhelming and therefore not addressed.

Apart from the discrete information that makes up a significant portion of LMDP, file and drawing management is generally separate from Amanda and is often in locations that are not fully or easily accessible to the approved users of the information.

Linkages of customer data (customer numbers, contact info, roles, corporate affinity, identity verification, etc.) among the portal, Amanda, CRM, tax records (sourced in part from MPAC) or other related tools and processes (e.g., a customer index) have not been fully defined.

There is no indication that customer guidance information – whether on the website, in application instructions, on the portal or in the CRM knowledge base – is currently coordinated to ensure a consistent message and currency of information.

2.5 Comparison Against Peers

The pandemic's limits on conducting in-person business forced many municipalities into a rapid and partial digitization of their historic paper-based transactional processes.

The needed process changes highlighted that several cultural norms – or old ways of doing things – were found to not be as important as the pre-existing processes suggested, e.g., multiple copies of paper drawings were one of the first casualties of the adoption of electronic application processing. But there are degrees of digitization, e.g., replacing a paper form with an online fillable pdf represents an incremental step as it only allows for electronic submission but limits the usability of the data provided.

A qualitative review was conducted of the availability of true digital services offered by selected municipalities across the Greater Toronto Area to gauge their progress on the digitization journey.

A qualitative rating scale was applied to a sample of services (in Planning, Building and other areas) based on the degree of true digitization employed by those services: 4: full digital services, 3: partial digital (PDFs), 2: services requiring submission of paper and 1: services requiring a phone call or email request.

The municipalities in the following table are ranked according to their relative scores against an ideal score of 100%.

City	Digital Services Score
Markham	93%
Brampton	93%
Mississauga	84%
Oakville	83%
Toronto	82%
Richmond Hill	81%
Caledon	79%
Pickering	78%
Clarington	77%
Newmarket	73%
Burlington	73%

City	Digital Services Score
Ajax	72%
Vaughan	69%
Oshawa	67%
Aurora	66%
Halton Hills	63%
Whitby	63%
Hamilton	63%
Milton	54%

While Burlington is by no means the lowest performer in the list, Markham, Brampton, and Mississauga are far ahead and are places from which the City can learn.

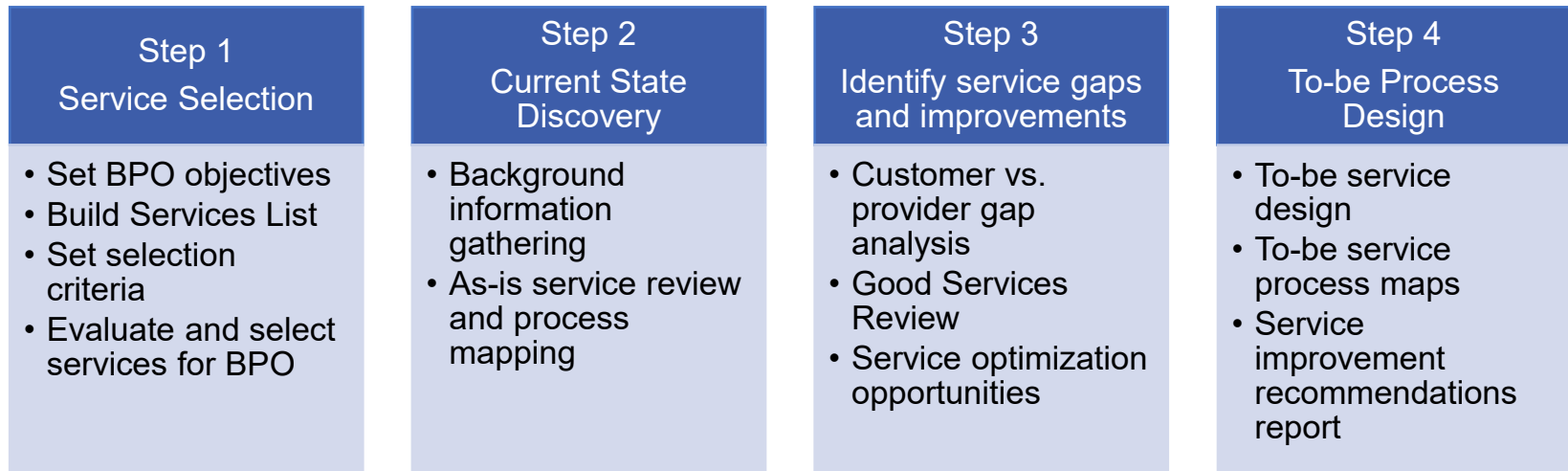
2.6 Process Reviews

To validate our findings, and to go deeper into specific areas, the consulting team also conducted a more comprehensive analysis of selected services. Eight processes, managed in the LMDP, were selected for detailed service process reviews to be conducted with representatives of the groups that actively deliver the services.

2.6.1 Process Review Methodology

The consultants used the Perry Group Business Process Optimization (BPO) framework to assess the eight selected services.

The following diagram explains the steps involved in BPO:



The process reviews include the following activities to learn about the selected processes, to gather input for improvement and to make recommendations for the services going forward:

- An As-Is process/service review workshop is held, the existing process is mapped, service/process pain points and improvement ideas are discussed and noted.
- As-Is process flow diagrams are prepared by the consulting team and then reviewed by the City's service team for accuracy and completeness.

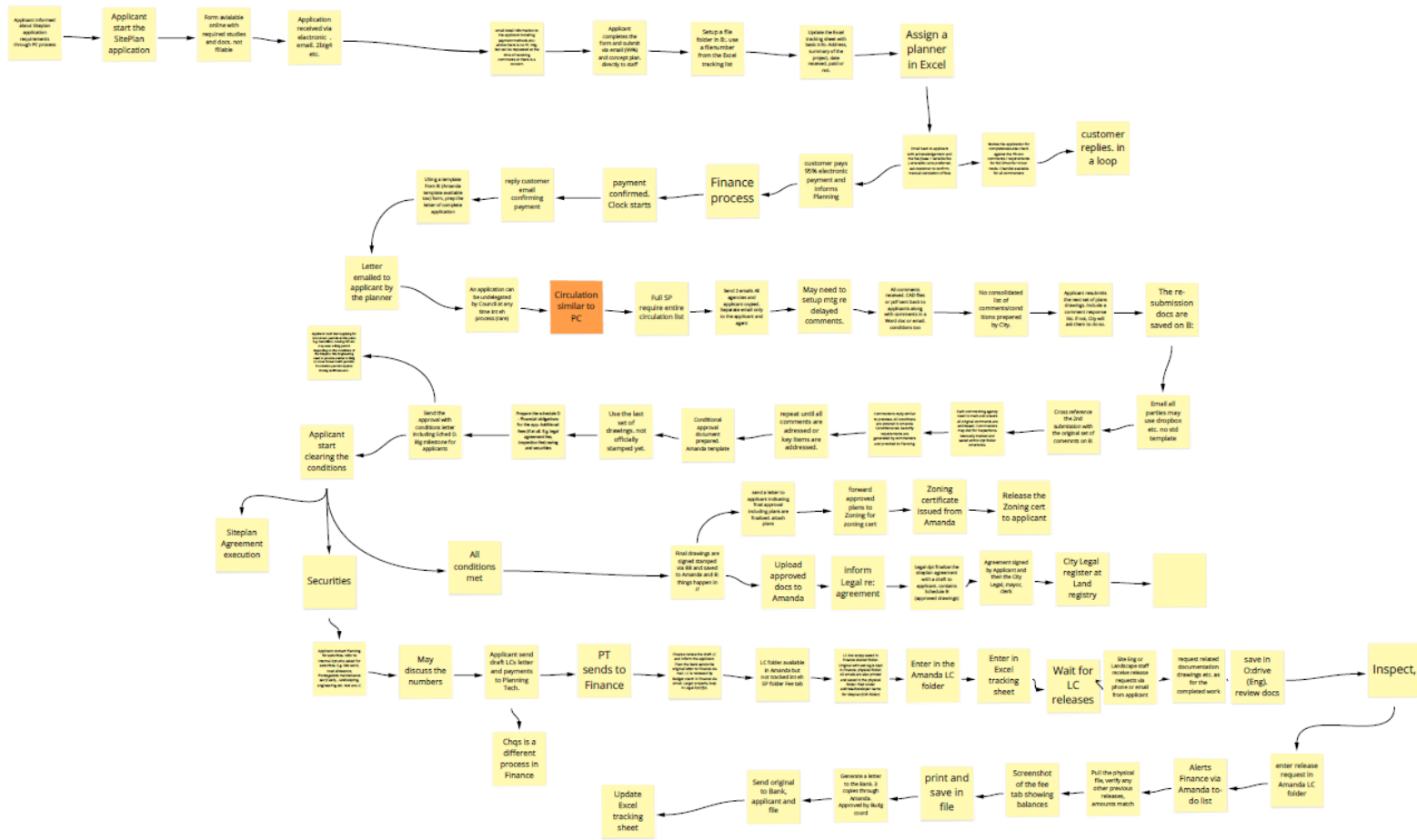


Figure 2: Sample As-Is Process Workshop Brainstorming Whiteboard

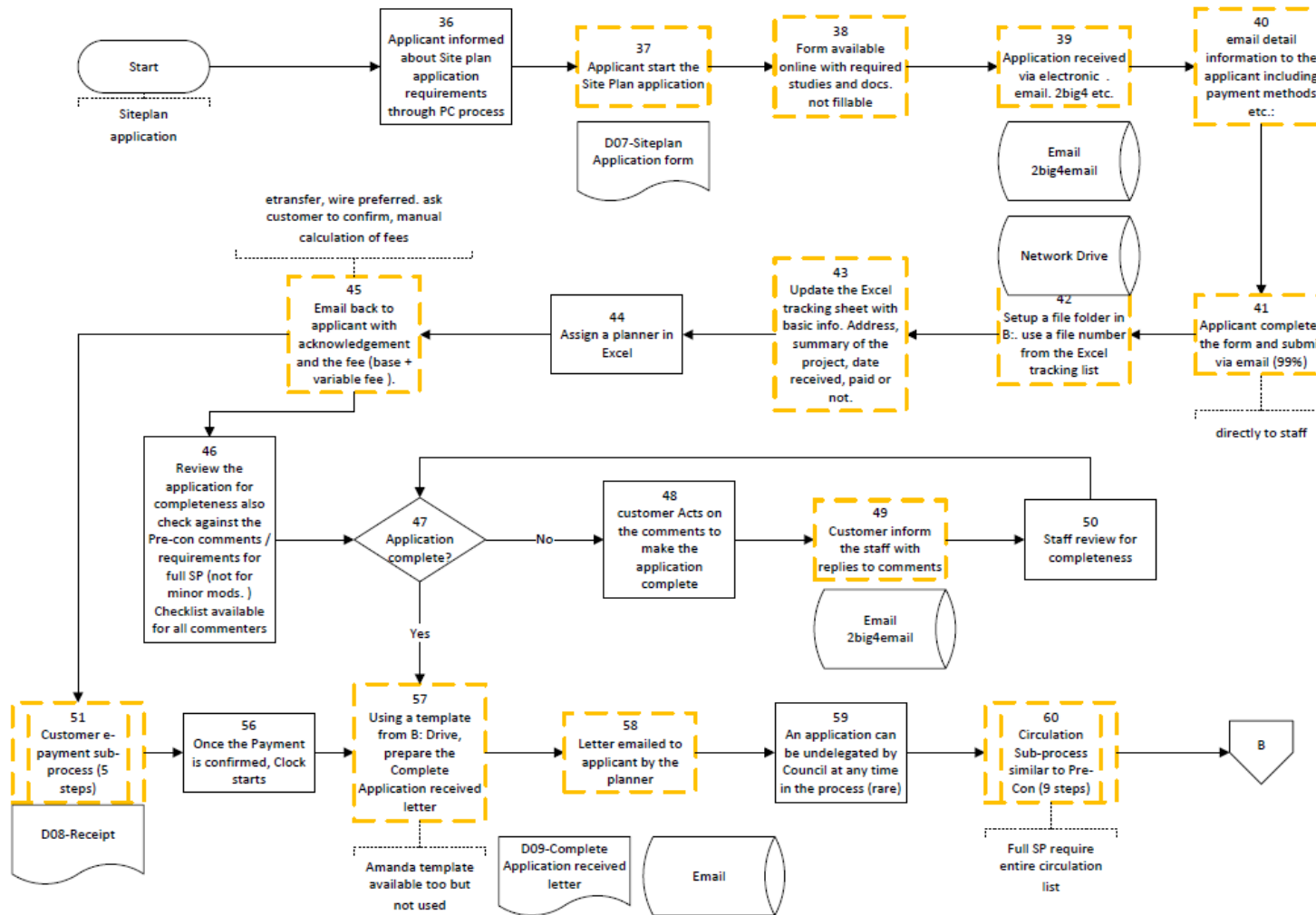


Figure 3: Sample As-is Process Map Resulting from Workshop

- A Good Service Assessment is performed based on the fifteen attributes of a good service using Lou Downe’s Good Service² Methodology.
- A draft To-Be service/process – designed to be Digital First and take advantage of technology capabilities described in the next section (Target State) – is prepared by the consulting team in advance of a second workshop with the same team.
- A To-Be service design workshop is held where the draft process/service is presented, reviewed and adjusted.
- The As-Is process/service is compared to the To-Be process/service and potential improvements and/or the elimination of tasks are identified.
- People, policy, technology and service model changes are identified.
- Potential customer service and internal process efficiencies are identified.
- All findings are consolidated into To-Be Service Recommendations Reports.

2.6.2 Eight Processes/Services Reviewed in 2022

The consultants worked with the LMDP core team to identify eight suitable services for review.

The selection was based on consultation between the City and consulting team, with the consulting team looking for processes that met the following criteria:

- Cross departmental services.
- Volumes (higher vs. lower).
- Current Amanda + process sophistication (low and high).
- Process complexity (mix of simple and complex).
- Traverses front, back and field offices.
- Includes online, documents and drawings, identification, payments, GIS.

² Read more about this framework at <http://good.services>

The selection also aimed to avoid duplication with parallel work underway on the SDAF initiative and other City projects. Perry Group presented a draft list to the core team and the final selection included the following service areas:

- COA (Committee of Adjustment).
- Site Plan Application Process.
- OPA/ZBA (Official Plan Amendment or Zoning Bylaw Amendment) Application Process.
- Building Permit Applications.
- Tree Permit Applications.
- Business Licensing.
- Animal Licensing.
- Death Registrations.

2.6.3 Key Findings and Opportunities

We have compiled and summarized the findings and key learnings from these reviews.

While each area has its own discrete opportunities, there are some common themes around the current situation and potential improvements identified, including:

- For each of the processes reviewed, there are significant opportunities for greater digitization of processes or more effective use of digital tools.
- We identified numerous situations where staff resources could be better re-directed from administrative activities (data entry, data checking, managing requests to re-submit, etc.) to more value-added ones.
- The to-be processes identify streamlined steps that could significantly decrease product time and elapsed time to process applications and requests, while also improving customer satisfaction through:
 - Better (and possibly automated) upfront online guidance on the application processes and the client's role in those processes.
 - Improving the completeness and accuracy of information submitted by clients to the City, resulting in fewer delays caused by resubmissions.

- Reduced effort in asking Clients to provide information multiple times or to provide information that the City already possesses.
- There are significant opportunities for a reduction in paper-centric steps (where regulations permit) that currently require:
 - Significant printing costs and wasteful paper consumption.
 - Manually handling, storage and archiving.
 - Significant time required for internal distribution.
 - Challenges to ensure the most current version of a document or drawing is being reviewed.
- The City should recognize the value of entering data as it occurs, rather than recording it outside of a tool and then entering it later to:
 - Avoid inadvertent reduction of information through summarization.
 - Avoid double data entry.
 - Avoid potential data entry errors due to multiple entries.
 - Avoid storage of multiple versions of similar data or information (promotes single source of truth).
 - Make the most current information available in real-time to other users of the information.

The as-is and to-be process maps, along with the service improvement recommendation reports produced for each of the reviews have been provided to the City separately.

The estimated value of implementing the to-be, digitized processes is shared in the [next section](#). Suffice to say at this stage, there is the potential to free significant amounts of staff time through the complete digitization of these services.

2.7 Current State Summary

Looking to the future, Burlington's LMDP faces multiple challenges in the current environment:

- A need for City processes that are more responsive to housing market pressures.
- More frequent regulatory changes that require an ability to adjust business processes (and the tools to support those processes) quickly or suffer significant penalties.

- Development industry participants' demands for higher standards of transaction speed, efficiency, and ease of conducting business.
- Expectations of citizens for maximum transparency while minimizing costs.

Unquestionably, the City is far from where it wants to be – offering very limited online services, almost no use of mobile solutions, and back-office processes that are inconsistently used and no longer match the real business processes.

In our view, Amanda is not currently managed well from a product management standpoint:

- There is no clear roadmap, and enhancements prioritization is not transparent.
- Years of maintenance updates over feature releases has frustrated everyone
- Portal and mobile solutions are not modern/up-to-date.
- Non-integrated drawing management, etc.

Moreover, Amanda has been setup (from a folder design perspective) to represent and reflect the siloed model of business processes that exists at the City. While the City on the surface appears to have taken a corporate approach to the application/platform, it has not done so to the process model, thus the benefits of a shared platform have not been realized.

Interestingly, the needs that have been expressed by business units can almost all be met by Amanda with various Amanda enhancements and add-ons (portal, mobile, etc.). Indeed Markham, as leaders in the digital Planning and Permitting space, also use Amanda.

Burlington is limited by the technology that it operates, however, we follow the people, process **then** technology philosophy, and we note that, while there are gaps in the ways that Amanda is currently setup, this is far from just a technology issue.

There are major people and process issues that must be tackled as part of any modernization attempt.

Processes are convoluted, overlapping, repetitive, overly -siloed, and independently operated. A major step back and re-think is needed across the board to modernize processes to take advantage of new tech capabilities, to think about how a “project” should flow through the system, etc. if true benefits are to be realized.

Perhaps more importantly, the culture needs to change to focus more (at least in the short- to medium-term-) on establishing the digital production -line -centric model for process management. Leadership and management in business lines must lead this commitment and change.

3.0 Target Future State

Based on our understanding of the current state, scan of comparators and discussions with key stakeholders, there are three areas where Burlington needs to focus to deliver modern Planning, Permitting, and Licensing services:

1. The customer experience for users of the services and interested parties in the community (the digital customer experience).
2. The staff experience in the office.
3. The mobile experience for inspectors and enforcement officers.

In simple terms, customers should be able to apply online and manage their application, information about applications should be published automatically on the City's website for interested parties to review, City staff should use automated workflows and markup tools to capture key data, route and manage the application, and mobile workers should be able to conduct inspections in the field using mobile technology to keep them connected to office staff and service users.

3.1 Key Capabilities

3.1.1 Digital Customer Experience

The objective of any digital service is to improve the customer experience and to allow increased accessibility to your service. The service should be able to be accessed 24/7 and from anywhere. This puts the customer in control.

When thinking about the customer, there are those who are actively interacting with the service (i.e., applying for something, making payments, booking meetings) and those who are passive (i.e., they are simply looking for or viewing information). They may choose then to interact but as a start, they are just looking for information.

A Customer Portal is the vehicle to allow active and passive participation in City services. Through the portal, customers should be able apply for Building permits, Planning approvals, pay fees, obtain licenses, report Bylaw or Property Standards infractions, or report issues such as downed trees. They should be able to subscribe to receive information such as proposed development or capital projects in their neighbourhood.

The portal should allow someone to pick an address (if known) or a location on a map.

In the area of Building and Planning, most of the applicants and subcontractors – such as engineers, architects, planners – are doing electronic drawings in software such as AutoCAD. Allowing them to submit digitally is a natural progression of their work. Further, the portal should allow the main applicant to assign sub-contractor roles to others who can then upload their respective studies and drawings.

If applications are coming to the municipality digitally, they should also be able to make payments online. The system should be able to calculate the fees. Any portal will require a complementary fees payment system to allow electronic funds transfer or credit card payments. Any approvals, permits, licenses receipts of payment should be able to be downloaded by applicants.

The range of land -related requests can vary in complexity. A tree permit submitted by a qualified arborist for a dead tree can be straightforward compared to requesting a land use change under the *Planning Act*. Customers can also have varying levels of sophistication with portals based on their circumstances. To make the experience as frictionless as possible for the customer, there needs to be support in place.

Supports for customers using the service can take the form of wizards, online application guides and/or how-to video instruction guides or Frequently Asked Questions.

Wizards present dialogue boxes, often in the form of questions to be answered by the users, that guide the user through the system with the aim of assisting them with their application. Wizards can be simple or highly detailed with multiple steps. Either way, they are to assist the customer to get the service they are seeking.

With complex services, such as Building permits and Planning approvals, there is usually a requirement for several drawings and studies as well as fees. Online guides and videos show the customer how to upload information, the desired format and how to use the system. Staff still need to be available to answer questions during business hours but, by providing this information upfront, it allows the customer to work on their own schedule.

For services where an in-person meeting or telephone discussion is required, the customer should be able to select and book the time rather than have to navigate wait lines. This also helps with tracking of how many people are requesting what type of information which, in turn, guides where Burlington wants to focus its communications on self-serve.

Finally, for services online, there needs to be regular communication and transparency about the status of the service. Frequent questions to municipalities are: “what is that status of my application”; “who has commented on my plans”, etc. It is a source of frustration for the applicant (who may perceive the application has gone into a black hole) as well as for reviewers who are spending time answering the questions rather than doing the reviewing.

Depending on the service, the business units may want to provide comments live as they come, if the comments are not interdependent.

For services such as Planning, where a high degree of coordination between commentators is required, then the decision may be that comments are not released until the file manager has vetted the comments to ensure comments are not conflicting. However, it is helpful to the customer to know how many comments have been received and which agencies or departments are outstanding and when the comments are expected to be received by. Tracking turnaround times helps in discussions with those agencies or departments that are chronically late. The data is there for any process reviews.

Conversely, the municipality may be awaiting information or a resubmission from an applicant. Automated emails sent as reminders can be set up to prompt an action from the customer, so they are aware of this.

Online collaboration – through markups of drawings, documents and agreements – assists in enhancing communications, bringing clarity to a comment and making one place to find information.

All communications on the file should be facilitated through the software to allow messaging between applicants, sub-consultants, commentators and the staff person assigned the file. This allows for one source of truth, through the shared records.

As mentioned earlier, there are passive customers who may not be applying for a service but who wish to receive information and monitor activity in their neighbourhoods. Digital services allow them to subscribe to receive notices or new applications or to easily do a look-up to determine whether there is an application on a particular site.

The *Planning Act* requires that information be made available to members of the public. It no longer makes sense to require those persons to come to a counter to receive this service if the information is available online. However, should someone wish to comment on a proposed application or City project, the ability to comment should be easy and seamless.

The portal should be configured so that comments that don't meet the standards (such as foul language, hate speech) are screened out. Data from the portal will also inform staff of the number of views to the project where there are no comments. This number provides a balance. If 1,000 people look at a project and leave with no comments and there are less than 10 comments against, there is a different perspective on the level of opposition. As pressure for reducing timelines for application processing continues, there needs to be an efficient, accurate way to get the information to interested persons early in the process and to receive feedback.

All complaints regarding City bylaws need to be tracked in one system with the ability for the customer to track if staff have visited the site and/or the file is closed.

3.1.2 Digital Staff Experience

There needs to be full end-to-end activity and workflows.

Starting with Pre-Consultation meetings through to condition clearances, the work needs to be undertaken and recorded within the system.

From a staff perspective, moving to portal and digital services should allow for automated data entry. Rather than having staff key in information that comes in PDF forms, the applicant should fill in online forms that populate the databases. With the requirement for complete data in one system, the City and agencies are better able to access good quality data for other work.

Having the applicant input tombstone data in a system that flows into databases saves staff time, allowing them to do more value-added work and reducing the potential errors from transcribing information.

With increased legislation pressures on timelines for Planning applications (and generally, the expectation to deliver value to customers) the ability to save time by reducing administrative tasks through automated workflows is critical. Plans and studies can move seamlessly without needing to save them in corporate drives and upload them to file transfer systems such as 2big4email. Reviewers are notified by the system that there is a file awaiting review. Managers can also monitor workload and pending deadlines.

As reviewers are making comments, they can see comments coming in from other reviews making it easier to identify those issues that may need coordination.

The system can also alert the customer to their requirements and as mentioned above, needless file status inquiries can be reduced freeing staff to work on the files rather than answering questions on status of comments.

By moving to one system for data collection and file management, there is one single source of truth for internal and external reviewers.

An integral part of the future state is the use of Electronic Plans Review. Although Bluebeam is currently being used, moving to full EPR allows for the receipt and markup of digital drawings. Benefits of reduced paper and file storage requirements have been realized, however with EPR, there are many more benefits.

EPR allows for current reviews, overlaying of drawings for version control, readily identifying changes on plans, commenting on plans and then ability for the comments and change request to be converted to an itemized list. In the event of needing to approve something under a deadline, staff can “take over the drawings” and make redline changes to bring plans into conformity. EPR also allows for batch stamping for approvals.

EPR should result in reduced cycle times for comments, and fewer resubmissions improving customer service and staff time.

In staff interviews, it was noted that information was stored in Amanda for some things but also in emails, corporate drives, Word documents, Excel spreadsheets, handwritten notes, pictures on smartphones, etc. With a portal for submissions, EPR and the requirement for all tracking in Amanda, file management is simplified. This ensures a complete record and assists with the handoff of files between staff due to retirements, departures, or illness.

3.1.3 Mobile Experience

A third, important component of the future state is an improved mobile experience for staff. When going into the field for building inspections, tree inspections or bylaw complaints, staff need to easily transfer information into the back-office system. There needs to be real-time field access to the data. The software needs to work on a variety of hardware, smartphones, tablets and/or laptops. It should be easy for staff to upload photos and videos. Handsfree, voice-to-text is also extremely helpful as jobs sites and staff vehicles are not conducive to keyboarding.

Staff should be able to work in real-time where there is cellular connectivity or Wi-Fi but also, they should be able to work offline until they connect.

The system should also help with optimizing routing of site visits. Using mapping capabilities, the system should lay out the optimized route to visit job sites. Also, it is useful to receive notifications of work assignments while in the field.

3.2 Key Components

While we have highlighted three key areas, typically, an LMDP is an ecosystem of connected and integrated products that includes the following elements or components:

1. An easy-to-use, customer-centred website that provides simple guidance to users of the service to help them understand what is required to use the services.

2. An online service/portal that enables users to self-serve, providing users the ability to request, apply, upload, pay, and manage their application or request through its lifecycle.
3. A website that enables community members to easily find out about, subscribe to be notified about applications and permits.
4. A back-office, digital workflow processing and data capture system, providing reporting and data analytics capabilities, with integrated GIS capabilities.
5. An integrated EPR system that enables integrated drawing and document management, storage and markup capabilities.
6. Mobile solutions for field staff that connects them to the back-office system, documents and drawings, and historical information.

3.3 Potential Value / Benefits

Introducing these capabilities manifests different benefits for different stakeholders, as identified in the table below.

Beneficiary	Benefits
User (applicant, agents, owner, subcontractors, business owner, etc.)	<ul style="list-style-type: none"> • Can apply and manage applications from anywhere at anytime • Can delegate access to all contributors/participants in the project • No physical trips needed to City Hall to make payments or provide paper drawings and documents • Significant reduction in paper use and printing costs • Can receive real-time status updates as application progresses • Doesn't need to call to find out information / status about application because they can access that information online – improved communication • Have access to agency and staff comments online • Do not have to duplicate tombstone data between applications (less data entry) • Always have access to the latest, updated information

Beneficiary	Benefits
Community member / public	<ul style="list-style-type: none"> • Can find information about all applications, permits at anytime • Can subscribe to be notified of new applications in their ward / neighbourhoods / City • Can provide feedback to all development in the neighbourhood
Mayor and Council	<ul style="list-style-type: none"> • Can look up information about applications, permits at anytime • Can subscribe to be notified of new applications in their ward / neighbourhoods / City • Can answer constituent questions based on information available online
City management	<ul style="list-style-type: none"> • Can access real-time performance data, allowing responses to changing workloads and pressures • Can access community development pipeline data and monitor trends • Can monitor policy impacts, and fine tune policy
Planning, Building, and Licensing staff	<ul style="list-style-type: none"> • Can reduce data entry time • Can automate task assignment, reminders leading to reduction in time spent chasing commentors • Have version control on documents (complete historical records) as well as ensuring all reviewers are reviewing the same “current” drawings and plans • Can automate reports, document generation, map-making • Data and information in a format useful for analysis and reporting • Facilitates broader public consultation (beyond the legislated requirements) • Better data for undertaking policy studies
Inspectors and enforcement staff	<ul style="list-style-type: none"> • Can speed up the inspection and documentation process

3.4 Illustrative Experience at Mississauga

As noted earlier, Mississauga, Markham, and Barrie are often cited as leaders in Ontario in this space (by the development industry and by peers). Each of these municipalities has achieved the target state by implementing the key components outlined in the previous section.

The project team met with each of these teams, and other leaders in this space to learn from their experience which was both impressive in their achievements and instructive for the City.

At the City of Mississauga, significant process efficiencies and turnaround time reductions have been achieved and the Commissioner of Planning and Building recently spoke publicly to the Planning and Development Committee about their experiences and successes in implementing digitally enabled change.³

Over the last 5 years, by applying process redesign, continuous improvement and leveraging technology capabilities across various separate initiatives, Development Services has freed over 11,000 hours of staff capacity, reduced by 24% the amount of staff time required to review Site Plan applications, reduced Development Application turnaround by 57%, seen a massive reduction in customer travel, visits to City Hall and paper consumption, and has been able to analyze the data it has collected to see new trends, insights and identify further opportunities for improvement.

The takeaway from this is that the value of investment in digitization, process improvement, and moving these services online is undeniable.

3.5 BPO Outcomes – Estimated Process Improvement Potential

While the experience in Mississauga highlights real experience, and the [Key Capabilities](#) section above highlights theoretical benefits, the work that the consulting and City teams did around process optimization identified specific benefits that the City of Burlington could achieve in just 8 of the processes currently running through the LMDP.

³ <https://pub-mississauga.escribemeetings.com/Players/ISISStandAlonePlayer.aspx?Id=82aa07f8-b7cd-4b06-be1b-20972aea43b2> – the segment starts at 14 minutes and 50 seconds into the linked video.

The following table highlights the potential benefits identified in each of the reviews:

Process/Service	Time Savings (minutes per application)	# of Steps Improved or Eliminated	Number of Annual Transactions	Estimated Cost Avoidance or Value ⁴ of Time Saved (annually)
Building Permits and Inspections	Permits 60 Inspections 75	Permits 42 of 67 Inspections 13 of 29	700 ICI permits 2100 inspections	\$63,000
COA	140	52 of 75	110 new applications	\$10,267
OPA/ZBA Applications	115	35 of 89	24 new applications	\$1,840
Site Plan	320	77 of 122	20 regular applications 25 minor applications	\$6,933
Business Licensing	New 70 Renewal 60 (Renewal Letters 120 hours annually)	New 33 of 46 Renewal 28 of 34	50 new licenses 400 online renewals 100 manual renewals	\$11,133
Tree Permits	95	14 of 60	1,400 permits	\$88,667
Animal Licensing	11	6 of 24	7,000 licenses	\$51,333
Death Registrations	20	4 of 24	1,740 registrations	\$23,200

⁴ Cost avoidance is calculated based on the proposed digital service delivery assuming that 80% of the total transactions could be performed using the online channel. A standard \$50 hourly rate was applied in the calculation. This hourly rate includes a blended rate including benefits.

Process/Service	Time Savings (minutes per application)	# of Steps Improved or Eliminated	Number of Annual Transactions	Estimated Cost Avoidance or Value ⁴ of Time Saved (annually)
Total for the 8 services				\$256,373

Collectively, the work identifies the potential for over \$250,000 in cost avoidance annually, should the digital to-be processes be implemented.

Note

The value savings is a discrete estimate of resource time that can be freed up for more value-added activities and does not include other benefits, e.g., fee forfeitures (requirements per Bill 109) avoided because of streamlined processes; savings in other functions because of ready access to up-to-date integrated data; efficiencies for follow-on processes that benefit from higher quality outcomes of predecessor processes, etc.

4.0 Options Evaluation

Based on the understanding of the current situation, and the desired target state presented across the previous two sections, the team next turned its attention to understanding the options available to the City.

4.1 Solution Capabilities – Market Assessment

Based on the needs identified by City staff and our discussions with the development community, the consulting team developed a set of requirements for a modern LMDP that could meet the expectations of the target state.

A summary of these requirements is listed in the table below.

Feature
Portal
GIS Integration
Case Management and Workflow Management
Fee Calculation, Receipting, Deposits, Securities
Document Management, Creation, Email Automation and Correspondence
Agency Commenting
Electronic Plans Review
Inspections Booking, Management, Self-Service
Modern Mobile (Cell, Tablet, Laptop)
Dashboard, Reporting
Modern UI, Open API, Cloud Available

Next, Perry Group conducted an analysis to match the business needs with the capabilities of major Planning and Permitting systems in the market.

4.1.1 Amanda Fit-Gap

A high-level summary of the feature comparison with the latest Amanda 7 version is provided below:

Feature	Amanda (Current Version, Fully Implemented)
Portal	✓
GIS Integration	✓
Case Management and Workflow Management	✓
Fee Calculation, Receipting, Deposits, Securities	✓
Document Management, Creation, Email Automation and Correspondence	✓
Agency Commenting	✓
Electronic Plans Review	✓ (with integrated solution)
Inspections Booking, Management, Self-Service	✓
Modern Mobile (Cell, Tablet, Laptop)	✓
Dashboard, Reporting	✓
Modern UI, Open API, Cloud Available	✓

The consulting team concluded that the current Amanda system – with some enhancements and updates – can support the requirements of the City.

We also noted that one of the leading municipalities frequently cited by the development industry as a leader in this space (City of Markham) uses Amanda to deliver their digital Planning and Permitting services.

4.1.2 Fit-Gap Assessment – Alternatives

The consultants also used their knowledge of the market to both identify and then compare the City’s needs with features available in other industry -leading Planning and Permitting solutions. The results are summarized in the table below:

Features	Amanda	Accela	POSSE	Clariti	CityWorks	CityView	Energov
Portal	✓	✓	✓	✓	✓	✓	✓
GIS Integration	✓	✓	✓	✓	✓	✓	✓
Case and Workflow	✓	✓	✓	✓	✓	✓	✓
Fees and Payments	✓	✓	✓	✓	✓	✓	✓
Document Management	✓	✓	✓	✓	✓	✓	✓
Agency Commenting	✓	✓	✓	✓	✓	✓	✓
Electronic Plans Review	✓	✓	✓	✓	✓	✓	✓
Inspections	✓	✓	✓	✓	✓	✓	✓
Modern Mobile	✓	✓	✓	✓	✓	✓	✓

Dashboard, Reporting	✓	✓	✓	✓	✓	✓	✓
Modern, Open API, Cloud	✓	✓	✓	✓	✓	✓	✓
Used By:	Markham, Kitchener, Cambridge, Vaughan	Kingston, Barrie, Sudbury, Fort McMurray	Saskatoon, Halton and Durham, Edmonton	Peel and pilot project in Toronto	Nashville, New Tecumseh, Kincardine, L&A County	Oshawa, Regina, Haldimand County	Richmond Hill, County Grande Prairie

The conclusion from this scan was that:

- a. There are a wide range of LMDP solutions available. It is a robust and mature marketplace with many solution options.
- b. The functionality of the LMDP solutions in the marketplace is broadly uniform and undifferentiated, with all solutions likely capable of meeting the needs of the City’s vision for a modern LMDP.
- c. Almost all solutions are dependent on a separate solution for ePlans handling – with most (including Amanda) offering integration with market leading solutions such as e-PlanSoft, DigEplan and ProjectDox.
- d. The success of any LMDP initiative is more dependent upon people and processes than the technology solution selected.

4.2 Municipal Comparison / Background Data Gathering

As part of this stage of the assessment, the consulting team and representatives from the core team, met and talked to leading municipalities around their use of software – these included conversations with Markham, Mississauga, Guelph, Clarington, and Barrie. We also met with various vendors, partners, and implementers of LMDP solutions.

Important lessons learned from these conversations include:

- Developing a vision for the digital service delivery, communicating with all levels of staff, and continuously reminding and encouraging is vital to the success of digital transformation.
- The critical importance of top-level leadership and commitment to digital transformation is critical to success and realization of the vision. Regardless of solution, without this, digital transformation will not be successful.
- The importance of ongoing iteration and enhancement and recognizing that this is not a “one and done” project – digital Planning and Permitting takes time to realize – it requires a relentless focus on continuous improvement and full utilization of the solutions.
- Importance of fully-integrated, not disjointed solutions is critical – the features and capabilities include portal, back-office capabilities, mobile and integrated ePlans Review functionality.
- After less than a year, near full adoption (98% of all applications) of online Planning and Permitting services was achieved in Mississauga and Markham. While some customers needed some assistance to use the new services, the vast majority adopted the new services readily.
- The costs and timelines to replace Amanda are significant – the City of Barrie, for example, took 4 years to complete the migration and costs were in the \$3-4 million range.
- A deliberate effort for change management through a formal process is critical for user adoption and the overall success of any technology implementation.
- There is need to develop handbooks, PDFs, videos to assist applicants in using the system as well as a person walking applicants through, if necessary.
- Frequently engaging customers to test the system; get them involved early.
- Keep folders and workflows as simple and flexible as possible.

4.3 Options Analysis

The analysis above shows that the solutions reviewed by the consultants have the capabilities that the City is looking for, including the current Amanda system.

Following some consideration of a range of options, the go forward options for LMDP were narrowed down to either:

- a. Staying with Amanda and **renovating** the platform, or
- b. **Replacing** Amanda with an alternative solution in the market.

At this stage, Perry Group conducted a high-level evaluation of the pros and cons of replacing and renovating Amanda. The following table shows a summary of that comparison:

	Renovate Amanda	Replace Amanda
Pros	<ul style="list-style-type: none"> • Can meet needs (functionality fit) • Lower risk • Improvements can be broken into smaller chunks • Less change management required due to product familiarity • Can deliver real improvements, faster alternative • Likely lower cost to achieve goals (\$1 – 2M) • Existing community of Amanda users in Ontario and beyond 	<ul style="list-style-type: none"> • Can meet needs (functionality fit) • Fresh start • Some improved capabilities / benefits but similar functionality
Cons	<ul style="list-style-type: none"> • Perception of Amanda at City is low • Ability to generate excitement for staff may be lower than an alternative strategy 	<ul style="list-style-type: none"> • Substantially higher cost (\$2.5 – 4.5M) • Higher risk

	<ul style="list-style-type: none"> • Some expressed concerns about vendor commitment to market and product evolution (but Perry Group believes these concerns to be overstated) 	<ul style="list-style-type: none"> • No guarantee of achieving goals • Major effort required and longer time to market for improvements
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The assessment suggested that a complete replacement of Amanda would require a larger investment and a likely longer timeframe to realize the intended benefits. Conversely, renovating Amanda could be done in an incremental manner which would result in delivering real improvements to customers quicker. The solution can achieve the long-term goals of the City, with less investment and would build on existing knowledge and skills at the City.

At this point, the City has far from exhausted the capabilities of the existing system. The consulting team concluded that the issues and barriers to improved service are less about technology, and more about adoption and use of the technologies available and redesigning processes to take advantage of available technology capabilities.

It is Perry Group’s position that the City should focus on these areas before considering replacing the existing technology.

The consulting team presented the findings outlined in the material above to a combined meeting of the core team and Amanda Steering Committee.

On balance, the results of the evaluation suggested that proceeding to renovate Amanda would be the logical option. So, at that time, the consulting team posed the question – “Does the City have sufficient information to make a decision, or would they like to conduct a more detailed and thorough investigation of the alternative paths and costs of each path?”

Based on the analysis presented above, and the ensuing discussions, the City team agreed that, as the lower cost option capable of meeting the City’s needs, sufficient information was available to conclude that the optimal option for the City would be to retain and renovate the current Amanda system.

5.0 Selected Option and Go Forward Plan – Renovating Amanda

The recommended go forward plan is to renovate and enhance Amanda as the City's LMDP.

5.1 Goals

The enhancements to the LMDP should be based on specific business goals. We believe that the following business goals could be achieved by enhancing the Land Management Database Platform:

- **Enhance the customer experience** – With online 24/7 anywhere anytime access to land management services.
- **Enhance staff experiences** – With staff self-service, integration with other tools such as EPR, GIS and mobile access to Amanda.
- **Increase process efficiency** – Through process review and re-engineering, reduced duplication of effort and automation of activities.
- **Reduce turnaround times** – Through implementing efficient processes and cutting down waiting time.
- **Reduce the cost of providing land-management-related services** – Through moving over-the-counter services to online, the cost of overall service delivery is reduced.
- **Increase internal capacity** – Through streamlined processes and automated tasks, the time spent by internal staff on administrative tasks is reduced, creating extra capacity.
- **Enhance ability for better and faster decision-making through easy access to data** – Through data analytics and visualization through dashboards and maps to provide easy access to data stored in Amanda.

The go forward plan has been developed in line with the set goals.

5.2 Key Design Principles and Concepts

As the City pursues renovation of Amanda and redesigns its Planning, Building, and Licensing services and processes, as envisaged by this plan, we recommend that the following design principles and concepts be employed.

5.2.1 Design Principles

The following design principles should be used to guide the design of new and redesign of existing services.

- **Customer First** – Design processes for the customer (where possible, involve them in the design and involve them in testing solutions before they are more widely launched).
- **Service Design** – Re-design services (to be customer-centred) before attempting to digitize them. Take the opportunity to challenge status quo and simplify/standardize processes: don't over-design or design for exceptions – keep it simple. Adopt an MVP (Minimum Viable Product of Minimum Viable Service) approach. Start with the basics, go-live with the basics, and then enhance and improve in subsequent iterations.
- **Design Digital First** – Design all services for digital self-service. Provide Assisted Digital⁵ for those that need some extra help. Apply the 80:20 rule – 80% of users or more are likely to use the digital service.
- **Reuse Where Possible** – When building capabilities, build on common workflows, and build workflows and processes to be reusable / transferable.
- **Maintain the Digital Chain** – Everyone must use the system; if you do it – you record it, with no exceptions (based on seniority) – supported by monitoring and enforcement.
- **No Parallel Systems** – No duplication of work; one source of truth; ability for others to find info and pick up “the file”.
- **Let the Computer do the Work** – Automate that which can be, so staff can dedicate themselves to value-added work.
- **Data Over Documents** – Prefer data instead of a document, e.g., deficiency letters vs. reports generated by the system and access to the drawings.
- **Work Open by Default** – Transparency for customers, proactive disclosure to avoid unnecessary contacts with customers; only lock down internally truly confidential information.

⁵ Assisted digital refers to helping people use the online parts of a service either in person, on the telephone or via webchat. The person providing the support either helps them use the computer themselves, or uses it on their behalf. <https://www.gov.uk/service-manual/helping-people-to-use-your-service/designing-assisted-digital>

5.2.2 Important Concepts

In addition, several important concepts are important to keep in mind as the City implements new systems

- **One Project Approach** – While a customer is typically working on what they see as a single project (a renovation or new building project, a new business) the City’s services are designed discretely and separately. This creates the requirement for customers to apply separately for items related to their project. As the City redesigns its processes and services, it should consider how a single project concept, with sub-processes and milestones, could better represent the project and streamline and simplify the customer experience, reducing the need for separate applications.
- **Standardize and Reuse** – Where possible, in building workflows and capabilities, the City should design these for reuse. In designing or redesigning processes and services, the City should focus on commonalities more than uniqueness, and where possible, use shared patterns.
- **Challenge the Status Quo** – As the City works to revise its practices, we strongly encourage empowering teams to aggressively challenge the status quo. Far too many municipal processes have evolved over time and have their roots in historic practices, biases, assumptions, perception of legal requirements, and individual preferences. Many of these are factually incorrect, no longer apply, and certainly should not form the basis of new digital processes. Leaders will need to play a large role in empowering teams to challenge the status quo, and then helping them push changes over the line.

5.3 Key Renovation Activities

5.3.1 Technology Enhancements

To achieve the above goals, the Amanda platform and other peripheral tools require enhancements. The key areas of improvement include:

Select and Implement a New Online Self-Service Tool

The City has tried to provide services to its citizens using the current web interface. So far, only a handful of services are available online.

None of the core Permitting or Planning application types are available through the web. The current web tool is an old version and requires a considerable amount of development and configuration by technical staff to move a service online.

The City needs an online tool that is an extension of the Amanda back-office system with minimum customizations required to enable online services.

The new tool should be easy-to-use for the public, easy to implement for the City and be flexible to modify in the future when the business requirements change.

The Amanda Citizen Portal from Granicus is recommended as a suitable tool. This tool is developed by the Original Equipment Manufacturer (OEM) and is a supported extension of the Amanda back-office system.

The new tool (or portal) should enable the following self-service functions:

- Customer account with user ID and password including self-service for password reset.
- Ability to apply, pay and upload documents online.
- Ability for the customer to check ongoing status of their applications via the portal.
- Continuous collaboration between the customer and City staff on applications and documents including re-submissions, reviews and feedback.
- Automated alerts to customer based on milestones, deadlines, next steps, etc.
- Ability to invite other parties to collaborate on the applications, e.g., consultants, agents, contractors, etc.
- Online scheduling of meetings and inspections.
- Ability for the public to access a limited amount of data for all application types without having to manually upload to the website.

In addition, the online tool should include an online self-service guide/wizard to:

- Help guide the customer with questions and to find answers to their questions.
- Help the customer understand what type of applications should be used and the supporting document requirements, fees, etc.

Major Redesign to Existing Amanda Folder Types

The City has expanded the use of Amanda across the organization with over 140 folder types, however, the City has not been able to keep up with the ongoing maintenance of these folders.

As a result, many folder types are out-of-date compared to the current processes. This has created many workarounds that are less efficient for staff. The current backlog of Amanda-related maintenance requests has over 100 items. Some folder types have not been updated since 2007, therefore, the following redesign and maintenance activities are recommended:

- Consolidate Amanda folder types for better user experience and efficient maintenance.
- Update the out-of-date document templates so that users are able to use the templates with minimum manual changes.
- Redesign the business processes with an end-to-end digital objective.
- Synchronize the Amanda flow with the redesigned digital business process flow.
- Develop automated fee calculation using existing Amanda features.
- Implement automated alerts, actions and automated reports using the Batch Scheduler.

Reporting

The reporting and visualization of data and processes managed in the system needs to be significantly expanded. Management and staff need the following capabilities:

- Track timelines, performance, SLAs, etc. through visual dashboards within the system.
- KPIs for management and staff via dashboards.
- Automatic alerts when timelines are approaching.
- Track the amount of time an application was with the City, with the agencies and with the customer.
- Ability to analyze historical data for decision-making, e.g., How many similar Minor variances are received in the same area to adjust the same Zoning condition?

Systems Integrations

An end-to-end digital service requires multiple integrations between the main Amanda system with other peripheral systems. These integrations make the staff and customer experience more seamless and reduce the need to duplicate information between systems. For example, payment received in the Amanda system should be automatically sent to the Finance system without having to manually duplicate the data entry.

Amanda 7 comes with a set of integration capabilities called APIs (Application Program Interfaces). These APIs allow the Amanda system to receive data from other systems and to send data out to other systems.

The following integrations should be considered:

- Amanda-GIS integration to allow the property data in Amanda to be overlaid with other City-owned GIS layers. This is an important integration to have since most of the services tracked in Amanda are location-based.
- Integration with the Finance system to allow payments received in Amanda to automatically update the Finance system.
- The City uses Bluebeam as the current EPR tool. The EPR should be integrated with the Amanda system for the seamless sharing of drawings between the two systems.
- Amanda should be integrated with the Online Payment Processing platform allowing online payments to seamlessly update the Amanda system.
- An optional integration would be with the eScribe Council Agenda Management system.
- Amanda should be able to electronically transfer Development Applications and permits to external agencies so that the agency systems could consume the application data without having to manually duplicate the data entry into their systems, e.g., the Region, conservation authorities, school boards, etc.

Fully Leverage 'New' Amanda Capabilities

Amanda 7 has built-in capabilities and new features that the City should be leveraging. The current folder designs and workflow are based on decades-old Amanda features. There are new ways and tools available within Amanda 7 that could streamline and enhance the user experience, e.g., Amanda 7 could automatically prepare a public circulation address list based on a specific radius from a property address. In the old Amanda versions, this feature was not available.

Similarly, the following new features should be reviewed and implemented through the folder redesign exercise:

- Implement the built-in Amanda Dashboards using the Yellowfin license. The Dashboards should be designed to help management users easily track their KPIs (Key Performance Indicators). The Dashboards allow users to identify exceptions and to drill down to folder level to find details.
- Implement the built-in Amanda-GIS integration. This allows users to use the map interface to search and run visual reports based on specific search criteria. Amanda folders could be shown on a GIS map overlaid with other location-based map layers.
- The Amanda Citizen Portal is a supported Amanda product that should be evaluated and implemented to replace the current portal.
- The Amanda public property search allows for the public to search an address and receive a predefined sub-set of information related to the property and all related applications such as Building permits, Development Applications, licenses and complaints.

External Agency Comments Portal

The City needs to streamline external agency commenting by expanding the circulation capabilities of Amanda to partners. This should offer:

- Ability to circulate applications to external agencies for commenting.
- Ability to receive electronic comments from agencies directly into Amanda.
- Agency staff secure access to the Amanda folder comments.

Electronic Plans Review (EPR) Tool

The development approval, permitting and engineering processes require review of drawings. Comments and markups of these drawings needs to be consolidated and sent to the applicant for review and correction in a process that can be repeated numerous times. The most efficient way to mark up a drawing is by using an EPR tool.

While some users have access to the Bluebeam EPR system, the use is not consistent and a better understanding of how the tool can be used across teams is required. So, in the short-term, the product team should identify how the solution can be better utilized.

In the next 12-18 months, it is recommended that the City replace the current Bluebeam solution with a more fully-featured and integrated solution (e.g., ProjectDox, ePlanSoft, DigEplan, etc.). With the implementation of a more complete solution, there is an opportunity to significantly reduce administrative overheads associated with plans markup, as well as ensuring clearer communication between the City and applicants, by sharing the marked-up drawing instead of manually listing defects and comments into deficiency letters.

Mobile App

A modern mobile tool should be implemented to allow the field staff to be more efficient. While Granicus offers a robust mobile solution for inspectors and enforcement officers that runs on Windows, Android and iOS tablet devices, there are alternatives in the market and some municipalities have opted to develop their own.

For costing purposes, the consulting team has used pricing for the Granicus solution and would lean toward Original Equipment Manufacturer solutions. It is recommended that the City conduct a review of business needs and a fit-gap analysis with the built-in tool prior to deciding on the appropriate path.

New Amanda Modules

The City has already made a significant investment in Amanda and specific modules – some of which it will leverage more fully in the implementation of these envisaged changes. In addition to the base product and existing modules, the consulting team recommends the addition of the following Amanda modules:

- Granicus/Amanda Citizen Portal.
- Granicus/Amanda Single-Sign-On Adaptor.
- Granicus/Amanda Batch Processor should be expanded to automate time-based tasks.
- Granicus/Amanda external agency review/commenting module.
- Granicus/Amanda Document Management connector.
- Granicus/Amanda Mobile.

5.3.2 Consider Linkages to Other City Technology Strategy

Nothing operates in a vacuum, and in this case, it is important to recognize that decisions related to LMDP must be made in alignment with other City strategy-setting work – both in flight and to be considered in future.

Web / Digital Platform

The strategy recommended here pushes the City toward implementing digital services for Planning, Building, etc.

There are various ways this can be achieved, either through building or buying a portal solution. The vendor today offers the Granicus Citizen Portal – a more recent product offering that extends Amanda with a portal that enables these online services.

The City’s goal is for customers to have a consistent user experience when interacting with the City online – an Amazon-like experience. The preference is also for a single login that gives customers access to all City services.

How this experience is achieved – either via a single portal, or through a constellation of portals that are linked together and presentationally integrated – must be considered.

The consulting team, in this case, recommends the expediency of adopting an OEM portal to achieve these goals – but recognize there are other considerations beyond the scope of this piece of work.

Service Burlington / CRM

Throughout this document, we have described a Digital First service concept – where customers primarily apply and manage applications online. This model, with a 98% uptake rate, is in operation in Markham and Mississauga today and is working well.

Nonetheless, while community members will be able to self-serve, inquiries about Planning and Permitting will come to Service Burlington and there is an intent for customer service agents to be able to resolve a high percentage of inquiries at the first point of contact – without handing off to back-office teams.

It is important, therefore, to determine what questions and inquiries the City wishes to move to Service Burlington and to ensure that the requisite visibility into Planning, Permitting, Licensing and Enforcement activities is surfaced to customer service agents as deemed appropriate and necessary to answer inquiries.

Document and Records Management

The Planning, Permitting, and Licensing processes are heavily document-centric – documents and drawings are often (if not always) attached to applications and must be reviewed and retained as part of the complete application package.

How these digital files are handled and linked to the LMDP is an important consideration going forward as the City moves away from a paper representation of a file to a digital representation. Furthermore, as the City moves away from file shares to document management systems – perhaps even toward Microsoft 365 – figuring out where digital files should be stored (and how they are retained for the long-term) is also an important consideration.

Each of these topics are represented as work activities/packages in the proposed LMDP [work plan](#) presented later in this Report.

5.3.3 People Changes

While the renovation of Amanda sounds like a technology update, it is not only in the technology area where changes should be made. The City also requires improvements in the areas of people and process.

It is recommended that people and process challenges be resolved prior to investing in technology.

Adopt Product Management Practices

It is recommended that the City adjust its approach to managing LMDP from a ‘project’ to a ‘product’ approach.

In contrast to a traditional project approach, product management is concerned with the entire lifecycle of a product. A Product Manager should be assigned to lead work on the product roadmap, helping the City fully utilize the capabilities of the platform and coordinating delivery teams.

The Product Manager should work closely with defined Service Owners from each key business area who will help identify business needs and priorities, sequencing of work and encouraging and evangelizing reuse.

The product team (which is the Product Manager and Service Owners together) will work closely with the Amanda Steering Committee⁶ to secure commitment to the roadmap, secure funding, and resources, and to help steer the execution against the product roadmap.

Empower Business Units

In addition to adopting product management practices, the City should continue to have a centralized IT team that supports and implements upgrades, enhancements and new capabilities to the LMDP.

⁶ The City may wish to consider re-titling the Amanda Steering Committee to LMDP Steering Committee or some alternative that better represents the broader scope.

However, to increase business ownership and responsiveness of the platform to local business needs, dedicated Business Technologist roles are recommended within Planning, Building, Licensing and Enforcement business areas to enable improved training and support of LMDP, increase local knowledge of capabilities, and to enable simple changes to be made to the system by local specialists.

Together, these two threads result in the following model for managing the LMDP product.

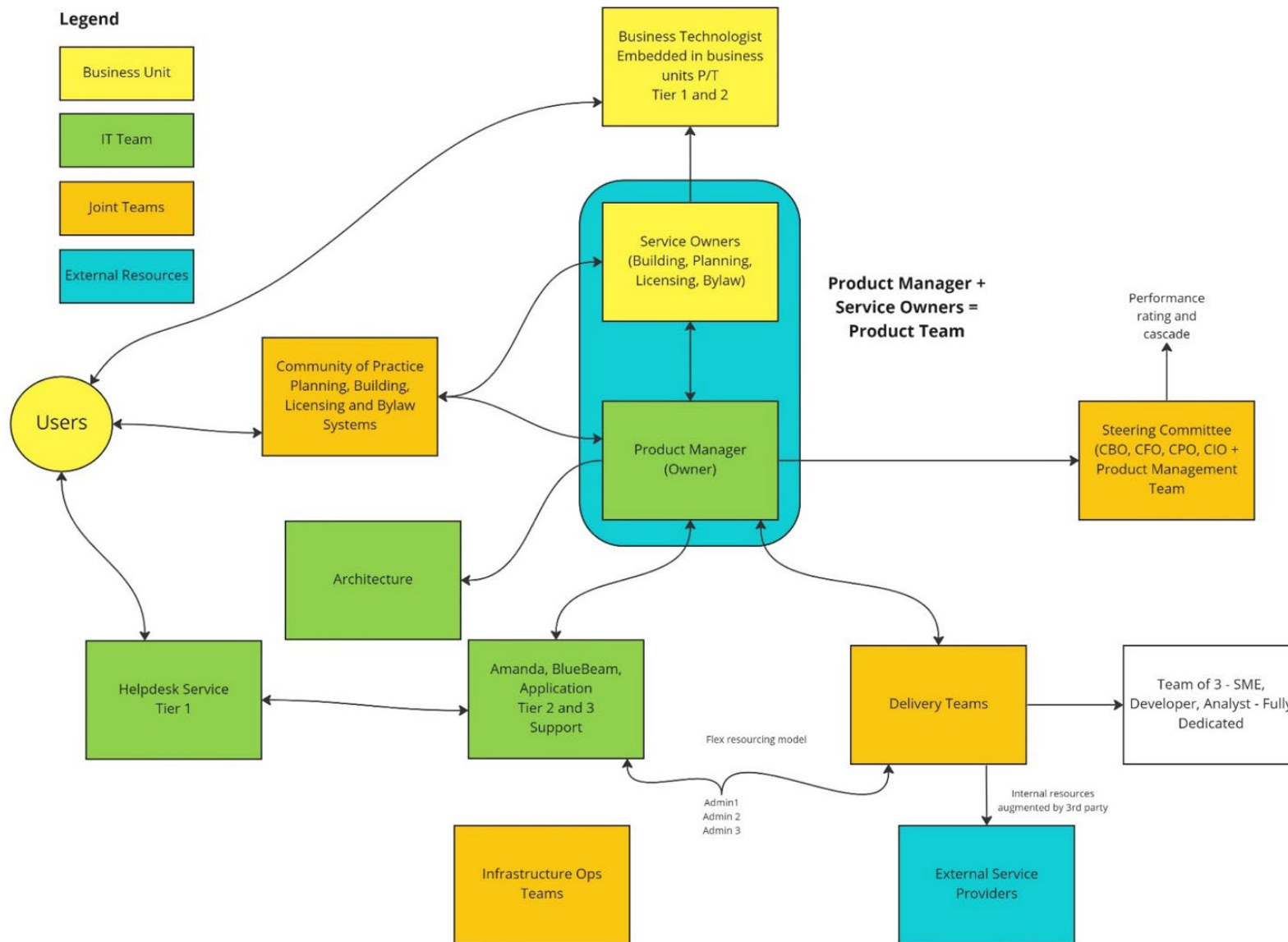


Figure 4: Product Management Approach Model

In this model, there are key players from both Information Technology Services (ITS) and business areas with specific roles, included in the product management environment. Some of the most important new roles and their responsibilities are identified below.

Product Manager

The Product Manager role will be an ITS staff member with a deep understanding of the Amanda platform as well as a good understanding about the services and business processes automated by Amanda.

The Product Manager will:

- Fully and deeply understand each of the lines of business that the product serves.
- Work with users (interviews, discussions) to understand how the product is used and to learn about current challenges, product gaps and opportunities.
- Develop mechanisms (product suggestion forums, surveys) for users to provide continual feedback on product capabilities.
- Work with external customers to understand how they use the product and to learn about current challenges, product gaps and opportunities.
- Analyze data produced by the product to understand use patterns / challenges / opportunities.
- Monitor service requests / change requests.
- Analyze use of software and identify root causes of problems / unintended outcomes.
- Develop hypotheses and ideas to test.
- Work with Service Owners to filter requests, align with product strategies and set product priorities, applying a simple prioritization scheme.
- Develop and maintain a product roadmap (detailed short-term and high-level long-term).
- Communicate product roadmap, delivery progress, resource utilization to governance.
- Conduct annual planning.
- Actively manage backlog items.
- Direct delivery teams.

- Plan and communicate product vision, roadmap, releases, and capabilities.
- Actively promote and market product capabilities (new / enhancements) internally and externally.
- Define and measure outcomes and value (benefits).
- Monitor use of new features.
- Monitor vendor roadmaps / enhancements, and incorporate into the roadmap (e.g., annual updates).
- Monitor the marketplace (competitor products, leading municipal practices).
- Manage systems support and delivery teams.

Service Owner

Leaders from each business area will play the Service Owner role.

This role requires a portion of these leaders' time be freed up to dedicate to this effort (around 20%). These players are responsible for their service areas and are the conduit to the product roadmap. They need to ensure that the systems and tools are in place to provide the best service to their customers.

Service Owners will:

- Have a clear vision of how the service can/should run optimally using/powered by technology.
- Watch and work with users to understand how the product is used today.
- Identify enhancements and approaches to implementation for their service areas.
- Direct local systems specialists on minor systems changes / updates.
- Work with other members of the product team to prioritize enhancements, manage backlog and set product roadmap.
- Act as central point to coordinate positions / standards / best practices.
- Provide direction to project teams.
- Evangelize and promote systems use.
- Closely monitor adoption / systems usage.

- Support and direct change management activities / management reinforcement.
- Monitor vendor roadmaps / enhancements, and incorporate into the roadmap (e.g., annual updates).
- Monitor the marketplace (competitor products, leading municipal practices).

Business Technologist (Embedded in Business Units)

Each key business area (Building, Planning, Licensing and Bylaw) should have a dedicated Business Technologist with the ability and access to the Amanda administration tasks.

This role would fulfill the following functions:

- Simple, local configuration changes (add/change drop-down lists, adjust fees, adjust process and workflow steps, update templates).
- User privilege management.
- First tier troubleshooting.
- Work with project teams as part of larger initiatives / projects.
- Documents and maintains operating procedures.
- Systems and process training in service areas.
- Business process review and optimization.
- Receive feedback from end users and pass to the product management team.
- Identify enhancement opportunities.
- Reporting / outputs.
- Training departmental staff.

The Role of the Amanda Steering Committee

The Amanda Steering Committee would continue, with existing membership CBO, CPO, CIO and CFO, plus the Product Manager and Service Owners.

The role of this group is to:

- Provide executive leadership of the ongoing LMDP product.
- Own the strategic vision and business outcomes.
- Regularly review and sign off on the roadmap (presented by the Product Manager and produced by the product team).
- Approve policy and standards.
- Monitor progress (receive updates from Product Manager).
- Secure resources and funding.
- Clear process, organization, and political barriers to advance the program.

Establish an LMDP Community of Practice

It is important that the community of users of the LMDP have a strong voice and can contribute to setting product direction. After all, these are the people that will be using the platform day in and day out.

We recommend that the City run:

- A Teams channel/forum for users of Amanda to ask questions, share tips and tricks, good things and bad things, to suggest enhancements, to share product roadmap, to make announcements and promote new features / capabilities.
- A regular (quarterly) open-house-style meeting for Product Manager and Service Owners to share updates on product roadmap and seek feedback from the community.

Build a Culture that is Committed to Digital and Change

All of these changes are designed to position the City to implement technology-enabled change but the most transformative outcomes associated with LMDP are achieved when there is a strong leadership and a team culture that understands and is aligned with the goal of digital service delivery.

While technology improvements are important, adoption of a digital mindset and team culture is critical for the success of the overall initiative.

Building a digital culture within business units requires the following key components:

- Business leaders are ready to use the system themselves on a daily basis. Reports, data analytics, approvals, etc. are performed directly within the system by the management, setting an example to the other users (leading by example).
- Business leaders are using data directly from the system for decision-making. If the system doesn't show an activity, the assumption is that the activity has not taken place.
- Data entry and system updates are performed consistently by all users. There are no exceptions for some users to use paper and others to use the system to process applications.
- The digital chain is not broken. End-to-end processes are digitized.
- A continuous improvement of processes is built into the culture of the organization. Users are praised for proposing improvement ideas and the ideas are converted to practical projects through the product management environment.
- A Customer First attitude is developed and maintained within the business.
- The organizational culture is aligned with creating efficiencies using digital technologies. Digital ideas are encouraged and achieved.
- Online first, mobile first approach to business processes used as service design principles.

5.3.4 Process Changes

The introduction of new digital and technology capabilities, contemplated in the target state, should prompt the City to review and re-think every one of the services that it offers – through a digital lens, a lens that designs each of those services for the modern age, to take advantage of digital capabilities such as online payments, signatures, markup, document uploads, etc.

Our process optimization work identified many opportunities, including:

- Implement self-service to the processes where the customer is able to self-serve their basic needs such as inquiries, status checks, obtaining updates, etc.
- Redesign the application forms to enable and simplify the information asked from the applicants. Eliminate the questions related to data maintained within the City, e.g., current zoning of a property.
- Treat applications as customer projects. Each project may require multiple instruments to achieve the end goal, e.g., a new in-fill residential building may require a Zoning Amendment, Building permit, water and sewer service and a driveway permit. Some of these services are provided by other agencies or departments but they are all related to the new building project. The business process should be designed to entertain all aspects of the project and not just individual instruments. The current Pre-Consultation application can be considered as the parent project for all subsequent application/instrument types:

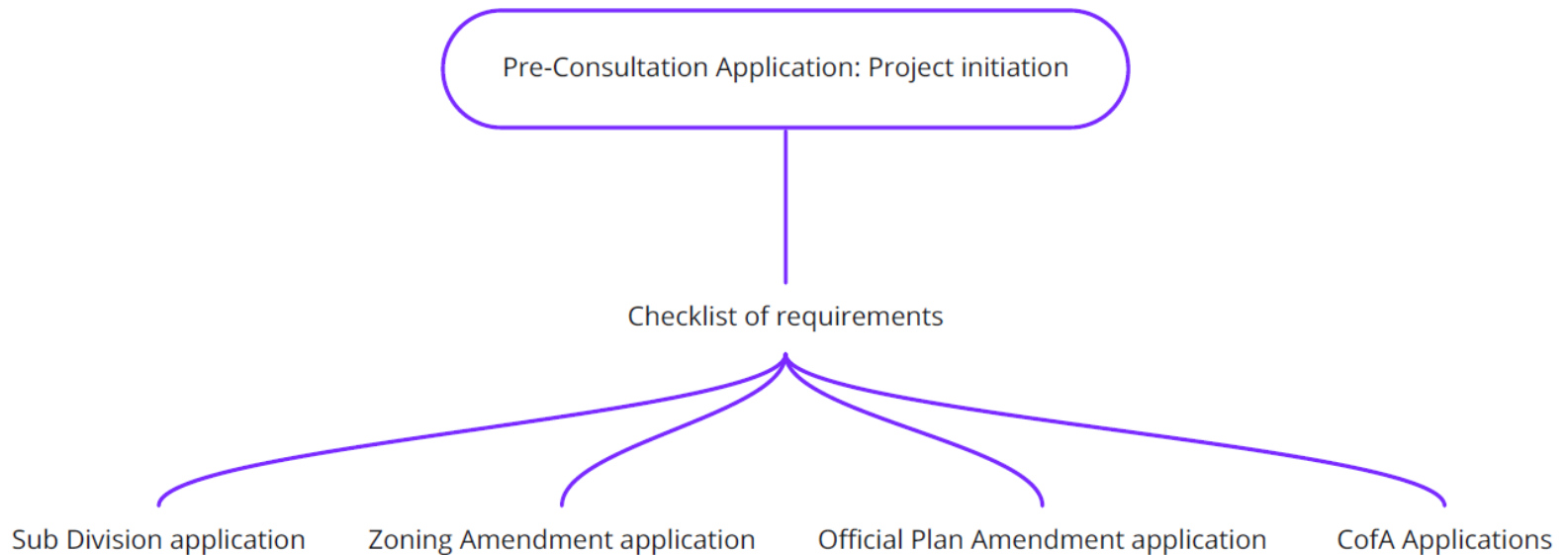


Figure 5: Application as a Project

- All application processes can be sub-divided into the following 3 stages:
 - Apply: Application input, initial review and deemed complete or accepted by the City.
 - Review: Application circulated and reviewed by necessary parties internal/external.
 - Approve: Approval parties have provided their conditions and comments and the approval authority and the approval process is executed with the final approval.
- Each of the three parts could be standardized and reused in multiple application types, e.g., the Apply process for a Zoning Amendment application could be reused for the Subdivision Application process.

Fundamentally, the City must perform process optimization exercises prior to automation as a standard practice.

An existing process must not be automated as-is, otherwise the full benefits of digitization – process efficiency and improved customer experiences – will not be achieved.

Establish Process and Service Design Specialists

The work described above – rethinking and redesigning services and processes – is a definitive skillset. Business Analysts, Business Process Improvement Specialists and Service Designer roles are typically responsible for this work – working side-by-side with subject matter experts.

It is recommended that the City establish this important skillset/capability and the capacity to support this work in the LMDP program within the organization.

6.0 Implementation Plan

6.1 Approach to Sequencing the Implementation Plan

The consulting team used and applied the following concepts in building the recommended Work Plan. The plan is designed to:

- Sequence implementation work to produce early wins, build momentum and secure positive internal publicity while also addressing Bill 109 and other needs created through recent legislative changes.
- Work the muscle – begin to get all Planning staff using Amanda actively, e.g., by mandating that all basic information for all Planning application types be entered into the system and that key milestone dates be tracked and by building reports to monitor compliance/accountability.
- Test/prove that big service delivery shifts concepts and ideas (digital customer experience – online submission, status tracking, payments, digital staff experience, workflow, agency collaboration, EPR, reporting and data, and mobile – mobile solutions for inspectors). Where possible, the plan is designed to prove these concepts with simpler/easier processes (fewer people, involving a single organization unit, lower public profile, fewer steps, shorter timelines), before scaling to larger, more complex processes.
- Adopt a Minimum Viable Product approach. The City should apply the KISS principle (Keep it Simple, Stupid) to this work, focusing on building the basics first (tracking core data and dates) before iterating to get more complex (with fancy automation), or deal with exceptions (perfection is the enemy of good enough).
- Embrace an agile approach and the sprint cadence. In doing so, the goal is to get real, working enhancements and solutions into users' hands quickly (every 2 weeks) so that we can shorten the feedback loop and ensure that the work that we are doing is adding real value.
- Build incrementally. Each initiative has been sequenced so that it can build on/leverage capabilities established by the previous initiative.
- Constantly deliver tangible and real-value / benefits / incentives that will drive wider participation.

6.2 Key Work Packages

The following table identifies the key work packages that it is recommended the City pursue.

Work Packages	Key Activities
Enabling Work	<ul style="list-style-type: none"> • Set up effective product management model for LMDP • Department empowerment through role creation or assignment • Finalize key architecture decisions (BI, Document Management, CRM data integration, portal strategy)
Training Program	Establish a formal training program for LMDP
Planning – Initial Folder Mods (Support Bill 109) and Culture Shift	<ul style="list-style-type: none"> • Modifications to pre-consultation and other Planning folders • Enforced use of Amanda for basic tracking for all app types
Initial Planning Online Applications	<ul style="list-style-type: none"> • Implement online services capability • Implement online service for Pre-Consult, COA and Site Plan
GIS Integration	<ul style="list-style-type: none"> • Revamp GIS integration • Review address data and data management practices
Agency Review	Automated, online agency distribution and commenting
EPR and Document Management	EPR procurement and implementation in Building, then Planning
Building Permit Enhancements, Online and EPR	Folder updates, online, EPR and mobile

Work Packages	Key Activities
Remaining Planning Applications (Including Online and EPR)	Folder updates, online and EPR for remaining app types
Licensing Online	Folder updates, online apply and renew
Forestry, Engineering, Bylaw, Fire and Vital Stats	Folder updates, online apply and renew

6.3 Agile – The Approach to Delivery

We have mentioned, several times, the concept of agile delivery. We understand that the City is already embracing a more agile approach to delivery of technology initiatives and enhancements, and we would argue that the implementation of this Work Plan is well-suited to using the approach.

Agile is, at its heart, a concept that encourages teams to work in new ways, collaboratively, and iteratively – to focus less on upfront planning and more on discovery together. It is designed and proven to better deal with the uncertainty and complexity of software development.

For those who are unfamiliar with agile, the approach is significantly different from traditional waterfall project management disciplines, and introduces a series of new terms that you may not be used to, such as:

- Scrum.
- Sprints.
- User stories / features.
- Epics.

Training the delivery teams on Scrum or Kanban and associated techniques and methods – along with considering engaging an agile coach to assist with the adoption of the practice – may be of value to the City in its pursuit of this strategy.

6.4 Implementation Plan

The figure below shows the proposed implementation plan in a timeline view.

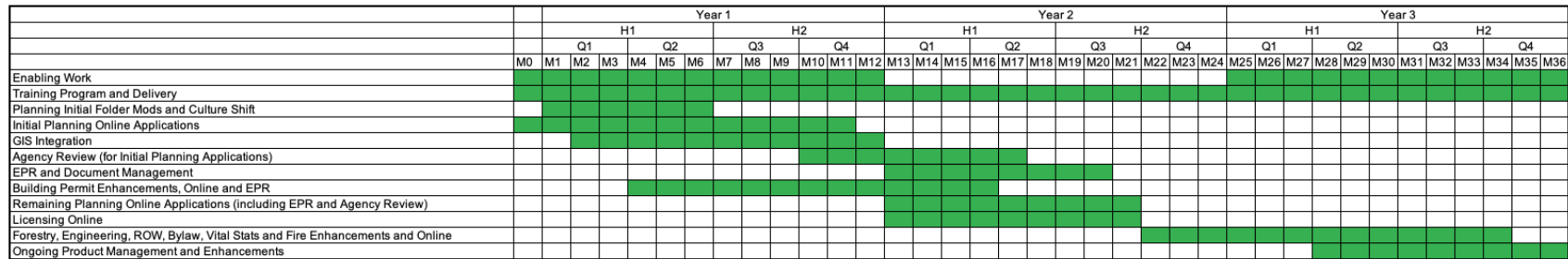


Figure 6: Implementation Plan in a Gantt-Chart Style Timeline View

The elapsed time for the program – with full resourcing, as described in the following section – is anticipated to take 3 years to implement. No dates or years are assigned at this time, as funding availability is unknown.

Year 1. Work on preparing for Bill 109 compliance, setting up the online Portal, getting initial Planning applications (pre-consult, COA, Site Plan) and Building permits up and running on the Portal would be the priority.

Year 2. Work would shift to implementing an integrated electronic plans solution, completing the Planning, and Building permit online services, implementing mobile technologies, and updating Licensing processes to take advantage of the new capabilities

Year 3. Focus on Forestry, Engineering, Right-Of-Way And Bylaw enhancements – again, to take advantage of the new capabilities of the renovated LMDP.

A detailed implementation Gantt chart has been provided separately to the City team.

7.0 Resourcing and Budget

7.1 Resourcing

7.1.1 Ideal Resourcing Model

For the City to advance the work program in an optimal manner, the consulting team recommends the creation of three delivery teams – one each for a) Planning, b) Permitting, v) Licensing and Enforcement.

In this ideal situation, each team would comprise a Product Owner (at 20%), a dedicated Business Technologist (local Subject Matter Expert (SME), a Business Analyst/Service Designer, and an Amanda Developer/BSA.

As described earlier, a [Product Manager](#) would oversee the LMDP environment and the broader roadmap, working closely with delivery teams and with the Amanda (or LMDP) Steering Committee.

Each of the teams would actively manage a backlog of work in their area of assignment and would iteratively, and consistently work on the digitization and continuous improvement cycle (like what Mississauga has pursued).

The teams would also work closely with and require support from content specialists in the City's web team, reporting specialists in the BI team, and a change management specialist or advisor to assist with successful adoption.

By building three teams, the City could advance on a number of fronts to realize the vision of digital service.

7.1.2 Implementing the Product Management Model + Empowering Business Units

While the optimal model is desirable, we recognize the reality of the City's situation. Based on our understanding of the current situation at the City, it is possible the following roles could be assigned to existing staff and management at the City:

- Product Owner – Planning
- Product Owner – Permitting
- Product Owner – Licensing and Bylaw
- Business Technologist – Licensing and Bylaw

- Amanda Developer / BSA
- Amanda Developer / BSA
- Reporting / BI Specialist
- Content Specialist – Web Team

However, the following three roles are not currently in place and would need to either be assigned to existing positions or be created to support the program. We recommend that these roles are the most critical positions to establish and fill to begin to move to the product approach described [earlier](#).

- LMDP Product Manager
- Business Technologist – Planning
- Business Technologist – Permitting

The City should also determine how it will address the following needs, either through contracted resources, secondments, reallocations, consulting services, or asking existing staff to take on additional tasks and activities.

- Business Analyst / Service Designer
- Business Analyst / Service Designer
- Business Analyst / Service Designer
- Amanda Developer / BSA
- Change Management Specialist

The budget estimates presented [below](#) account for the costs for these roles for the duration of the three-year program.

The City will also need to consider the ongoing product management resource requirements beyond the three-year timeline. We anticipate that the Product Manager, Product Owner, Business Technologist roles and Amanda Developer resources will be needed permanently – Service Designer/Analyst roles may also be required in the long-term.

7.1.3 Using Partners and Third-Party Providers to Address Resource Needs

While internal resources will be important, we recommend that the City set up a model that allows them to utilize external parties to assist in the delivery of the LMDP renovation program.

Amanda Specialists

There is a strong 3rd party ecosystem of implementation service providers around Amanda.

Firms such as Vision33, Meraki and Random Access are Granicus partners that provide implementation services that the City can use to augment internal resource capacity. The City of Guelph, for example, recently established a roster/vendor of record model for Amanda implementation and configuration services. Through this model they can rapidly prepare a statement of work and quickly contract support and resources to assist with Amanda implementation work.

Digital Transformation Specialists

Similarly, it is important to recognize that specialist capabilities – Change Management, User Research, Service Design, Business Process Optimization, Content Specialists, Testing – and many others are available on-demand to Burlington through freelancers, consulting firms, and on contract.

The City should not be constrained by its internal capacity and should establish repeatable and streamlined methods to draw in these skills on-demand.

7.2 Budget Requirements

A high-level budget estimate has been developed to include all tasks of the Work Plan spanning over a three-year period. The cost estimates are divided into two sections: Technology and Related Services Costs and Internal Staffing Costs.

7.2.1 Technology and Related Services Costs

The following table lays out estimated technology and services-related costs. The estimate totals \$860,000 in software and services capital costs, coupled with an ongoing commitment to an increase of \$52,000 in operating costs.

Purchases / Subscriptions and Services	Quantity	Unit Cost	Total Cost	Services Cost for Implementation	Ongoing Costs
Foundational Technology Implementation – Amanda ¹					
User Licenses	TBC				
Enterprise Auth Adaptor (SAML)	1	\$20,000	\$20,000		\$4,000
Granicus Citizen Portal	1	\$0	\$0	\$55,000	\$18,500
Inspection booking (included in Citizen Portal)	1	\$0	\$0		
Document Management connector	1	\$20,000	\$20,000	\$10,000	\$5,000
Agency Commenting portal	1		\$0	\$10,000	\$1,500
Inspector App Server	1	\$21,000	\$21,000		\$5,000
Mobile Inspector	20	\$2,200	\$44,000	\$10,000	\$8,000
Reporting / BI (Yellowfin)					\$10,000
GIS Integration				\$25,000	
Foundational Technology Implementation – EPR ²					
EPR solution	1	\$150,000	\$150,000	\$50,000	\$30,000
EPR integration	1	\$20,000	\$20,000		
Service and Process Renovation ³					
Planning process redesign				\$25,000	
Permit process redesign				\$25,000	
Licensing process redesign				\$25,000	
Amanda Folder Renovation ⁴					
Planning Folders Reconfiguration				\$125,000	
Permit Folders Reconfiguration				\$75,000	
Licensing Folders Reconfiguration				\$75,000	
Services contingency				\$55,000	

Purchases / Subscriptions and Services	Quantity	Unit Cost	Total Cost	Services Cost for Implementation	Ongoing Costs
Amanda Training (\$1600 for admin, \$800 per end user)			\$20,000		
Total One-Off Costs			\$295,000		
Total Services Costs				\$565,000	
Total Capital Costs					\$860,000
Total Ongoing Commitment (Operating Budget Impact)					\$82,000

¹ This includes all software and associated services to set up and configure the software by Granicus or a Granicus partner.

² This is the estimated cost for implementation of an integrated EPR solution integrated with Amanda, including services costs.

³ This represents a small budget for external services for process review / optimization work (similar to that which was undertaken as part of this project) for services prior to digitization.

⁴ This represents a substantial budget for external implementation and configuration services from Granicus or a Granicus partner to support folder redesign work and includes a 20% contingency.

7.2.2 Staffing Costs

In addition to external software and services costs, the City needs to ramp up to operationalize the product management approach and to commit resources to the improvement initiatives.

The following table provides the details of the staff cost estimate:

Internal Staffing / Secondments	Est. Annual Cost	Time Req.	Cost Allocation	Actual Req.
Amanda Product Manager ¹	\$125,000	80%	\$100,000	Existing staff
Product Owner – Planning ¹	\$150,000	20%	\$30,000	Existing staff
Product Owner – Building ¹	\$150,000	20%	\$30,000	Existing staff
Product Owner – Licensing and Bylaw ¹	\$150,000	20%	\$30,000	Existing staff
SME – COA ¹	\$100,000	-	-	Existing staff
Business Technologist – Planning ^{1 2}	\$100,000	100%	\$100,000	\$100,000
Business Technologist – Permitting ^{1 2}	\$100,000	100%	\$100,000	\$100,000
Business Technologist – Licensing and Bylaw ¹	\$100,000	100%	\$100,000	Existing staff
Amanda Developer/BSA ¹	\$100,000	80%	\$80,000	Existing staff
Amanda Developer/BSA ¹	\$100,000	80%	\$80,000	Existing staff
Amanda Developer/BSA ^{1 2}	\$100,000	100%	\$100,000	\$100,000
Business Analyst/Service Designer ³	\$100,000	100%	\$100,000	\$100,000
Business Analyst/Service Designer ³	\$100,000	100%	\$100,000	\$100,000
Business Analyst/Service Designer ³	\$100,000	100%	\$100,000	\$100,000
Content Specialist / Designer ¹	\$100,000	25%	\$25,000	Existing staff

Internal Staffing / Secondments	Est. Annual Cost	Time Req.	Cost Allocation	Actual Req.
Change Management Support	\$100,000	50%	\$50,000	\$50,000
Program Staffing Costs for Year 1				\$650,000
Program Staffing Costs for Year 2				\$650,000
Program Staffing Costs for Year 3				\$650,000

¹ These roles will be ongoing requirements.

² These are new permanent positions required beyond the conclusion of the 3-year program – resulting in an annual \$300,000 increase in operating budget requirements. We understand the Building Department is requesting one of these positions (Business Technologist – Permitting) as part of this package.

³ These resources are only expected to be required during execution of the program (3 years).

7.2.3 Summary of Project and Ongoing Costs

The following table summarizes the incremental budget required to support LMDP renovation and ongoing operation costs.

Internal Staffing / Secondments	Software and Services
Total Incremental Project Cost ¹	\$2,810,000
Total Incremental Ongoing Commitment ²	\$382,000

¹ This includes the additional funds required for software, services, and staffing to execute the 3-year program.

² This includes the additional operating costs (software subscriptions and licenses) and staffing required to support the solution post implementation.

7.3 Potential Cost Benefits and Savings

As noted [earlier](#), the consultants reviewed 8 sample services for potential improvements through the Service Optimization exercise. For these services, approximately \$300,000 of cost avoidances were identified – freed staff time that can be applied to improving service quality, timeliness, and accuracy.

Today, there are over 100 similar services currently managed in Amanda that we were unable to review within the scope of this project.

However, using the 2021-2022 statistics from Amanda, the consulting team used the total number of transactions for each service area and extrapolated the time savings previously identified by service types to estimate the total potential annual cost avoidance that could be achieved by redesigning services to take advantage of digital capabilities.

Process/Service	Projected Time Savings (minutes per application) ¹	Number of Annual Transactions	Estimated Cost Avoidance or Value of Time Saved (annually)
Animal Services	11	4653	\$42,652
Building Permits	60	1297	\$64,850
Bylaw Enforcement	75	3684	\$230,250
Engineering	115	970	\$92,958
Fire Services	75	1325	\$82,812
Licensing	60	741	\$37,050
Planning Services	115	1511	\$144,804
Vital Statistics	20	6074	\$101,233
Total for 100 Additional Services			\$796,610
80% of the Total ²			\$637,288

Process/Service	Projected Time Savings (minutes per application) ¹	Number of Annual Transactions	Estimated Cost Avoidance or Value of Time Saved (annually)
Total from 8 services reviewed			\$256,373
Grand Total			\$893,662

¹ Note to set the projected time savings by service area we used the most conservative (lowest) saving values from our work on the 8 services as identified in section 3.5.

² Anticipated uptake of online services is expected to be at an 80% rate.

Accordingly, based on the learnings from the Service Optimization work, if all existing Amanda folder types were redesigned in the Digital First approach, the consulting team estimates that a potential annual cost avoidance of nearly \$900,000 is possible.

As we have noted earlier, these are not hard cash savings but freeing of staff time. Through these efficiencies, time is freed, and capacity is generated where staff can be better equipped to meet service standards and legislated standards, deal with increased demand and complexity associated with growth, as well as spend more time using, sharing and applying their expert knowledge instead of doing administrative tasks.

8.0 Key Success Factors

The platform choice, target state, selected solution, Work Plan and other recommendations outlined in this Report present a clear path forward – this is the recipe. But, for any LMDP solution to be successful, there are a few other key factors and characteristics that must be in place. If these elements are not there, then no technology will ever deliver on the expectations of transformed service.

8.1 Leadership

First, there must be strong leadership and full commitment to the service digitization program at the Director level for each service – especially in Planning and Building – for LMDP to be successful.

Although the collaboration and teamwork that we’ve described in the sections above is critical to deliver digital services, a loose federation of users is not going to drive the necessary culture change nor will this group be able to optimize the benefits of the system.

There needs to be someone who takes ownership and responsibility for the change and this person must be the most senior leader on the team.

We know they will not have all the technical answers, but they can and must lead the change, own the vision for the future, communicate the direction to teams, and ensure both financial resources and staffing are dedicated to initiatives to move the work forward.

8.2 Commitment to Change

One of the barriers to success today has been the inconsistent use of Amanda. This inconsistent use leads to a vicious cycle. Staff don’t use the system to input information. Other staff don’t use the system because they don’t trust the data. Parallel workarounds become the working norm and on it goes.

The City must break this cycle and achieve consistent use across the board of the LMDP.

Leaders will need to work with management to ensure there is staff buy-in to the system. Everyone on the team needs to understand that using the system is not optional – it is a core part of the work.

We also need to ensure that staff are adequately trained. Indeed, staff training must be continuous – staff noted that when new staff were onboarded, they were trained by their teammates. Over the years, this becomes an

example of “broken telephone” and worse, training on bad practices. New staff need comprehensive training, and all staff need refreshers to ensure the system is being used to its potential.

Managers need to root out and understand any sources of resistance – real or perceived – and develop tactics to address and overcome the resistance. Furthermore, leaders and managers need to lead by example – actively using the system and moving to a place where the system is the master record, and that if work happens outside the system, then it doesn’t count or get recognized.

There needs to be continuous monitoring and if necessary, enforcement to ensure ongoing use of the system.

There needs to be ongoing monitoring to ensure data fields are being correctly filled, that workarounds are not starting to happen. This will flag if there is a need for training or enforcement or a change to the system itself because it is not meeting the needs of staff.

If there is still resistance, then other tools such as performance reviews may be options to secure commitment to technology/new systems.

8.3 Commitment of Sufficient Resources

The City will be unable to take advantage of the opportunities presented through digitization if it cannot allocate sufficient resources to design and implement the future. This work always requires more staff resources than expected – from business and technology teams.

While we fully understand the challenge of pulling people from processing applications and permits or answering customer inquiries to work on designing the future, it is critical, unavoidable, and there really are no alternatives – so it is the responsibility of the members of the Amanda Steering Committee to ensure that the right resources are made available.

8.4 Process First, Designed With and For Customers

Process First refers to the criticality of rethinking processes, before building any technological solution.

The admonishment “don’t digitize a broken process” is apt and rightly encourages us not to digitize based on assumptions of the past that are built into current processes.

As the City considers process and systems enhancements, everything needs to be looked at through the lens of “Customer First”:

- How does your customer expect this process or service to work?
- Are you building unnecessary complexities into the online system that make it hard for customers?
- Can this complexity be sorted in the back-office?
- If it is necessary for customers to go from one system to another for payments, does this feel seamless?
- Are forms available that auto populate data that the City already has, e.g., Zoning, Official Plan designation, servicing?
- Is the applicant able to select their name and sub-consultants from a drop-down list rather than keying in information each time?
- Is information easy to find, e.g., does someone have to know an address to find information or can they select from a map?
- Is there the ability to subscribe to receive notices on an application or all applications within an area?
- Can they comment directly where they are finding information, or do they need to go out of the system and send an email?
- Can citizens monitor aggregate comments coming in from their neighbours?
- Are they able to pay online?
- Do system designers need to work with Finance, Freedom of Information Officers to remove barriers based on outdated City policies?

Often, those who have been involved in delivering the service for decades arrive with assumptions and knowledge that customers simply don't have. This stresses the importance of the multi-disciplinary team – bringing different perspectives, skills and capabilities to teams brings new ideas, new approaches and better solutions.

Furthermore, to be successful in moving to one digital system with a new portal, communication with *all* stakeholders is key.

Although many of the large players in the construction industry use software for designing buildings, many smaller, one-time applicants may be less familiar with these capabilities. Also, many professionals are familiar with

submitting applications personally and enjoy the one-on-one relationship from meeting with staff. Many external customers are familiar with electronic plans submission from other municipalities; others will not be.

Although it is tempting to run two processes – a paper one and digital – it is recommended to move to just one digital system. For this reason, it is advisable to work with several applicants (of varying levels of sophistication) to test and give feedback as you are implementing any new system.

In addition to informing Council, agencies, applicants, and the public, it may be necessary to develop a training program for applicants. These can be group sessions, one-on-one training and/or online manuals.

Also, it is advisable to have – in the short-term – staff dedicated to answering questions and possibly assisting applicants at the counter with submitting applications. As the transition rolls out, the level of staff dedicated to communication and education can be reduced but there still should be persons identified as leads in this area.

8.5 Iteration and Perseverance

In the process of updating, expanding, and improving any digital system, it pays to remember that everything takes longer than you think – all change is harder than you first imagine – there are nuances and complexities that are hard to plan for and the investment in time and attention will be more than you anticipate.

Our advice is, do not think you will do it all in one go and don't think you will get it right the first time either.

Plan to iterate on the digital solutions and processes that you design, be sure to listen to customers and staff and incorporate their feedback into the next version and the version that follows.

Plan to approach implementation in small steps (e.g., one application type at a time) rather than one big bang, and then follow the iterative approach that we have laid out – taking learning from step one into step two, etc.

Don't treat the work as a one-off project to become a digital Planning service – treat the service as a product that must be iterated, because there are always improvements that can be made. *Always.*

8.6 Measure Progress

It is critical that the City measures progress. It is recommended that Service Owners and the Amanda / LMDP Steering Committee develop capabilities to monitor the following important measures on a regular and near real-time basis.

Goals	Potential Measures
Enhance the customer experience	<ul style="list-style-type: none"> • # of applications received online as a % of the total applications received • # applications received during non-core work hours • # of counter visits • Baseline and ongoing surveys
Enhance staff experience	<ul style="list-style-type: none"> • Baseline and ongoing surveys
Increase process efficiency	<ul style="list-style-type: none"> • Performance metrics for overall and discrete portions of process, e.g., circulation times adherence, volumes waiting in specific department
Reduce turnaround times	<ul style="list-style-type: none"> • Average time of application processing before and after the key review deliverables, including times waiting on applicants or the City • Measure and report on quality of incoming applications, e.g., most frequent items needing resubmission or correction
Reduce the cost of providing land management services	<ul style="list-style-type: none"> • # of issues/items escalated to Councillors / Mayor's office
Increase internal capacity	<ul style="list-style-type: none"> • # of staff hours "freed" • Reduction of staff time spent answering avoidable inquiries • # of inspections per inspector per day • # of cases per plans examiner per day

Goals	Potential Measures
Increase community engagement	<ul style="list-style-type: none"> Community engagement / number of web impressions for application information / number of online comments
Enhance access to data	<ul style="list-style-type: none"> Managers and supervisors using the system directly in their day-to-day decision-making process Conduct and report on quarterly data quality audits

8.7 Seek Advice and Learn from Others' Experiences

While the points of advice presented in this section are gleaned from our experience and discussions with peers, we continue to encourage Burlington's leaders to speak to colleagues and peers in other leading municipalities.

These conversations should not be focused on learning about the technologies that they bought and implemented, but instead should focus on how they inspired people to change, how they are organized their work, how they resourced the changes, and what lessons they learned along the way.

9.0 Major Recommendations and Conclusion

9.1 Recommendations

In summary, the consulting team makes the following recommendations.

The City should:

1. Commit to a vision for the realization of end-to-end digital service delivery for Planning, Permitting, Bylaw Enforcement and Licensing, supported by assisted digital through Service Burlington and front counters for those who prefer not to use digital channels.
2. Commit to continuing to use Amanda as the corporate LMDP.
3. Commit to renovating Amanda to meet the needs of the corporation, service users and the community.
4. Implement immediate modifications to Amanda Pre-Consultation and Planning processes to comply with Bill 109 and to ensure use of Amanda to track all Planning applications.
5. Establish a framework, reporting and management practices to allow for monitoring of systems use by management and staff, with leadership enforcing the use of the system and holding staff accountable if they don't.
6. Set direction on important technical decisions, including:
 - Confirm how document attachments (submitted online) will be handled.
 - Confirm that the corporate BI solution will be used for Amanda reporting over the in-built solution.
 - Confirm whether to use Granicus Citizen Portal or whether to build a “made-in-Burlington” portal solution.
 - Confirm the requirements for data to feed from Amanda to the CRM (customer, transactions) to support Service Burlington’s ability to answer customer inquiries.
7. Implement an online portal (we recommend Granicus Citizen Portal) for the implementation of online services.

8. Pursue a phased enhancement of back-office process review and digitization in Planning, Building, Bylaw, Engineering, allied with the launch of online services. Initially, we recommend beginning with the following areas:
 - Pre-Consultation.
 - Site Plan.
 - COA.
9. Before a phased broader implementation of Amanda enhancements, streamline processes and take advantage of online service capabilities in the following areas:
 - Building.
 - The remaining Planning processes.
 - Licensing.
 - Forestry.
 - Engineering, etc.
10. Implement Granicus Mobile solution for inspectors and enforcement officers – support this launch with change management, reinforcement, and eventually enforcement if necessary to ensure 100% adoption.
11. Implement an Amanda-integrated ePlans solution (to replace Bluebeam) in specific support of Building process enhancements.
12. Adopt a product management approach to the management of LMDP solutions and systems, including:
 - Appoint a senior manager (Director level or above) as the overall champion of the LMDP system of tools and processes.
 - Appoint a Product Manager.
 - Appoint Service Owners.
 - Create a product team.
 - Actively manage a backlog and product roadmap for the LMDP.

- Create new Business Technologist roles in Planning, Building and Business Licensing areas to advance the use and support of Amanda in those areas.

13. Develop and operationalize an Amanda training program to help support staff and improve the literacy of all Amanda users.

9.2 Conclusion

The value identified by the process reviews – and demonstrated in practice in municipalities such as Markham, Mississauga, and Barrie – makes clear that investments in digitization and digital service delivery in the regulatory management space are worthwhile. Return on investment is significant and impactful and will have unexpected benefits that may be hard to quantify at first glance.

Reductions in processing time, freed staff time, and environmental benefits associated with reduced travel and paper consumption are significant. In addition, the data gathered as a byproduct of process digitization and automation gives Council, leaders, managers, and policy experts real-time information at their fingertips to make better, more informed, more strategic decisions that benefit the community.

Each of these municipalities have achieved these benefits through:

- A leadership commitment to rethinking service delivery in the context of digital and technology capabilities.
- A continuous commitment to ongoing and iterative process and service improvement initiatives – a recognition of the long term-ism needed for success.
- Committing significant human resources from business areas and technology teams to work on these initiatives.
- Embracing change in the work people do and how they do that work.
- Shifting toward a data driven approach to service management and service improvement.

Burlington does not have to reinvent the wheel. The City can learn from and steal from these successful and proven approaches.

The assessment also makes clear that the needs and expectations of City staff, service users and the community at large can be met with the existing LMDP – Amanda. Nonetheless, significant effort, cultural change, and ongoing investment will be needed, in and around the Amanda platform, to ensure that the City realizes the potential.

The implementation plan, budget and resource needs identified here, lay out how the City can deliver streamlined, simplified, faster and less-administratively-burdensome services – but full commitment and leadership will be critical to success.

Appendix 1 – Glossary of Terms

Term	Explanation
2big4email	Large file transfer system
Agile	An iterative approach to project management and solution development
AI	Artificial Intelligence – A systems capability to learn and react to data inputs based on algorithms and machine learning
Alphinat SmartForms	Web portal solution for building online forms, also used as the basis for current Amanda Public Portal
Amanda	Permits, Planning and Licensing solution
AMS	Asset Management System – A corporate system that is used to manage a Municipality’s assets
AODA	Accessibility for Ontarians with Disabilities Act – A law that sets out a process for developing and enforcing accessibility standards.
API	Application Programming Interface – A software intermediary that allows two applications to talk to each other
ArcGIS	A family of client software, server software and online geographic information system (GIS) services developed and maintained by Esri, used to make maps, analyze data, and share and collaborate
As-Is	Current state
BA	Business Analyst – A person who analyzes and documents the market environment or business processes or systems
Back-office	An office or department where work is carried out to support the business of an organization, rather than being customer-facing

Term	Explanation
BI	Business Intelligence – Refers to technologies, applications and practices for the collection, integration, analysis and reporting of business information, and is designed to support better business decision-making
Bill 109	Bill 109, the More Homes for Everyone Act, permits the establishment of a regulation-making authority to determine what cannot be required as a condition of draft plan approval.
Bluebeam	Allows teams to collaborate in real time and manage projects from design to completion on any device - anywhere
BPO/BSO	Business Process/Service Optimization methodology – A process review methodology developed and used by Perry Group
BRM	Business Relationship Manager – Serve as translators for IT work and gather valuable intelligence that can improve how decisions are made regarding investments, resource allocation and strategic alignment
BSA	Business Systems Analyst
CAO	Chief Administrative Officer
CAPEX	Capital Expenditure
CFO	Chief Financial Officer
CIO	Chief Information Officer
COA	Committee of Adjustment
COTS	Commercial Off-the-Shelf – A product that is used “as-is”; designed to be easily installed and to interoperate with existing system components

Term	Explanation
CRM	Customer Relationship Management – A generic system for case management that can be used for handling customer enquiries. <i>Note that the C in CRM is used differently in many municipalities – Citizen, Client, Customer, and Constituent</i>
CSDC	Software company in Mississauga, Ontario, Canada
Customer	Refers to users of the municipality’s technology and digital services, including residents, businesses, visitors, Mayor and Council, the workforce and our partners
Digital	Refers to a mindset, mode of operating, and delivery of services that takes advantage of modern technologies (web, app, social, mobile, data). These deliver improved experiences, business efficiencies and insights
Digitized	The automation of manual and paper-based processes, enabled by the digitization of information and workflows, moving from an analog (often paper-based) process to a computerized process
Epics	An epic is a large body of work that can be broken down into a number of smaller stories
EPR	Electronic Plans Review
ERP	Enterprise Resource Planning – A system that is designed to address business requirements across the whole organization; to provide an integrated solution across many municipal departments and functions
eScribe	A tool for authoring and circulating reports to be presented to Council or Committees
Esri or ESRI	International supplier of geographic information system software, web GIS and geodatabase management applications
GIS	Geographical Information Systems – Systems designed to capture and report on all types of geographical data, including spatial data

Term	Explanation
Granicus Citizen Portal	The Granicus Citizen Portal enables customers to access Amanda services online
HDLC	Burlington's Housing and Development Liaison Committee provides a forum for dialogue between City of Burlington staff and representatives of the local housing and development industry
IT	Information Technology
ITS	IT Services department
KISS Principle	Keep It Simple, Stupid
KPI	Key Performance Indicator
LCs	Letters of Credit
LIS	Land Information System (e.g., Marmak)
LMDP	Land Management Database Platform
LPMS	Land and Property Management System – A land, planning, permitting, and licensing system (e.g., CityView)
M365 (formerly Office 365 or O365)	Microsoft cloud-based office productivity suite which includes email and calendar, messaging, collaboration, and office suite
MPAC	Municipal Property Assessment Corporation
MVP	Minimum Viable Product – The simplest, smallest solution that can be delivered to start to address the business requirement
OEM	Original Equipment Manufacturer

Term	Explanation
OPA	Official Plan Amendment
PPL	Planning, Permitting and Licensing
Product Management	An organizational function that guides every step of a product's lifecycle — from development to positioning and pricing.
QA	Quality Assurance
RFP	Request for Proposal – A business document that announces a project, describes it and solicits bids from qualified contractors to complete it
SAML	Security Assertion Markup Language – An XML-based markup language used to exchange authentication and authorization data between parties, in particular, between an identity provider and a service provider
SAP	A commonly-used ERP application
Scrum	A framework for project management that emphasizes teamwork, accountability and iterative progress toward a well-defined goal
SDAF	Streamline Development Approvals Fund – provincial grant program
SmartGuide	Civic Portal tool in Amanda
SME	Subject matter expert
Sprint	Sprints are time-boxed periods of one week to one month, during which a product owner, scrum master, and scrum team work to complete a specific product addition. During a sprint, work is done to create new features based on the user stories and backlog. A new sprint starts immediately after the current sprint ends
To-Be	Future state

Term	Explanation
UI	User Interface
ZBA	Zoning Bylaw Amendment

Appendix 2 – List of Participating Personnel

The following people participated in the preparation of this Report. We thank them for their contribution.

Department/Area	Name
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Finance/Development Charges	Chen, Ellen
Finance/AR	McDonough, Jason
Finance/Asset Management	Zygalko, Luke
Finance/Taxation	Coulson, Anne-Marie
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Finance/Taxation	Schneider, Christopher
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Fire Services	Langfrey, Matt
Forestry	Robinson, Steve
Forestry	Torchia, Melissa
IT	Breganza, Cheryl
IT	Hamilton, Ashley
IT	Koabel, Chris
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IT	Marion, Cathy
IT	McHugh, Tina
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IT/Security	Parker, Ryan
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Planning	Dickson, Gordon
Planning	Douglas, Thomas
Planning	Enns, Allison
Planning	Henderson, Brandon
Planning	Parker, Jennifer
Planning	Plas, Kyle
Planning	Simeoni, Mark
Planning	Tellier, Jamie
Planning	Vassalli, Tina
Procurement	Kulkarni, Rahul
Recreation	Beijes, Em
Recreation/ Special Events	Croonen, Lindsey
Recreation/ Special Events	Maxwell, Sandra
Recreation/ Special Events	Zelko, Jennifer
Service Burlington	Cameron, Clare
Service Burlington	Devito, Daytona

Department/Area	Name
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Transportation Services	Baldelli, Catherine
Transportation Services	Clark, Trevor
Transportation Services	Kummer, Chris
Transportation Services	Zhuang, Tony

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- - Trademarks acknowledged - -



SUBJECT: Web Architecture Review (Provincially Funded)
TO: Community Planning, Regulation & Mobility Cttee.
FROM: Customer Experience

Report Number: CX-01-23

Wards Affected: All

File Numbers: 200-06

Date to Committee: January 10, 2023

Date to Council: January 24, 2023

Recommendation:

Receive and file customer experience report CX-01-23 transmitting the Enterprise Web Architecture and Modernization Review report and recommendations from KPMG completed through the Audit and Accountability Fund.

PURPOSE:

Vision to Focus Alignment:

- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

On October 19, 2021 Council approved the submission of an Expression of Interest to the Ministry of Municipal Affairs and Housing - Audit and Accountability Fund Intake 3 for an Enterprise Web Architecture and Modernization Review. The Ministry approved the submission and the City of Burlington entered into an Agreement with the Ministry in February 2022.

Under this agreement the Ministry agreed to provide up to \$152,640 for an independent third party review of the City's current web architecture to identify efficiencies and opportunities to modernize and improve the online customer experience. The objectives of the review were as follows:

- An assessment of existing web architecture and current state of online services, customer applications, databases, platforms, and integrations;
- Stakeholder engagement and feedback;
- Recommendations for the development of enterprise and web architecture that identifies efficiencies and results in an improved customer and employee experience;
- Recommendations for improving, upgrading or replacement of the existing customer relationship management software;
- An implementation roadmap which prioritizes and aligns related digital service enablement projects to gain high impact improvements over the next 3-5 years;
- A governance model to address how the City identifies, prioritizes, and manages web-related technology projects, risks and opportunities; and
- Actionable items with estimated timelines and budgetary requirements.

The Ministry requires that the independent third-party reviewer compile the findings and recommendations in an Independent Third-Party Reviewer's Report. The City is required to submit the report to the Province and publish the report on the City's publicly accessible website by February 1, 2023.

The City entered into an Agreement with KPMG LLP (KPMG S.R.I.) in May 2022 to complete the Enterprise Web Architecture Review in accordance with the Ministry's Audit and Accountability Fund Intake 3 requirements. The consultation activities were completed between May and November 2022.

An interim status report was provided to the Ministry in May 2022 to confirm progress on the initiative.

Strategy/process

Purpose

The Enterprise Web Architecture Review was required to address the growing use of the CRM and its limitations, the number of systems that contribute to a disparate online experience for the City's customers, and the desire to bridge customer data across all channels, systems and services.

The Enterprise Web Architecture & Modernization Review report prepared by KPMG outlines opportunities and recommendations on modernizing the City of Burlington's current web architecture to:

1. Transform through a customer-centric approach and enhance overall customer experience (CX) and employee experience (EX);
2. Enhance internal operations, service efficiencies and effectiveness;
3. Reduce and/or avoid cost through resource utilization and automation.

The report compiles the customer-facing applications and technology architecture from current documentation, preliminary findings and observations gathered during workshops. It also provides an evaluation of the current CRM platform options (i.e., upgrading, augmenting, or replacing the current CRM) so that the City can decide which option is most appropriate.

The report provides a conceptual future state web architecture and focuses on best practices to enhance the overall customer experience for residents and visitors. Furthermore, several architecture themes and principles were derived and target state opportunities are identified and associated with efficiencies. These efficiencies could be gained from proposed initiatives, improvement metrics, dependencies, cost impacts and requirements. Moreover, each opportunity is associated with a proposed initiative(s) to achieve the target state. A proposed three-year roadmap shows a recommended high-level implementation plan.

The report identifies that in order to achieve the objectives for a future state web architecture, incremental improvements will be required to address:

- The use of the existing CRM and Microsoft Dynamics platform, hosting model, and required upgrade to version 9;
- A unified approach to customer facing technologies to optimize development resources and skills;
- Implementation of a Customer Identity and Access Management model as the foundation for an improved and secure identification and login experience across service areas and applications;
- Implementation of Master Data Management strategy and principles to unify, govern and maintain quality customer data in a manner that is system agnostic;
- Improvements in the use of integration tools, standards and data access across applications;
- Improvements in system driven workflows over manual workflows;
- Increased availability of data to Service Burlington to service customers more effectively and improve service level response times;
- Improved business intelligence analytics to unlock greater insights such as sentiment analysis.

Related Initiatives

The City approved three initiatives under separate funding agreements with the Province of Ontario:

- 1) Enterprise Web Architecture & Modernization Review

- 2) Land Management Database Platform Review
- 3) Streamline Development Application Fund

The Land Management Database Platform Review is delivering a comprehensive workplan to bring information technology related cost savings and efficiencies to the development services approvals , permitting services, licensing services, other application services and the management of the platform services. There is a significant online customer service delivery component to the workplan. The Enterprise Web Architecture and Modernization Review is delivering recommendations for a high-level architecture to align online customer service delivery across City services and systems. The Streamline Development Approval Initiative Fund (SDAF) project is a one-time project delivering specific improvements to the low density residential development approval service.

All three initiatives share the objective of finding efficiencies and cost savings in the provision of city services to deliver an enhanced customer experience. Each focuses on business outcomes which include the customer online experience and enabling technologies. Therefore, the recommendations of each report will be considered together in order to align and prioritize the desired outcomes, and ensure effective planning and utilization of resources and technology.

Next Steps

A cross functional team led by Customer Experience, IT Services and Corporate Communications & Engagement is evaluating the options in the Enterprise Web Architecture report and will provide an update to Council in early Q2 2023. An analysis of the next steps will consider the KPMG findings with respect to web architecture and CRM in the context of:

- viability and feasibility including cost, resource and vendor contract impacts;
 - a broader enterprise architecture model;
 - desired business outcomes;
 - customer and employee experience; and
 - the prioritization of separate and related initiatives occurring across the corporation.
-

Financial Matters:

Total Financial Impact

The total cost of the contracted engagement with the third party vendor KPMG LLP excluding taxes is \$140,000.

Source of Funding

The Ministry will reimburse payments made by the City to the third-party vendor up to the maximum funding allowance of \$152,640 provided that all requirements of the Audit and Accountability Fund Intake 3 requirements have been met.

Other Resource Impacts

Given the complexity of the changes recommended within the report further analysis is required to determine the impact to staff resources, technology and initiatives currently underway at the City.

Climate Implications

Not applicable.

Engagement Matters:

The Web Architecture Review was led by a core team comprised of members from IT Services, Corporate Communications and Engagement, and Customer Experience. A number of City staff were consulted during the course of this review. In total, 26 sessions were held to gather feedback from key stakeholders of online services, the Customer Experience Advisory Team, CRM users and implementation teams, and other technical and business application owners. A survey of CRM users was completed to gauge satisfaction with the existing CRM product. These sessions provided insight to the current state, and to the development of a proposed future state roadmap.

Conclusion:

The KPMG Enterprise Web Architecture Review has provided several options and recommendations for the City to consider in order to improve the online customer experience and achieve efficiencies with technology and resources. The report will be submitted to the Ministry of Municipal Affairs and Housing to meet the requirements of

the Audit & Accountability Fund. An update will be provided to Council in Q2 2023 in response to the recommendations within the report.

Respectfully submitted,

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Appendices:

- A. KPMG Enterprise Web Architecture & Modernization Review

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.

Enterprise Web Architecture & Modernization Review

Final Report

City of Burlington
November 28, 2022



Contents

- 01** Abstract
- 02** Overview
- 03** Current state assessment
- 04** CRM evaluations
- 05** Opportunities
- 06** Future State Architecture
- 07** Architecture Roadmap
- 08** Proposed Web Technology Advisory Body (WTAB)

Abstract

Abstract

The Enterprise Web Architecture & Modernization Review outlines opportunities and recommendations on modernizing the City of Burlington's current web architecture to:

1. Transform into a customer-centric approach and enhance overall customer experience (CX)
2. Enhance internal operations, service efficiencies and effectiveness
3. Reduce and/or avoid cost through resource utilization and automation

The report compiles the customer-facing applications and technology architecture from CoB's current relevant documentation, preliminary findings and observations gathered during workshops. It also provides an evaluation of the current CRM platform options (i.e., upgrading, augmenting, or replacing the current CRM) to guide CoB in its decision making process. Target state opportunities are presented, along with their associated benefits, improvement metrics, cost impacts and requirements. The report provides a conceptual future state web architecture and a proposed three-year roadmap that shows a high-level implementation plan ordered according to priority and dependencies.

With the current CRM platform options, Option 4 (Delay) is not an option as contracts are pending and technical risks exist that need to be mitigated. Option 1 (Product Upgrade) will likely not achieve the full set of business benefits desired by CoB. Two options remain for CoB to further explore: Upgrade & Re-architect or Replace current CRM platform.

Identified opportunities and potential spending efficiencies are divided along three areas: Centralization of Services, Resource Utilization Optimization, and Digitalization and Service Automation. These opportunities are transformed into actionable activities that are presented in the three-year roadmap.

The last section of this report recommends a dedicated web technology body to prioritize web technology related initiatives. The proposed body named "Web Technology Advisory Body" (WTAB) is associated with mandates and alignment with other departments and teams (e.g., Strategy Risk Team, CX Advisory Team).

Overview

CoB has embarked on a strategic shift to improve its online services and customer experience (CX)

Project Context

The City of Burlington has embarked on a strategic shift to improve its online services and customer experience (CX). There is a need to not only be an effective operations-oriented organization but to transform into a customer-centric organization to improve customer experience.

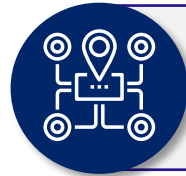
Key outcomes

1. **Recommendations for improving, upgrading or replacement** of the existing CRM and Microsoft Dynamics implementation
2. **A modern digital platform/architecture** that leverages and enhances core applications which may include but are not limited to ERP, CRM, GIS, asset management, member management and other web driven applications
3. **Provide supporting data for ongoing** funding for subsequent phases that would address the remaining detailed requirements
4. **High-level work packages** that would address the remaining detailed requirements in the roadmap

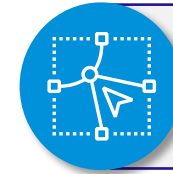
In addition, CoB is currently enhancing its digital services with a number of strategic initiatives



LMDPR



SDAF



Website
Modernization

CoB is implementing additional solutions to enhance and meet its business strategic objectives:

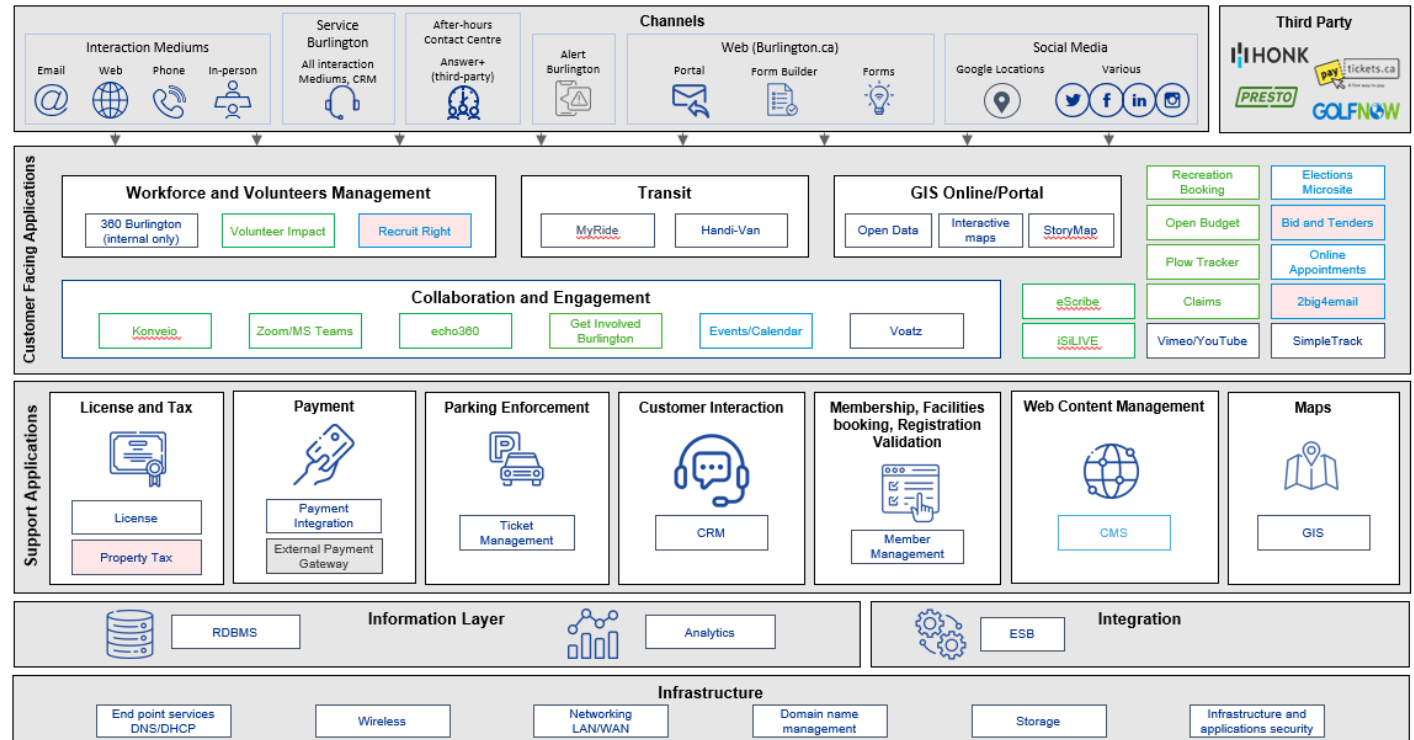
1. ERP
2. Property Tax
3. Enterprise Asset Management

Current state assessment

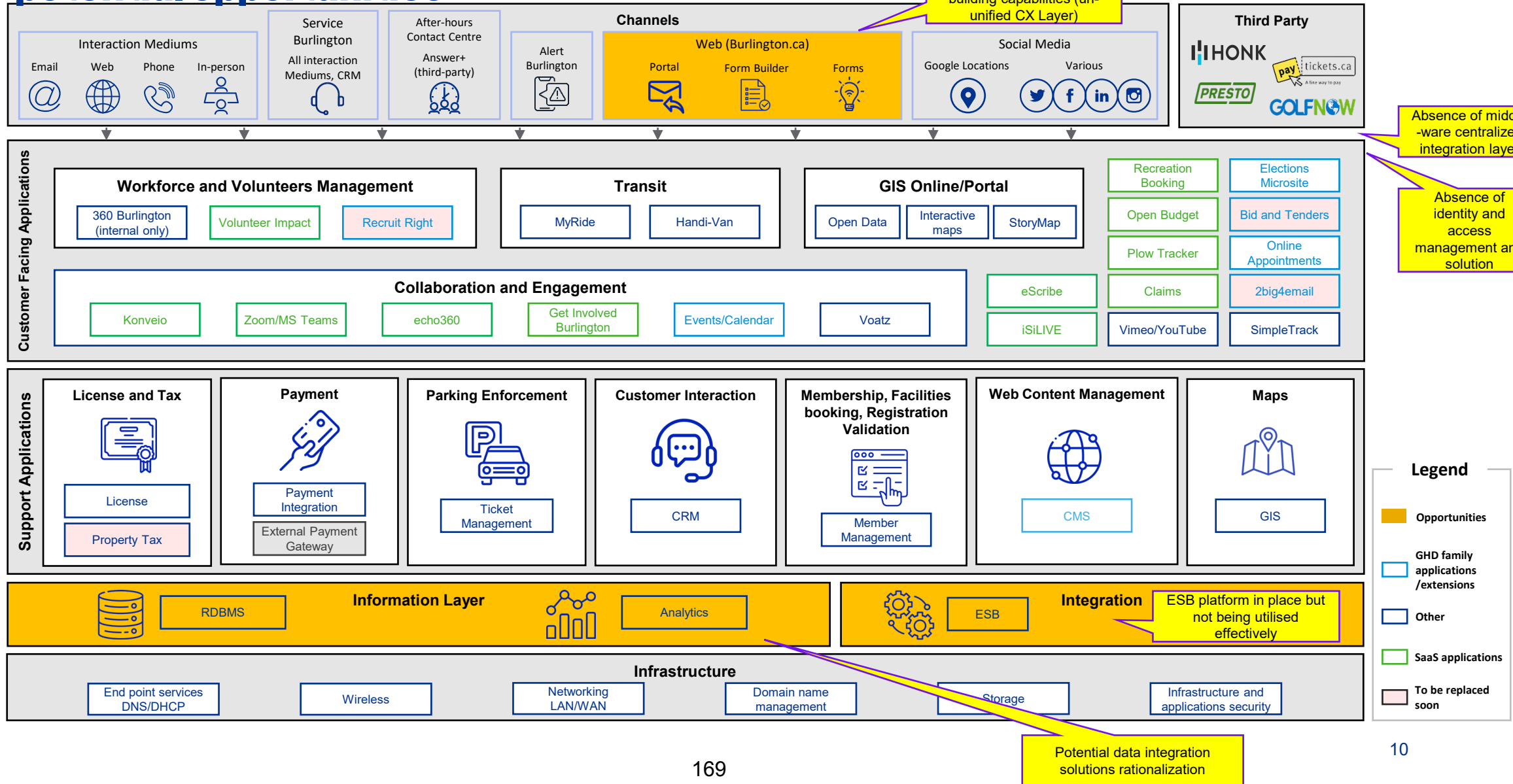
Consolidated view of CoB's Customer Facing Technology Landscape

It is clear that CoB has some of the leading municipal solutions and applications that have been deployed without adequate consideration for Enterprise Architecture Principles and Guideline. This has created challenges such as

1. Proliferation of technology stacks which increases the complexity of the applications platform and drives higher maintenance and support costs
2. Complex customized applications (i.e., CRM) which can restrict the ability of CoB to take advantage of seamless customer experience capabilities
3. Unintegrated applications (cloud and on-prem) which further restricts the full potential uses of the applications in a unified manner
4. A lack of a cohesive application and data enterprise architecture which over time will amplify the above challenges



In our analysis of CoB's current state architecture, we have highlighted potential opportunities



We have summarized relevant key observations (1/4)

Findings

01

Centralized Customer Identity

- The lack of a CIAM framework and supporting tools prevents CoB's customers from authenticating with a single identity across channels, resulting in an inconsistent user experience for customers.

02

CRM Platform Limitation

- The current CRM application is built on top of Microsoft Dynamics 365 v8.2. The proprietary application can be challenging to customize and/or extend, and may require paying the vendor for changes due to associated degree of complexity.

03

Customer systems sprawl and disjointed customer facing applications

- The lack of proper SaaS application portfolio management may lead to disconnected customer channels and make it difficult to deliver omnichannel digital experience. Isolated portals and disjointed applications may also lead to challenges in delivering connected and consistent customer experience.

We have summarized relevant key observations (2/4)

Findings

04

Lack of centralized customer interactions

- Customers can contact the city through multiple channels, however, not all departments are currently enrolled to the CRM to manage inbound requests. This results in delayed responses and additional work effort to complete requests.

05

Limited visibility

- Limited visibility into process status (e.g., customer and staff perspectives) leads to more inbound customer inquiries asking for service status updates. City staff without access to certain systems (due to lack of system integrations or insufficient information) are forced to transfer customer calls to multiple departments, resulting in more process delays.

06

Lack of system architecture integration guidelines and principles

- Lack of system integration guidelines and principles may lead to an inconsistent integration pattern among CoB's various systems. This results in increased complexity and management difficulties from cost and information security perspectives.

We have summarized relevant key observations (3/4)

Findings

07

Underutilization of integration capabilities

- Although CoB deployed several integration solutions and capabilities, it has been noted that these solutions are not utilized fully, nor deployed in a centralized manner to facilitate and manage all internal and external integration points among CoB's main applications. Moreover, several critical applications are integrated via point-to-point integration associated with non-standardized integration pattern (e.g., EAI, web services, DLL). This may lead to increasing difficulties in establishing, managing, and monitoring integration points and services as point-to-point integrations increase.

08

Lack of single customer data repository

- Customer data is not stored under a single repository due to absence of data sharing technologies and strategies (e.g., Master Data Management (MDM), data lakes, etc.), creating issues when CoB needs updated records to handle customer matters or internal requests.

09

Operational prioritization

- While IT and other teams have the capacity to support CRM and CX upgrade initiatives, this is at the likely expense of other work. CoB must balance competing resourcing priorities and factor in additional operational support capacity that may be required to build and support the transformed solutions.

We have summarized relevant key observations (4/4)

Strengths

10

Lean IT projects staffing approach

- IT staff are dedicated to delivering high-quality project results to meet CoB's needs. The IT team also addresses resource limitations in major projects (e.g., ERP project) by hiring third-party consultants and coordinating relevant business department employees to deliver the project on time and to meet business goals.

11

CoB has strong capabilities to drive customer centric goals from investments in digital solutions

- CoB's investment in digital solutions provide a strategic foundation for digitally enabled technology architecture. These low-code/no-code platforms have many potential add-on apps and enable automated services.

12

Knowledgeable staff

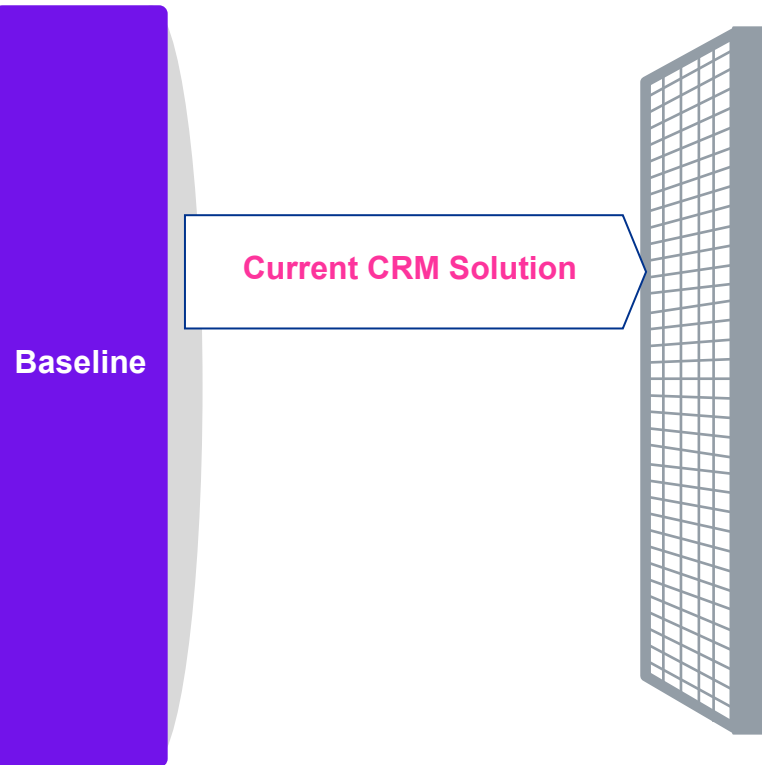
- The city staff are knowledgeable and have a vision for improvements the City of Burlington can make to leverage digital technology to strengthen the city's overall services.

CRM Evaluations

CRM Platform Recommendations Approach (for future CRM review)








Step 1 – Initial Scan

Understood current core features, hosting, integration capabilities and pain points



Step 2 – CRM Analysis

Performed several activities to inform our analysis

-  Customer Satisfaction Survey
-  Vendor Roadmap Discussion
-  Architectural Fit Analysis
-  Licensing Model Alternatives
-  Light Market Scan
-  Stakeholder Interviews
-  CRM Migration Report



Possible Alternatives

- Upgrade the existing platform:
 - CRM Hosting Model
 - MS D365 PaaS Online Model
- Replace existing platform
- Rearchitect solution

CRM current situation

Not all CoB departments are onboarded on the current CRM solution.* These are the departments currently leveraging the CRM:



Service Burlington



Office of the City Clerk



Transportation



Transit



RPF



Building & By-law**

***currently engaged for CRM implementation*



CoB has a diverse range of customer-facing applications. Complexity is introduced by the specific needs of each business function and the need for collaboration with customers.

**CRM onboarding is not expected to be completed in 4 years time*

COB needs to make a quick decision on the current CRM solution due to several factors



Currently, there is no visibility into the roadmap of the currently implemented (at CoB) CRM product.



Current CRM features cannot be enhanced or customized easily. Therefore, the existing CRM platform will not accommodate CoB's strategic and future evolutions of its business.



There are documented gaps and concerns in CRM functionality, CX and flexibility.

CRM should be managed differently based on its capabilities to leverage its potential features

- 1. CRM should be the central system overseeing and/or having visibility to customer service interactions and history. (i.e. Service Request/Case Management)**
- 2. CRM should act as the first point interface for users within contact centers to provide a consistent experience and to allow for service process initiation and tracking**
- 3. CRM access is not required for all staff – but primarily for those focused on customer service roles. It can be a launching point into other applications when initiated by customer service requests.**
- 4. CRM should be able to call/initiate downstream applications and services (e.g., workflow engines) while presenting a single view of client activity and interactions as well as running processes**
- 5. CRM is and should be seen as the master for customer contacts profiles and interaction data. It should be a source for other applications and should be a repository for other applications to feed interaction events to.**
- 6. CRM should be capable of interoperating with other applications that provide customer service capabilities seamlessly.**

**The CRM should not to be expected to perform all customer serving functions.*

Therefore, CoB has several options to proceed with the current CRM as follows

01

Product Upgrade

Upgrade the current CRM platform from v8.2 to v9, along with the web component

Two hosting options are possible:

- a) CRM Hosting Model
- b) D365 Online PaaS Model

02

Upgrade & Re-architect

Upgrade the current CRM platform from v8 to v9.2 D365 Online PaaS Model, and decouple CRM components (e.g., *decoupling web CX layer by using front-facing products*) to align with architectural and functional needs.

Any combination of several re-architecture options can be adopted.

03

Replace

Replace the current CRM, and move to a new CRM solution:

- a) Municipal-focused CRM product
- b) Generic platform product (e.g., Salesforce, D365, ServiceNow, etc.)

04

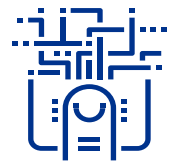
Delay the Decision

Continue using the current Dynamics v8.2 CRM platform – which Microsoft will stop supporting on Jan 13, 2026

Option #1: Product upgrade variations



The first option is for CoB to upgrade their CRM product and web components. There are two main scenarios for CoB to consider that outline the several potential hosting models to accompany these upgrades.



The current version of CRM can be upgraded and one of the hosting options can be chosen

1

Upgrade and Host

Upgrade CRM product and web component

2

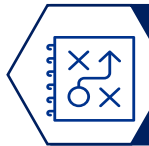
Upgrade and move to D365 Online Model to Microsoft PaaS hosting

Upgrade CRM, web component and hosting model to PaaS.

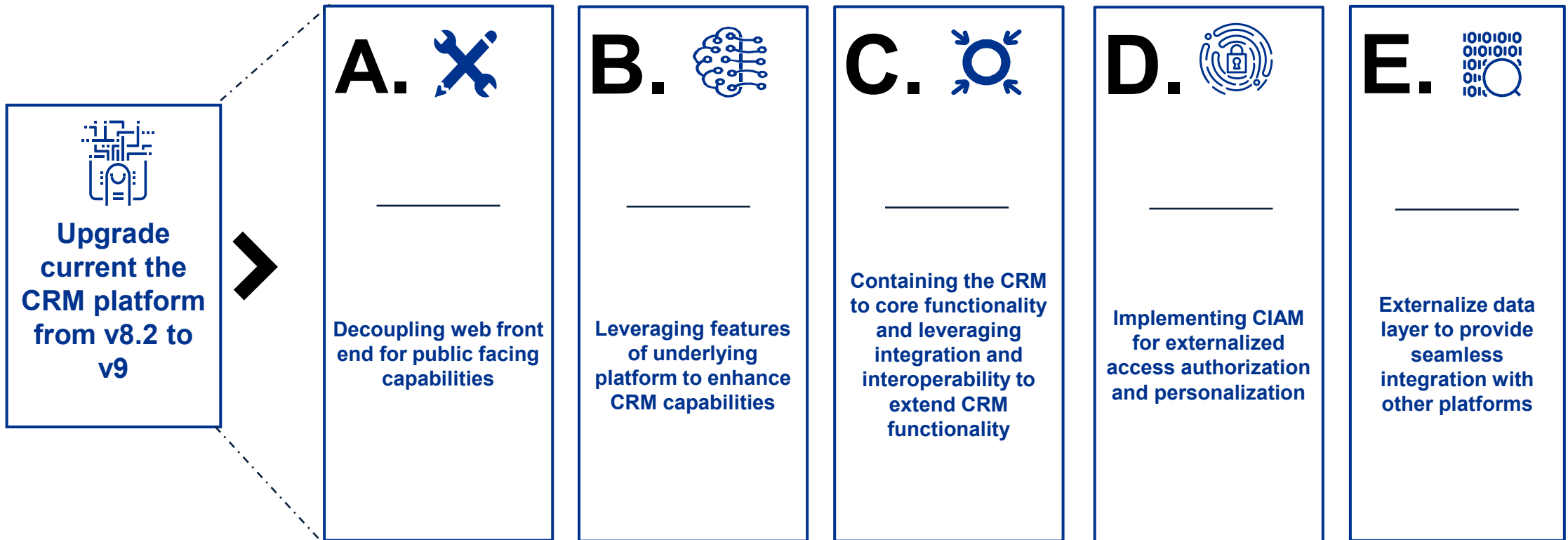
2.1

Upgrade and use 3rd party or CoB Azure private cloud hosting model.

Option 2 : Several architectural scenarios



In the upgrade re-architecture option, the main objective is to upgrade the current CRM platform from v8 to v9.2 (D365 online PaaS Model) and contain the current CRM platform by decoupling application components (e.g., web component) considering rearchitecting one or more of the below scenarios:



Option 3 - Replace Current CRM (i.e. Reset)



The third option is to replace the CRM through a new procurement process. This option is best when it takes too much effort to align systems to business and technical needs via re-architecting, concerns exist with current vendor costs or relationships, or CoB plans to adhere to long-term principles that are better enabled with a clean slate of systems

Two Scenarios

1
Municipal/
Government
focused CRM

2
Platform-first
approach,
using app
marketplaces

Validate Requirements

Examples

Functional

- Customer relationship history, service desk, routing, flexible new workflow creation
- Adaptable workflows, accessible KBA format, form & data layer integrations

Non-functional

- Extensive support, easy integration maintenance
- Easily configurable, new feature implementation, extensive support, app marketplace access

Market Examples



Switching sooner will minimize switching costs [cut the pain]

*Government-focused CRM platforms

Recommendation Considerations



Staying the course (Option 4) is not an option as contracts are coming up and there are technical risks that need to be mitigated.



Option 1 (Product Upgrade Variations) will likely not achieve the full set of business benefits desired by CoB.



Opportunities

The key aims



Cost effectiveness and efficiencies



Cost Avoidance



Cost Reduction



Enhanced Customer Experience



Improved customer service



Enhanced customer draw and engagement

Areas of opportunities and spending efficiencies

Centralization of Services
offered by CoB



Opportunities

- Promote customer self-service Capabilities
- Service Burlington to obtain end-to-end visibility

Resources Utilization
Optimization



Opportunities

- Cross applications processes workflow integration
- Enhance data reporting and analytics: Sentiment analysis

Digitalization and Service
Automation



Opportunities

- Unify CX layer (Forms)
- Streamlined customer identity and authorization
- Master data management strategy and governance
- Integration Middleware Layer
- Agile responsive technologies that improve time to market

Opportunities (1/5)

#	Opportunities	Challenge	Opportunity Description	Benefit	Improvement Metrics	Cost Impact	Requirements
1	Unify CX layer (Forms)	Currently, there are several forms building capabilities to deliver certain services to CoB's customers which has created additional complexity to integrate CX channels with front-facing applications. This creates a redundancy in skills and applications which reduces efficiencies and limits optimal seamless CX delivery.	Unify CX layer by eliminating and selecting the most robust solution to provide the seamless CX layer and connect it with major front-facing applications (e.g., CRM, ticket management, etc.)	<ul style="list-style-type: none"> Enhanced CX Better data integrity Improved and streamlined form development lifecycle More focused skills development 	<ul style="list-style-type: none"> Reduction on number of form building capabilities or solutions (application rationalization) leading to yearly saving on form building solutions licenses and subscriptions Number and percentage of forms on consolidated platform 	<ul style="list-style-type: none"> Cost reduction 	<ul style="list-style-type: none"> Not applicable
2	Integration Middleware Layer	Currently, several applications are connected via point-point integration. In addition, there is an ESB solution but it is not fully utilized. It was also noted that not all applications are using a standardized integration method or pattern. For instance, an application is connected to an integrated payment gateway through a DLL and EDI interface pattern.	Centralize and unify integration layer by utilizing the existing ESB to a greater degree or acquiring an integration middleware solution.	<ul style="list-style-type: none"> Enhanced CX Better data integrity Reduced integration development Lifecycle 	<ul style="list-style-type: none"> Reduction on time and effort to develop and maintain integration points Utilization of reusable services and integration points 	<ul style="list-style-type: none"> Cost reduction 	<ul style="list-style-type: none"> Investment in middleware layer

Opportunities (2/5)

#	Opportunities	Challenge	Opportunity Description	Benefit	Improvement Metrics	Cost Impact	Requirements
3	Cross applications processes workflow integration	Automated or system-driven process workflow integration is not currently available among CoB's applications. As a result, manual and repetitive tasks are increased, which will increase the turn-around time for a service to be fulfilled. Furthermore, business users will have multiple access systems, rather than a single system tailored to their roles.	<p>Workflow integration to enable routing and task automation, the workflow can streamline the tasks resulting in better utilization of resources and improve turnaround time.</p> <p>An automated system would also reduce errors by automatically passing data captured between systems with reduced human intervention.</p>	<ul style="list-style-type: none"> Avoid the overhead of needing to learn multiple systems and to allow focus on completing specialized customer service activities Better SLA Definition & Tracking 	<ul style="list-style-type: none"> Services optimization and reduction on repeated tasks and services cost by 30%* Redirecting FTEs into more value added or strategic tasks No additional licenses required to access certain applications (e.g., CRM) 	<ul style="list-style-type: none"> Cost reduction Cost avoidance 	<ul style="list-style-type: none"> Investment in workflow integration solution Process reengineering
4	Service Burlington to obtain end-to-end visibility	<p>The Service Burlington (SB) team members are currently unable to seamlessly track customer requests from other non-onboarded departments or services provided through applications other than CRM. When access is provided to other applications it often means switching between applications to get the status of customer requests.</p> <p>This lack of end-to-end seamless visibility for Service Burlington (SB) employees leads to the increased need for internal clarifications calls and communications, which takes up valuable time that can otherwise be spent on operational tasks</p>	<p>With proper integration, event distribution and messaging between CoB applications, SB team will be able to view relevant customers transactions information that can be helpful to better service the client</p>	<ul style="list-style-type: none"> Improved collaboration Better end-to-end customer interaction and historical visibility Less time spent on internal status updates 	<ul style="list-style-type: none"> Customer query response time improvement Customer interaction history and analytics response time improvements 	<ul style="list-style-type: none"> Cost efficiency 	<ul style="list-style-type: none"> Investment In integration and event management tools

Opportunities (3/5)

#	Opportunities	Challenge	Opportunity Description	Benefit	Improvement Metrics	Cost Impact	Requirements
5	Promote customer self-service Capabilities	<p>CoB's customers do not have a single interface to raise requests or share feedback through a unified channel. Customers can interact with CoB through various channels (e.g., service request form, customer web portal, Get Involved Burlington, complaint form, etc.).</p> <p>As a result, there exists an inconsistent and unstructured process to submit and obtain status and other information from various CoB involved department. Overall, this results in a poor customer experience and unnecessary, often wasteful back-office communication</p>	<p>Create a unified customer-facing capability allowing customers to dynamically raise requests, track the progress of requests and easily interact with customer representatives or efficiently find self-serve knowledge. This can be achieved by adopting a unified portal (digital portal) and/or by allowing customers to directly access the current CRM application. This can also be supported by leveraging other existing customer-facing capabilities (i.e., SmartGuide)</p>	<ul style="list-style-type: none"> • Cost savings from reduction in unneeded full service interactions. • Enhanced CX • Provide more process visibility to customers • Meets modern demands from customers expecting increasing self-service capabilities. 	<ul style="list-style-type: none"> • Reduction in FTE utilization for assisted and full-service interactions. • Opportunity to reduce contract pricing of Answer+ by reducing the number of misdirected requests 	<ul style="list-style-type: none"> • Cost efficiency 	<ul style="list-style-type: none"> • Investment in workflow integration solution • Process reengineering
6	Streamlined customer identity and authorization	<p>Currently, there is no centralized customer identity platform to authenticate and authorize customers, manage customer details, provide preferences and credential information. Accordingly, customers require multiple identities and associated logins across services. This creates a poor customer experience but also costs CoB the opportunity for an accurate, 360-degree view of the customer across interactions channels</p>	<p>Implement Customer Identity and Access Management platform to allow customers to interact with CoB services seamlessly. Augment the credentials management with customer profiles and preferences to better understand and predict service needs.</p>	<ul style="list-style-type: none"> • Enhanced CX • 360 customer view • Personalized customer journey • Self-service account management 	<ul style="list-style-type: none"> • Reduction in effort on customer profile creation and management • Reduction in effort to manage accounts and related security 	<ul style="list-style-type: none"> • Cost reduction 	<ul style="list-style-type: none"> • Investment in CIAM solution

Opportunities (4/5)

#	Opportunities	Challenge	Opportunity Description	Benefit	Improvement Metrics	Cost Impact	Requirements
7	Master data management strategy and governance	Master data management strategy and governance should be in place to set data quality priorities and ensure data integrity. Overall, master data management strategy and governance are essential components to ensure proper data management-related decisions and ensure data is effectively leveraged as a corporate asset	<p>Establish master data management strategy and governance practice to:</p> <ul style="list-style-type: none"> • Perform an ongoing inventory of data assets • Identify key players (e.g., applications owners, data owners, data stewards etc.) • Make decisions quickly or hold consultation without overlooking important key stakeholders • Define data quality requirements and assign responsibilities 	<ul style="list-style-type: none"> • Effective and efficient management of data assets • Ability to better leverage the value in the data • Better alignment with CoB's strategic data visions • Enforce consistent data management and integrity 	<ul style="list-style-type: none"> • Increased data quality and reduced data errors • Better currency of data • Reduction of multiple versions of truth 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Master data management strategy and governance program
8	Enhance data reporting and analytics: Sentiment analysis	Currently, CoB has started the journey of advanced business analytical reporting but there is still opportunity to better enhance the customer experience by fully unlocking insights by improving customer experience related data. Existing BI tools could be better utilized to act as a central customer intelligence hub. An example is the sentiment analysis feature which can provide an insight into potential problems and could lead to better customer experiences and understanding.	Further utilize the existing BI tools to establish sentiment analysis processes. These processes are performed on data to determine brand and product sentiment (positive, negative, neutral) and understand customer needs.	<ul style="list-style-type: none"> • 360 customer view • Dashboards can provide visual views of decision-making information in a centralized hub. 	<ul style="list-style-type: none"> • Availability of quality decision-making data across multiple facets • Rapidity of data-driven decisions. • Satisfaction with dashboard views. 	<ul style="list-style-type: none"> • Not applicable 	<ul style="list-style-type: none"> • Expand usage of existing tools

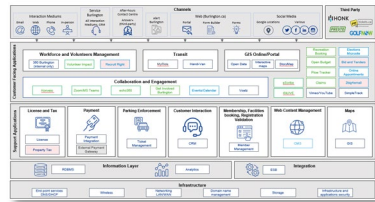
Opportunities (5/5)

#	Opportunities	Challenge	Opportunity Description	Benefit	Improvement Metrics	Cost Impact	Requirements
9	Agile responsive technologies that improve time to market	Current application technologies are customized and built on platforms that have less flexibility and require extra effort to respond to business requests for changes	Procure new technologies and/or newer versions of existing technologies that provide faster delivery of features and products that align with business requirements and reflect improved time-to-market needs coming from business	<ul style="list-style-type: none"> • Ability to more quickly respond to customer needs and suggestions • Ability of CoB to more rapidly implement improvements, processes and service offerings 	<ul style="list-style-type: none"> • Time required to implement new features 	<ul style="list-style-type: none"> • Cost efficiency 	<ul style="list-style-type: none"> • Responsive/agile implementation processes • Responsive technology architecture strategy • Rapid application development (e.g., low-code/no-code platforms)

Future State Architecture

We utilized a comprehensive approach to design future state architecture

Current State Architecture



Current Finding & Challenges

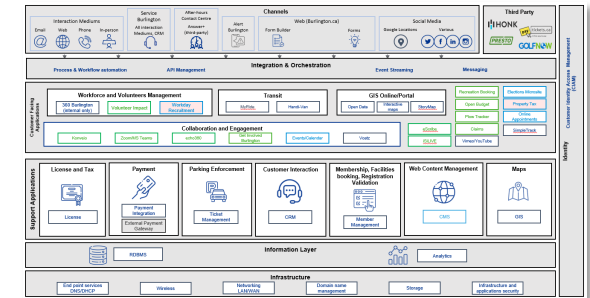
Guiding Principles

CoB's CX Strategy

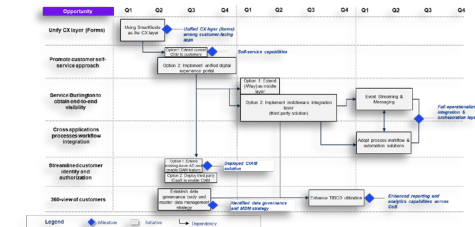
Opportunities for Improvements



Future State Architecture



Architecture Roadmap



Architecture themes

CoB's CX Principles (The 5 Es)



Architecture Themes



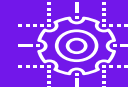
Strategy Oriented



Service Oriented



Data Driven



Sustainable



Simplified



Standard Based



Modern

Architecture principles (1/2)

1. Design a consistent user experience across multiple channels

2. Use no-code / low-code or configurable tools to enable flexibility, avoiding customization wherever possible

3. Design applications to be highly granular and loosely coupled that can easily be reused by other applications.

4. Applications should be designed with the ability to extend functionality and scale according to the business needs

5. Avoid point-to-point integration by leveraging common integration services

6. Life span of solutions components must factor in decisions (e.g., future proofing, modernization, etc.)

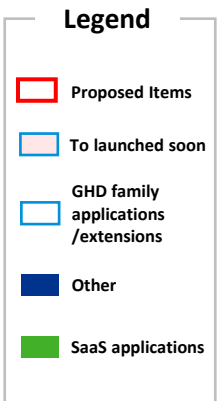
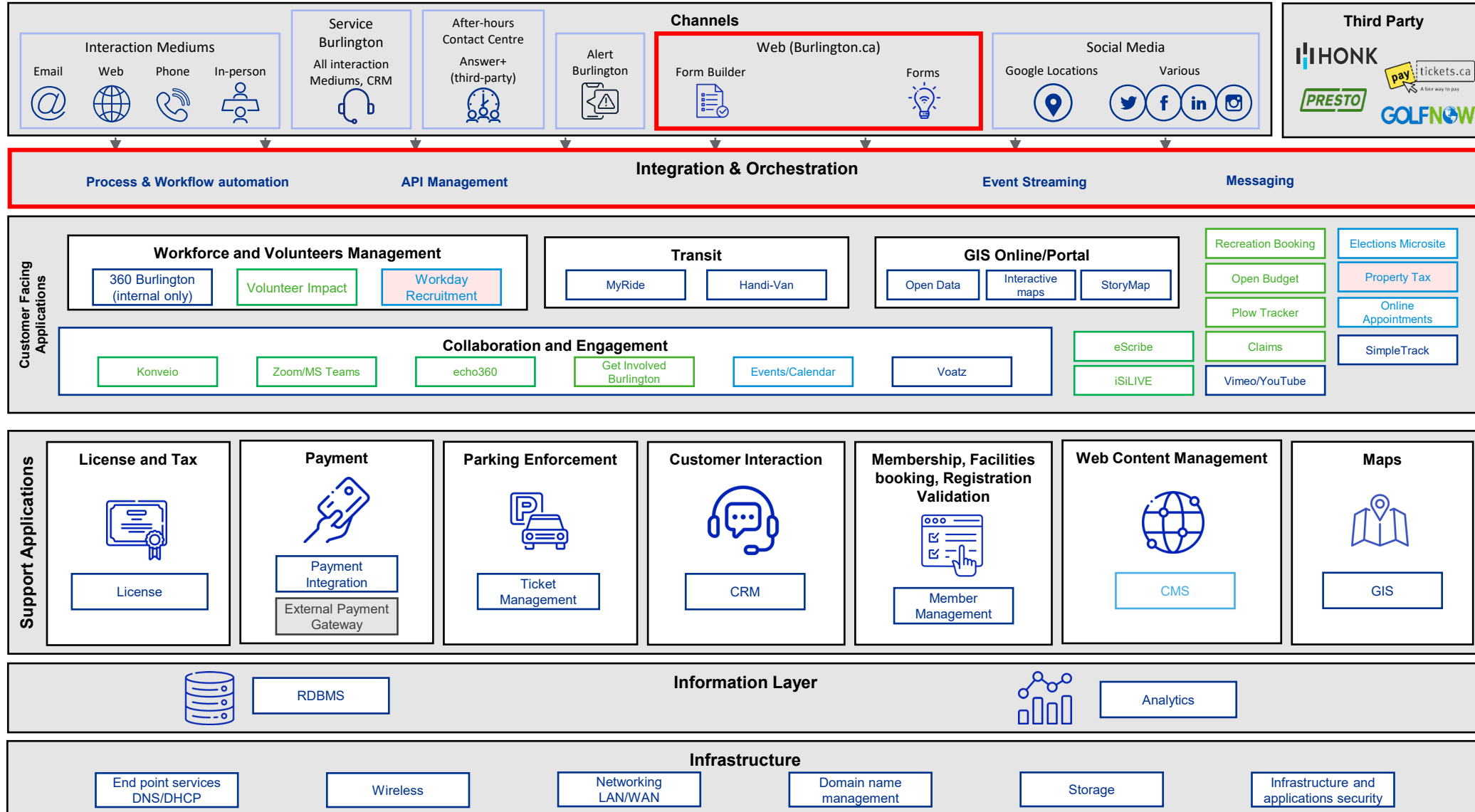
Architecture principles (2/2)

7. Data should be leveraged as an enterprise asset

8. Rationalize and consolidate applications portfolio to reduce duplication and overlap of functions and processes

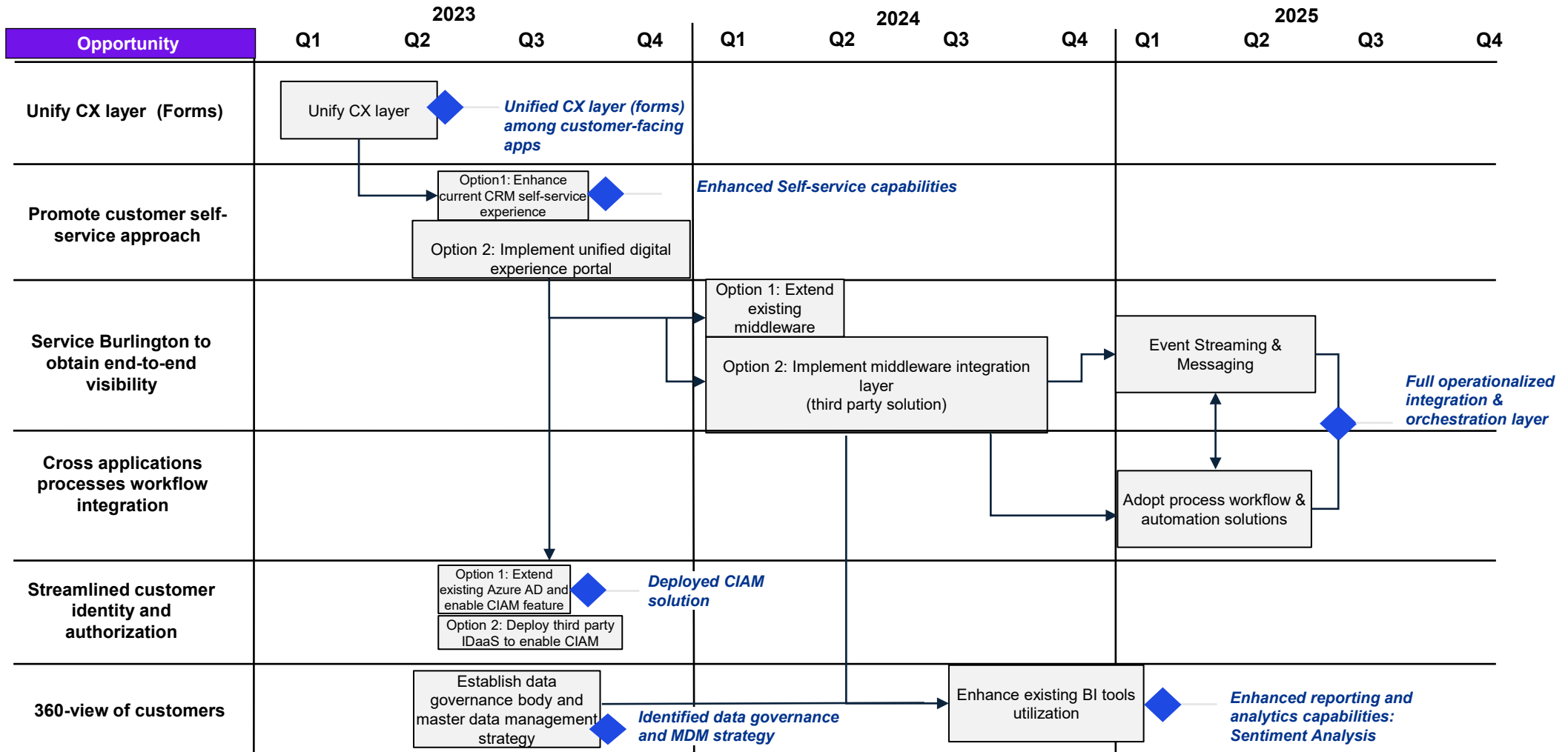
9. Affirm the alignment of CX initiatives and web architecture decisions with City of Burlington strategic directions (e.g., vision, mission, CX strategy, digital strategy).

Future State Architecture



Architecture Roadmap

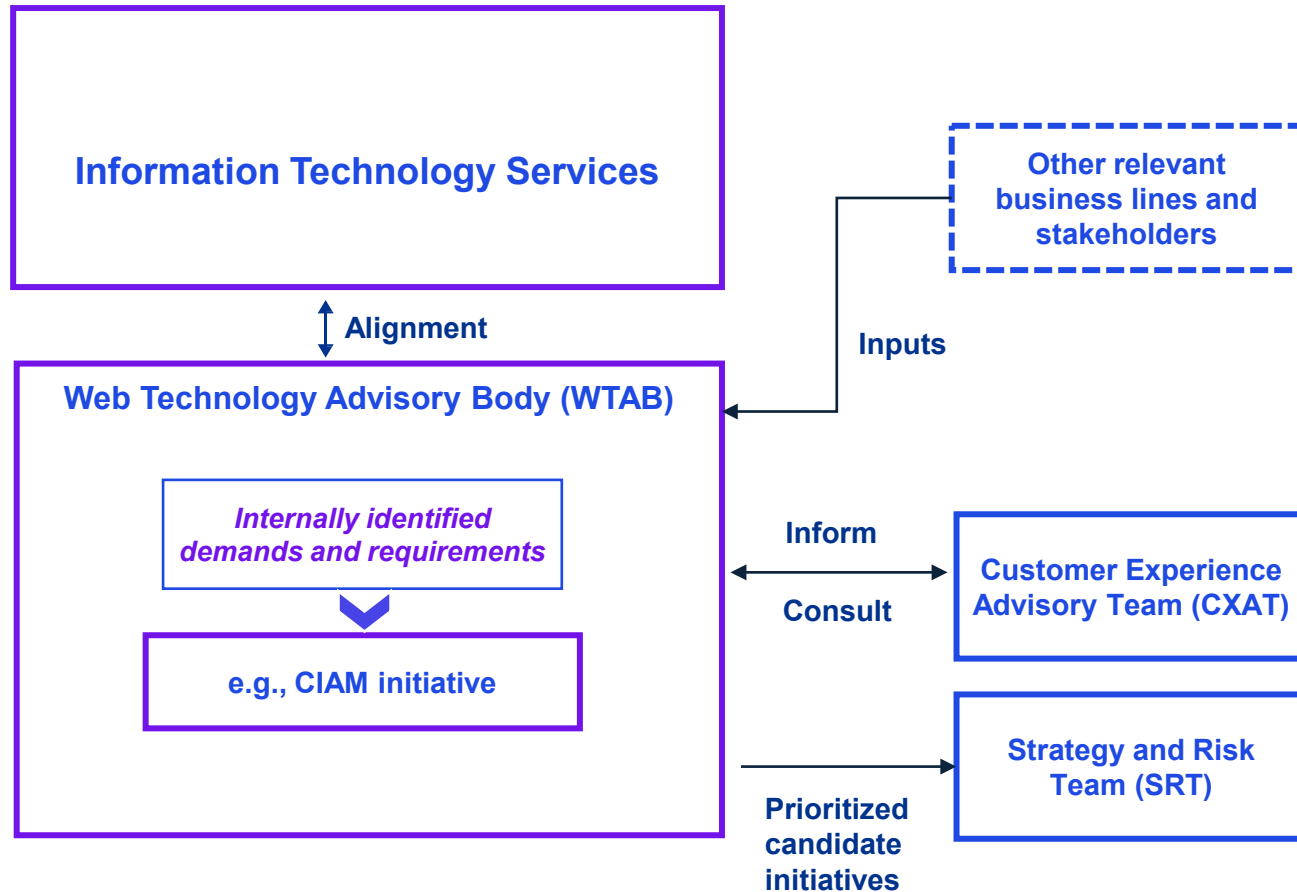
Proposed three-year implementation roadmap



Proposed Web Technology Advisory Body (WTAB)

CoB's Web Technology Advisory Body (WTAB)

Proposed advisory body



Mandates

- The purpose of the WTAB is to identify and prioritize web technology-related initiatives and provide inputs to the SRT
- It is essential that the WTAB has both executive representation from CoB stakeholders and cross-sectional representation to achieve the desired results. This advisory group comprised of relevant stakeholders with decision-making authority will have the collective responsibility to identify and prioritize candidate initiatives for CoB to pursue related to web technologies.
- CXAT will serve as the consulted body for CX-related guiding principles
- WTAB may get relevant inputs and demands from other business lines and stakeholders



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

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SUBJECT: Beachway Park parking operations update

TO: Community Planning, Regulation & Mobility Cttee.

FROM: Transportation Services Department

Report Number: TS-01-23

Wards Affected: 2

File Numbers: 745-03

Date to Committee: January 10, 2023

Date to Council: January 24, 2023

Recommendation:

Direct the Director of Transportation Services to discontinue the Parking Ambassador program at Beachway Park, include holidays in the paid parking period, and cease the Halton Beach Exemption program.

PURPOSE:

Vision to Focus Alignment:

- Increase economic prosperity and community responsive city growth
- Support sustainable infrastructure and a resilient environment
- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

Beachway Park is a recreational attraction for residents of Burlington, Halton Region as a whole, and other municipalities alike. The Beachway is a well-travelled destination in the summer months and as a result, the demand for vehicular access to the park has resulted in traffic flow challenges, particularly when coupled with limited parking supply. This combination of high demand and limited available parking has presented operational and safety concerns along the adjacent roadway and within the designated parking areas, all of which were exacerbated during the pandemic.

The popularity of the park continued to be prevalent in 2022 with weekend visitors from the Halton area utilizing the web-based exemption system, generating a total of **4,228 exemptions** between May & September. This marks a **44%** increase in use over the previous year, resulting in forgone revenue amounting to approximately **\$84,600**. Staff note that the exemption program is based on an honour system where the user self-reports their permanent address. As a result, there is potential for the program to be abused.

For the duration of the program, Parking Ambassadors and Enforcement Officers proactively monitored the parking lots and adjacent streets for compliance with the aid of additional signage and parking rules. A total of **1,860 tickets** were issued at the Beachway between May and September 2022. An additional **6 tickets** were issued on Willow Avenue, and **209 tickets** were issued Omaha Street.

The Beachway usage and transaction statistics are summarized below. Table 1 provides information on the Monthly Transactions processed through HonkMobile for both 2021 and 2022. Table 2 provides a comparison between the Total Transactions for 21/22 and the net change between the two. Lastly, Table 3 is a summary of the Halton Resident Beach pass usage between 21/22 as well as the net change between those two periods.

Table 1: Monthly Payment Transactions by Type

	MONTHLY TRANSACTIONS (2022)					TOTAL
	May	June	July	August	September	
Mobile App	149	353	726	566	241	2,035
Tap (QR code)	709	2,080	3,546	2,729	1,242	10,306
Total Transactions	858	2,433	4,272	3,295	1,483	12,341
	MONTHLY TRANSACTIONS (2021)					TOTAL
	May	June	July	August	September	
Mobile App	271	655	534	658	360	2,478
Tap (QR code)	1,255	2,834	2,457	3,024	1,564	11,134
Total Transactions	1,526	3,489	2,991	3,682	1,924	13,612

Table 2: Payment Transaction Volume in 2022

	2021	2022	% Change
Mobile App	2,478	2,035	(17.88)
Tap (QR code)	11,134	10,306	(7.44)
Total Transactions	13,612	12,341	(9.33)

Table 3: Exemption Volume in 2022 compared to previous years

	2021	2022	% Change
Exemptions Issued	2,945	4,228	43.56
Dollar Value*	\$58,900	\$84,560	\$25,660

*Dollar value assumes full day value for an exemption (\$20/day)

Strategy/process

Analysis of the park usage and transaction statistics has identified opportunities to modify parking operations for 2023 and beyond. Firstly, in order to remain consistent with other premium waterfront parking lots, the paid period at the Beachway should be extended to include Holidays within the designated timeframe for payment between May & September. While this will have a positive effect on annual revenues, it will also contribute to a better return on the asset, overall cost recovery, and help to regulate parking supply. Regulating parking supply is an important function contributing to customer experience that results in legal parking being available when required. Visitors who choose not to pay for beach parking will continue to have access to free parking in the downtown and a number of Burlington transit routes that drop off in the immediate area.

With Parking Services firmly committed to cost-recovery, it is essential to maintain the core principals of service delivery while making necessary operational changes to ensure sustainability. The introduction of Parking Ambassadors was intended to serve as a short-term solution to assist with customer service issues and mitigate operational difficulties as the park transitioned to a fee-for-service model, coupled with increased demand during pandemic lockdowns. The goal of the program was to educate the public on the parking rules and regulations, while providing customer support for digital payment using the Honk Mobile App. As the parking program continues to evolve, the move to digital pay parking generally operates autonomously with a high degree of success. The need for in-person support has greatly reduced and moving forward, the focus is on achieving compliance with signed parking rules and providing enforcement when required.

Options Considered

- 1. Cost-Recovery Focused - Discontinuation of the Parking Ambassador program at Beachway Park, include holidays in the paid period, and cease the Halton Beach Exemption program.**

This option is considered to be the most beneficial in order to balance the parking supply needs of the community relative to the cost-recovery goals of Parking Services. The Parking Ambassador program will be discontinued, and paid parking will be modified in order to align with other premium waterfront parking lots. While the program currently permits 10 exemptions per resident of Halton Region annually, this option proposes the cessation of the exemption program as the intent was to support local residents during the long-standing pandemic lockdowns and resulting travel restrictions. Given the return to pre-pandemic travel permissions, combined with the potential to abuse the program, staff recommend that the exemption program be discontinued for the 2023 season.

- 2. Customer-Service Focused - Extend the Parking Ambassador program at Beachway Park for the 2023 season, include holidays in the paid period, and cease the Halton Beach Exemption program.**

This option maintains the Parking Ambassador program in a more sustainable manner. By recovering a portion of the estimated forgone revenue as a result of the Halton Beach Exemption Program and realizing revenue increases through charging for parking on holidays, the program would increase the financial sustainability of the service and aim to better meet the service goal of cost-recovery, while continuing to provide the Parking Ambassador program for park visitors.

Financial Matters:

Analysis of parking revenue generated through paid parking at Beachway Park, compared to the overall cost to deliver the program is summarized in Tables 4 through 6. Referring back to Report TS-04-21, staff projected Beachway revenue of approximately \$170,000 which could have been achieved if paid parking was required for all users.

Table 4: Monthly Transactions by Dollar Value (Gross \$)

	MONTHLY TRANSACTIONS (2022)					TOTAL
	May	June	July	August	September	
Mobile App	\$798	\$1,950	\$5,273	\$3,625	\$1,413	\$13,059
Tap (QR code)	\$3,873	\$14,608	\$29,775	\$21,120	\$8,178	\$77,554
Gross Total	\$4,671*	\$16,558*	\$35,048*	\$24,745*	\$9,591*	<u>\$90,613*</u>
Total Deposit						<u>\$86,920</u>

*Minor variances due to rounding

The total value of Credit Card Processing fees and User Paid Transaction fees for the period amounted to **\$3,691** & **\$4,292** respectively.

Table 5: Total Estimated Program Operating Costs

	2022	2021
Parking Ambassadors	\$47,547	\$48,900
FT Staff Overtime	\$7,645	\$1,544
Towing	\$1,442	\$12,543
Paid Duty Police	\$0	\$21,000
Processing Fees	\$3,691	\$4,011
Total	\$60,325	\$87,998

Total Financial Impact

Table 6: Total Financial Impact 2022

	2022
Parking Revenue	\$86,920
Program Cost	\$60,325
Net Program Revenue	\$26,595

Source of Funding

In 2022, the Parking Ambassador program was funded entirely from the Parking Services Operating Budget through part-time salaries and wages. Funds for the ambassador program have not been added to the 2023 Operating Budget and as a result, funding will be required to continue the program into 2023.

Other Resource Impacts

Staffing

Staffing the part-time Parking Ambassador position continued to present challenges through the 2022 season. Some candidates were trained and deployed to the park in early May, only to leave the corporation shortly after commencement of employment. Limited retention of returning staff, with high levels of turnover, presented operational difficulties throughout the duration of the program which resulted in the need to approve significant over-time expenses and deploy full-time Parking Services staff to the Beachway to fulfill the duties of Parking Ambassadors. Additionally, support that was previously offered from other departments has since ceased with return to near-normal corporate operations, thereby reducing access to staff resources in order to sustain the program.

Paid-Duty Police

Report TS-12-21 estimated that paid-duty police costs for 2022 would be in the range of **\$25,400** based on expected usage and an hourly rate increase of 1.55% for officers. However, the return of special events both in Burlington as well as neighbouring municipalities resulted in a shortfall of available HRPS officers. Limited policing resources resulted in cessation of the regularly scheduled paid-duty officers at Beachway Park. Instead, special operations were scheduled throughout the summer by HRPS at no cost to the city. This included regular foot patrols of the beach as well as a tactical operation to deter the mass beach party promoted through social media in June. There were no expenses related to paid-duty police officers this season.

Towing

Over the course of the summer, increased parking demand from visitors frequently resulted in a shortage of available parking supply. In anticipation of an increase in illegally parked vehicles on exceptionally busy weekends, tow trucks were placed on standby to act quickly in the case of vehicle removal and to aid as a visual deterrent to illegal parking. Standby tow operators for the season amounted to **\$1,442**. No change to the practice of towing illegally parked vehicles within the Trans-northern pipeline is recommended through this report.

Fine Revenue:

Fine revenue is difficult to estimate given the varying costs of each offence. Additional administrative fees are applied when tickets lapse and it often takes months to recover costs as a result of the ticket screening, hearing or plate denial processes. For the

purpose of this report and considering the goal of Parking Services to achieve cost-recovery and compliance, potential to generate increased fine revenue has not been a contributing factor in determining staff's recommendation.

Climate Implications

Paid parking provides an incentive for visitors to consider the use of active and sustainable modes of transportation (walking, cycling, transit, etc.) when planning their visit to Beachway Park. Paid parking is a lever used through Transportation Demand Management (TDM) to manage parking demand, regulate parking supply and contributes to the reduction of auto trips.

Engagement Matters:

Community outreach for the 2023 season would consist of an online education campaign that will generate a series of beach visit scenarios whereby visitors could align themselves. Working with communications, these scenarios would provide clearer alternatives for those who do not want to pay the premium for parking at the beach and provide information on the various parking alternatives available as well as provide answers to commonly asked questions. Enhanced engagement would be rolled out in parallel with existing community notifications about paid parking.

Conclusion:

Based on the experiences of the 2022 season and in consideration of future operational changes, staff recommend the cessation of the Parking Ambassador program at Beachway Park, inclusion of holidays in the paid period and termination of the Halton Beach Exemption Program.

Respectfully submitted,

Stephen Camm
Supervisor of Parking Services
(905) 335-7777 ext. 7692

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.



SUBJECT: Lowville Park summary and recommendations
TO: Community Planning, Regulation & Mobility Cttee.
FROM: Transportation Services Department

Report Number: TS-02-23

Wards Affected: 3

File Numbers: 745-03

Date to Committee: January 10, 2023

Date to Council: January 24, 2023

Recommendation:

Direct the Director of Transportation Services to discontinue the Parking Ambassador program at Lowville Park, effective 2023, revert to the pre-pandemic operational model, and report back in Q1 2023 on alternative uses for the gate system; and

Direct the Director of Transportation Services to report back in Q1 2023 on the feasibility of implementing paid parking at Lowville Park inclusive of cost to implement and projected revenues.

PURPOSE:

Vision to Focus Alignment:

- Support sustainable infrastructure and a resilient environment
- Building more citizen engagement, community health and culture
- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

Since the pandemic, visitors to Lowville Park have been required to make an online reservation prior to visiting the park from May to mid-October (Thanksgiving Weekend). Reservations were permitted up to one week in advance and were valid for a three-hour visit to the park. The requirement for advanced reservation was displayed on signs

located on both Old Lowville Road and Guelph Line in addition to being communicated through the City of Burlington website. Vehicles parked in excess of the three-hour limit were subject to enforcement and/or removal. The three-hour limit was implemented in order to allow users enough time to enjoy the park during the pandemic and regulate duration of stay. The online reservation system provided an essential recreation opportunity by encouraging vehicle turnover at a time when options were limited during the height of pandemic restrictions. If visitors did not have a reservation upon arrival, they could seek assistance from a Parking Ambassador who was stationed at the front gate and could assist with completing a reservation.

With the program continuing through the 2022 season, the reservation system has been relatively well adopted by park visitors. However, it has been noted by staff that some guests had become increasingly reliant on the presence of the ambassadors to book reservations on the guests' behalf, which runs counter to the intention of having an automated system in place to permit access. A contributing factor to this is the topography of the area which limits mobile cellular reception and impedes ability to complete reservations on-site at time of arrival. In its current state, the reservation system requires Parking Ambassadors to fulfill the reservation function on behalf of guests if an advanced reservation was not secured.

As confirmed through the reservation system, during the peak period (July 2022) the majority of park visitors were coming from Milton. Appendix A contains a heat map which graphically illustrates residency of park visitors.

Statistics and Figures

Table 1: Lowville Park Reservation Statistics (May – October 2022)

	May	June	July	August	September	October*	TOTAL
Number of Visitors	3,573	9,744	13,668	9,312	6,591	4,504	47,392
Number of Groups	1,155	3,101	3,946	2,872	2,151	1,448	14,673
Average Per Group	3.1	3.1	3.5	3.2	3.1	3.1	3.2

*October figures are from the first of the month until Thanksgiving Monday (1 October – 10 October 2022)

Strategy/process

Review of the program and anecdotal evidence supported through the experience of staff indicates that the continued reliance on Parking Ambassadors is no longer supported and should be discontinued for the 2023 season.

The primary factor for discontinuing the program is the lifting of pandemic measures and lockdowns. As noted earlier, the key reason for implementing the Parking Ambassador and reservation system at Lowville Park was to manage park demands and regulate access during a time when travel was restricted and recreational opportunities were scarce. Given that the provincial pandemic response is no longer in place, the requirement to reserve and limit park visits to three-hours is of limited value to the overall operation of the park.

Another factor that supports discontinuation of the program is the desire of park visitors to stay longer than three-hours. Staff interactions with park visitors reveals that visitors are overwhelmingly in favour of eliminating the limitation on length of stay. Eliminating the three-hour time limit would enable park programming to resume. Examples include resumption of picnic permits as managed through Recreation, Community and Culture; as well as other community-based initiatives such as those organized by Field and Stream Rescue who currently lease the Lowville Schoolhouse. The reservation system and associated time limit hampered the ability of these programs to run in 2022.

Options Considered

Cost Mitigation Focused - Discontinue the Parking Ambassador program at Lowville Park, revert to the pre-pandemic operational model and report back in Q1 2023 on alternative uses for the gate system.

This option restores Lowville Park to its pre-pandemic state by eliminating the requirement for advanced reservations to visit the park, eliminates the three-hour time restriction and discontinues the Parking Ambassador program. Parking Services will revert back to core operations, focusing on enforcement and education in the area when required.

The need to revert back to pre-pandemic operations is not only essential for the park users that have expressed interest in longer stays, but also for the continuation of recreational programming that previously took place at the park. This option provides much needed opportunity for the community to use the space in a manner consistent with the rest of the city and allows Parking Services to focus on core operations.

Customer-Service Focused - Extend the Parking Ambassador program in its current state including three-hour time limit and advanced reservations.

This option continues both the Parking Ambassador and on-line reservation program in its current state while maintaining the requirement for advanced reservation and continuation of the three-hour time limited stay. This option restricts the use of the park and will not accommodate picnic permits or programming through community partners. Additional resources will be required for this option as continuation of the program was not anticipated through the 2023 budget.

Cost-Recovery Focused - Cease the parking ambassador program, report back in Q1 2023 with new operational model to include paid parking to regulate access, encourage turnover and include options on alternative use for the gate system.

This option strikes a balance between the need for longer-term visits in the park while regulating parking supply through the introduction of paid parking. This fee for paid parking structure is aligned with other regional parks within the rural area and is appropriate given the regional demand for park use. This option will require additional resources, namely technology and connectivity resources (i.e., parking pay machine installation, network connectivity, etc.). Preliminary discussions are underway with other city departments and will continue prior to reporting back to Council with a recommendation on paid parking and reuse of the existing gate system.

Financial Matters:

In early 2022, in partnership with the City Auditor, Parking Services followed up on a 2017 audit and finalized its position as a cost recovery service. The engagement of Parking Services in what largely amounts to park operations at Lowville Park does not currently provide any method of cost recovery for the service. As a result, extensive staff and budget resources are required in order to provide the high level of customer experience at Lowville Park, which is predominantly used by residents of neighbouring municipalities (refer back to Appendix A).

Total financial impact of operating the program is substantial and to-date, there is no revenue generated through the program and no cost recovery to Parking Services. Two Parking Ambassadors are on-site 7 days per week. In total, this amounts to 64.0 staff hours per week with an additional 24.0 staff hours required during holiday long weekends. In addition, full-time staff resources are required to be dedicated throughout the duration of the program to support daily operation which has negatively impacted

the ability to deliver on critical initiatives to overall parking service delivery and strategic workplan items.

Total Financial Impact

In terms of total financial impact, the Parking Ambassador and FT Staff Overtime values, as presented below, were also reported in TS-01-23 and represent the total Parking Ambassador staff costs for both Lowville and Beachway operations. The only additional expense associated with Lowville Park is a fee for Annual Gate Maintenance in the amount of **\$5,100**.

Table 2: 2022 Financial Impact

*Total Program figures previously reported in TS-01-23

	2022
Parking Ambassadors	\$47,547*
FT Staff Overtime	\$7,645*
Annual Gate Maintenance	\$5,100
Total	\$60,292

Source of Funding

The Parking Ambassador program in 2021 was funded through a combination of Canada Student Grants and the Parking Services Operating budget which received limited Safe Restart funding. In 2022, the Parking Ambassador program was funded entirely from the Parking Services Operating Budget through part-time salaries and wages. The 2023 budget does not include a provision for this position.

Other Resource Impacts

Ambassador Staffing

Staffing the part-time Parking Ambassador position continued to present challenges through the 2022 season. Some candidates were trained and deployed to the park in early May, only to leave the corporation shortly after commencement of employment. Limited retention of returning staff, with high levels of turnover, presented operational difficulties throughout the duration of the program which resulted in the need to approve significant over-time expenses and deploy full-time Parking Services staff to Lowville Park to fulfill the duties of Parking Ambassadors. Additionally, support that was previously offered from other departments has since ceased with return to near-normal corporate operations, thereby reducing access to staff resources in order to sustain the program.

Fine Revenue

Fine revenue is difficult to estimate given the varying costs of each offence. Additional administrative fees are applied when tickets lapse, and it often takes months to recover costs as a result of the ticket screening, hearing, or plate denial processes. For the purpose of this report, in consideration of the goal for Parking Services to achieve cost-recovery and compliance, fine revenue has not been a contributing factor in determining staff's recommendation.

Mobile or Wireless Signal

The reliance on both wireless and mobile signals is demonstrable at Lowville Park. Currently, visitors need either WIFI access or a mobile signal in the event that reservations were not completed prior to arrival. If the option for paid parking is selected, this will be a requirement to facilitate mobile payment in the area. ITS is currently exploring options to provide wireless service to the parking lot as a preliminary exercise to gauge the cost of implementation.

Gate Operations

Generally speaking, the gate system operates as required, but a high level of guidance is often required for park visitors to gain access. Additional signage was installed in 2022 to better facilitate vehicle placement for plate verification. Difficulties with the system arise when the underlying support systems fail. The most significant of these impediments was the network outage in July 2022. Loss of network connectivity to the gate system removes ability for staff to check vehicles into the park, as well as remotely control the entrance arms. As a result, the gate becomes an impediment to traffic that is only remedied by a manual override key. Given the short distance between the park entrance and Guelph Line, queuing can quickly become a significant safety and traffic operations concern. A similar situation occurs during power outages. The failsafe program on the system allows vehicles to exit the parking lot in the event of a power outage but results in vehicles entering and exiting through the outbound lane, thereby resulting in safety concerns and queuing. While the gate was piloted as a potential solution to manage vehicle flows into and out of the park, the resulting impact to safety and traffic operations is such that staff recommend the removal of the gates prior to the 2023 season.

Engagement Matters:

Lowville Advocacy Council is actively engaged on many aspects of park operations, including parking, and will continue to be informed on new initiatives that may impact the user experience. Additionally, the Lowville schoolhouse now has a tenant with an interest for increased accessibility to the park and will be consulted on any proposed changes that may impact their operations and programming.

Conclusion:

Based on the experiences of the 2022 season and in consideration of future operational changes of Parking Services, staff recommend the cessation of the Parking Ambassador program at Lowville Park, the return of normal unrestricted visiting hours and introduction of paid parking for the 2023 season, with a commitment to report in Q1 2023 on alternative uses for the gate system.

Respectfully submitted,

Stephen Camm
Supervisor of Parking Services
(905) 335-7777 ext. 7692

Appendices:

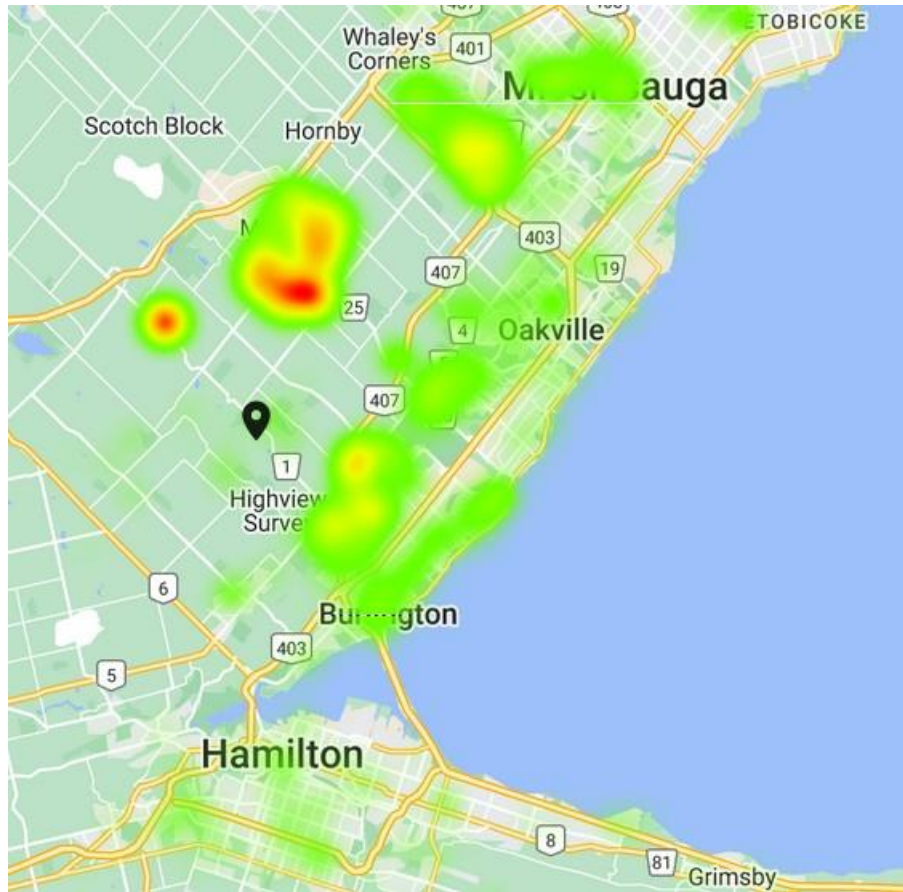
A. Lowville Heat Map

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer, and the Executive Director of Legal Services & Corporation Counsel.

Lowville Heat Map

July 2022





SUBJECT: Streamline Development Approval Fund

TO: Community Planning, Regulation & Mobility Cttee.

FROM: Community Planning Department

Report Number: PL-02-23

Wards Affected: All

File Numbers: 155-03-01

Date to Committee: January 10, 2023

Date to Council: January 24, 2023

Recommendation:

Receive and file community planning department report PL-02-23 which summarizes the methodology and outcomes of the Streamline Development Approval Fund project.

PURPOSE:

Vision to Focus Alignment:

- Increase economic prosperity and community responsive city growth
- Deliver customer centric services with a focus on efficiency and technology transformation

Background and Discussion:

In January 2022, as part of the Provincial Housing Summit with big city mayors and regional chairs, Premier Doug Ford announced the launch of the \$45 million Streamline Development Approval Fund (SDAF) Initiative. Ontario's 39 largest municipalities each received an allocation from the province to help modernize, streamline, and accelerate processes for managing and approving housing applications. The City of Burlington's allocation was up to \$1 million in funding with the understanding that SDAF projects must be completed by February 28, 2023.

Related Projects

Through the Audit and Accountability funding, the Province approved funding for two other related City initiatives.

- 1) Enterprise Web Architecture & Modernization Review
- 2) Land Management Database Platform Review

The Enterprise Web Architecture and Modernization Review is delivering recommendations for a high level architecture to align online customer service delivery across City services and systems. The Land Management Database Platform Review (LMDPR) is delivering a comprehensive workplan to bring information technology related cost savings and efficiencies to the Development Approval services, Permitting services, Licensing services, other application services and the management of the platform services. There is a significant online customer service delivery component to the workplan for all Audit and Accountability funded projects.

The Streamline Development Approval Initiative Fund (SDAF) project is a one-time project delivering specific improvements to the low-density residential development approval service (i.e. Pre-building permit process). The LMDPR workplan takes into account the learnings from the SDAF project.

All three initiatives share the objective of finding efficiencies and cost savings in the provision of City services. Each includes delivering services which include a customer online experience and enabling technologies. The recommendations of each report will be considered together in order to align future work and to ensure effective planning and utilization of resources and technology.

Strategy/process

Staff from community planning, building, finance, forestry, engineering, and corporate strategy worked together in gathering information to identify and assess the potential options for projects that could be funded through the SDAF. This was summarized in Report CS-04-22.

The following list of work was proposed to be completed with the SDAF funding:

- Optimize the Consolidated Pre-building Permit (PBP) process.
- Review the timing and calculation of development charges during development review.
- Update the pre-consultation process related to applications for Zoning By-law Amendment and Site Plan Approval.
- Support and sustain continuous improvement through LEAN training of staff.

- Broaden scope of Housing Strategy and respond to staff direction from Council related to a proposed strategic lands strategy for the acquisition and community use of current and potential surplus school sites. Note - this work was completed separately, and the outcomes are found in Report Number PL-53-22.

It is important to note that the project scope included a purposeful focus on not only identifying potential improvements to process, but on implementing these solutions so that at the end of the project staff are operating in their envisioned future state. This was designed to ensure that impacts for improvement were realized and implemented in a timely fashion.

To complete the SDAF work, the City hired Lean Agility for training and to serve as a resource throughout the project. Several staff came together to perform various key roles and responsibilities. A sponsorship team from Planning, Building and ITS Departments was created to provide overall project oversight. Day to day project management was handled by Planning and the City's Corporate Strategy Team. Staff from a number of service areas such as Finance, ITS, Customer Service, Engineering, Forestry, Zoning, Building and Government Relations performed key supporting roles as a stakeholder group. It is noted that members of the development industry were consulted, interviewed, and participated in this project.

The business objectives of the SDAF work are as follows:

- Support faster PBP approvals within the City.
- Improve staff capacity and process efficiency to focus on strategic work and reduce operational challenges.
- Respond to Vision to Focus strategic priorities by increasing housing options and enabling responsive growth management.
- Staff development in the areas of process improvement and product design.
- Create a culture of continuous improvement in the corporation that will increase the sophistication of the organization's business practices.

The SDAF work benefited from a team of motivated and engaged staff with a common desire to seek improvements to various business processes. The first step in the SDAF initiative was for team members to be trained in the "Lean" methodology, agile design thinking, and customer centric design. 29 staff received this training to help the team identify and focus on solutions to the root causes of problems and not the symptoms. Moreover, it enabled them to try new ways of doing things by keeping an open mind to change while embracing experimentation (i.e. Plan-Do-Check-Adjust) and always considering the needs of the customer.

The lean methodology used to complete the SDAF work consisted of the following phases: Define; Measure; Analyze; Improve; and Control. This methodology, coupled with the previously mentioned training, provided the psychological safety for staff to take risks, learn, and pivot quickly for success. The application of this lean approach is observed throughout Appendix A.

The first phase of this project was for the team to create a project charter with defined goals, timelines, and strategic objectives that outlined the steps and building block activities for the project. This defined the scope and conditions for success of the SDAF project.

Once the project was clearly defined, the team proceeded to explore multiple perspectives and completed value stream process mapping for the PBP process, the development charges process, and the pre-consultation process. This exercise included data collection on how long each step of the process takes to complete as well as how long the process takes overall. Details regarding the value stream mapping exercise are found on slides 30-33 in Appendix A. Upon completion of mapping out the various business processes in their current state, it was quickly identified that the PBP process had a significant amount of inefficiencies “waste” whereas the Pre-consultation and Development Charge processes did not. The Pre-consultation and Development Charge processes required minimal process re-mapping and were able to proceed quickly to experimentation (to be discussed later in this report) and leveraging technology for implementation. The majority of the SDAF effort was focused on improving the PBP process.

For clarity, the PBP process is the consolidation of the Zoning By-law Review, the Grading and Drainage By-law review, and the Private Tree By-law review for all development that does not require site plan approval (i.e. decks, sheds, accessory structures, additions to detached dwellings, and new detached dwellings).

An environmental scan of three cities (Oakville, Markham, and Brampton) was conducted to compare Burlington’s PBP process to theirs. Similar challenges were observed:

- Poor quality of submissions by applicants.
- Too many review/resubmission cycles.
- Unsustainable applicant expectations.

Lessons learned from the environmental scan include:

- Process improvement is critical.
- Reducing the PBP process from 4 review cycles to 2 review cycles is achievable.

- Change management strategies for staff and applicants are necessary for successful process updates.
- Staff need to change their approach from acting as the “enforcer” of the process to the “enabler” of the process. This includes increased collaboration with applicants.

Interviews with members of the development industry were conducted to capture the “Voice of Customer” as it relates to the PBP process. Comments received include:

- Appreciate that all submissions and resubmissions go through one staff contact. This ensures all reviewers (zoning, engineering, forestry) are reviewing same information.
- It would be helpful to have a clear understanding of the status of a file for each review. This would ensure we don't have to bother PBP staff for separate status updates.
- Quicker reviews/turnaround time in PBP and building permit would result in less illegal construction within the city.
- Delays in review and issuance of applicable law approvals cause customers to ask for early permit submissions (before applicable law) and customers are extremely frustrated when they get to building permit application stage.
- Three different service areas with staff experiencing varying workloads and lack of resources causes delays in final approvals and customer/client response.
- The timeframe between the original Development Charge calculation and the time which they are payable is so long that fees are indexed multiple times.

Through the value stream mapping of the current PBP process, staff captured data points for the key steps in the process. The critical metrics were as follows:

- Elapsed Time (ET) which is the duration of time from when a process step begins to it being completed.
- Processing Time (PT) which is the actual staff time spent on a completing the work associated with a process step.
- % Complete and Accurate (%C&A) which is the percentage of time that submitted materials are complete and accurate enabling staff to review and process without requiring further information or corrections.
- Failure Demand which is the number of errors in the process at a given step requiring rework to correct.

The collected data points for the PBP process identified the following:

- The total ET for the entire PBP process was on average a minimum of 123 days.

- The total PT for the entire PBP process was on average a minimum of 6 days.
- Low % C&A from applicant submissions led to significant failure demand throughout the PBP process and contributed to increased ET.
 - 95% of PBP applications received are initially deemed incomplete or missing information.
 - 4 submission cycles are typical during overall PBP process adding ET to achieve 100% complete and accurate application for approval.
 - 50% of ET is attributed to delays from an applicant revising submission materials.

The perspectives (Voice of Customer) and data points of the PBP process were analyzed by the team to identify the root causes of problems. This analysis confirmed various “wastes” and “failure demand” present in the PBP process and provided a better understanding on how backlogs in the process develop leading to increased ET. The problems identified through the analysis were compiled into an inter-relationship chart for weighting of top issues. This chart can be found on slide 43 of Appendix A. An inter-relationship chart identifies which issues are the cause of further issues later in a process. The chart is used to identify which issues create the most waste in the process, and efforts for improvement are focused on these key issues, as they present the most opportunity for improvement overall. The main root cause issues identified through the analysis were:

- Lack of process visibility
- Ineffective application form.
- Technology (AMANDA) not being utilized effectively.
- Complex requirements and By-laws.
- No continuous improvement routines.

Upon completion of the analysis and identification of the top issues within the PBP process, the team considered solutions to the top root causes identified. This informed a series of experiments to explore various process improvements and the creation of a new future state process map. Many of the experiments were completed and implemented with immediate positive impacts while others are still ongoing.

Details of the experiments is offered on slides 53 to 60 in Appendix A and a summary of the experiments is as follows:

Experiment 1 – Circulation Elimination
Status - Completed

Circulations of applications to related staff for review is handled through the City's AMANDA platform. A quick win was immediately identified where staff were able to eliminate a step in the folder set up within AMANDA and better leverage the existing technology.

The realized gains in this experiment include a reduction in ET by 5-10 days and a reduction in PT by 15 mins per application. This means that submissions are circulated to reviewers much faster, preventing backlogs and long waiting periods. This simple process adjustment eliminated 2 file handoffs between staff and improved internal visibility of work.

Experiment 2 – Simplification of Site Engineering Review Status - Completed

Site Engineering challenged themselves to consider the value added in their review of certain types of development in the PBP process. The intent was to see if there were opportunities to free up their limited staff capacity by not requiring their review for low-risk development applications. Site Engineering was able to eliminate their review for PBP applications dealing with second storey additions, front porch renovations, basement walkouts, pergolas and similar accessory structures with an open or slatted roof, and like for like replacements due to a damage repair.

The realized gains from this experiment eliminated the need for site engineering to review approximately 75 PBP applications per year. This experiment made available approximately 1500 hours of work capacity per year for Site Engineering to redeploy towards more high risk and strategic development applications.

Experiment 3 – Deficiency Form Improvement Status - Completed

Deficiencies are a common occurrence in the PBP process. This experiment centralized the record management of the Deficiency document in AMANDA to make it easy to find and leveraged various technological automation features to reduce manual staff effort. It also improved the format of the document to create consistency across departments who participate in PBP.

The realized gains of this experiment include minimized interruptions for staff when looking for the Deficiency document as well as a more efficient method to manage this step in the PBP process. This experiment is a step forward in the City's digital transformation of Development Services.

Experiment 4 – Improved Application Form
Status - Completed

Failure demand in the PBP process was exceptionally high from the first day an application is received. In most cases, it was because the application form was not filled out correctly or the application was missing information. To improve the customer experience, the application form was revised to be less complex and more user friendly.

The realized gains of this experiment increased %CA from 50% to 80% in application form submissions. This reduction in failure demand improved the client and staff experience at the first day of the PBP process and resulted in less rejections for incomplete applications. This improvement to the application form has also saved staff effort in frequently asked customer inquiries. It is too soon to measure, but it is anticipated that this experiment will reduce ET.

Experiment 5 – Development Charge Process
Status – In Progress

Development Charges (DC) are required for various development applications and must be paid prior to issuance of a Building Permit. DC calculation is currently administered by Zoning staff during the PBP process instead of later during the Building Permit process. If there are delays in the Building Permit application, issuance, or if the proposed application requires revisions prior to issuance, the DC calculation provided during the prior PBP process may no longer be accurate and requires recalculation by Zoning. The intent of this experiment is to move the administration of DC calculation to the Building Permit process instead of during the PBP process and therefore eliminating the potential for unnecessary re-work by staff.

The realized gain of this experiment is that DC administration is done once by the right staff at the right time thus eliminating unnecessary back and forth handoffs and re-work between staff during the DC process. It is estimated that this will free up approximately 370 hours of Zoning staff capacity a year which can be re-deployed toward development applications subject to Bill 109. This experiment is ongoing as staff finalize the details to implement this updated process.

Experiment 6 – Pre-Screen
Status – Complete

The PBP process is the consolidation of reviews from Zoning, Site Engineering, and Forestry. Failure demand at the moment of application submission has been exceptionally high. Even after an applicant meets the quantitative requirements for their

submission, it is possible that there are numerous qualitative errors leading to a list of deficiencies. For example, an application may include the required site plan, but the plan may not include all the details required to inform decision making in the review phase of the process. In the current process, these deficiencies may not be discovered until several weeks after the PBP application has been received and reviewed by Zoning, Site Engineering, and Forestry staff. For obvious reasons, this frustrates owners and applicants and adds significant ET to the overall PBP process. The intent of this experiment is to establish a “pre-screen” internal meeting with staff to accelerate initial quantitative and qualitative feedback to applicants within a week of receiving the application with the objective of reducing resubmissions to a maximum of 2 cycles.

This experiment was conducted in two phases. Phase 1 focused on pre-screening applications to ensure those submitted were complete and included all required information and documents. The realized gains from this phase of the experiment were a reduction in ET from 41-108 days to 2-6 days and a reduction in PT from 18-24 hours to 1.25-2 hours of work. This means first contact with an applicant now occurs within 2-6 days, instead of applicants having to wait for up to 108 days. Phase 2 of this experiment focused on understanding the impact that the pre-screening phase will have on the review phase of the process. This part of the experiment seeks to understand if only quality applications are forwarded to the review phase, how many review cycles can be eliminated and how much time will be saved as a result. Implementation of this phase has just commenced but anticipated gains are a reduction in review cycles from 4 to 2 which would reduce overall ET by approximately 50% and reduce overall PT by approximately 30%. The ability to provide initial feedback quickly is a significant improvement to the overall client experience and allows applicants to revise and resubmit their materials in a timely manner. This experiment has been formally implemented and staff are monitoring to see if the pre-screen stage in the PBP process can lead to a reduction in resubmission cycles.

Experiment 7 – Make Process More Visible

Status – In Progress

Visibility of the PBP process is a challenge for internal staff due to ineffective technology configurations. The transparency of the application process is also a challenge for applicants who wish to have frequent updates resulting in numerous calls to staff for updates and inquiries. The intent of this experiment is to leverage technology (AMANDA platform) to improve internal management of the PBP process and enable it to connect to an online portal whereby applicants and owners can log in to view information related to their application including its status, staff comments/deficiencies, and other related activities.

The realized gains of this experiment will provide a self-serve option for applicants and reduce the capacity drain of frequent inquiries to staff. It is anticipated that this experiment will save approximately 60 hours of work a week total for the various staff connected to the PBP process. A new PBP folder in AMANDA and an online portal are currently in development for implementation for January 2023.

Experiment 8 – Updated Pre-consultation Process Status – In Progress

Unrelated to the PBP process is the Pre-consultation process for Zoning By-law Amendments (ZBA) and Site Plan Applications (SPA). Through Bill 109, the Planning Act has been revised for the processing of ZBA and SPA. As a result of these legislative changes, pre-consultation will take on increased importance to resolve complex technical matters and lead to good planning outcomes. The initial analysis of the pre-consultation process was that it was quite “Lean” and simply requires minor updates to technology (AMANDA) and documentation templates to facilitate Bill 109.

The realized gains from this experiment are a more effective and consistent pre-consultation process with improved internal visibility and records management for staff. The pre-consultation folder in AMANDA and all associated document templates are currently being updated for implementation on January 1, 2023.

Financial Matters:

Up to \$1 million in SDAF funding was announced for the City for the improvement of development application processes with parameters for its use. The project team has utilized these funds in a number of ways;

1. Consulting fees for a Lean Six Sigma review of the current PBP, Development Charge, and Pre-consultation processes, including yellow belt training for 29 staff on the project team, and the identification and implementation of solutions.
2. Consulting fees for the design and development of a tool that will bring visibility to the PBP process, allowing applicants to see the status of their application throughout the process. This included training for project team members on human centred design and agile project management.
3. Improvements to the AMANDA system to allow for better coordination of process tasks and flow between staff.

Total Financial Impact

Project funds have been applied to the development and experimentation of process and technology improvements with solutions expected to be formally implemented starting January 2023. Experiment measures and observations have provided staff with data to understand the anticipated impact of changes but realized impact has yet to be measured. Staff will continue to measure the impact of improvements as they are formally implemented to understand how they have contributed to project goals. It is important to note that for some time following the project anticipated gains from improvement will be realized in everyday operations and increase until they have reached their full potential in the future state.

Source of Funding

The funding has been approved by the Province of Ontario through the Streamline Development Application Fund.

Other Resource Impacts

Throughout the duration of the project, project team members participated in analysis of the process, design and development of solutions while also managing their regular work. To make room for staff to design and implement improvements, regular operational activities have been put on hold periodically. Staff have operated over capacity for some time now, just to meet the needs of regular operating activities. Any capacity savings resulting from process improvements will be studied to understand the impact to workload and operations. Continued efforts will be made to make room for staff to reduce overwhelming workloads and begin to make room for ongoing continuous improvement endeavors.

Climate Implications

Not Applicable

Engagement Matters:

A number of members from the local development industry participated in this process in various ways such as: customer centric training; interviews; and testing and feedback on experiments.

Conclusion:

The SDAF project has led to a number of positive organizational and process outcomes. Most important are the cultural changes in how we conduct our work. The concept of continuous improvement and integration of Lean principles has been embraced by staff. It has strengthened staff morale and empowered them to execute changes in business processes that improve overall efficiency, customer experience, and sustainability of workloads. It is anticipated that staff will proactively continue with new experiments and implement those that are successful. A report from Lean Agility is included as an appendix to this report that summarizes the methodology, outcomes, and recommendations for the SDAF project.

SDAF is the beginning of a cultural shift in Development Services. Lessons learned from this project will be adapted and scaled up to other more complex development processes so that we continue to maximize efficiency and staff capacity in our service delivery.

Respectfully submitted,

Jeanette Bax, LSSBB

Corporate Business Improvement Specialist

905-380-3369

Jamie Tellier, MCIP, RPP

Manager of Planning Implementation

905-335-7600 x7892

Appendices:

- A. Report from Lean Agility

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.

City of Burlington
Streamline Development Application Process (SDAF) Project
Report from Lean Agility

20 June – 17 November 2022

Prepared by: Alain L'Abbé

Project Introduction & Background

In January 2022, as part of the Provincial Housing Summit with big city mayors and regional chairs, Premier Doug Ford announced the launch of the \$45 million Streamline Development Approval Fund (SDAF) Initiative. Ontario's 39 largest municipalities could each receive an allocation from the province to help modernize, streamline, and accelerate processes for managing and approving housing applications. The City of Burlington received provincial funding to execute on this work.

The City of Burlington had completed several process reviews both through consulting work and internally by staff. These reviews made recommendations for improvement, some of which have been implemented while others have not. Staff and Leadership involved were seeking the opportunity to make meaningful change to the end-to-end process and seek to avoid redundant process review work already completed.

Lean Agility used the full Lean Agility toolkit (i.e. Lean, Agile/Scrum, Service Design/Design Thinking, Six Sigma) and Change Management principles and practices, to review the organization's previous work on process improvements, guide a planned improvement project approach that would, in addition, support the implementation of solutions that will enable the City to achieve its goal in streamlining development application processes.

Taking into consideration that the City had already completed other process reviews the focus of the project was to identify which process improvements will have the greatest impact for improvement and to focus on the implementation of these prioritized solutions. The organization emphasized the intent for seeking active support for implementation activities.

Project Scope and Intended Outcomes

The goal of the project was to improve the development application process and reduce or eliminate non-value add capacity demands on staff. To ensure the process was efficient and streamlined when reviewing and approving development applications, new technology options were to be considered. The intent of these improvements was to allow for development approvals to be processed faster for the client.

Specifically, the project focused on the processes and improvements that will support these intended outcomes;

1. Increase clarity in process for both staff and customers
2. Reduce application review time
3. Reduce process touchpoints and rework
4. Reduce waiting at various process steps
5. Reduce manual work and rework required by staff
6. Improve communication between internal departmental staff

The project plan developed by Lean Agility was intended to engage and prepare staff and leadership for change, review and assess past improvement recommendations and solutions, align with current and new options for technology, create an implementation plan and deliver on implementation. The intention was to uniquely take the project from design to full improvement implementation and embed the practice of continuous improvement within the project participants. The following pages outline the approach, data and information collected, the consultant observations, the experiments undertaken and the results of the improvements to date.

Participants

Project Team

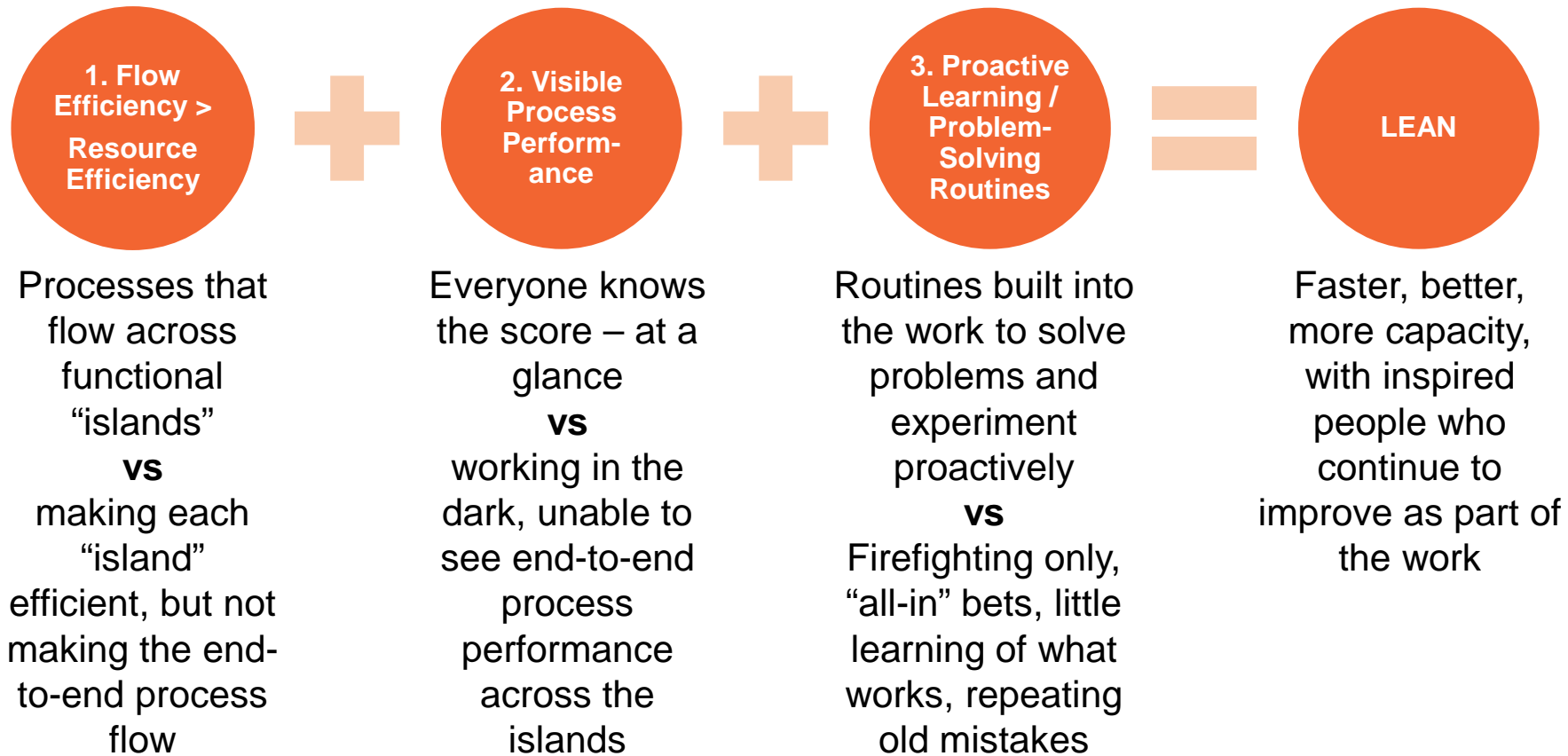
- Jamie Tellier
- Ellen Chen
- Danielle Beck
- Nathan Dart
- Steve Robinson
- Tina Vassali
- Rade Kuruc
- Cathy Marion
- Dymika Harte
- Jessica Randall
- Alison Enns
- Larissa Howe
- Thanh Le
- Jeff McIsaac
- Adam Scott
- Luke Zygalko
- Chris Koabel
- John Le
- Melissa Torchia
- Eric Canham
- Wendy Hugh
- Jennifer Parker
- Mark Darlymple
- Kyle Plas
- Annette Simpson
- Dio Ortiz
- Rob Hagley
- Greg Bunker
- Tina McHugh
- Ryan Parker
- Jeanette Bax
- Alain L'Abbé (facilitator)

Engaged Sponsors

- Brynn Nheiley
- Nick Anastasopoulos
- Mark Simeoni
- Chad MacDonald
- Stephanie Venimore
- Jamie Tellier

Lean Fundamentals

Lean: 3 Key Decisions



From: This is Lean:
Modig & Ahlstrom

Value Added vs Non-Value Added

Value Added

Non-Value Added (2 types)

Pure Value Added (VA):

A process step that the Client **would be willing to pay for** if they knew about it;
Performed correctly

Business Value Added (BVA):

Does not add value in eyes of end user/Client, but it is **currently** necessary to deliver the product or service.

Pure Non-Value Added (NVA):

Does not add value in eyes of end user/Client, **and** if you stopped doing it, nothing bad would happen

Value-added:

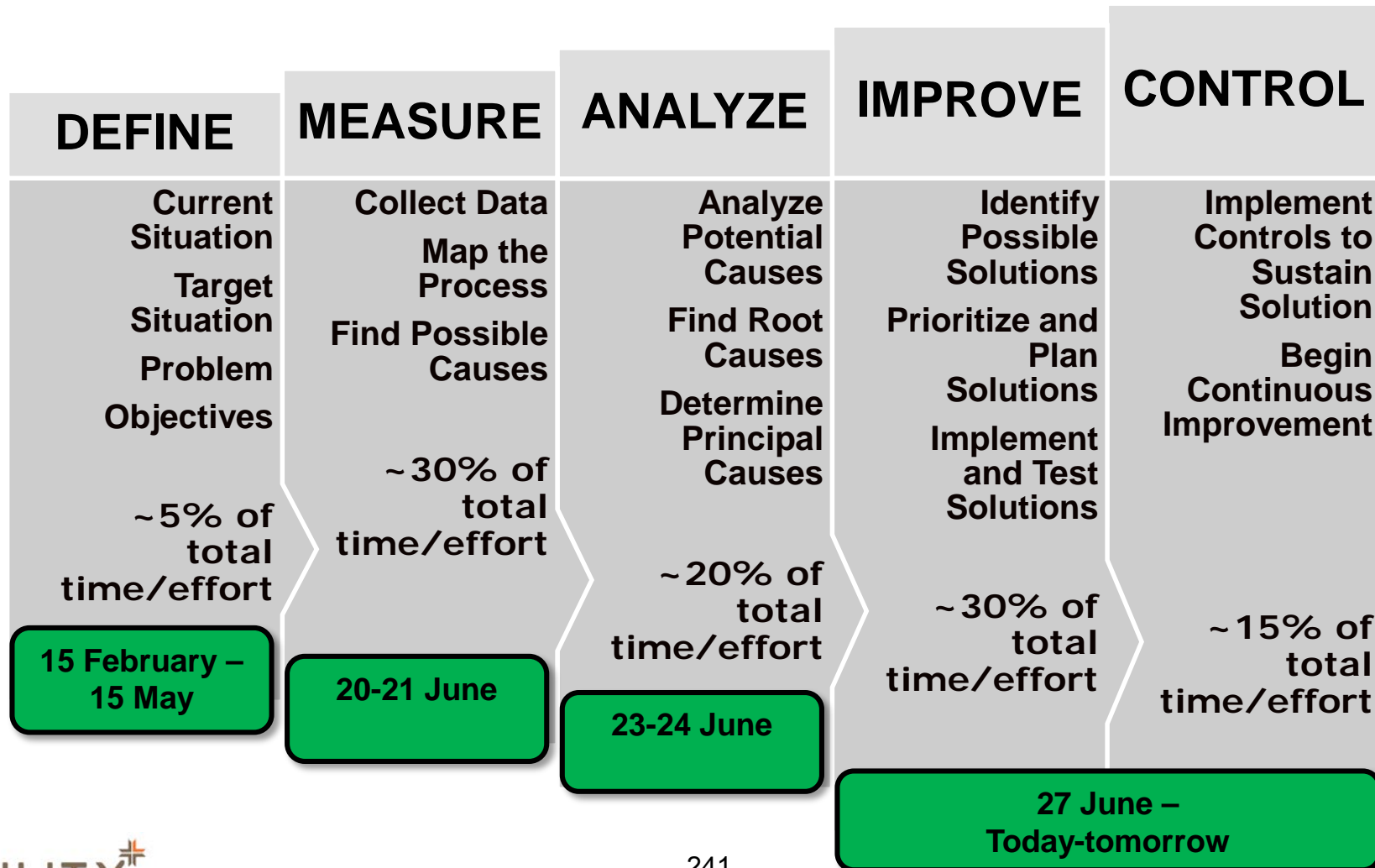
- 1) Approval of application by 3 Depts
- 2) Get a building permit

8 Interruptions to Flow / Wastes

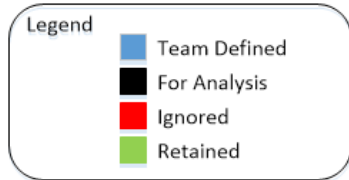
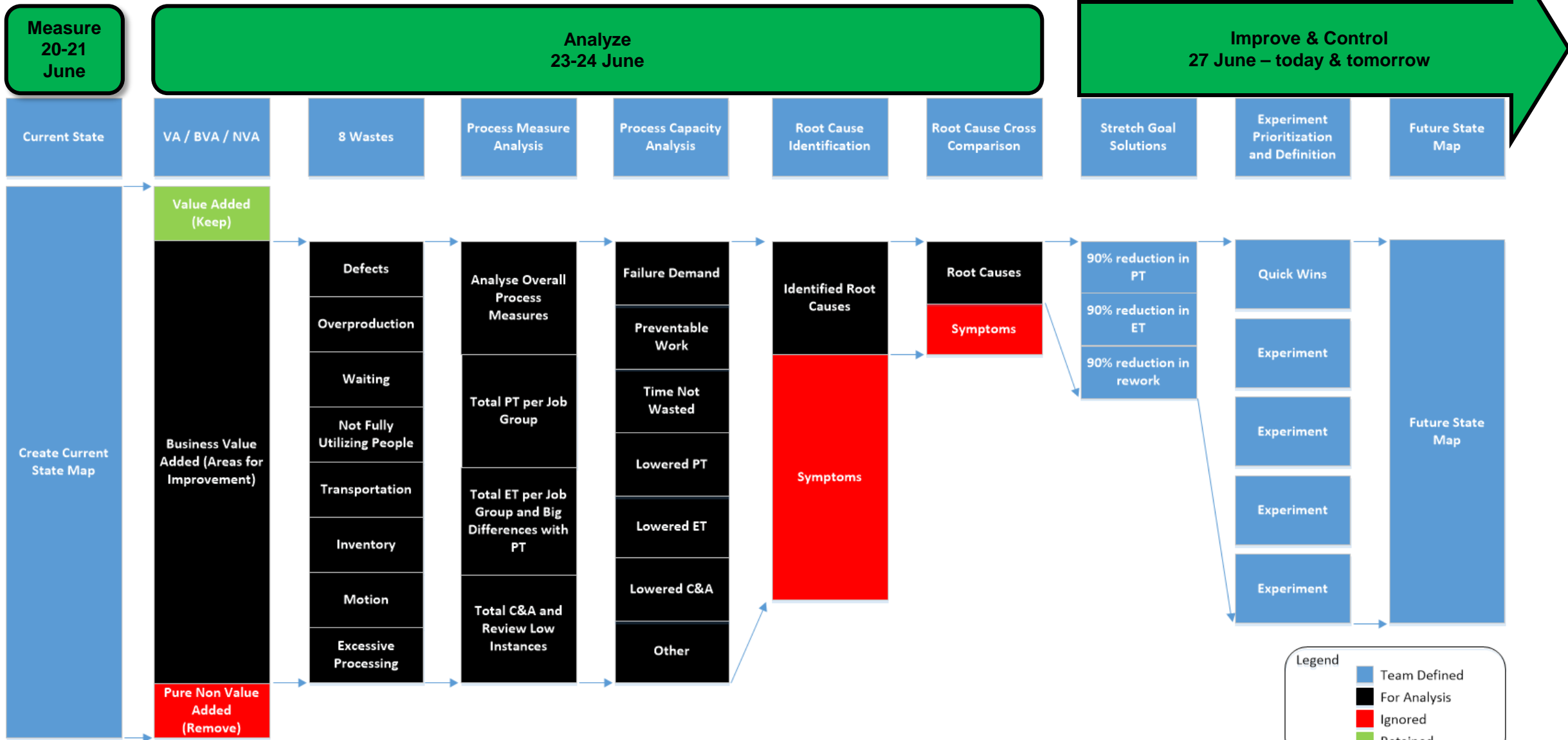
1. Defects / Errors
2. Overproduction
3. Waiting
4. Not fully utilizing people
5. Transport
6. Inventory
7. Motion
8. Excessive processing

Executive Summary

Approach taken: Project Problem-solving Model



Methodology



DEFINE

Define phase

- Objective of this phase: Create the conditions for success of the project, from scope definition, to assembling a project team, to planning the project, etc.
- Building block activities completed by Executive sponsor, sponsor and project lead during the Measure phase:
 1. Project Charter – defined goals, strategic objectives
 2. Completed a SIPOC – to understand high level process:
Supplier – Inputs – Process – Outputs – Clients – Outcomes
 3. Assembled a project team
 4. Walked through the project Kanban board to show all the phases and steps, and building block activities at each of the phases
 5. Planned the schedule - project timelines
 6. Delivered 3-day Lean Yellow Belt Training to 27 frontline staff and 7 leaders
 7. Conducted an environmental scan with 3 cities: Oakville, Markham and Brampton

MEASURE

Measure phase

- Objective of this phase: Explore from multiple perspectives and map out the value stream of the process, capturing key data points
- Building block activities the Team completed during the Measure phase:
 1. Conducted interviews to complete the Voice of customers
 2. Built current value stream map
 3. Captured data points:
 - Process Time (PT)
 - Elapsed Time (ET)
 - % Complete & Accurate (% C&A)

ANALYZE

Analyze phase

- Objective of this phase: Analyze the problems exposed in the Measure phase. Narrow them down to the most important ones. Get to the root causes, not the symptoms
- Building block activities the Team completed during the Analyze phase:
 1. Identified Value Added vs Non-Value Added process step
 2. Identified the wastes
 3. Identified the sources of overwhelm and unevenness
 4. Conducted data analysis from the measures captured during the Measure phase
 5. Conducted a Fishbone diagram activity to help focus on root causes
 6. Brainstormed top issues, completed an affinity diagram and Team voted on top issues
 7. Analyzed top issues in an Interrelationship diagram to objectively rank top issues

IMPROVE

Improve phase

- Objective of this phase: From the top root causes identified at the Analyze phase, find solutions to experiment with to address those root causes
- Building block activities the Team completed during the Improve phase:
 1. Brainstormed solutions, completed an affinity diagram and Team voted on top solutions to address root causes
 2. Co-created the future value stream map
 3. Agreed on sequencing the experiments
 4. Developed a plan for each of the experiments
 5. Introduced the Experimentation / Implementation board, including metrics to measure results
 6. Introduced the Huddle/Stand-up Meeting routine to measure progress and identify issues
 7. Implemented successful experiments
 8. Conducted more Plan-Do-Check-Adjust cycles for experiments that did not get the results sought

CONTROL & CONTINUE IMPROVING

Control phase

- Objective of this phase: Make the change stick and continue experimenting and improving with the new way of working
- Building block activities for the Control and Continue to Improve phase:
 1. The 3 Lean principles are now part of the culture, part of the new way of working:
 - Seek flow efficiency
 - Make the process visible
 - Have routines built into the work to solve problems and experiment proactively
 2. For the experiments the Team successfully implemented, continue to measure results and complete Plan-Do-Check-Adjust cycles if seeking more improvements
 3. Continue improving with new experiments (Plan-Do-Check-Adjust cycles)
 4. Make your process and your work visible. Share results and show what is implemented and what is outstanding with the help of the heat map
 5. Continue having regular Huddle / Stand-up meetings to measure progress and identify issues

Summary of key findings

- “No continuous improvement routines” was the biggest issue/root cause
- Most application requires 3 formal review for compliance to issue a permit, which equals to:
 - 36-65 hours of effort time per file
 - 107.5-270.5 days of elapsed time before issuing a permit
 - 30 handoffs per file

Summary of realized key outcomes

- Goal statement and business / strategic objectives **have been met**
- Engaged and collaborated with **6 leaders and 20+ staff members** for more than 7 months
- Successfully implemented 5 experiments with **realized measurable gains**:
 - 9-20 hours less effort time per file. **A realized gain of PT = 25-32%**
 - 62.5-129.5 days less elapsed time to issue permit. **A realized gain of PT = 48-58%**
 - 11 less handoffs per file. **A realized gain of PT = 37%**
 - **Free-up RDT capacity by 39-44%** to do more value-added work

Summary of potential for additional key outcomes

- **“Continuous improvement routines”** be part of our way of working
- **For every file requiring only one formal review cycle** to approve application post-prescreen instead of 3 cycles; and
- **By continuing to improve the IT solution** to automate process steps currently done by RDT
- There is **potential for additional savings:**
 - Reduce PT from 27-45 hours down to PT = 20-29 hours. **An additional potential gain of PT = 19-24%**
 - Reduce ET from 45-141 days down to ET = 25-62 days. **An additional potential gain of ET = 19-29%**
 - Reduce number of handoffs by staff from 19 down to 11. **An additional potential gain of 26%**
 - **An additional “Free-up RDT capacity” by 47-52%** to do more value-added work

Goal Statement

- To improve the development application process and reduce or eliminate non-value add capacity demands on departmental staff
- To ensure the process is efficient and streamlined when reviewing and approving development applications
- The impact of these improvements will allow for housing approvals to occur in a timelier fashion

Business / Strategic Objectives

- Ability to support faster development within the City
- Support for vision to focus strategic priorities by increasing housing options and enabling responsive growth management
- Learning and development of staff in the areas of process improvement and product design
- Intentional practice of new and innovative approaches to continuous improvement that will increase the sophistication of the organization's business practices

Plan for Freed-Up Resources

(NO JOB LOSS FROM THIS PROJECT)

- Team to work more on strategic work, less on fighting operational fires (prioritization and sequencing)
- Reassign resources to top priorities
- Deal with new, unexpected requests without heroics
- Include change management strategies and communication plan

Principles

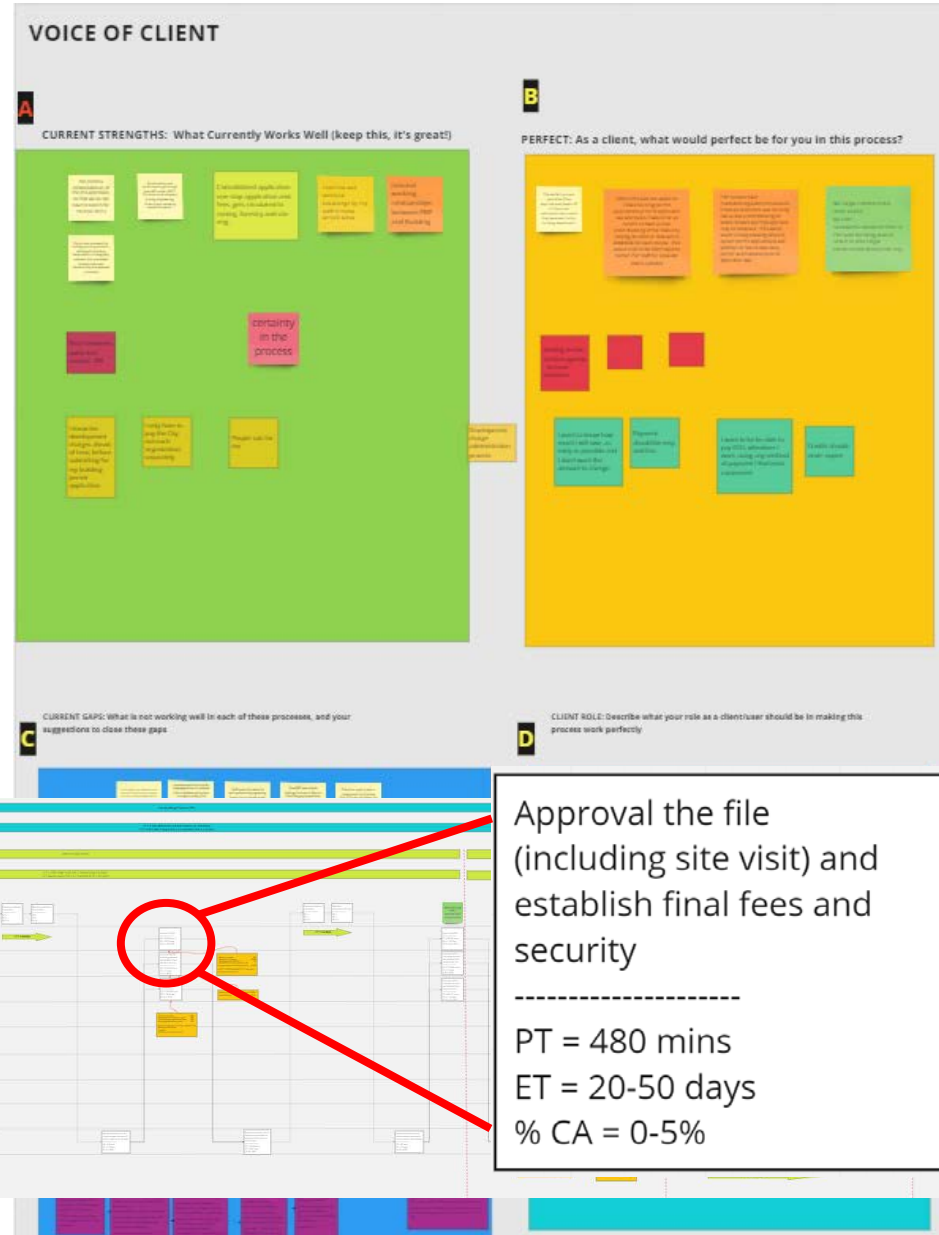
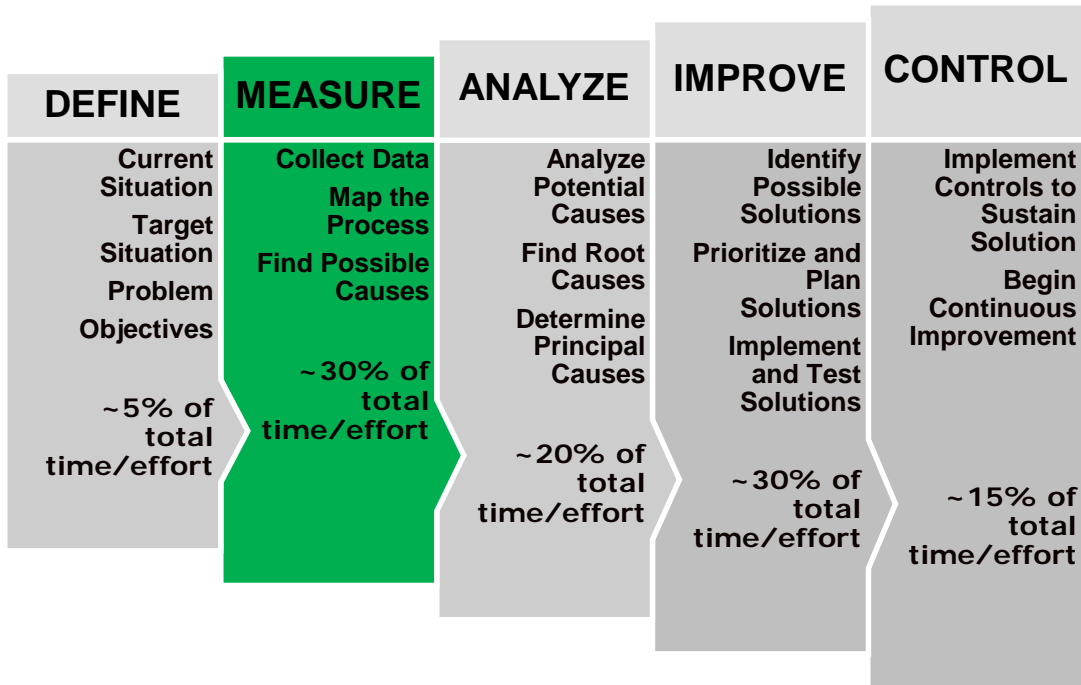
- A bad process beats a good person almost every time
- Be tough on the process, easy on the people – create psychological safety
- “No Blame” environment
- Not a “job-cutting” exercise – free up capacity to do more core and value-added work
- Don’t get stuck in details – focus on the “majority” path of the file

Facilitator's Positive Observations

- Motivated and engaged sponsorship
- Diverse project team that brought different perspectives and a depth of knowledge and experience
- Active participation from all project team members
- Very engaged and motivated project team seeking improvements and change the current processes
- Trusted and learned the Lean methodology to find solutions to root causes, not symptoms
- Team members kept an open mind to change and improvement while embracing experimentation and shifting to no longer being nervous about failure

Environmental scan

- Conducted three interviews with Oakville, Markham and Brampton
 - Similar challenges observed:
 - Poor quality of submissions by applicants
 - Too many review cycles
 - Culture of applicants to complain to Council or Mayor, if file not moving fast enough.
“Whoever makes the most noise will jump the cue and become the next priority.”
 - Lessons learned:
 - From Markham: *“We started improving our process 5 years ago. On average, we had 4 review cycles. Now we are at 2 review cycles.”*
 - From Brampton: *“We work closely with Council to find change management strategies to deal with the culture of applicants.”*
 - From Oakville: *“Staff changed their culture/their approach from enforcement to dialogue and collaboration with applicants.”*
- * You can refer to “Environmental Scan - My notes” for full details of the interviews



MEASURE

Voice of Customers

Question	Response
What works well now?	<ul style="list-style-type: none">- Consolidated application - one stop application and fees, gets circulated to zoning, forestry and site engineering- The process precedes the building permit application, allowing the building department to strategically maintain their mandated review timeframes (because they are separate processes)- All submissions and resubmissions go through one staff contact (RDT). This ensures all reviewers (zoning, engineering, forestry) are reviewing same information- D/C - Knowing the development charges ahead of time, before submitting for my building permit application
What would perfect look like?	<ul style="list-style-type: none">- It would be so helpful to have a clear understanding of the status of a file by looking at notes or statuses in AMANDA for each review. This would ensure we don't have to bother PBP staff for separate status updates- Quicker reviews/turnaround time in PBP and Building would result in less illegal construction within the city- D/C- I want to be able to pay D/Cs whenever I want, using any method of payment I find most convenient

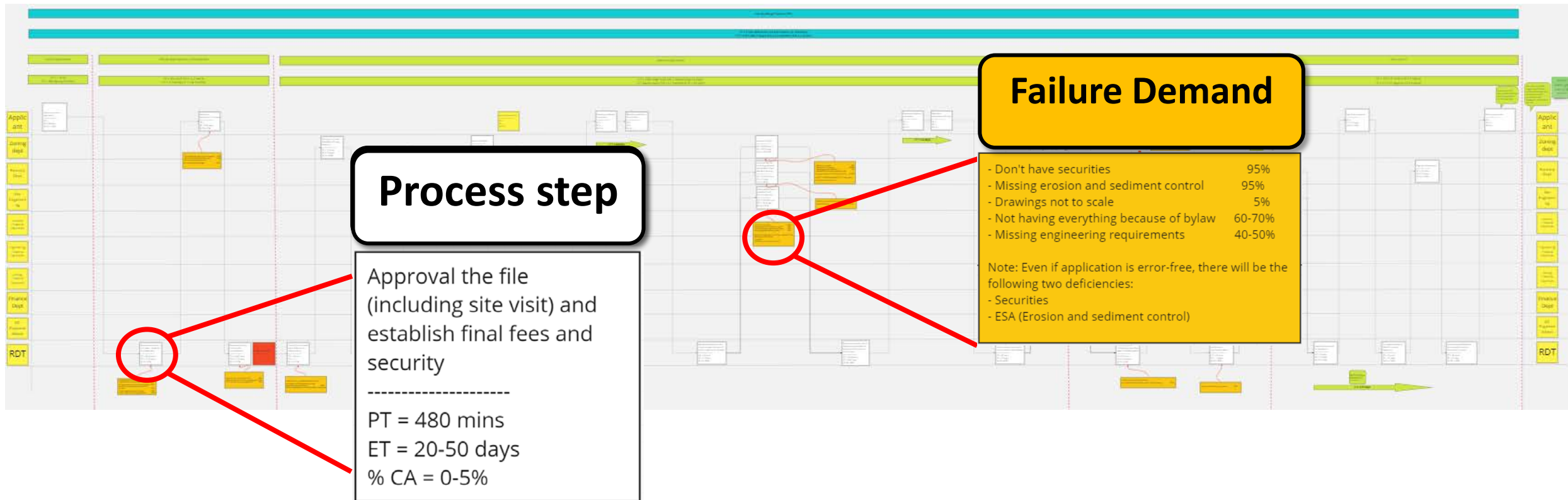
Voice of Customers

Question	Response
Current gaps	<ul style="list-style-type: none">- It is difficult to obtain information on the status of a PBP application (for internal purposes) without directly contacting a Planning Dept staff member- Delays in review and issuance of applicable law approvals cause customers to ask for early permit submissions (before applicable law) and customers are extremely frustrated when they get to building permit application stage- Three different service areas with staff experiencing varying workloads and lack of resources causes delays in final approvals and customer/client response which is delaying submission of the building permit application- No ability to track where the permit is in the process and emails/ phone calls are not responded to, so the frustration is escalated to Council offices- D/C - The timeframe between the original calculation and the time which D/Cs are payable is so long that fees are indexed multiple times

Voice of Customers

Question	Response
Ideal role of the recipient	<ul style="list-style-type: none">- Assist our partners in PBP by having the ability to help with their customers and provide accurate information or statuses, instead of using the common phrase of "I don't know"- The Building Department would like it so that the fee in AMANDA is always correct, so that no back and fourth is required when collecting the fee- D/C - I am told how much I am owed, one time, and I can pay easily

Value Stream Map – Current State



Key Data Measures

Measure

Definition

Processing/Effort Time (PT)

Amount of time to perform the task (“touch time”)

Elapsed Time (ET)

Amount of time needed for the piece of work to go from one step to the next (“inbox to inbox”)

Complete & Accurate % (C&A)

Percentage of work completed at this step without an interruption to flow (“first time through”)

Current State Metrics to manage one file

Step no. from VSM	Phase of the Process	Process Step, title of person performing the step	Actor	Low Processing Time (PT) minutes	High Processing Time (PT) minutes	Low Elapsed Time (ET) days	High Elapsed Time (ET) days	Complete & Accurate %
1	Submit application	Applicant submits application	Applicant	-	-	88	88	100%
2	Review application for completeness	Receive application, sort them, review for completeness	RTD	45	60	10	15	50%
3		Resubmit application 2nd time	Applicant	-	-	5	44	25%
4		Review application 2nd time for completeness	RTD	45	60	10	15	75%
5	Approve of application	Create file in Amanda and a folder in shared drive	RTD	30	30	-	-	75%
6		Zoning coordinator identifies a zoning examiner	Zoning Dept	15	15	1	3	98%
7		Circulate file to all reviewers	RTD	15	15	5	5	100%
8		Supervisor assigns file to technologist	Site Engineering Dept	15	30	10	10	90-100%
9		Approve the file (By Zoning Dept)	Zoning Dept	30	360	20	30	5-10%
10		Approve the file (including site visit) and establish final fees and security (By Forestry Dept)	Forestry Dept	480	480	20	50	5-10%
11		Approve the file (By Site Engineering Dept)	Site Engineering Dept	390	390	20	20	0-5%
12		Review comments from 3 Depts and send them to applicant with payment instructions	RTD	30	60	5	40	90%
13		Revise and address comments	Applicant	-	-	-	-	-
14		Resubmit application 3rd time	Applicant	-	-	3	44	-
15	Review application for 3rd time (compare comments) and circulate to all reviewers	RTD	60	60	1	5	80%	
16	Approve the file (By Zoning Dept)	Zoning Dept	30	360	20	30	70-100%	
17	Approve the file (including site visit) and establish final fees and security (By Forestry Dept)	Forestry Dept	480	480	20	50	5-10%	

Summary per role

<p>Elapsed time when file is with applicant:</p> <ul style="list-style-type: none"> - ET = 103-335 days (4.7-15.22 months) - Touches the file 7 times
<p>For RTD :</p> <ul style="list-style-type: none"> - PT = 420-510 mins (7-8.5 hours) (1.2-1.4 days) - ET = 44-152 days - Touches the file 14 times
<p>For Zoning Dept:</p> <ul style="list-style-type: none"> - PT = 105-1095 mins (1.8-18.3 hours) (0.3-3.1 days) - ET = 42-78 days - Touches the file 4 times
<p>For Forestry Dept:</p> <ul style="list-style-type: none"> - PT = 930-1305 mins (15.5-21.8 hours) (2.6-3.6 days) - ET = 43-81 days - Touches the file 6 times
<p>For Site Engineering Dept:</p> <ul style="list-style-type: none"> - PT = 695-990 mins (11.6-16.5 hours) (1.9-2.8 days) - ET = 43-64 days - Touches the file 6 times
<p>PT for City of Burlington staff for one application:</p> <ul style="list-style-type: none"> - PT = 2150-3900 mins (35.8-65 hours) (6-10.8 days) - City ET = 107.5-270.5 days

Failure Demand

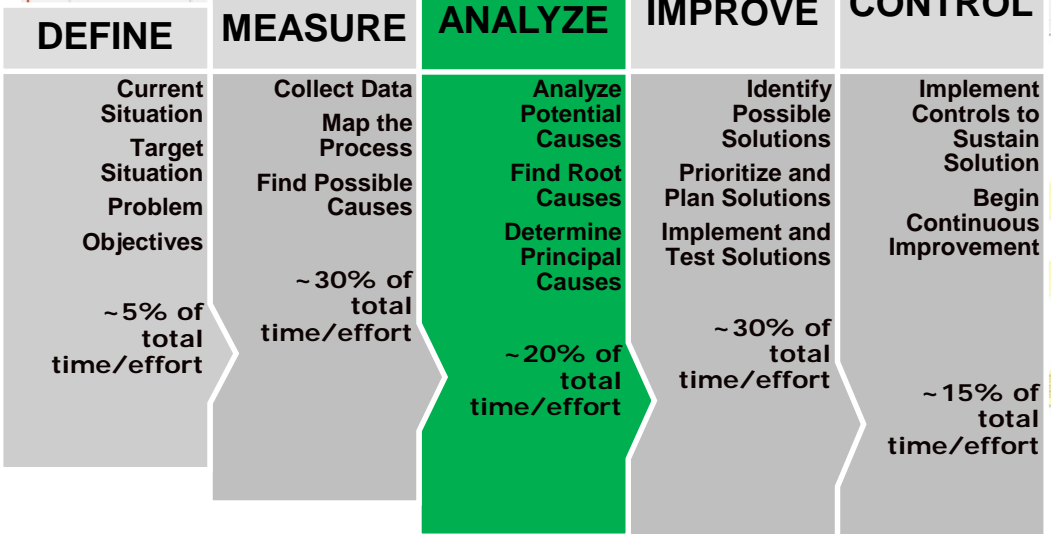
Following RDT reviewing application for completeness, on average the 3 Departments will complete 3 formal review cycles for compliance with same observations for 2nd and 3rd submissions

This process suffers from extensive rework.

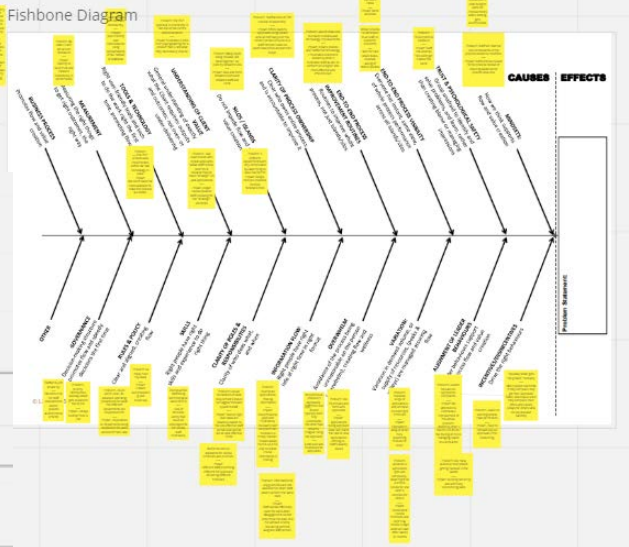
Pre-Building Process - Failure Demand - Review Matrix														
Phase	Process Step	What is reviewed	%C&A	Applicant	RDT		Zoning Dept		Forestry Dept		Site Engineering			
					1st submission	2nd submission	2nd submission	3rd submission	2nd submission	3rd submission	2nd submission	3rd submission		
Review application for completeness	Receive applications, sort them, review for completeness	Application form (insufficient info)	50% (1st submission) - 75% (2nd submission)		80%	80%								
		Applicant doesn't understand the form		80%										
		Missing a key component (Ex. Grading plan)		90%	90%									
		Architectural drawing not dimensioned in metric		25%										
		Outside agency approvals missing		10%										
		Don't comply with zoning regulations		20%	20%									
	Resubmit application 2nd time	Don't believe the submitting requirements	25%	100%										
		Don't understand why those documents		60%										
		Don't know what the documents are (Ex. What is grading drainage?)		40%										
Approve of Application	Create a file in Amanda and a folder in our network drive	Application is incomplete, based on technical screening from Site Engineering Zoning (Ex. It needs a variance)	75%		100%									
	Approve the file (2nd submission) (By Zoning Dept)	Missing info on drawings	5-10% (2nd submission) - 70-100% (3rd submission)											
		Zoning regs not complied with												
		Additional info required or applicant need to answer questions from Zoning Examiner												
	Approve the file (including site visit) and establish final fees and security (2nd submission) (By Forestry Dept)	Deficiency comments (lack of compliance)	0-5% (2nd submission) - 50% (3rd submission)						75-80%	75-80%				
		Drawings not to scale (Ex. they missed trees, didn't identify the neighbors)						80%						
		Lack of hoarding						100%	100%					
	Approve the file and establish final security amount (2nd submission) (By Site Engineering)	Don't have securities	0-5% (2nd submission) - 50% (3rd submission)									95%	95%	
		Missing erosion and sediment control										95%	95%	
		Drawings not to scale										5%		
Not having everything because of bylaw											60-70%	30%		
Address outstanding items and approve evidences	Missing engineering requirements										40-50%	25%		
	Inform clients of what is missing (final outstanding items that need to be addressed)	Missing final outstanding items from any of the Departments (Forestry and/or Site Engineering)	50%		100%									
	Address final outstanding items and submit evidences	Applicant doesn't understand the evidences they have to provide	40%	100%										
	Review and circulate evidences to appropriate teams	Applicant didn't address it properly	80%		100%									
	Review and approve evidences (By Site Engineering)	Fence not installed properly (not buried properly)	2%								100%			

The "Approve of Application" phase is the most costly:
 PT = 28-54 hours
 ET = 3.8-12.2 months
 %C&A = 0-10% on 2nd submission

	90%	90%
	80-90%	40-50%
	80%	25%
	20-30%	20-30%



Value-added Process Step



ANALYZE



Why do we need this requirement?

Requirement	Business Case	Impact	Priority
...

Why do we need this requirement?

Requirement	Business Case	Impact	Priority
...

Why do we need this requirement?

Requirement	Business Case	Impact	Priority
...

Item	Category	Priority	Status	Owner	Due Date
1
2

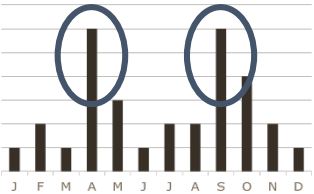
To what extent does the ROW cause the COLUMN?

Minor cases: 5	Bad Application form	For search back	MANUAL	Complete	Overlapping	Files get cancelled	Total not utilized	Interlocks	INTERNAL	No constraints	Low bang to process	REEF	REEF	REEF	ROW's Impact of this cause on other
Lack of process visibility	10	10	5	10	5	5	5	5	5	5	5	5	5	5	35
Bad Application form	10	10	5	5	5	5	5	5	5	5	5	5	5	5	40
For search back	10	10	5	5	5	5	5	5	5	5	5	5	5	5	25
MANUAL	10	10	5	5	5	5	5	5	5	5	5	5	5	5	50
Complete	10	10	5	5	5	5	5	5	5	5	5	5	5	5	50
Overlapping	10	10	5	5	5	5	5	5	5	5	5	5	5	5	25
Files get cancelled	10	10	5	5	5	5	5	5	5	5	5	5	5	5	10
Total not utilized	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
Interlocks	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
INTERNAL	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
No constraints	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
Low bang to process	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
REEF	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
REEF	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
REEF	10	10	5	5	5	5	5	5	5	5	5	5	5	5	5
ROW's Impact of this cause on other	10	10	5	5	5	5	5	5	5	5	5	5	5	5	20

How Backlogs Develop

VARIATION

- Variation in:
- volume of work
 - # of resources available
 - skill profile
 - complexity of work
 - effectiveness of tools
 - other?



UNREASONABLENESS

2. Overwhelmed team, thus reduced productivity



causes

WASTE

3. Team spends its reduced capacity on non-value added, preventable, work

- Fixing errors
- Clarifications
- Re-drafting
- False starts
- Looking for information
- Unnecessary approvals
- Excessive processing



made worse by

repeat Steps 2-5, fall further behind

5. Fewer files finished, a growing backlog



made worse by

4. Team spends capacity on:

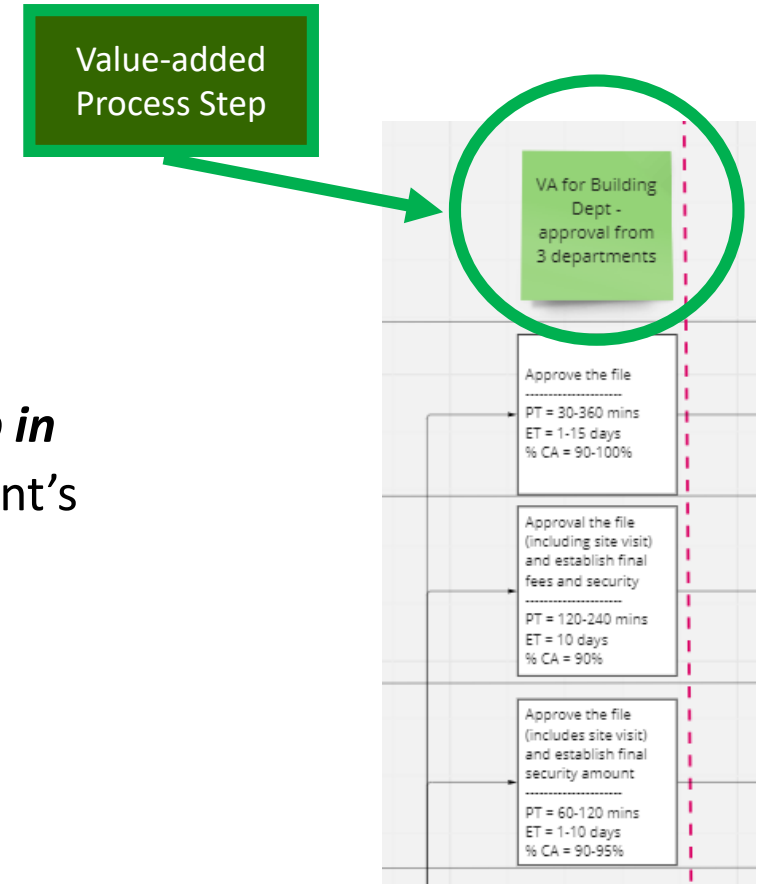
- Client progress-chasing calls
- backlog reporting

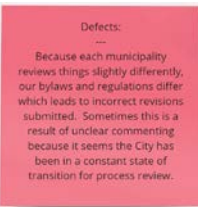


allowing

Value-Added vs Non-Value Added

- Two pure Value-Added process steps in the current process:
 - From Building Department: *“Approval of application for compliance from 3 departments”*
 - From Applicant: *“There are **no pure Value-Added process step in the PBP process**”* (from the eyes of the applicant). The applicant’s Value-Added process step is: *“Getting a building permit”*.



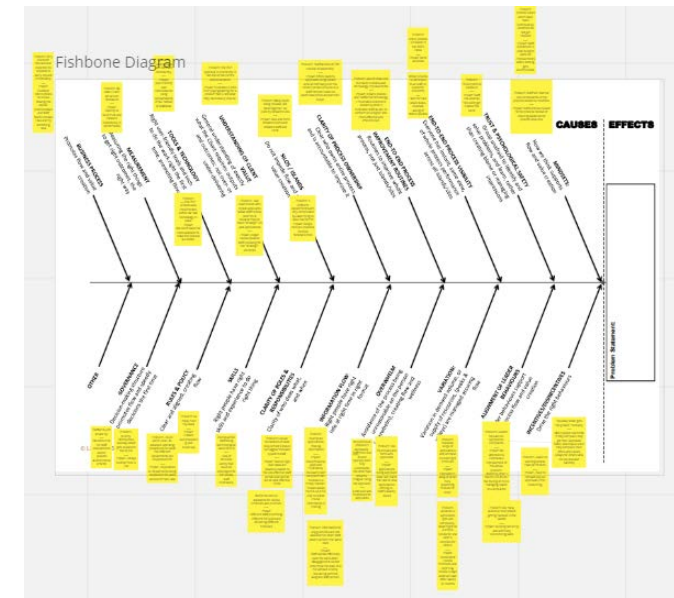


Top Wastes

- **Defect:** *“Because each municipality reviews things slightly differently, our bylaws and regulations differ which leads to incorrect revisions submitted. Sometimes this is a result of unclear commenting because it seems the City has been in a constant state of transition for process review”*
- **Overproduction:** *“Accepting incomplete submissions often increases the length of review by requiring additional, start, stop and re-starts”*
- **Not fully utilizing people:** *“Technically smart people doing administrative work (RDTs) when they could be reviewing applications”*
- **Inventory:** *“High volume of work and inability to process quickly enough”*
- **Excessive processing:** *“Staff double entering files into various spreadsheets and databases instead of fully utilizing AMANDA”*

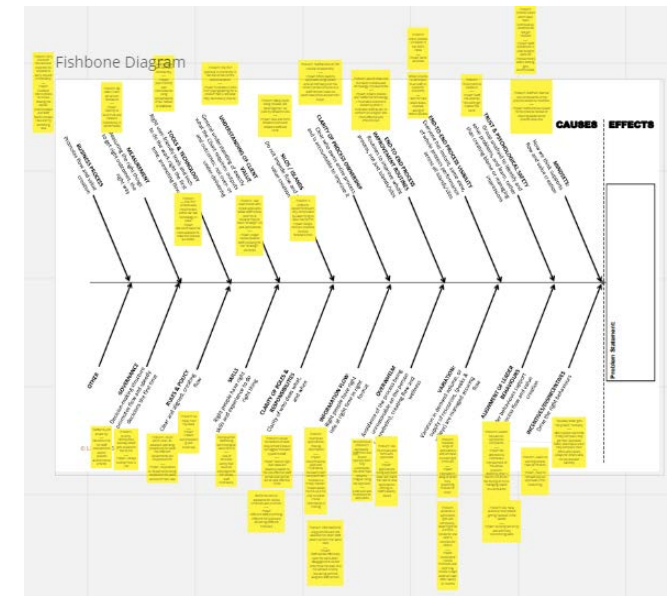
Fishbone Diagram

- **Cause: Rules and policy**
- PROBLEM: *“So many rules (bylaws)”*
 - IMPACT: *“Creates overprocessing, and bureaucracy”*
- **Cause: Alignment of Leader behaviors**
- PROBLEM: *“Leaders focused on symptoms/complaints”*
 - IMPACT: *“No attention to continuous improvement of the actual problem, which results in distrust / the feeling of micro-managing based on complaints”*
- PROBLEM: *“Too many executive level people getting involved in the weeds”*
 - IMPACT: *“Skipping hierarchy and artificially reprioritizing work”*



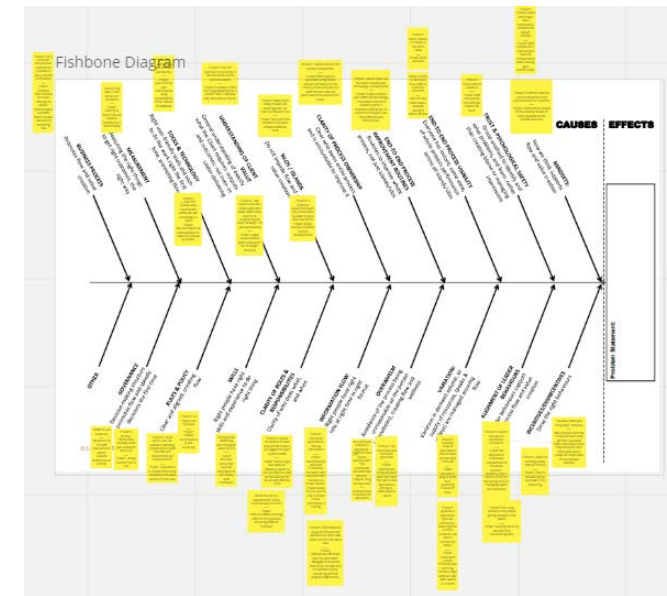
Fishbone Diagram

- **Cause: Incentives/disincentives**
- PROBLEM: *“Squeaky wheel gets the grease mentality”*
 - IMPACT: *“More people learn that if they complain, they get their approvals faster, which as a result they complain more often, and causes delays for others who do not and wait patiently”*
- **Cause: Mindset**
- PROBLEM: *“Process issues which have been continuously identified do not get resolved”*
 - IMPACT: *“Staff disinterest in continuing to work on improvements when nothing gets accomplished”*



Fishbone Diagram

- **Cause: Governance**
- PROBLEM: *“Priority, interference, squeaky wheel gets pushed to top of pile”*
 - IMPACT: *“Delays to other files in line”*
- **Cause: Mindset**
- PROBLEM: *“Staff feel that the core components of the process cannot be modified”*
 - IMPACT: *“Staff continue to add to the process instead of reducing waste as the process develops”*



Problem Identification



Voted top Issues in the Current Process (mix of symptoms and **root causes**)

- **Lack of process visibility**
- **Bad application form**
- Too much back and forth
- **AMANDA not utilized properly**
- **Complex requirements and bylaws**
- Overprocessing / manual process @ RDT
- Files get escalated
- Staff not utilized properly
- **End-to-End process (E2E) ineffectiveness, including 3 levels of approval**
- Lack staff capacity
- **No continuous improvement routines**
- Too long to process payments / not visible

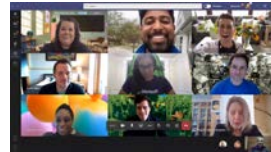
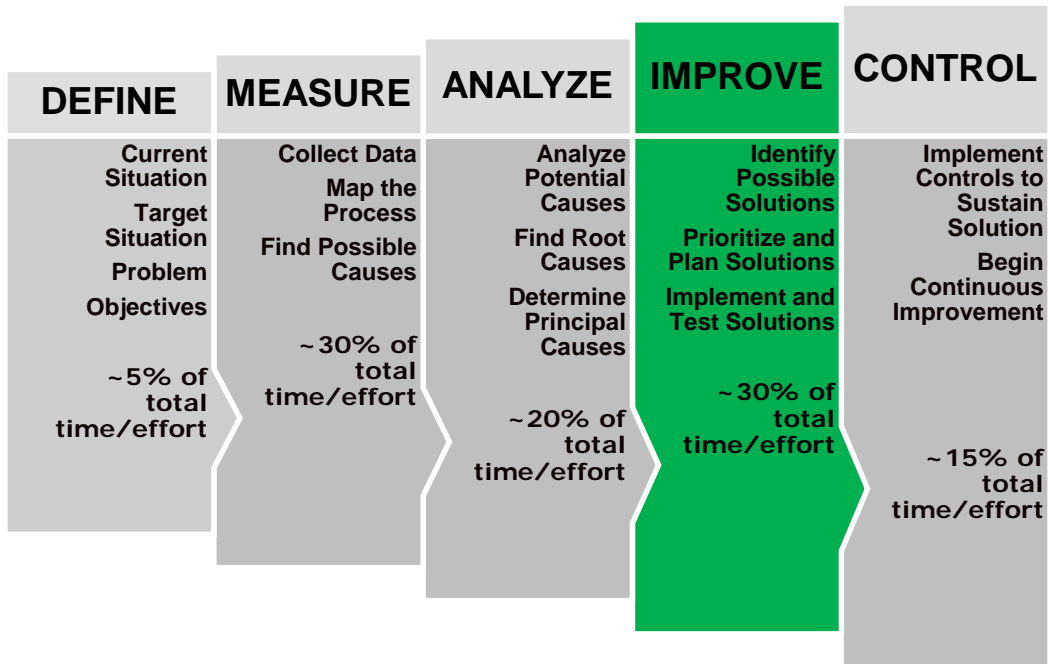
Interrelationship chart to get to the **root causes**

To what extent does the ROW cause the COLUMN? ↑ Major cause: 10 Minor cause: 5	Lack of process visibility	Bad Application form	Too much back and forth	AMANDA not utilized properly	Complex requirements and bylaws	Overprocessing/ manual process @ RDT	Files get escalated	Staff not utilized properly	E2E process ineffectiveness, including 3 levels of approval	Lack staff capacity	No continuous improvement routines	Too long to process payments / not visible	#REF!	#REF!	#REF!	ROWS: impact of this cause on all other
Lack of process visibility			10			5	10		5		5					35
Bad Application form			10			10	5	5		5		5				40
Too much back and forth							10	5		10						25
AMANDA not utilized properly	10		10			10		10	5	10		5				60
Complex requirements and bylaws		10	10			5	5		10	10						50
Overprocessing/ manual process @ RDT			10				10			5						25
Files get escalated								10								10
Staff not utilized properly												5				5
E2E process ineffectiveness, including 3 levels of approval		5	10			10	10	10		10						55
Lack staff capacity							10	10				5				25
No continuous improvement routines		5	5	10	5	10	10	10	10	5		10				80
Too long to process payments / not visible			5			5	5		5							20
COLUMNS: how many other causes impact this cause	1	3	8	1	1	7	9	7	5	7	1	5	0	0	0	

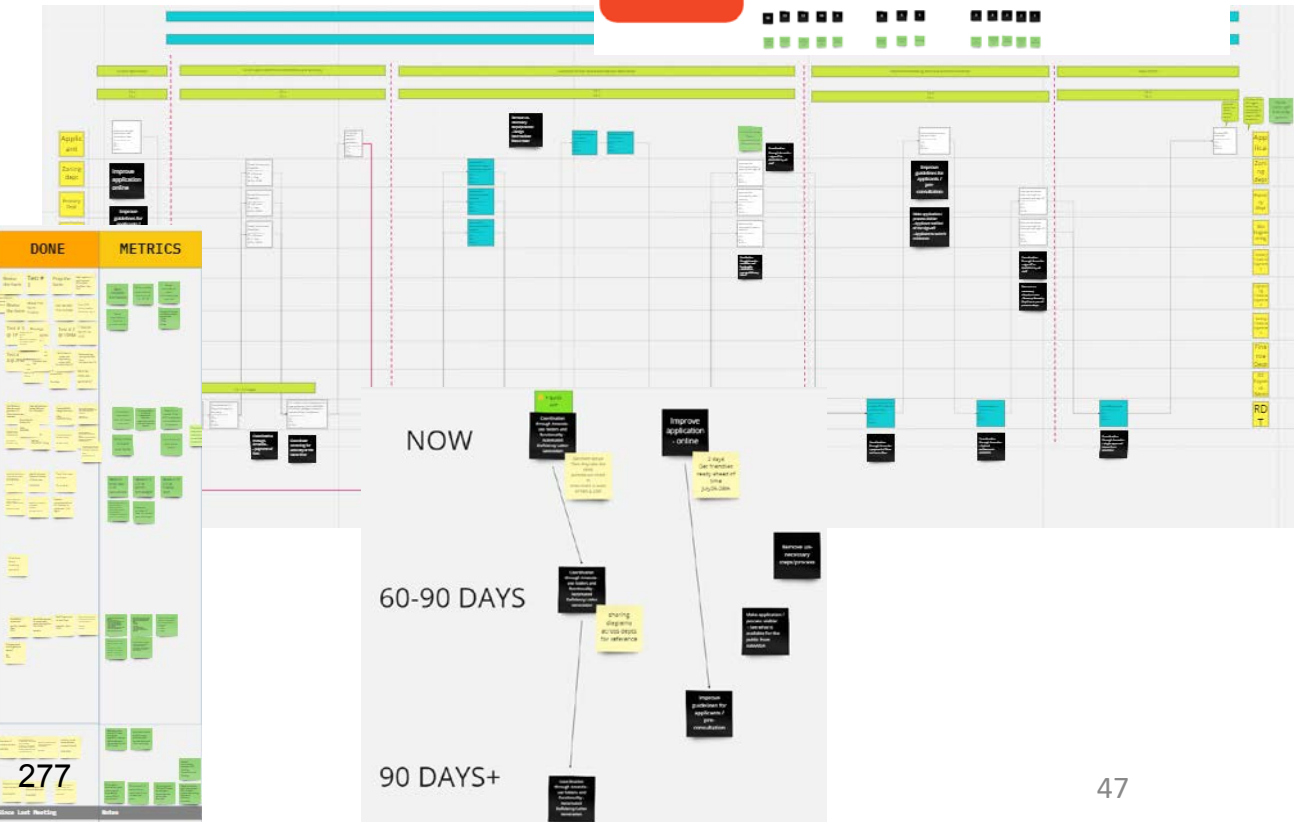
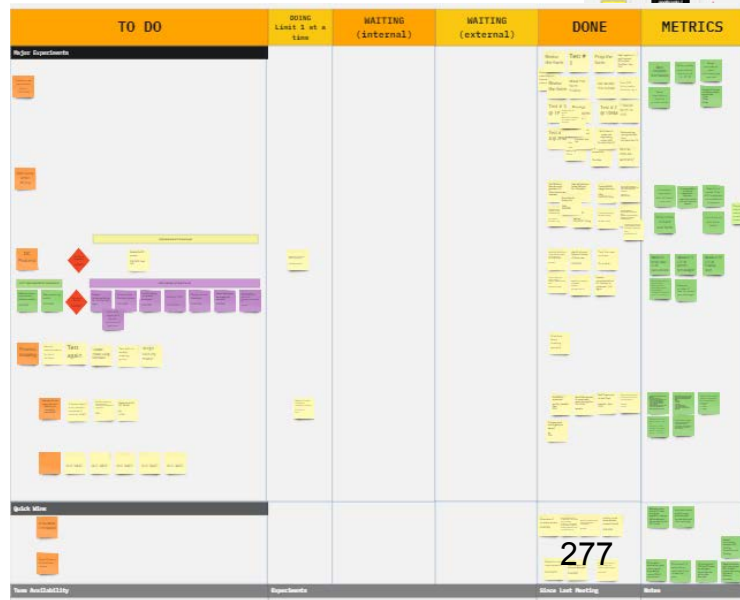
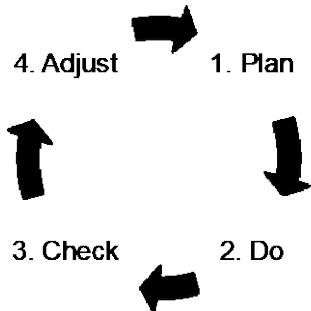
Top root causes in the Current Process

- No continuous improvement routines
- AMANDA not utilized properly
- End-to-End process ineffectiveness, including 3 levels of approval
- Complex requirements and bylaws
- Bad application form
- Lack of process visibility

To what extent does the ROW cause the COLUMN?	Lack of process visibility	Bad Application form	Too much back and forth	AMANDA not utilized properly	Complex requirements and bylaws	Overprocessing manual process @ RDT	Files get escalated	Staff not utilized properly	EZE process ineffectiveness, including 3 levels of approval	Lack staff capacity	No continuous improvement routines	Too long to process payments / not visible	AREF?	AREF?	AREF?	ROWS: Impact of this cause on all other rows
Major cases: 10 Minor cases: 5																
Lack of process visibility			10			5	10		5		5					35
Bad Application form		10						5	5		5					40
Too much back and forth			10					10	5							25
AMANDA not utilized properly	10		10					10	5							60
Complex requirements and bylaws		10	10					5	5		10					50
Overprocessing manual process @ RDT						10										25
Files get escalated							10									10
Staff not utilized properly								10								5
EZE process ineffectiveness, including 3 levels of approval		5	10					10	10	10						55
Lack staff capacity										10						25
No continuous improvement routines		5	5	10	5	10	10	10	10		5					80
Too long to process payments / not visible			5								5					20
COLUMNS: how many other causes impact this cause	1	3	8	1	1	7	9	7	5	7	1	5	0	0	0	



IMPROVE



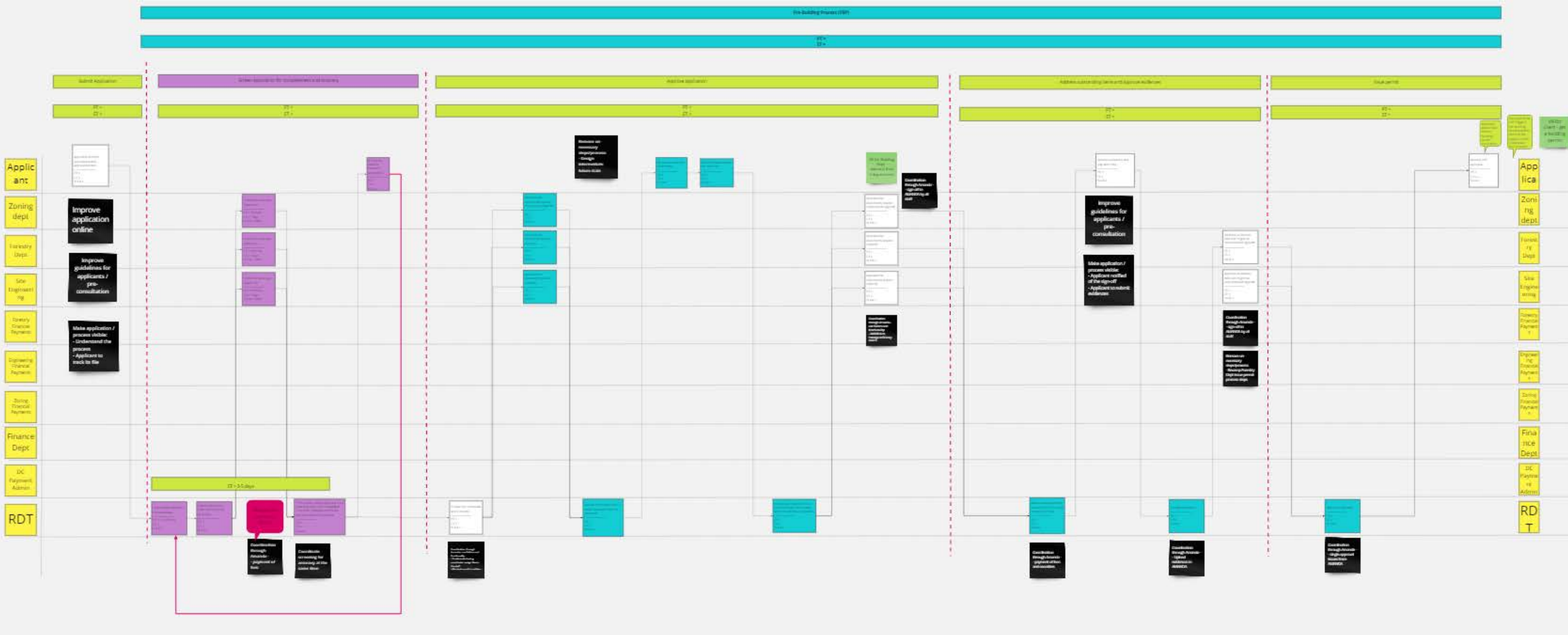
“Super-Stretch” Solutions Brainstorming

To find better solutions:

- Ask a tougher question
- Introduce constraints:
 - *How could we reduce the total elapsed time from start to end of process in 1 business day?**
 - *How could we reduce the total effort time in this process by 95%?**
 - *What could we do to make the process completely error-proofed – no rework due to errors, no delay in making informed decisions, no need to seek further clarification, no missing information?**

**without: working harder, adding people and/or budget, reducing quality, while increasing customer satisfaction*

- These ideas are then used to identify possible solutions and a future state process

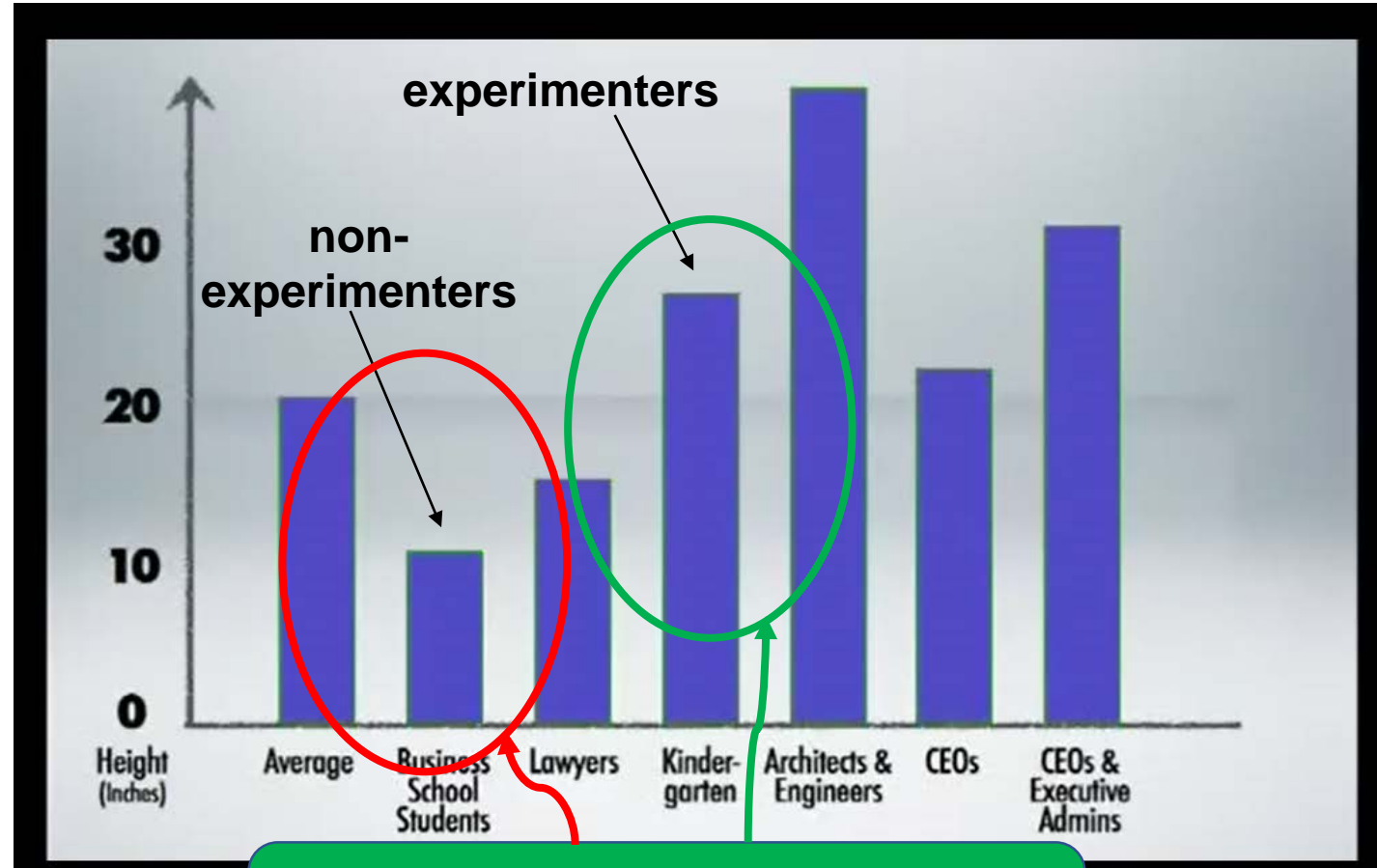


Experimentation

Proposed Future state process

Need to experiment. Why experiment?

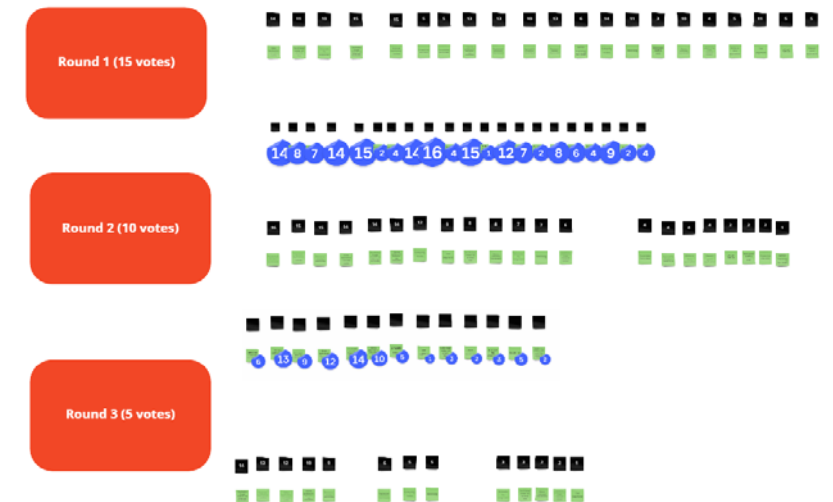
- Prove the concept
- Lower risk, relatively lower effort
- Agile enough to adjust in progress through quick re-prototyping
- Allow larger groups of staff and leaders to learn for themselves what works – greater buy-in
- Create a movement, make the idea “go viral”



Experimenters are more successful than non-experimenters!

Voted Top-5 High-Level Experiments

- Coordination through AMANDA – use folders and functionality
- Improve application online
- Make application / process visible
- Improve guidelines for applicants / pre-consultation
- Remove unnecessary steps / process



No experiment for one of the **root causes**

- “**Complex requirements and bylaws**” was one of the top **root causes**
- No experiments were identified by the Project Team to address this root cause, likely because the project team felt that they didn’t have the power and/or influence to challenge these bylaws and their raison d’être
- Why do we have all these bylaws in the first place?
 - Leadership not supporting staff on some decisions
 - Consequence: They introduce bylaws
- Negative impact of imposing bylaws on the staff:
 - Creates excessive processing and overproduction (very costly wastes)
 - Interrupts the flow and the ability to timely deliver the service
- Recommendation: Leaders to work with their staff and challenge these bylaws

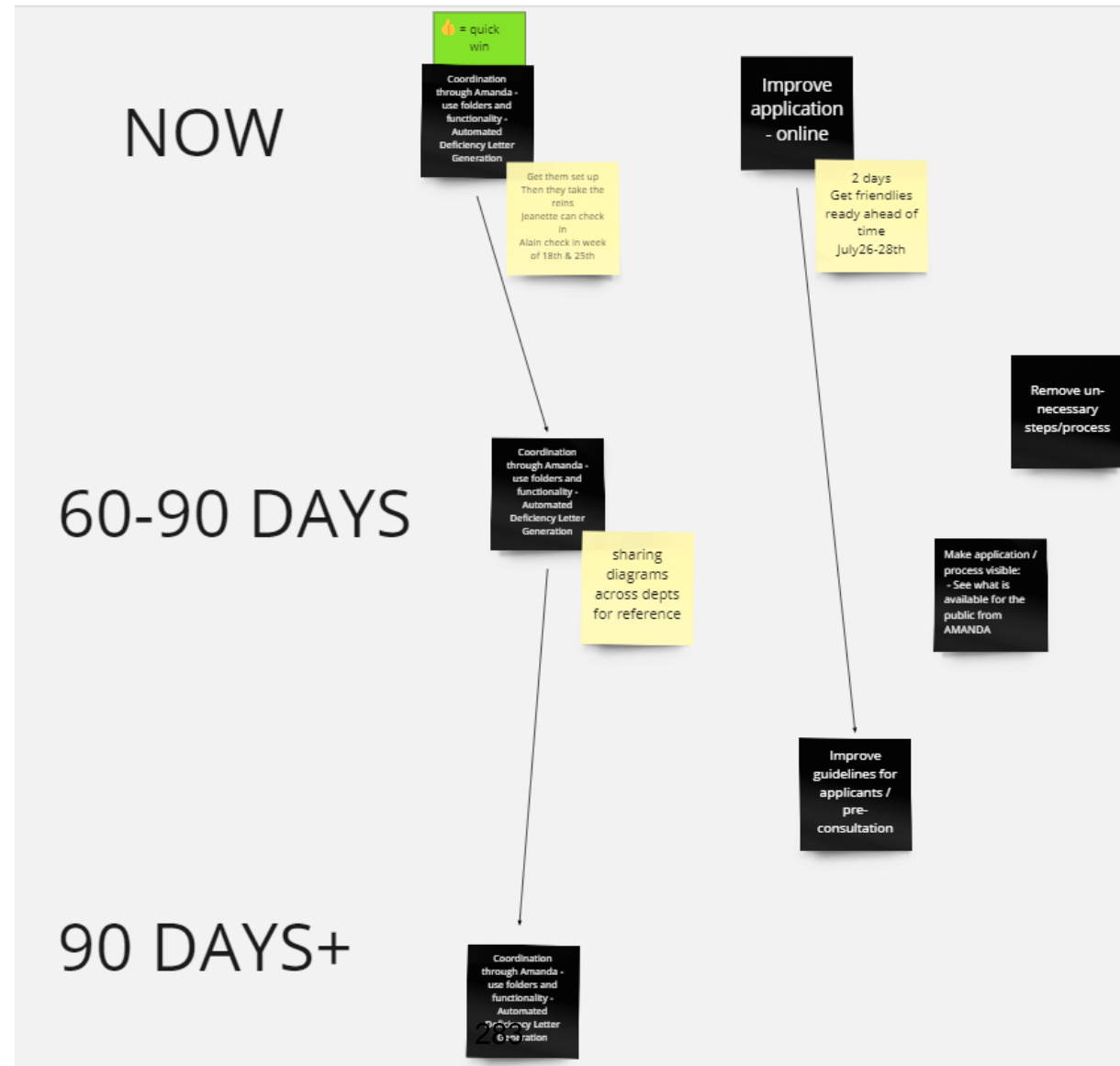
Note: This is exactly like the scenario at slide #32 – “How backlog develop?”



**Human
Productivity**



Sequencing of experiments



Experiment Sequencing for PBP process

Approach: Continuous improvement way of working by completing short cycles of Plan-Do-Check-Adjust to small experiments and then implement

Objective: Be intentional with the sequencing of the experiments. Learn fast, eliminate non-value-added, failure demand and waste in order to free-up capacity, and for staff to do more value-added work

Quick win	Phase 1	Phase 2	Phase 3
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> 1st Quick Win: Circulation elimination <input checked="" type="checkbox"/> 2nd Quick Win: Simplification of site plan review 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Experiment #1: Automated deficiency letter generation <input checked="" type="checkbox"/> Experiment #2: Create a new application form <input type="checkbox"/> Experiment # 3: DC Process 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Experiment #4: Shield Experiment Part 1 – Creating a formal prescreen with SME prior to accepting applications <input type="checkbox"/> Experiment #5: Make application / process visible 	<ul style="list-style-type: none"> <input type="checkbox"/> Experiment #6: Shield Experiment Part 2 – 2 formal review cycles to approve application post-prescreen <input checked="" type="checkbox"/> Continue improving on successful experiments that have been implemented

Legend:

- Implemented
- Currently implementing
- Future experiment



Quick Win #1 – Circulation elimination

Objectives:

- Remove a non-value-added step: "Zoning coordinator assigning files".
- Forestry Department to use AMANDA tasks instead of emails
- Combine RDT steps "Create folder in AMANDA" and "Circulate to reviewers"
- Eliminate circulation of emails by making better use of AMANDA

Results of experiment:

- Experiment was successfully completed on 30 June 2022
- Realized gains:
 - Reduced Processed Time (PT) by 15 mins
 - Reduced Elapsed Time (ET) by 5-10 days (on average)
 - Eliminated 2 handoffs
 - Improved internal visibility by using AMANDA tasks

Brought "pain relief" to the following top issues in the interrelationship chart:

- AMANDA not utilized properly
- Too much back and forth
- Overprocessing / manual process @ RDT
- Staff not utilized properly
- E2E process ineffectiveness, including 3 levels of approval



Quick Win #2 – Simplification of site engineering review

Objectives:

- Review current requirements for Site Engineering Department
- Identify requirements that are non-value-added
- Remove requirements from process
- Communicate changes

Results of experiment:

- Experiment was successfully completed on 15 September 2022
- Realized gains:
 - Eliminated 4 application types requiring Site Engineering review, which corresponds to 25% of applications
 - Eliminated (on average) 3 review cycles per application, saving PT = 20 hours of review per application for Site Engineering department
 - Eliminated 75 applications from review by Site Engineering department per year
 - Reduced Processed Time (PT) by 1500 hours (75 applications x 20-hour review per application)
 - Eliminated 7 touchpoints between RDT, Site Engineering Supervisor and Site Engineering Team

Brought “pain relief” to the following top issues in the interrelationship chart:

- Complex requirements and bylaws
- Files get escalated
- Lack staff capacity
- Staff not utilized properly
- Too much back and forth
- E2E process ineffectiveness, including 3 levels of approval



Experiment #1: Automated deficiency letter generation

Objectives:

- Have the template deficiency letter in AMANDA, a centralized record management location
- Improve format and simplify the form to help improve accuracy in resubmission by applicant
- Increase consistency across Departments
- Increase visibility across the organization, including management
- Create a definitive artifact in the submission or inquiries on what documents are required

Results of experiment:

- Experiment was successfully completed on 21 September 2022
 - Realized gains:
 - Minimized interruptions for staff who are asked by management to provide a copy of the deficiency letter
 - Reduced number of back and forth
 - Reduced number of emails between RDT and applicant
- * Team will continue tracking metrics to quantify the results

Brought “pain relief” to the following top issues in the interrelationship chart:

- Lack of process visibility
- AMANDA not utilized properly
- Overprocessing / manual process @ RDT
- Lack staff capacity
- Staff not utilized properly
- Too much back and forth



Experiment #2: Create a new application form

Objectives:

- Improve client experience
- Make application form less complex, less lengthy, and more user friendly
- Improve quality of submissions with ultimate objective to accelerate the issuance of permit
- Reduce back and forth between applicant and RDT

Results of experiment:

- After multiple iterations of the template application form, experiment was successfully completed on 26 September 2022
 - Realized gains:
 - Reduced failure demand (% Complete and Accurate (% C&A) improved from 50% to 80%)
 - 80% of submissions now meet the submission standards, i.e. documents are organized and named properly, and correct file format.
 - Reduced number of back and forth between applicants and RDT
- * Team will continue tracking metrics to quantify the results

Brought “pain relief” to the following top issues in the interrelationship chart:

- Bad application form
- Lack of process visibility
- Too much back and forth
- Overprocessing / manual process @ RDT
- Files get escalated
- Lack staff capacity
- Staff not utilized properly
- E2E process ineffectiveness, including 3 levels of approval



Experiment #3: DC Process

Objectives:

- Realign the timing of development charge calculations at a point in the process where changes to the design will no longer occur
- Prevent re-work driven by design changes that require re-calculation of charges

Results of experiment:

- A future state process has been developed to change the timing of charge calculation
- Calculations will now be completed by building department staff after the application for the building permit has been submitted
- The team is currently engaged in the implementation of the new process

Brought “pain relief” to the following top issues in the interrelationship chart:

- Provides an estimated 0.5 days of free capacity to zoning to apply to manage new Bill 109 requirements
- Estimated savings of 63 hours of re-calculation each year
- Improved process flow and less back and forth (handoffs) between staff



Experiment #4: Shield Experiment Part 1 – Creating a formal prescreen with SME prior to accepting applications

Objectives:

- Accelerate initial feedback from SME to client
- Improve quality of submissions for formal review
- Help reduce number of formal reviews from 3 to 2
- Eliminate RDT's backlog

Results of experiment:

- After multiple iterations of the template application form and testing with applicants, experiment was successfully completed on 2 November 2022
- Realized gains per file for initial feedback from SME to client and for one fewer formal review for compliance:
 - PT = 1.25-2 hours instead of 17.75-24 hours (saving 92%)
 - ET = 2-6 days instead of 41-108 days (saving 95%)
 - Significant improvement to client experience
 - Eliminated 3 handoffs

Brought “pain relief” to the following top issues in the interrelationship chart:

- E2E process ineffectiveness, including 3 levels of approval
- Bad application form
- Complex requirements and bylaws
- Lack of process visibility
- Too much back and forth
- Overprocessing / manual process @ RDT
- Files get escalated
- Lack staff capacity
- Staff not utilized properly



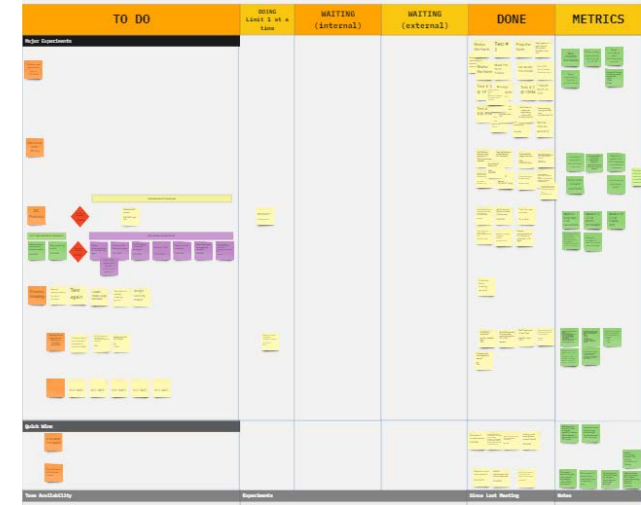
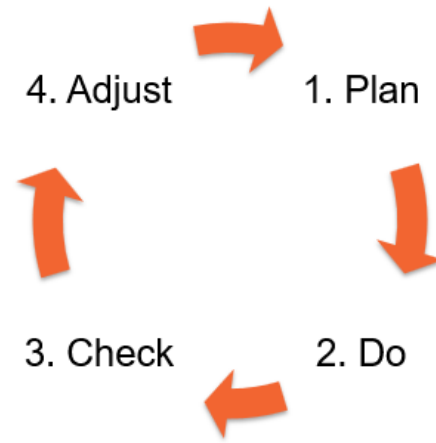
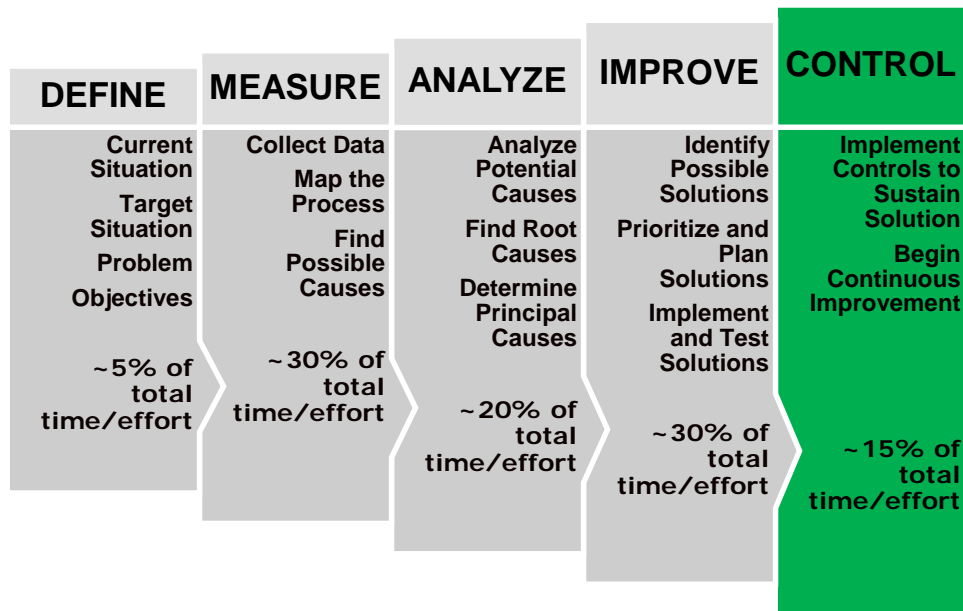
Experiment #5: Make application / process visible

Problem - Impact:	<p><u>PROBLEM - IMPACT:</u></p> <ul style="list-style-type: none">• Lack of transparency of the process to the public/applicant and to internal staff• Staff do not know the status of each other's review <p><u>IMPACT:</u></p> <ul style="list-style-type: none">• It results in lots of inquiries and wastes of staff time. This effect compounds when inquiries go up the chain and all the way to Council• It results in manual inquiries/wasted staff time/frustration/impacts to each other's review due to competing interests
Prediction:	<p><u>IF:</u> we make application / process visible, <u>THEN</u> we would expect to see potential gains:</p> <ul style="list-style-type: none">• Saving of PT = 60 hours per week for PBP process• Eliminate/reduce number of inquiries (internal/external), with large reductions in elapsed time. Staff will also have more time to do valuable work• Reduce number of touchpoints in managing a file by all staff members• Reduce number of complaints, reduce staff fatigue due to complaints. Less stress on staff
Cause of the problem:	<ul style="list-style-type: none">• AMANDA is not used properly by staff• Not enough IT support to configure AMANDA to support our needs• Expectations/milestones for the process are not provided to the public
Proposed experiment:	<ul style="list-style-type: none">• Introduce IT solution to give client and staff visibility on the files• Improve AMANDA



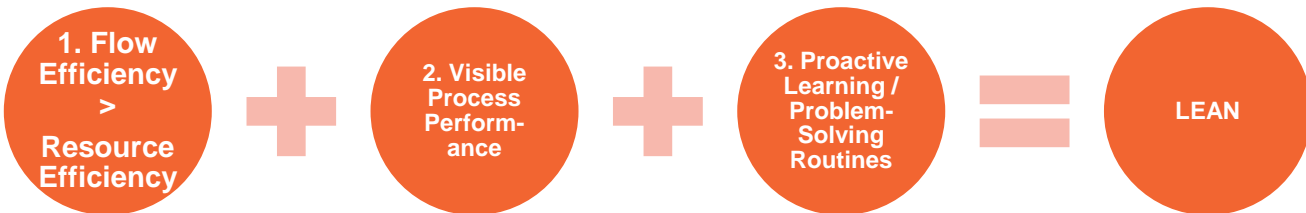
Experiment #6: Shield Experiment Part 2 – 2 formal review cycles to approve application post-prescreen

Problem - Impact:	<p><u>PROBLEM - IMPACT:</u></p> <ul style="list-style-type: none">• On average, each file requires 3 formal review cycles by 3 Departments• Each department has large inventory of files (backlogs)• File can wait 20-50 days before Departments can review it <p><u>IMPACT:</u></p> <ul style="list-style-type: none">• E2E process with 3 approvals requires 36 to 65 hours of effort for staff (PT) and will take 107 to 270 days to complete (ET)• Applicants are frustrated with long elapsed time. So they escalate to Mayor and/or Council• It results in manual inquiries/wasted staff time (30 handoffs)/frustration/impacts to each other's review due to competing interests
Prediction:	<p><u>IF:</u> we reduce the number of formal review cycles from 3 to 2, <u>THEN</u> we would expect to see these potential gains:</p> <ul style="list-style-type: none">• Reduce PT from 36-65 hours down to PT = 27-45 hours. A saving of 25-32%• Reduce ET from 107-270 days down to ET = 45-141 days. A saving of 48-58%• Reduce number of handoffs by staff from 30 down to 19. A saving of 37%• Improve client and staff experience
Cause of the problem:	<ul style="list-style-type: none">- E2E process ineffectiveness, including 3 levels of approval- Bad application form- Complex requirements and bylaws- Overprocessing / manual process @ RDT- Lack staff capacity- Staff not utilized properly- Too much back and forth- Files get escalated
Proposed experiment:	<ul style="list-style-type: none">• Build from Shield Experiment Part 1• Assess files that passed the formal prescreen with SME and measure number of formal review cycles required to approve application

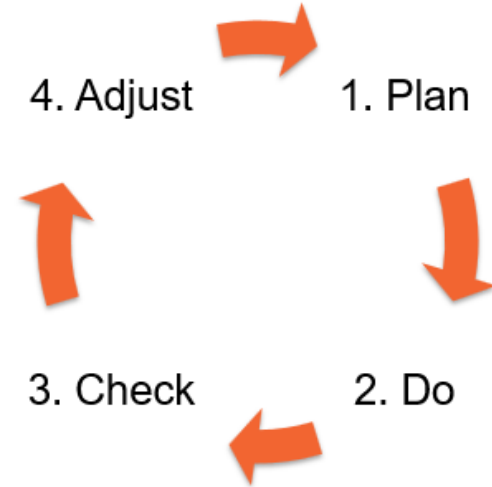
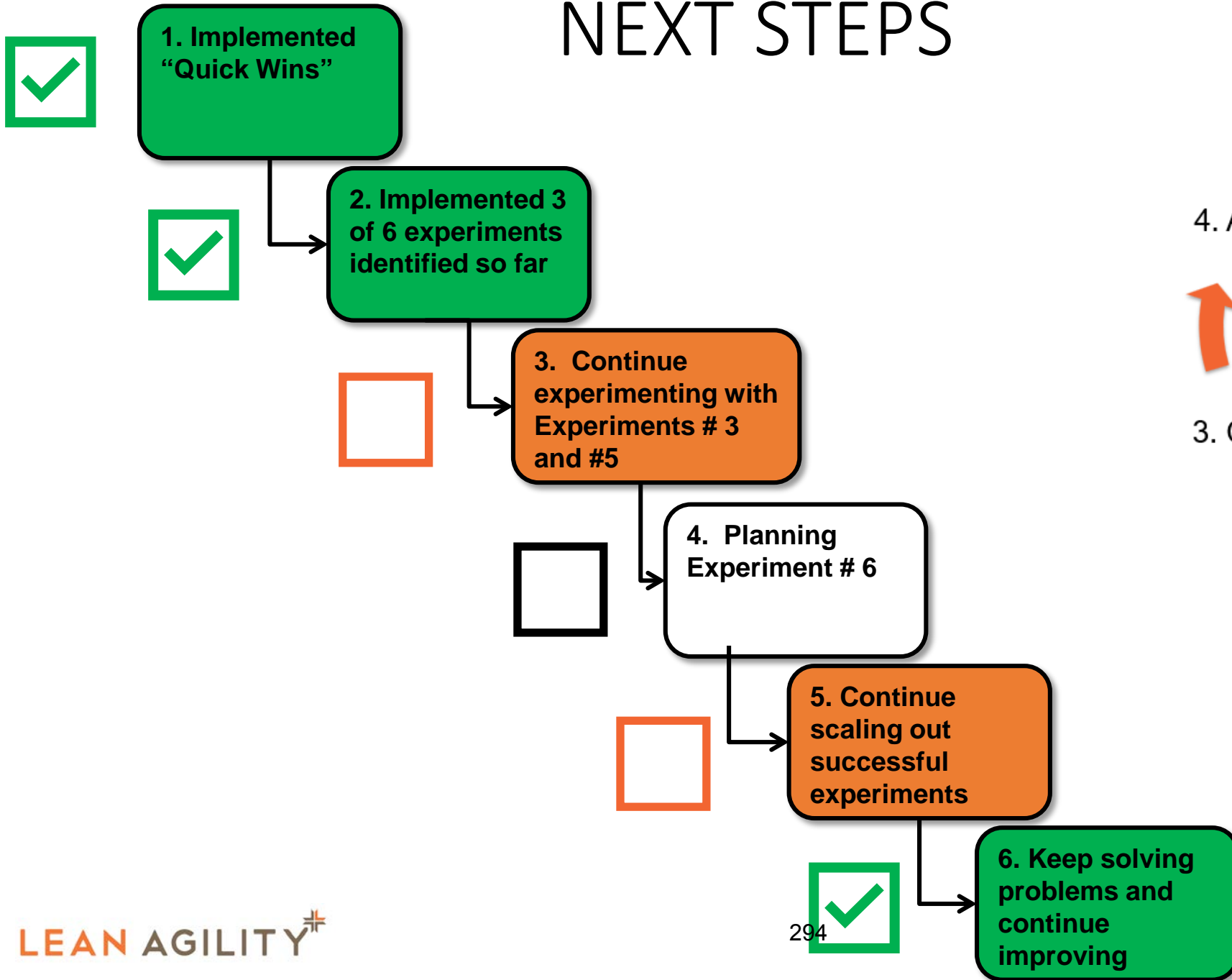


CONTROL & CONTINUE IMPROVING

3 Lean principles



NEXT STEPS



Control phase – the most challenging phase

- Let's not forget that from our analysis, the **top root cause** was: “**No continuous improvement routines**”
- So, it is important that moving forward “Continuous improvement routines” be part of our way of working
- Without continuous improvement, change won't stick, and old habits will resurface
- The three Lean principles are still applicable in this phase
- This phase has no end date. It's a new way of working
- Continue improving successful experiments that were implemented
- Continue experimenting and improving with new experiments

Continue improving **flow efficiency** with future experiments

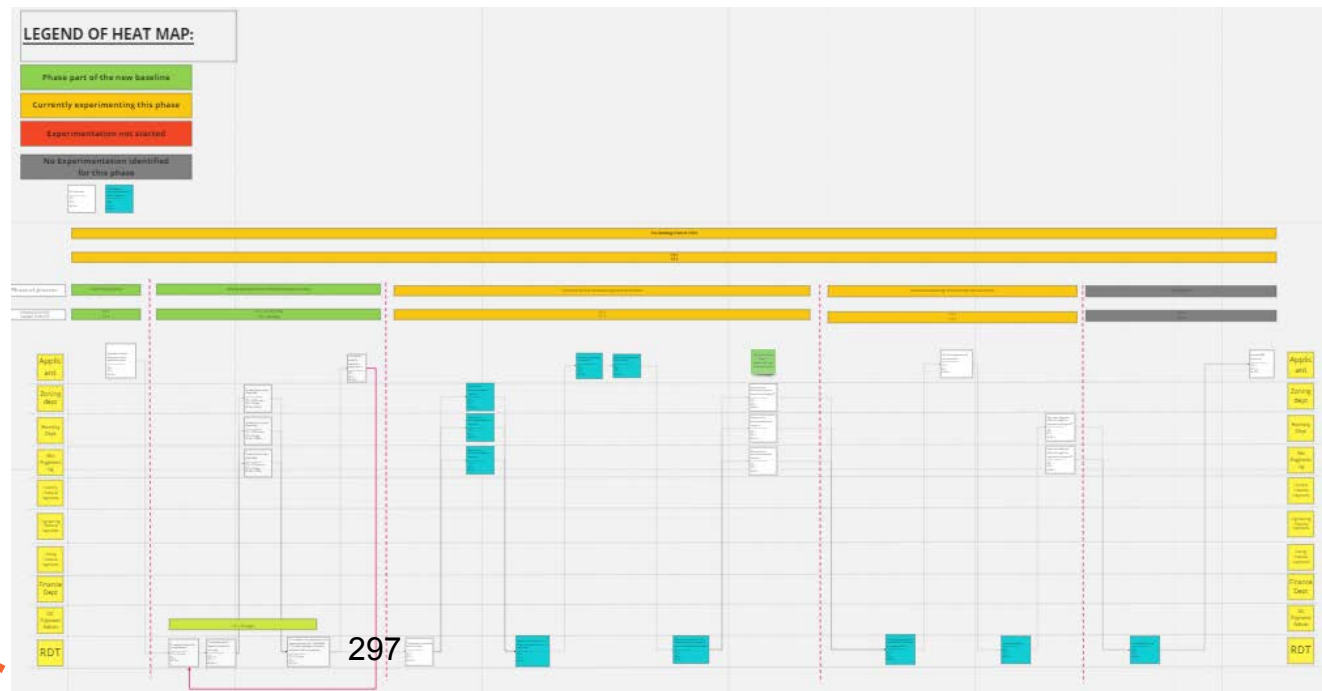
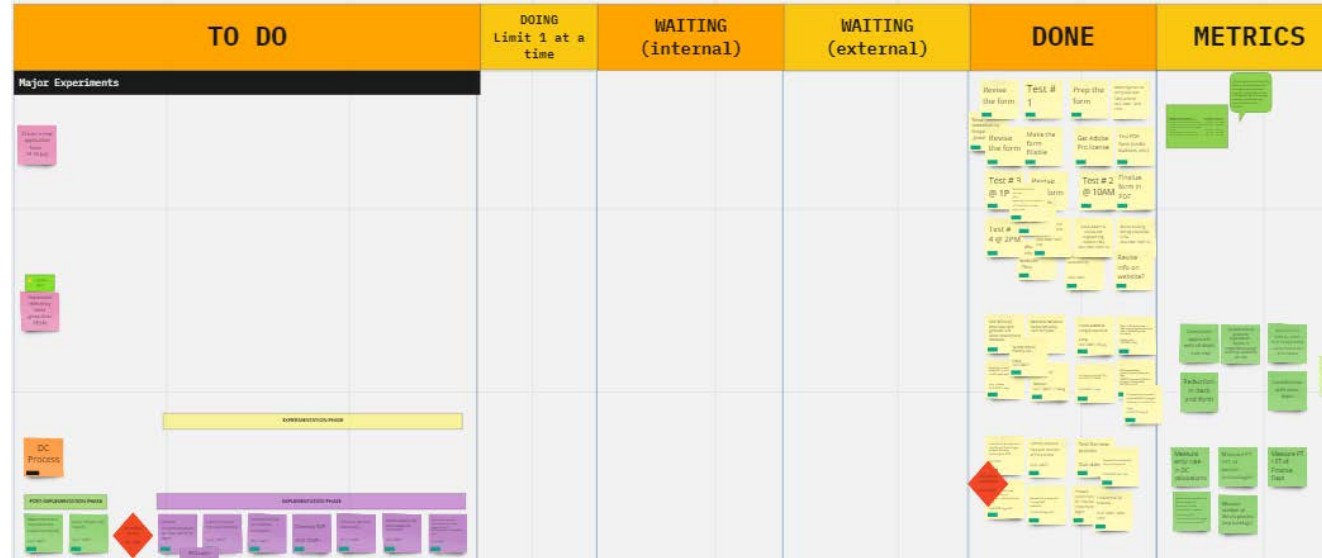
- Continue innovating with shield experiments will produce the greatest results for all stakeholders (applicants, staff, Council)
- If Experiments # 5 and # 6 are successful, recommend the following 2 experiments:
 - **Shield Experiment Part 3 – 1 formal review cycle** to approve application post-prescreen
 - **Continue improving the IT solution** to automate process steps currently done by RDT
- **Prediction: IF** we reduce the number of formal review cycles for any application from 3 to 1, and automate process steps currently done by RDT, **THEN** we would expect to see additional gains:
 - Reduce PT from 27-45 hours down to PT = 20-29 hours. **An additional potential gain of PT = 19-24%**
 - Reduce ET from 45-141 days down to ET = 25-62 days. **An additional potential gain of ET = 19-29%**
 - Reduce number of handoffs by staff from 19 down to 11. **An additional potential gain of 26%**
 - **An additional “Free-up RDT capacity” by 47-52%** to do more value-added work

It's worth
experimenting!

2. Visible Process Performance

Make the Improvement Plan Visible

Use visual management tool, like the Kanban board and the heat map!



Stand-up Meetings: Tracking Progress

- 10 minutes daily
- Make team performance visible
- Create accountability
- Follow up on action items
- Get everyone on same page
- Identify problems and assign them – build team's capability to solve own problems
- Health & Safety/wellness



Performance Measure: the 10 minutes spent in the meeting adds more value to each participant than what they would have been doing with that same time otherwise

Above and beyond - Untold stories of accomplishments

- 27 frontline staff and 7 leaders attended 3-day Lean Yellow Belt training
- 16 core Project team members and 7 extended staff actively participating in the workshop, experimenting and implementing
 - Getting hands-on experience using Lean tools
 - Co-creating solutions with other departments
 - Learning how to create a psychological safety zone and overcoming fear
 - Learning how to experiment and experimenting themselves
 - Learning how to improve a form in record time and implementing it
 - Learning People Change Management techniques and becoming first followers
- Engaging and collaborating with 6 leaders
 - Taking concrete actions to be change leaders and active listeners
 - Understanding the importance to be a shield for the staff
 - Having honest discussions amongst leaders on sustaining improvement

Recommendations for Staff

Based on what you demonstrated, and with your abilities, talent, experience and appetite for change, this could be incorporated in your daily routine:

1. Be a change leader
 - Bring up problems and tough issues
 - Get to the root cause
 - Focus on finding solutions to root causes, not symptoms
2. Understand the big picture, i.e. the End-to-End process
3. Make your own work visible – lead by example
4. Provide dedicated time to experiment
5. Be a team player. Don't be afraid to help others and ask others for help
6. Integrate the Lean principles in your daily routines

Recommendations for Senior Management

Based on what you demonstrated, this could be incorporated in your daily routine:

1. Be a change leader
 - Be an active listener
 - Make your own work visible – lead by example
2. Be a shield for your Team
 - Prioritize the work with them and minimize the changes to those priorities
 - Provide dedicated time to you and your staff to experiment
 - Minimize interruptions
3. Build and sustain psychological safety
4. Be a team player
 - Engage / build trust with executives from other islands so the initiative is co-owned
 - Ensure connections to big picture (End-to-End process) are clear
 - Work with other executives to prioritize the next processes to be improved
 - Challenge the bylaws. Do they help or hinder the staff and the process?
 - Identify and address root causes that you can influence
 - Identify which wastes you can eliminate yourself – and visibly act on them

Questions?



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Alain L'Abbé

Alain L'Abbé is a government and Lean Black Belt transformation specialist. He is also an accomplished and strategic change management and project management professional. He has over 27 years of diverse professional experience (military, public service and consulting) and a wide range of training. His expertise includes leading high visibility multi-stakeholder projects, managing teams, portfolio management, networking, effectively leading and guiding cross-functional staff, and successfully implementing strategic transformation plans and IT transformations. He has a proven ability to effectively mobilize and lead teams to meet deadlines, objectives and budget.



STREAMLINE DEVELOPMENT APPLICATION FUNDING PROJECT

Brief Project Overview for Report PL-02-23

PROJECT PRIORITIES

Modernize, streamline, and accelerate processes for managing and approving housing applications

Training for Staff

Lean Six Sigma training for project staff
29 staff trained

Pre-building Permit Process Review

1. Environmental Scan
2. Value stream mapping
3. Identify key pain points and prioritize solutions
4. Design and experiment with solutions
5. Direct involvement with the customer

Development Charges Process

1. Assessment and validation of already completed process review work (including recommendations)
2. Validate future state proposal with key stakeholders
3. Design and implement process improvements (including dependent processes)

Pre-consultation & Other Supporting Process Improvements (as applicable)

1. Identify areas for improvement - focus on Amanda improvements
2. Prioritize improvements to supporting process considering impact to overall process outcomes - includes Forestry & DC process improvements

PROJECTS RUNNING IN PARALLEL



Audit and Accountability Funding

- Land Management Development Platform Review - Amanda technology
- Enterprise Web Architecture & Modernization Review



Burlington Lands Partnership/ Housing Strategy

- Strategic use of available land for housing
 - Assessment of issues/ opportunities associated with the acquisition & re-use of former school sites re: attainable housing



Community Benefit (new)

- New process required by legislation
- Launch June 2022

IMPORTANT CONTINUOUS IMPROVEMENT FUNDAMENTALS



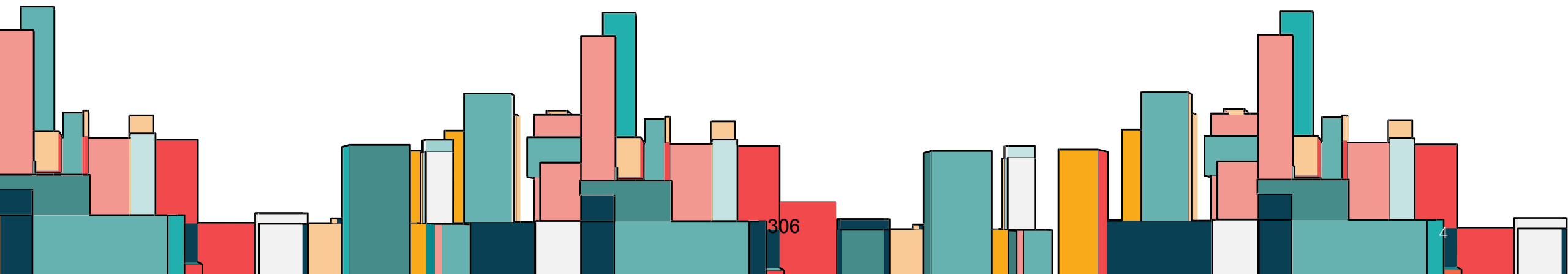
- Psychological Safety
 - Collaboration
 - Direct customer engagement
- Designing for the win win



- Make it flow, make it visible
- Solving problems at the root
 - Making room For improvement & strategy



- Reduce task switching
- Focus on the value-add
- Plan Do Check Act
 - Experimentation





UNDERSTANDING THE CURRENT STATE

ENVIRONMENTAL SCAN

Interviews with Oakville, Markham & Brampton

- poor quality submissions, interruption through file escalations, culture is important

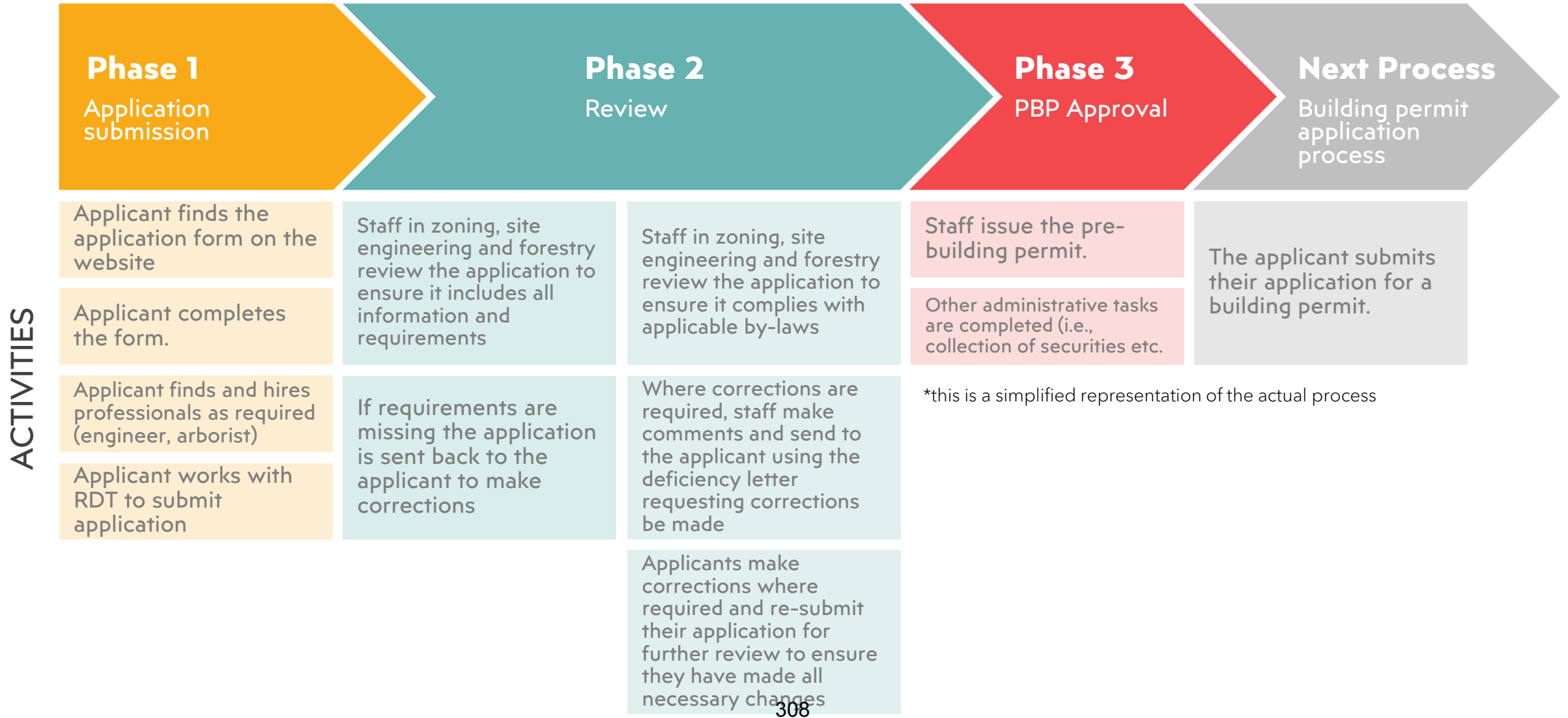
VOICE OF THE CUSTOMER

- Before value stream mapping, during application experiment, during visibility tool design

BASELINE DATA COLLECTION

- Collected during value stream mapping, used capacity analysis data from 2021

PBP - HOW DOES THE PROCESS WORK?

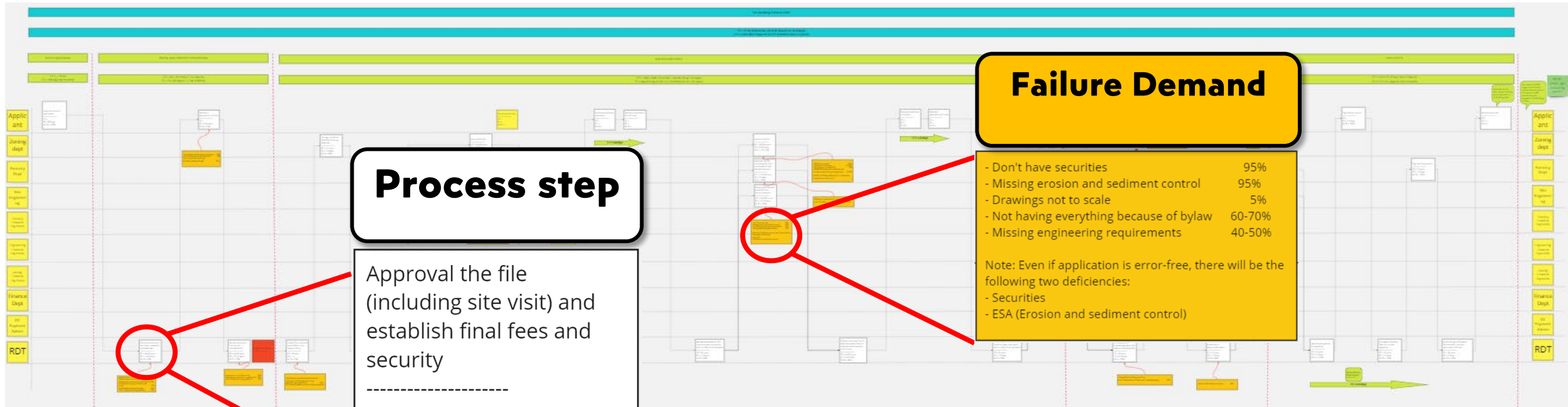


VALUE STREAM MAPPING CURRENT STATE

PT = Processing time – the amount of time to perform the task

ET = Elapsed Time – amount of time for the application to move from one step to the next

%CA = % Complete & Accurate – percent of time the information coming is correct and staff can use it to complete their task



Process step

Approval the file
(including site visit) and
establish final fees and
security

PT = 480 mins
ET = 20-50 days
% CA = 0-5%

Failure Demand

- Don't have securities 95%
 - Missing erosion and sediment control 95%
 - Drawings not to scale 5%
 - Not having everything because of bylaw 60-70%
 - Missing engineering requirements 40-50%
- Note: Even if application is error-free, there will be the following two deficiencies:
- Securities
 - ESA (Erosion and sediment control)

PRE-BUILDING PERMIT PROCESS – CURRENT STATE MEASURES

- ET = minimum 6 months
- Elapsed time sits with the applicant 50% of the time and with staff 50% of the time
- Worst case scenarios can extend to a maximum of 24 months – these tend to be outliers or exceptions

KEY ROOT CAUSES

To what extent does the ROW cause the COLUMN? <div style="text-align: center;">↑</div> Major cause: 10 Minor cause: 5	Lack of process visibility	Bad Application form	Too much back and forth	AMANDA not utilized properly	Complex requirements and bylaws	Overprocessing/ manual process @ RDT	Files get escalated	Staff not utilized properly	E2E process ineffectiveness, including 3 levels of approval	Lack staff capacity	No continuous improvement routines	Too long to process payments / not visible	#REF!	#REF!	#REF!	ROWS: impact of this cause on all other
Lack of process visibility			10			5	10		5		5					35
Bad Application form			10			10	5	5		5		5				40
Too much back and forth							10	5		10						25
AMANDA not utilized properly	10		10			10		10	5	10		5				60
Complex requirements and bylaws		10	10			5	5		10	10						50
Overprocessing/ manual process @ RDT			10				10			5						25
Files get escalated								10								10
Staff not utilized properly												5				5
E2E process ineffectiveness, including 3 levels of approval		5	10			10	10	10		10						55
Lack staff capacity							10	10				5				25
No continuous improvement routines		5	5	10	5	10	10	10	10	5		10				80
Too long to process payments / not visible			5			5	5		5							20
COLUMNS: how many other causes impact this cause	1	3	8	1	1	7	9	7	5	7	1	5	0	0	0	

IMPROVEMENTS



Initial File Circulation

Experiment 1



- Reduce ET by 5-10 days
- Improved internal visibility



Improved Application Form

Experiment 2



- Reduction in failure demand (%CA was 50%, now 80%)
- Improve the client and staff experience
- Saving staff effort to answer queries, because we now provide them with our checklist



Simplification of Review Requirements Site Engineering

Experiment 3



- Eliminated 5 app types, 25% of apps
- Saves 20hrs/app, 1500hrs PT/year for Site Engineering Team



SHIELD Experiment 2 Phases

Experiment 4



Phase 1 – pre-screen:

- PT = 1.25-2 hours instead of 17.75-24 hours (saving 92%)
- ET = 2-6 days instead of 41-108 days (saving 95%)
- Significant improvement to client experience
- Saving 3 handoffs, eliminated the backlog

Phase 2 – review – 3 cycles to 2:

- Reduce PT from 36-65 hours down to 27-45 hours (saving 25-32%)
- Reduce ET from 107-270 days down to 45-141 days (saving 48-58%)



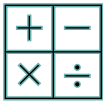
Deficiency Form Improvement

Experiment 5



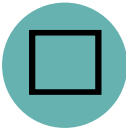
- Centralized record management creating consistency across groups
- Minimizing back and forth

IMPROVEMENTS



Development Charges Process Improvement

Experiment 6

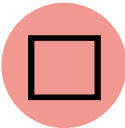


- DC administration is done once by the right staff at the right time thus eliminating unnecessary back and forth handoffs
- 370 hours of Zoning staff capacity a year which can be re-deployed toward development applications subject to Bill 109



Amanda Improvements for Pre-consultation

Experiment 8

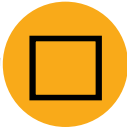


- Improved consistency in practice across application types
- Streamlined and automated process



Process Visibility Tool

Experiment 9

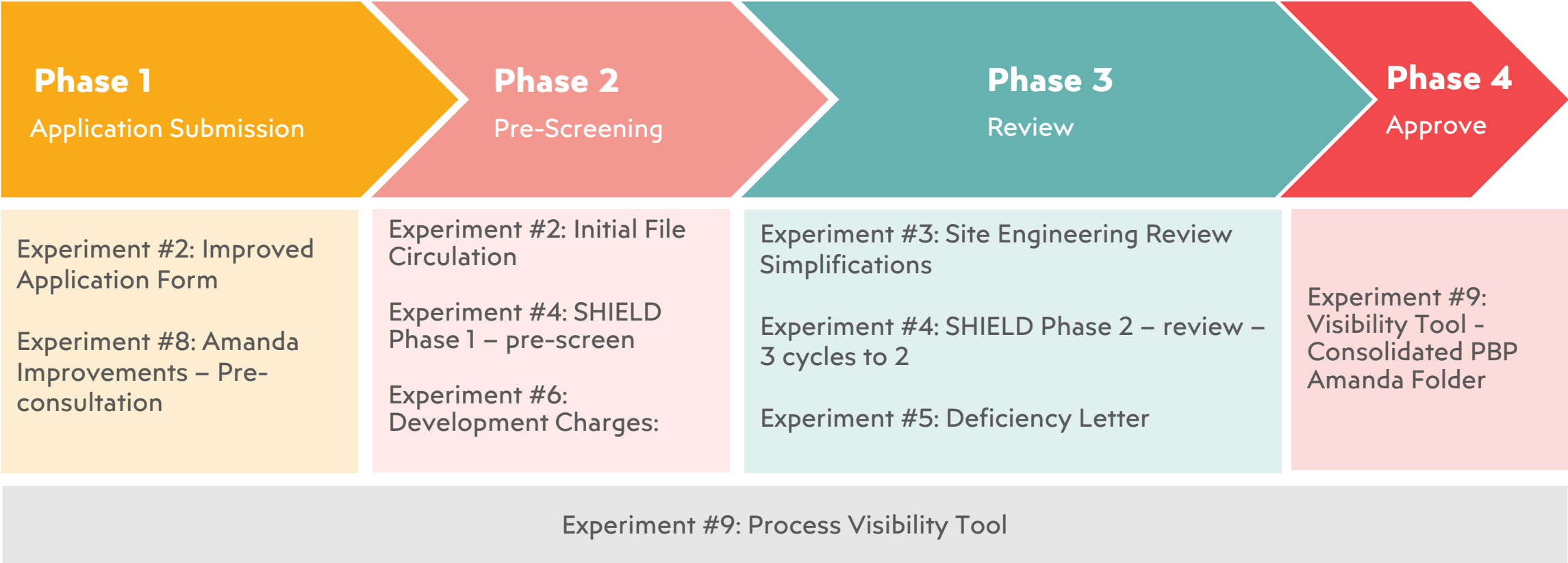


- Estimated savings of 60 hrs per week in inquiries
- Consolidation of 3 folders into 1
- Improved visibility for staff doing reviews
- Saved time looking in different folders for information
- Saved time in updating information in folders

TECHNOLOGY IMPROVEMENTS

THE HIGHLIGHTS

IMPROVEMENTS



HOW IMPROVEMENT CHANGES EXPERIENCE

FOR THE CUSTOMER

- Applications will take less time
- Customers can see where in the process their application is sitting
- Customers feel included and informed, and this will build trust
- Reduction in frustration
- Ability to meet their own (business) needs

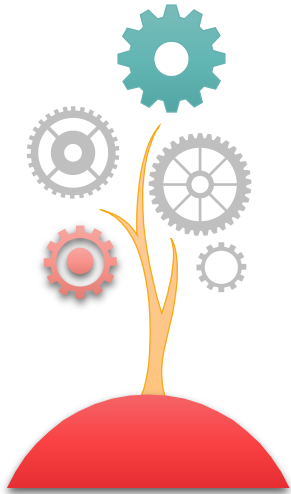
FOR THE STAFF

- Found capacity will help reduce overwhelming workloads and work will feel more valuable
- Backlogs will be reduced/eliminated
- Satisfaction in providing good service to clients
- Reduction in stress from dealing with frustrated customers
- Increased collaboration between departments
- Improved teambuilding, engagement and empowerment

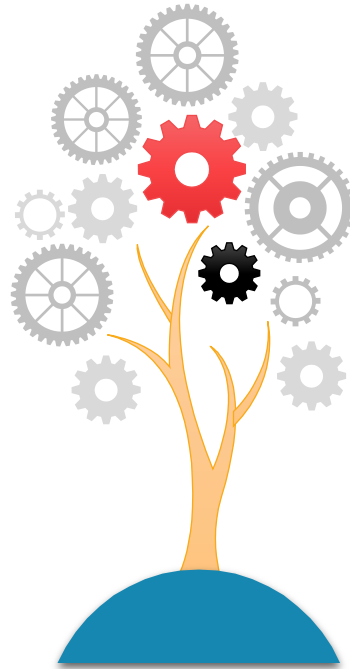
CULTURAL CHANGES

How are we changing the way we work and how we do business

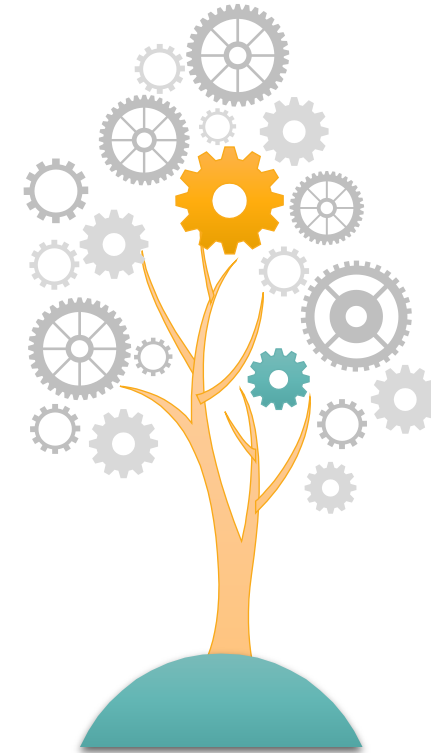
- March**
- Siloed operations
 - Risk aversion
 - Change adverse
 - Customers not included



- July**
- Embracing fear of failure
 - Experimenting
 - Working cross-functionally

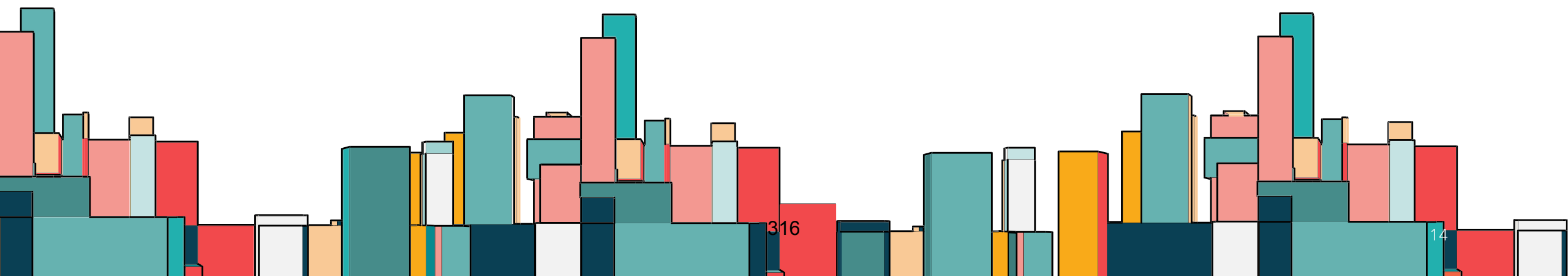


- Today**
- Staff are generating experiments independently
 - Choosing when risk is right
 - Enablers not enforcers
 - Readily reaching across borders
 - Empowering staff to lead
 - Working with customers



NEXT STEPS

- Align process with Bill 23
- Continue to measure the impact of improvements on the overall process
- Establish a continuous improvement plan to move forward with beyond SDAF
 - In collaboration with partnering departments (building, site engineering, forestry, IT)
- Scale solutions to other planning processes



THANK YOU

Questions?