



TOWN OF AURORA

Building Permit Process Review

February 2021

Submitted by:

Performance Concepts Consulting

In Association with:
Dillon Consulting Limited

Submitted to:

Town of Aurora

Attn: Bill Jean,
Manager, Building Division &
Chief Building Official

Table of Contents

1.0	Preamble	1
2.0	Executive Summary	2
3.0	Introduction	5
	3.1 Introduction & Context for the Aurora Building DAP Review.....	5
	3.2 Weathering the COVID Storm.....	6
	3.3 Provincial Financial Realities.....	6
4.0	Overview of Project Methodology	8
	4.1 Doing the Right Things. Doing Things Right.	8
	4.2 Documenting Aurora’s “As Is” Building DAP Delivery Model	9
	4.2.1 Outside Agencies	9
	4.2.2 Consulting with Development Industry Representatives	9
	4.3 Building DAP Peer Comparisons/Insights	9
	4.4 Towards a Refined “As Should Be” Building DAP Model	10
	4.5 Findings/Recommendations + Go-forward Implementation Roadmap	10
	4.6 Final Report – Documenting Building DAP Modernization Efficiencies.....	10
5.0	Aurora Staff Consultations: Informing “As Should Be”	11
	5.1 Building DAP “As Is” Organization Design.....	11
	5.2 Town of Aurora Building DAP Staff Members/Teams.....	12
	5.3 Other Agencies.....	12
	5.3.1 Central York Fire Service	12
	5.4 Development Community Representatives (BILD)	13
6.0	Building DAP “As Is” Service Delivery Model: Overarching Observations & Core Processes	15
	6.1 Staff Mentimeter.com Survey Results	15
	6.2 Looming/Remaining Sub-division Generated Building Permit Pressures	18
	6.3 Building Permit Approvals Channel 1: Sub-division	19
	6.3.1 Zoning Review	20
	6.3.2 Building Code Review.....	20
	6.3.3 Grading, Elevation and Drainage	20

6.4	Building Permit Approvals Channel 2: Multi-Res/ICI Site Plan	21
6.4.1	Zoning Review	21
6.4.2	Building Code Review.....	22
6.4.3	Grading, Elevation and Drainage	22
6.4.4	Life Safety (Fire) Systems	22
6.5	Building Permit Approvals Channel 3: Stable Neighbourhood “Infill”	22
6.5.1	Zoning Review	23
6.5.2	Building Code Review.....	23
6.5.3	Grading, Elevation and Drainage	24
6.6	Building Permit Approvals Channel 4: Rest of Town “Infill”	24
6.6.1	Zoning Review	24
6.6.2	Building Code Review.....	25
6.6.3	Grading, Elevation and Drainage	25
6.7	Inspections + Occupancy Permit + Open Permits	25
6.8	Post-Construction Compliance: Conditions and Securities.....	26
6.9	Building DAP Staffing and Workload Capacity	27
6.10	Documented Building Division Policies and Procedures.....	27
6.11	Building DAP Technology Platform	28
6.11.1	Phase 1 - Electronic Submission + Bluebeam Drawings Mark-up.....	28
6.11.2	Phase 2 - Cloud Based Portal + Upgraded CityView Workflow Tool.....	29
6.11.3	Technology Challenges Moving Forward - Building Department	29
6.11.4	Technology Challenges Moving Forward - Other Departments	29
6.11.5	Technology Challenges Moving Forward - York Central Fire	29
6.12	Cost Recovery Model - Building DAP Fees and Reserve Fund	29
6.12.1	Reserve Funds Design	30
7.0	Towards Results Based Management - Key Performance Indicators (KPIs)	31
7.1	Evaluating Current Building DAP KPIs	31
7.2	Building DAP Scorecard and Accountability Reporting.....	32
8.0	Building DAP Peer Comparisons/Insights	34
8.1	“Large Urban CBOs” Dataset.....	34
8.1.1	Comparators Profile	34

8.1.2	Permit Decision Timeframes.....	35
8.1.3	Fees and Reserve Funds.....	35
8.1.4	Roles & Functions	36
8.1.5	Staffing Profiles & Productivity Ratios	37
9.0	“As Should Be” DAP Findings & Recommendations	38
9.1	Building DAP Channel: Subdivision	38
9.1.1	Inspections Coordination Gap.....	38
9.1.2	Open Permits Risk Exposure	39
9.2	Building DAP Channel: Site Plan.....	39
9.2.1	Trigger for Accepting Overlapping Applications	39
9.2.2	Grading Approvals During Overlapping Site Plan + Building Permit Processes	40
9.3	Building DAP Channel: Stable Neighbourhood	41
9.3.1	Zoning By-law Review (ZBR) Refinements	41
9.3.2	Zoning By-law Review (ZBR) Quality Control	41
9.3.3	Alternatives to Site Plan Approval for Tear Down/Re-Builds	42
9.4	Building DAP Channel: Infill.....	42
9.4.1	Notification of Building Permit Applicant re Minor Variance Appeal Period	42
9.5	Inspections and Occupancy	43
9.5.1	Consistent Re-Inspection Fee Business Rule/Policy.....	43
9.6	Post-Construction Compliance: Conditions and Securities.....	43
9.6.1	Absence of Dedicated Staff Resources for Inspections	43
9.7	Building DAP Staffing and Resourcing.....	44
9.7.1	Additional Specialized HVAC Staff Resource.....	44
9.7.2	Central York Fire Services – Providing Accountable/Designated Building DAP Support	44
9.8	Building DAP Technology Platform	45
9.8.1	Engineering Staff CityView Usage/Tracking.....	45
9.8.2	Central York Fire CityView Usage.....	45
9.8.3	CityView Process Drawbridges.....	46
9.9	Building DAP Fees and Reserve Fund.....	46
9.9.1	Reserve Fund Design.....	46

9.10	Updated Policies and Procedures	47
9.10.1	Updated Policies and Procedures Reflecting IT Modernization	47
9.11	Key Performance Indicators.....	48
9.11.1	Refined Timeframes, New Performance Targets and Annual Reporting.....	48
10.0	Implementation Roadmap	49
10.1	Building DAP Channel: Subdivision	49
10.2	Building DAP Channel: Site Plan.....	49
10.3	Building DAP Channel: Stable Neighbourhood	49
10.4	Building DAP Channel: Infill.....	50
10.5	Inspections and Occupancy	50
10.6	Post-Construction Compliance: Conditions and Securities.....	50
10.7	Building DAP Staffing and Resources	50
10.8	Building DAP Technology Platform	50
10.9	Building DAP Fees and Reserve Fund.....	51
10.10	Updated Policies and Procedures	51
10.11	Key Performance Indicators.....	51
11.0	Conclusions & Moving Forward with Change	52
11.1	3 rd Party Assessment.....	52
11.2	Building DAP Performance Improvement: Measurement Lenses to Consider.....	52

Preamble

The Development Approvals Process (DAP) is a core Town of Aurora service. It extends across a Planning Act mandated front-end and a Building Code Act mandated back-end. Planning and Building DAP service delivery processes are interconnected from a legal perspective and from an applicant-journey perspective. These Planning and Building DAP interconnections can be overlapping/entwined or sequential depending on the types of Building applications and the processes/business rules employed by a given municipality.

Timely and consistent Building DAP process execution provides cash flow/financing predictability for businesses/developers before/during/after the construction process. A modernized Building services delivery model and IT toolkit will ensure compliance with Provincial regulatory standards and also promote economic development priorities for Aurora businesses and residents.

The Aurora Phase 2 Building DAP review has been conducted under the auspices of the Province's Municipal Modernization Grant Program. The Modernization grant program requires the Performance Concepts/Dillon team to conduct an impartial and objective 3rd party review to identify efficiencies. The Final Report will be posted on the Town website as per the requirements of the Modernization grant.

The Aurora Phase 2 DAP review has been executed exclusively on-line during the COVID-19 pandemic. Performance Concepts/Dillon would like to acknowledge the flexibility and professionalism of Town and Central York Fire Department staff teams that have participated in the Phase 2 review using video conferencing tools such as GoToMeeting, Microsoft Teams, Zoom and Mentimeter.com.

The COVID 19 pandemic has demonstrated that traditional "over the counter" approaches to Building DAP execution can and should be modernized across the Ontario municipal sector. The Aurora Phase 2 DAP review has built momentum towards a transformed applicant experience in 2021 via electronic plans review and an upcoming cloud-based portal and workflow tracking software solution.

The Performance Concepts/Dillon team congratulates Aurora for completing its DAP modernization reviews (phase 1 & Phase 2) under the COVID 19 new abnormal. This Phase 2 Final Report meets all of the requirements of the Municipal Modernization Grant Program and positions the Town to proceed with the Implementation Roadmap in 2021 and beyond.

2.0 Executive Summary

The Phase 1 Aurora Development Approvals Process (DAP) Modernization review was completed in early December 2020. The Phase 1 review was focused on Planning and Engineering approvals. Findings and Recommendations have been received and the Town is now considering implementation priorities.

A Phase 2 DAP review has now been completed. The Phase 2 DAP review is focused on Building Code Act mandated permitting and inspection processes. These back-end Building Code Act service delivery processes overlap with, and follow, the front-end Planning Act processes already addressed in the Performance Concepts/Dillon Phase 1 Final Report. While some overlap between Aurora's two DAP Modernization reports is unavoidable, this Phase 2 Final Report stands on its own. The supporting evidence and analysis justifying the Performance Concepts/Dillon Findings/Recommendations package is fully contained herein.

As was the case with the Phase 1 DAP review, our team's draft Findings/Recommendations have been stress tested with appropriate Aurora staff before being included in this Final Report. The Findings/Recommendations set out in this Phase 2 Building DAP Report are the product of impartial 3rd party analysis and evaluation undertaken by the Performance Concepts/Dillon team - a mandatory requirement of all Municipal Modernization Program reviews.

This Final Report delivers an evidence-based package of Building DAP Findings/Improvement Recommendations that will require focussed and disciplined implementation by the Town. Recommendations have been positioned within a *Do Now* (2021), *Do Soon* (2022), *Do Later* (2023 and beyond) Implementation Roadmap.

Various categories of Building DAP Improvement Recommendations, and their relative positioning on the *Do NOW/Do SOON/Do LATER* Implementation Roadmap, are summarized below:

Building DAP Channel: Subdivision

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
1	Inspections Coordination Gap	✓		
2	Open Permits Risk Exposure		✓	

Building DAP Channel: Site Plan

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
3	Trigger for Accepting Overlapping Applications	✓		
4	Grading Approvals During Overlapping Site Plan/Building Permit	✓		

Building DAP Channel: Stable Neighbourhood

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
5	Zoning By-law Review (ZBR) Refinements	✓		
6	Zoning By-law Review (ZBR) Quality Control	✓		
7	Alternatives to Site Plan Approval for Tear Downs/Rebuilds	✓		

Building DAP Channel: Infill

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
8	Notification of Building Permit Application re Minor Variance Appeal	✓		

Inspections and Occupancy

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
9	Consistent Re-Inspection Fee Business Rule/Policy	✓		

Post-Construction Compliance: Conditions and Securities

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
10	Absence of Dedicated Staff Resources for Inspections		✓	

Building DAP Staffing and Resources

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
11	Additional Specialized HVAC Staff Resource		✓	
12	Central York Fire Services – Designated Building DAP Support	✓	✓	

Building DAP Technology Platform

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
13	Engineering Staff CityView Usage/Tracking	✓		
14	Central York Fire CityView Usage	✓		
15	CityView Process Drawbridges		✓	✓

Building DAP Fees and Reserve Fund

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
16	Reserve Fund Design	✓	✓	

Updated Policies and Procedures

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
17	Updated Policies and Procedures Reflecting IT Modernization		✓	✓

Key Performance Indicators

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
18	Refined Timeframes, New Performance Targets & Annual Reporting	✓	✓	

3.0 Introduction

3.1 Introduction & Context for the Aurora Building DAP Review

The Development Approvals Process (DAP) is a forward-facing core service delivered by the Town of Aurora. DAP is a *regulatory* service anchored in both the Planning Act (front-end) and the Building Code Act (back-end). Municipal staff participants in Aurora’s Building DAP service delivery model are located within and beyond the traditional Building Services unit led by the Chief Building Official.

Building permit submission completeness, the building permit Yes/No decision-point, and inspection notification response times are all subject to “# of business days” timelines mandated by the Province. These Building Code Act (OBCA) mandated timelines are a challenge to high permit volume municipalities across the GTA and beyond. Aurora is no exception.

A variety of LEAN-style process streamlining solutions have evolved across the Ontario municipal sector to deal with the challenge posed by high Building workloads and compressed timeframes. Non-compliance with Provincially mandated timeframes for permit decisions/inspections poses a significant reputational risk for GTA municipalities - including Aurora. Applicants can appeal non-compliant municipal timeframes to the Building Code Commission.

Building permit fees are closely monitored by permit applicants across Ontario - including sophisticated development community representatives like BILD. Building permit fees may only cover municipal operating and capital costs associated with the administration and delivery of Building Code Act related activities. Development industry value-for-money comparisons of processing timeframes versus fee levels are not uncommon.

Building permit and inspection processes are the final regulatory hurdles applicants need to address prior to their occupancy of constructed buildings. The need for a predictable, standardized Building DAP “conveyor belt” is critical to the financial prosperity of the development industry and local economies. This “conveyor belt” must also meet the public interest for safe and environmentally efficient buildings. Processing efficiency and building stock quality can both be optimized in a “best practice” municipal model.

This Building DAP modernization review will guide Aurora in achieving a consistently executed standardized model that is informed by LEAN thinking and industry best practices.

3.2 Weathering the COVID Storm

As noted in the Preamble to this Report, the Performance Concepts/Dillon team has executed the Aurora Building DAP review using an interactive set of online delivery platforms and tools.

Despite the challenges posed by closed municipal offices and social distancing/infection control protocols, the Performance Concepts/Dillon team has completed the Aurora Building DAP Review on time and on budget.

Town of Aurora staff, Central York Fire staff and development industry (BILD) representatives have participated in this Review with courtesy, creativity and professionalism.

3.3 Provincial Financial Realities

The Province's Municipal Modernization Grant Program pre-dates the COVID pandemic. The stated intent of the program is to support Ontario municipalities that are committed to identifying and implementing service delivery efficiencies. In the professional opinion of the Performance Concepts team, Municipal Modernization Review efficiencies are best measured by using a blend of the following performance lenses:

- Operating cost reduction/cost avoidance/cost management secured while maintaining an existing level of service
- Optimal capital investments (ROI) secured via rational asset/IT systems decisions
- Fixed-cost burden sharing of staff positions, equipment, IT systems and facilities across neighbouring municipalities/external agencies
- Process execution/staff productivity improvements secured via LEAN style process streamlining and IT driven service delivery innovation

Pre-COVID, public statements by the Premier indicated that Municipal Modernization Program efficiency dividends of 4% to 5% of targeted spending were achievable. In other words, the Province's Municipal Modernization Program was conceived to secure *incremental \$ efficiencies* across the municipal sector. Pre-COVID, the Province's incremental improvement model for the municipal sector seemed reasonably scaled. But now, in the midst of the pandemic, the context and stakes for Municipal Modernization reviews have changed dramatically. The figures below are instructive in this regard. The already indebted Provincial government will be \$60B to \$80B further in debt by the end of 2021. A new provincial-municipal financial reality is now at hand. An optimized Building DAP model will be critically important to Aurora as Council grapples with these new fiscal realities and tries to secure a fiscally sustainable recovery from a COVID generated recession.

The COVID-19 New Abnormal: Crushing Senior Government DEBT Loads

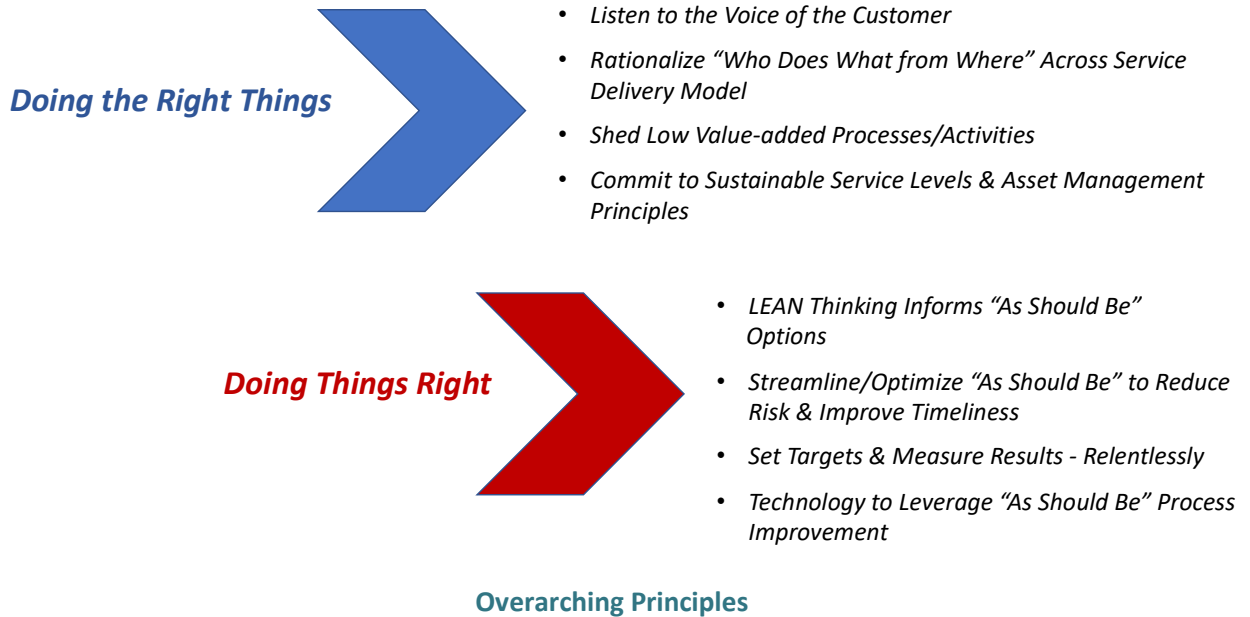
- The Province forecast a 2020-21 deficit of \$21 BILLION in March
- The Fraser Institute predicted the deficit will be \$29 BILLION
- The Province's independent Financial Accountability Officer has predicted a \$41 BILLION deficit
- Province is looking at the Municipal Modernization Program to source significant \$ savings.
- Is the Town of Aurora ready to embrace significant change in Building Code DAP to buffer upcoming fiscal turbulence and generate post-Covid economic recovery?

4.0 Overview of Project Methodology

4.1 Doing the Right Things. Doing Things Right.

Successful municipal modernization reviews are rooted in two overarching principles:

1. Accountable and innovative Municipalities strive to ensure they are **Doing the Right Things**
2. Accountable and innovative Municipalities strive to ensure they are **Doing Things Right**



A properly executed Building DAP Modernization review will engage staff practitioners and external stakeholders/applicants in order to generate meaningful restructuring around **Doing the Right Things** and **Doing Things Right**. Using LEAN thinking and process re-engineering to streamline and standardize the Building DAP “conveyor belt” is practically synonymous with *Doing Things Right*.

Municipal Modernization reviews that confirm the need to do different things and/or do things differently are not automatically “right” or binding. Recommendations from these reviews must pass through the lens of accountable governance. Councils make change - not consulting teams. A well-crafted DAP Modernization review is politically astute without being overtly “political”. Successful DAP Modernization reviews must secure implementation support from elected Councils and development industry applicants that live in the real world. They must combine technical proficiency with technology-driven innovation and support Council’s accountability contract with its taxpayers, development community stakeholders, and residents.

4.2 Documenting Aurora's "As Is" Building DAP Delivery Model

Working with Town staff from all business units across the Building DAP "conveyor belt", the Performance Concepts/Dillon team conducted interactive online working sessions and one-on-one interviews focused on mapping on-the-ground process execution. These interactions informed our team's production of "As Is" performance profiles across the core Building DAP service channels and application categories. Building DAP *As Is* performance profiles were tested with the Town's staff team and development industry stakeholders.

Our review of the *As Is* delivery model was also informed by a review of the Town's documented Building policies and procedures - documentation dating back 15 years in some cases.

Staff and external stakeholder engagement is critical to any successful Building DAP change project. If industry stakeholders are not involved in *planning the change battle*, they will almost certainly *battle the change plan*. Our approach included semi-structured interviews and small-team working sessions across a variety of Town business units. Performance Concepts/Dillon also employed an online interactive polling tool - Mentimeter.com - to secure Town staff feedback around Building DAP performance barriers, LEAN style streamlining opportunities, and new IT leveraged delivery models. Staff perspectives informed our objective 3rd party analyses, and the Building DAP improvement Recommendations/Implementation Roadmap featured in this Report.

4.2.1 Outside Agencies

The following external agencies were identified and consulted during the Aurora Building DAP Review:

- Central York Fire Service

4.2.2 Consulting with Development Industry Representatives

Performance Concepts/Dillon tested our evolving Findings/Recommendations package with BILD representatives in a stress testing working session held prior to Report finalization. This working session informed the Building DAP improvement Recommendations/Implementation Roadmap featured in this Report. Ongoing industry involvement in the go-forward change journey for Aurora will be an important determinant of success.

4.3 Building DAP Peer Comparisons/Insights

Performance Concepts/Dillon have made use of a "Large Urban CBOs" data set populated by 30+ Ontario municipalities. This reliable/longstanding data set has informed our team's high level comparison of service delivery processes, staff resourcing, workforce productivity and revenue stream/cost recovery performance. Peer comparator data has been used to support *As Should Be* Findings/Recommendations.

4.4 Towards a Refined “As Should Be” Building DAP Model

A portfolio of performance improvement Findings/Recommendations has been developed to streamline the Town’s existing Building DAP model and transition to a financially sustainable/appropriate cost recovery model.

Performance improvement opportunities include LEAN style re-engineered processes, a modernized DAP IT platform, and a set of refined Key Performance Indicators (KPIs) and processing timeframe targets. Potential performance improvement ideas have been subjected to rigorous evidence-based evaluation by the Performance Concepts/Dillon team prior to being upgraded to “As Should Be” recommendations.

4.5 Findings/Recommendations + Go-forward Implementation Roadmap

The “As Should Be” Findings/Recommendations put forward by Performance Concepts/Dillon have been positioned across a *Do Now/Do Soon/Do Later* Implementation Roadmap. The Roadmap has been produced with the practical realities of “change” implementation firmly in mind. The Roadmap will ensure timely/significant progress without overwhelming the finite capacity of Aurora and Central York Fire to absorb change.

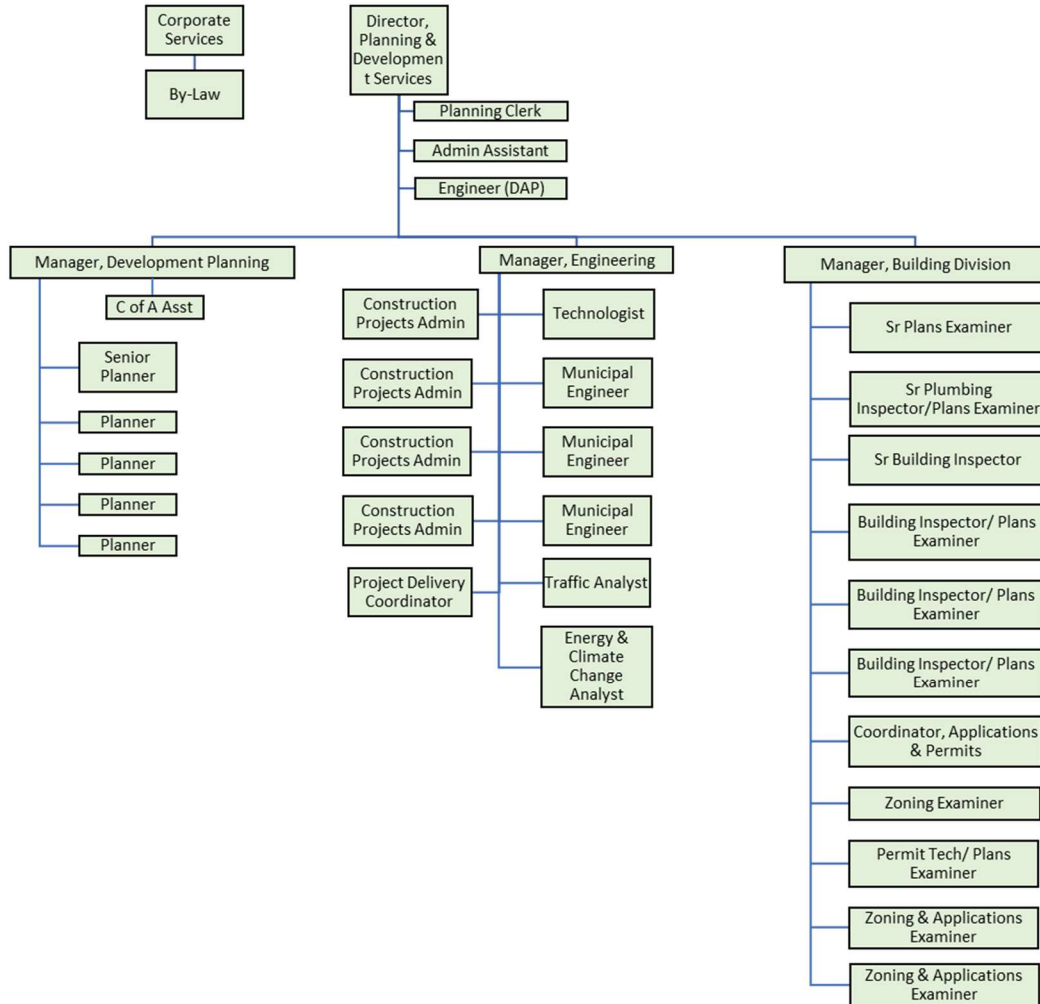
4.6 Final Report – Documenting Building DAP Modernization Efficiencies

Recommendations and the phased Implementation Roadmap were stress tested with the Aurora project oversight team. They were also stress tested with BILD. While the Performance Concepts/Dillon Final Report has been informed by staff and industry stress testing, the proposed Recommendations and Implementation Roadmap represent our team’s impartial 3rd party perspective - consistent with the requirements of the Town’s Municipal Modernization Program Grant agreement with the Province.

5.0 Aurora Staff Consultations: Informing “As Should Be”

5.1 Building DAP “As Is” Organization Design

The Org Chart below sets out the Town business units that participate in the various Building DAP service delivery channels. The staffing backbone of Building DAP is the Building Division. The staff positions in the Building Division intake applications, execute Zoning and Building Code reviews, issue Building permits, schedule inspections, execute inspections, and grant occupancy permits.



The Engineering business unit execute Grading/Drainage/Elevation reviews of Building permit applications. They also confirm that “As Built” grading solutions conform to the previously approved Building permit plot plans and the Master Grading Control Plan.

The Development Planning business unit executes a variety of applicable law Planning approvals that are required before Building permit applications can be deemed complete and permits issued.

By-law staff are involved in the coordination of Building Code Act enforcement activities as required.

5.2 Town of Aurora Building DAP Staff Members/Teams

Performance Concepts/Dillon executed a series of one-on-one interviews and small team working sessions involving the following Town staff involved in Building DAP delivery and support. Interactions focused on documenting the “As Is” service delivery model as well as potential performance improvement opportunities to consider when investigating “As Should Be” process streamlining. The staff participants were as follows:

- Chief Building Official
- Zoning Examiners/Intake (Residential/Additions/Renos)
- Zoning Examiner (Multi-Residential & ICI)
- Building Inspectors (Part 3/9)
- Plans Examiners (Part 3/9)
- Engineering (Grading re. Sub-division generated files)
- Engineering (Grading re. Residential Infill generated files)
- Central York Fire (Multi-Res & ICI)
- Development Planners/Committee of Adjustment
- Senior Development Engineer (Grading re. Site Plan generated files)
- By-Law Enforcement Manager
- Electronic Plans Review Project Team
- Director of Corporate Services

5.3 Other Agencies

5.3.1 Central York Fire Service

Central York Fire Department staff provided an overview of the following Building DAP processes/components:

- Responsibilities/accountabilities of Central York Fire with respect to Building DAP. CYF management recognize the benefits of a consistent Fire staff team dealing with Building Code and Fire Code technical interpretation matters on both sides of Occupancy. This technical plans examination role (Life Safety Systems) also supports Fire Suppression planning for complex/high risk buildings in advance of a fire.
- Reviewed standard operating procedures and workflows relating to Building DAP - for example the exclusive focus on Multi-res/ICI applications as opposed to single/semi/townhouse projects.
- Reviewed available Building DAP staff resources/capacity within the current Central York Fire staffing model to deal with Multi-res/ICI applications and inspections.
- Discussion of Aurora’s go-forward Building IT solution - focused on the CityView workflow tool + data population/tracking challenges of participation in an Aurora-only solution.

- Confirmed there is no MOU allocating/guaranteeing an annual allotment of “billable hours” from Central York Fire to the Aurora Planning/Building DAP models. The finite supply of Building Code Act certified Central York Fire staff hours are allocated on a somewhat reactive “as needed” basis.

5.4 Development Community Representatives (BILD)

Performance Concepts participated in an online Round Table hosted by the York Region chapter of BILD. The session was attended by the President of the York Chapter, BILD staff and representatives of local developers. Performance Concepts presented our stress-tested Findings and Recommendations to inform the discussion, solicit feedback/comment and create opportunities for further dialogue between BILD and the Town.

The Building DAP Review was well received by BILD. Round Table participants offered practical observations and advice around performance improvements opportunities. The advice received from BILD has informed the recommendations in this Final Report.

5.4.1 Process Improvement/Streamlining

Section 6.7 of this Report documents process problems associated with the Top of Wall Elevations review. BILD offered the following observations/alternative process for ensuring “as built” elevations conform with approved elevations in the Building permit package.

BILD Commentary – Top of Wall Elevations Review:

- Moving forward from the Foundation inspection for houses, it may be feasible to have the applicant’s Surveyor sign-off on approved versus as-built elevation variances (tolerances).
- This would involve amending Town of Aurora policies/practices. A Surveyor’s documented sign-off would by-pass the Town’s current Engineering staff review of “as built” elevation variances versus tolerances.
- BILD supports a Top of Wall Elevation review and the need for a required/timely sign-off within the Town’s CityView workflow tool.

Section 6.4 of this Report documents the Town’s overlapping Site Plan + Conditional Permits + Complete Above-Ground Permits model. BILD is supportive of the overlapping model and noted the opportunity for more aggressive overlaps.

BILD Commentary – Site Plan/Building Permit Overlap re. Above Ground Permits:

- Precedent in Vaughan should be emulated by Aurora. In Vaughan, the CBO issues Conditional Building Permits for above-ground construction before Site Plan agreement execution.
- The current Town practice is to issue above-ground Building Permits only after the Site Plan Agreement is executed. This ensures applicable law is in place before construction proceeds. The departure from current Town practice would be significant if the BILD commentary were put into place.

5.4.2 Modernized DAP Technology

BILD is supportive of DAP cloud-based portal/workflow tool modernization. BILD participants made it clear that the development community has a stake in effective state-of-the-art DAP technology modernization. The following observations/advice have been offered:

BILD Commentary – DAP Technology Modernization

- A wide range of DAP cloud-based portal/workflow tool solutions are available in the market. Municipalities, such as the City of Toronto, are looking beyond traditional server-based solutions like AMANDA and CityView.
- BILD members are not convinced that CityView offers the functionality associated with other products in the marketplace. They believe the Town should consider a cloud-based solution beyond CityView.
- An expanded YorkTrax option also needs to be considered as do other modernization options supported by Provincial digital funding pools (e.g. Onwards Acceleration Fund).
- BILD wants to enter into a dialogue with the Town about a new state of the art cloud technology portal/workflow solution that meets industry and municipal functional requirements.

5.4.3 Public Accountability Reporting

This Final Report makes recommendations around key performance indicators (KPIs), performance targets, and public results reporting. BILD offered the following observations:

BILD Commentary – Public Accountability Reporting

- BILD strongly supports public results reporting, DAP performance transparency and the ability to track progress of DAP files using portal technology.
- BILD strongly supports the Final Report recommendation to create an annual performance assessment/briefing with the Town concerning Planning and Building DAP performance.

5.4.4 An Ongoing Dialogue

The Performance Concepts/Dillon team strongly supports a formal process for dialogue and collaboration between BILD and the Town (see BILD Letter). In order for Building DAP to function at a high level, applicants and Town staff need to execute a streamlined plans examination and inspections process.

A dialogue focused on process execution and technology modernization represents a win-win opportunity. To this end, the written commentary received by BILD represents a strong foundation for improving Building DAP and has been attached as an appendix to this Report. Performance Concepts is confident that Town staff and Council will support an ongoing dialogue to improve DAP.

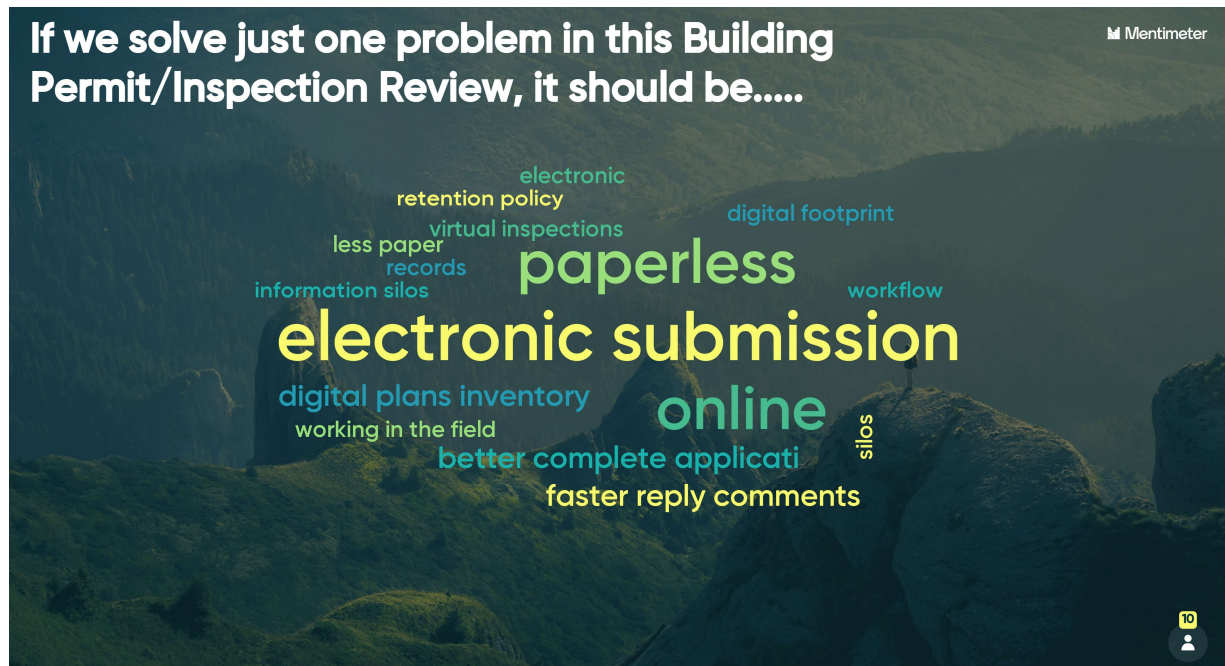
6.0 Building DAP “As Is” Service Delivery Model: Overarching Observations & Core Processes

6.1 Staff Mentimeter.com Survey Results

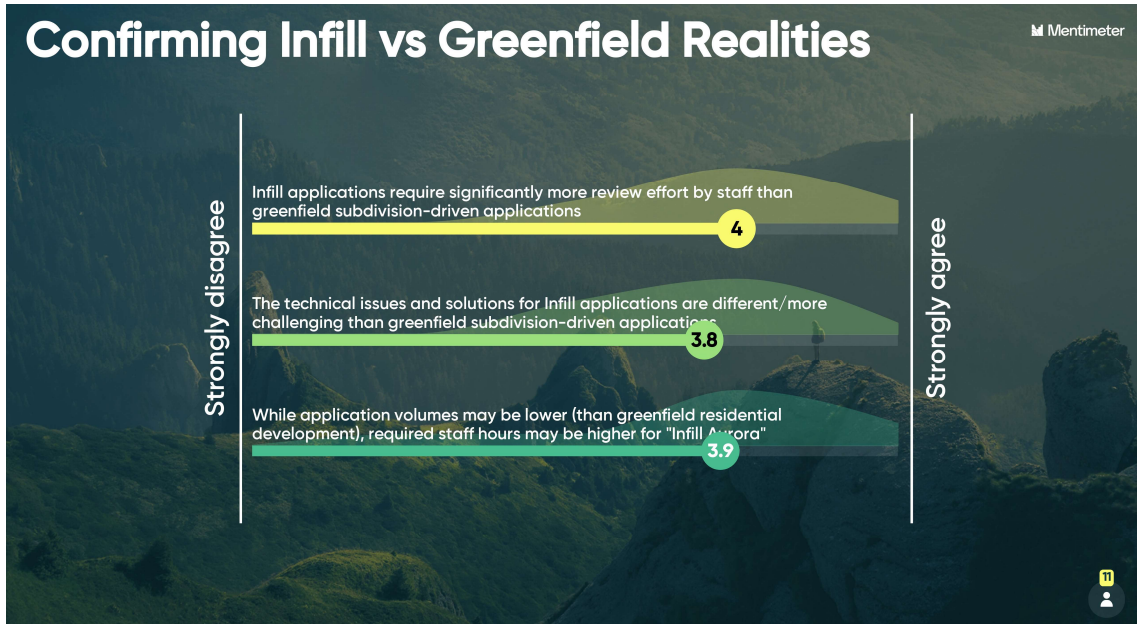
At the beginning of the review Town staff participated in a facilitated working session using the online Mentimeter.com interactive polling tool. Staff responses to a series of questions/statements were recorded in real time and then used to prompt interactive discussions around *As Is* operational realities and *As Should Be* improvement opportunities.

A series of staff response highlights from the Mentimeter.com exercise are set out below. These staff interactive survey responses provide important insights into performance issues addressed during this review, and they have informed Findings/Recommendations set out by Performance Concepts/Dillon in this Report.

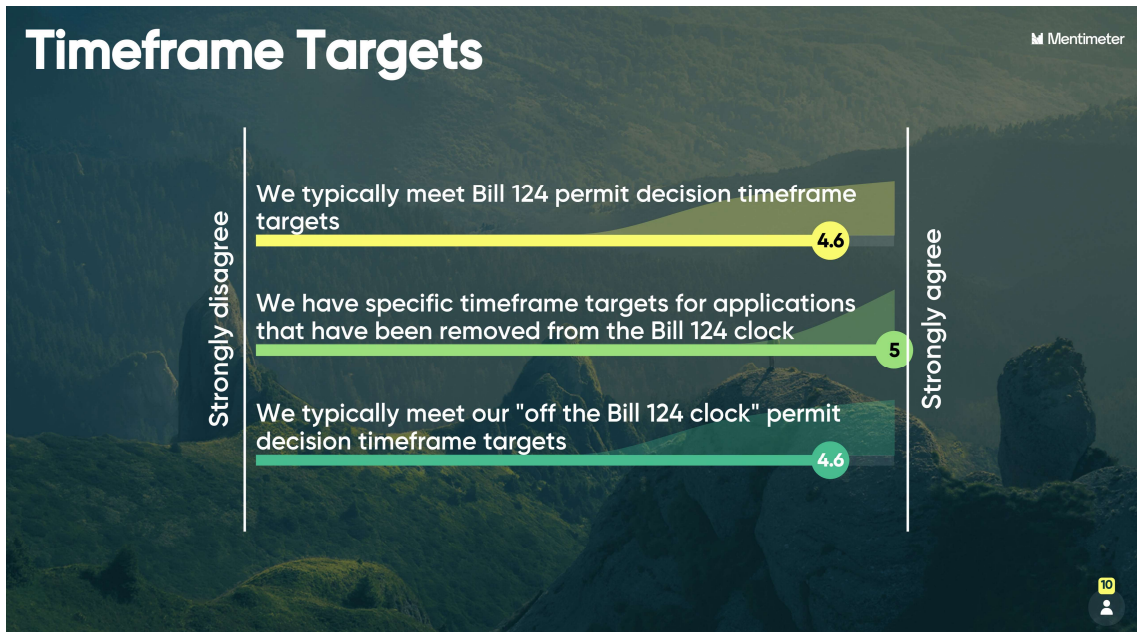
Building Division staff reported that technology driven modernization (e.g. electronic plans submissions + paperless online workflow tools) will improve processing efficiency and reduce silos.



There is a strong consensus that infill-driven growth requires more staff processing effort to deal with complex/challenging files. While permit volumes may be lower, more staff hours of processing effort may be required moving forward.



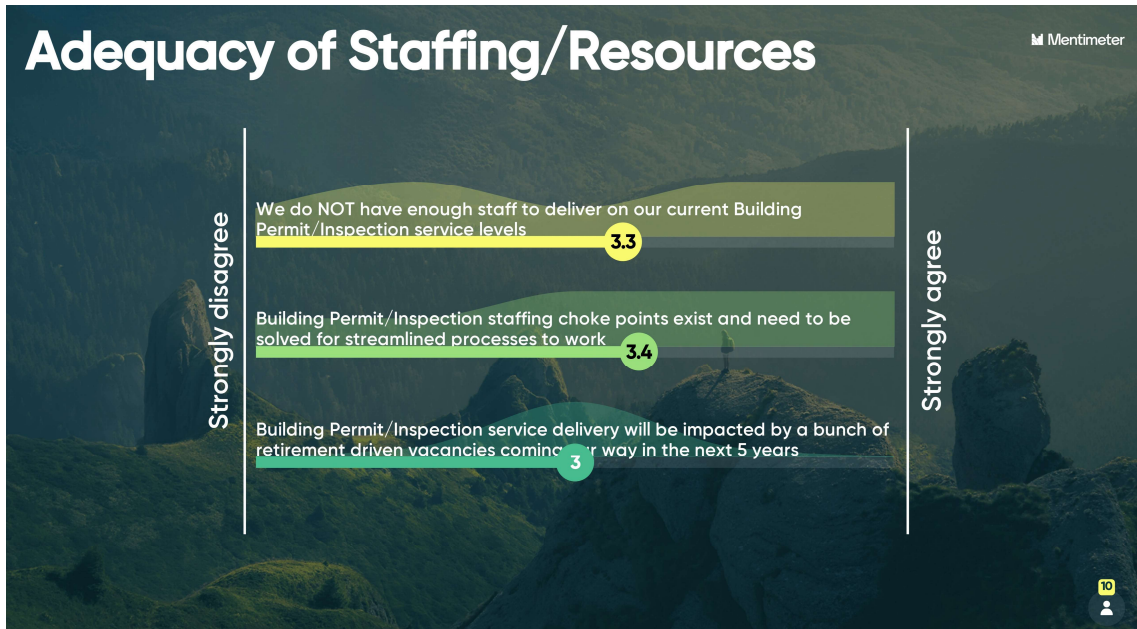
Staff report that “on the clock” and “off the clock” permit decision timeframe targets are being met by Aurora. This suggests that Aurora’s “As Is” processes are already reasonably efficient and effective.



There is a very strong consensus that upcoming technology/data management improvements will leverage the efficiency of the current staffing model. Technology enhancements can be an effective substitute for additional staffing when dealing with workload spikes.



Some staff believe staffing enhancements are needed. There is recognition that some permitting/inspection processing chokepoints exist and need to be resolved.



Staff believe the 2021 Building DAP Review should pave the way for improved efficiency via technology driven process streamlining and the removal of organizational silos.



6.2 Looming/Remaining Sub-division Generated Building Permit Pressures

Aurora is currently experiencing a transitional period of development in its evolution towards a post-greenfield mature community. Planning and Building DAP are both impacted/challenged by this transitional period of development. This complex greenfield/infill hybrid development pattern was addressed in the Town’s Phase 1 DAP Modernization Report, but if anything it is even more impactful for Building DAP.

The prolonged sub-division driven greenfield period of growth in Aurora is approaching its conclusion, but significant residual processing of draft plan approved residential lots remains to be completed. The following table documents this residual greenfield Building DAP workload. The timing of this greenfield Building DAP workload is unpredictable and constitutes a DAP processing capacity/execution risk moving forward. Hundreds of lots will eventually require Building permits, multiple inspections and eventual Occupancy approvals.

Estimated # Draft Plan Approved Lots Not Yet Registered	% Draft Plan Approved Lots with 3-Year Lapsing Provision	% Draft Plan Approved Lots without 3-Year Lapsing Provision
400 lots allocated across approximately 15 Registration phases still in progress	Over 30% of the 400+ Draft Plan approved lots are on a 3-year deadline for achieving registration...may require Draft Plan extensions/updates	Approximately 66% of the 400+ Draft Plan approved lots could come forward for Registration at difficult to predict times
<i>These draft approved sub-division lots/future Registration phases constitute significant greenfield DAP workload yet to be executed</i>	<i>Additional Draft Plan approvals extensions may be required, as well as completion of Registration phases</i>	<i>Applicant decisions to complete the engineering-review-intensive Registration phase may occur without warning moving forward</i>

Aurora is simultaneously experiencing effort-intensive infill Building DAP volumes and teardown/rebuild pressures in its stable neighbourhood catchment area. Close coordination of Building permit processes and overlapping Planning approvals (Site Plan and Minor Variances) will require diligent and disciplined execution.

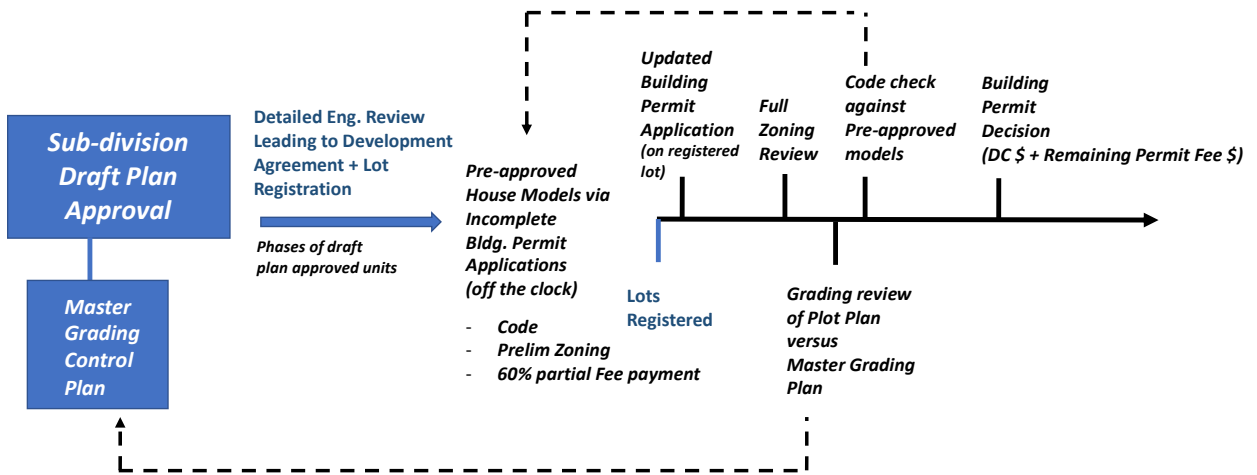
The Building DAP “As Is” service delivery model must be configured to meet the challenges of Aurora’s transitioning development profile - a combination of high volume sub-division generated residential files plus effort intensive/complex infill files.

The “As Is” Building DAP model has been evaluated using LEAN thinking around simultaneous processing of greenfield and infill service delivery channels. Core Permitting and inspection delivery channels are addressed below.

6.3 Building Permit Approvals Channel 1: Sub-division

The sub-division permit approvals channel delivers a steady annual stream of Single/Semi/Townhouse applications in Aurora. If the sub-division approvals channel were purely sequential (i.e. applicable law in place and permit applications complete), Aurora would not be able to comply with the mandated 10 business day permit decision timeframe given current staffing levels. Instead Aurora employs an overlapping application processing model that is specifically designed to “turn off the clock”. It does so by encouraging/accepting building permit applications prior to lots being legally registered. These applications do not meet the applicable law zoning test, so the Building Code Act processing timeframe target does not apply. Applicants sign a waiver acknowledging this reality. The Building permit is only issued once lots are legally registered and the full review of zoning, grading and Building Code has been completed. Advance review of model homes for Code compliance ensures large numbers of applications can be simultaneously processed/permits issued in timely fashion once lots have been registered.

Residential Building Permit Issuance Process – As Is Overlapping Workflow



6.3.1 Zoning Review

The Zoning review is undertaken in two parts. An initial preliminary Zoning review occurs before lots are registered. This review applies to model home permit applications “off the clock”. The formal Zoning review (a home on a specific lot) takes place after lots have been legally registered.

6.3.2 Building Code Review

The Code review takes place in two parts. The applicant’s model homes (dispersed throughout the subdivision) are first reviewed before lots are legally created. These applications automatically fail to meet applicable law requirements and they automatically are “off the clock”. Once lots are legally created, pre-approved models are then located on specific lots. Plans examiners execute a quick/easy Code check to ensure the lot-situated models continue to meet Code requirements. The ease of this second review enables a timely review of large numbers of simultaneous submissions.

6.3.3 Grading, Elevation and Drainage

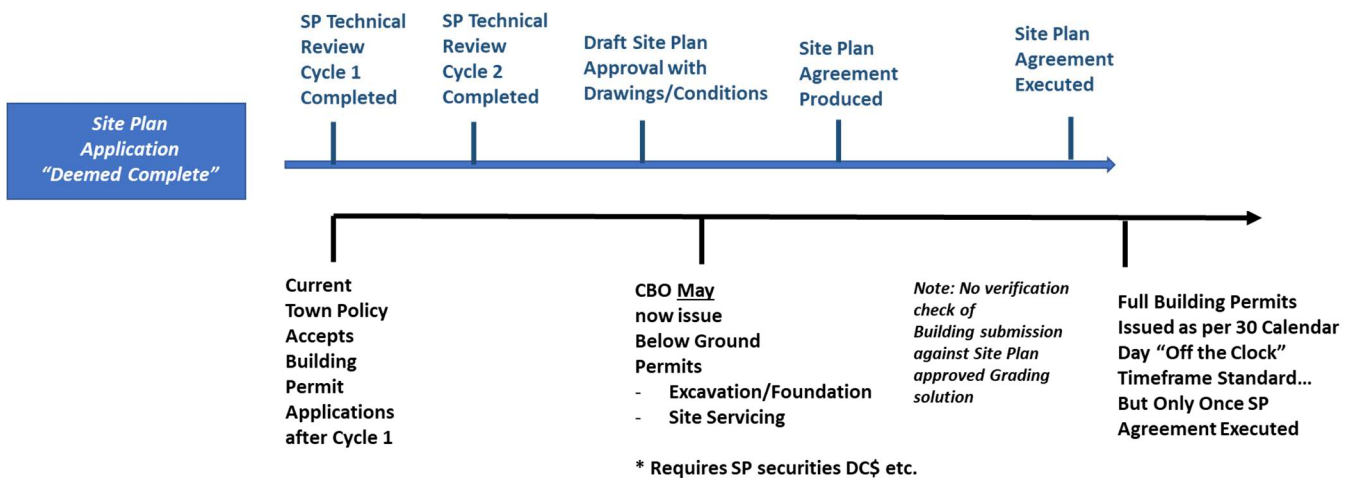
The review of Grading/Drainage by Engineering staff occurs once pre-approved model homes have been situated on specific registered lots. Engineering staff review the submitted plot plan drawing for conformity with the Master Grading Control Plan accepted at the time of sub-division Draft Plan approval. The grading review sign-off from Engineering is an industry-standard requirement across Ontario municipalities for the permit issuance decision eventually made by Building staff.

6.4 Building Permit Approvals Channel 2: Multi-Res/ICI Site Plan

The Site Plan permit approvals channel applies to multi-residential and ICI applications in Aurora. If the Site Plan approvals channel were purely sequential, a building permit application would only be submitted after the Site Plan Agreement has been executed. Instead an aggressively overlapping approvals model is employed by Aurora - a model largely consistent with growth municipality practices across the GTA and the Golden Horseshoe.

The CBO exercises his legal discretionary authority to issue below-ground Foundation and Site Servicing permits (after the Site Plan has been draft approved). Site Plan securities and DC payment are due at this time. Full building permit applications are accepted/deemed actionable after an initial Site Plan technical review cycle has been completed. The Building permit process is “off the clock” at this point. A full building permit is only issued after Site Plan Agreement execution, when Site Plan applicable law requirements have been met.

Multi-Res/ICI Building Permit Issuance Process – As Is Overlapping Workflow



6.4.1 Zoning Review

The Town has an experienced Zoning Examiner that handles all Multi-Res/ICI building permit applications generated by the Site Plan process. This Zoning staffer provides comments during each Site Plan technical review cycle. The same staffer also addresses zoning compliance issues associated with the building permit application/drawings. Once a set of Site Plan drawings are deemed satisfactory from a zoning perspective, they can be used as a reference point for submitted Building drawings. Ideally these two sets of submitted drawings are in fact the *same* drawings. Coordinated Site Plan + Building application sign-offs are the key in the overlapping model.

6.4.2 Building Code Review

The plans examination and Code compliance review by Building staff is based on a level of drawings detail not required for Site Plan approval. Therefore, the key coordination issue is the timing of the Building application submission. Progress in Site Plan technical review is critical in establishing the eventual building footprint and its overall dimensions. Premature Building permit submissions will likely result in the need to re-submit plans once issues involved in Site Plan review have been addressed.

Current Town policy is to initiate active Building submission review after one Site Plan circulation cycle is complete. Municipal practitioners across the GTA often cite two completed Site Plan cycles as ideal in terms of establishing the building footprint and dimensions.

6.4.3 Grading, Elevation and Drainage

The Town’s Senior Development Engineer provides technical review of grading and servicing review for all Site Plans. The grading drawings for Site Plan are not typically approved after one technical review cycle. Therefore, it is unclear that any value is added (from a Building permit perspective) prior to the completion of a second review cycle (at least).

Currently the Senior Development Engineer does not review the overlapping Building permit submission to verify the drawings are identical to the Site Plan drawings used to sign-off on grading. The rationale behind this decision is based on liability/accountability. The applicant and their engineering consultant are legally committed to the Site Plan grading solution in the Site Plan development agreement. If the submitted Building drawings are not identical, then the liability rests with the applicant. Typically, GTA municipalities do a consistency check across the two sets of grading drawings. Municipalities typically do not depend exclusively on the legal commitment associated with the Site Plan development agreement - especially given the fluidity of the overlapping delivery models.

6.4.4 Life Safety (Fire) Systems

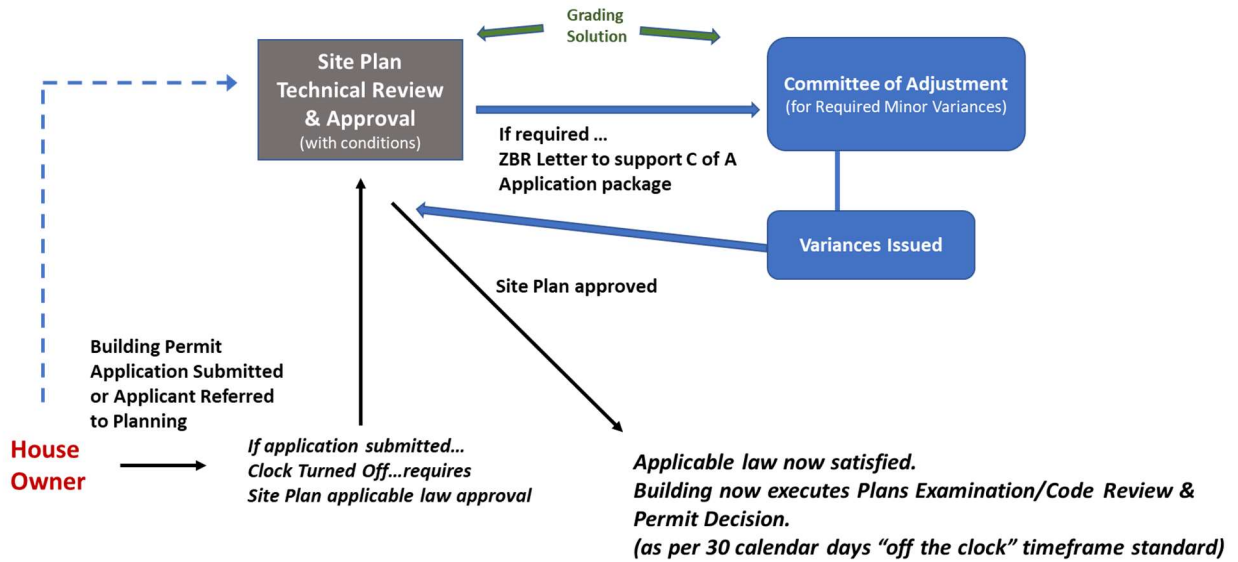
Central York Fire certified staff provide technical comments on Site Plans as well as life safety systems included in a Building permit submission. Currently they work off paper copies of plans/drawings for Building submissions. They do not populate CityView with any of their comments. Town staff populate CityView with their attached comments and provide them to applicants as part of the deficiencies letter.

6.5 Building Permit Approvals Channel 3: Stable Neighbourhood “Infill”

Teardown/re-build projects in the Town’s designated “stable neighbourhood” catchment area are subject to Site Plan control through the Stable Neighbourhoods Review process. Often applicants come to the Town initially seeking a building permit. They are then informed of the Stable Neighbourhood Site Plan requirement. Conversely applicants may already understand the need to apply to Town Planning staff for a Site Plan approval prior to a building permit. As Site Plan review proceeds the Zoning

Examiner produces the ZBR letter that sets out zoning compliance issues. Applicants may need to proceed to the Committee of Adjustment for Minor Variances before the Site Plan can be approved. Once Site Plan is approved (with or without Variances) then Building staff can proceed with plans examination and arrive at a permit decision. The Building permit will be delayed by Minor Variance appeal period if Minor Variances were required to secure Site Plan approval.

Stable Neighbourhood “Tear Down/Re-Build” Building Permit – Typical As Is Workflow



6.5.1 Zoning Review

Zoning staff have two distinct but interrelated responsibilities:

- Produce the ZBR letter to support Site Plan technical review process + Committee of Adjustment consideration of Variance applications (if required)
- Ensure consistency of Building permit drawings with approved Site Plan drawings re. zoning matters/Variances

6.5.2 Building Code Review

Plans examination is triggered by Site Plan technical review/approval timing, and the applicant’s decision about when to submit the Building permit application. If Minor Variances are required then a Building permit application is ideally submitted during the 20 day appeal period. A permit can be issued the day after the Minor Variance appeal period ends.

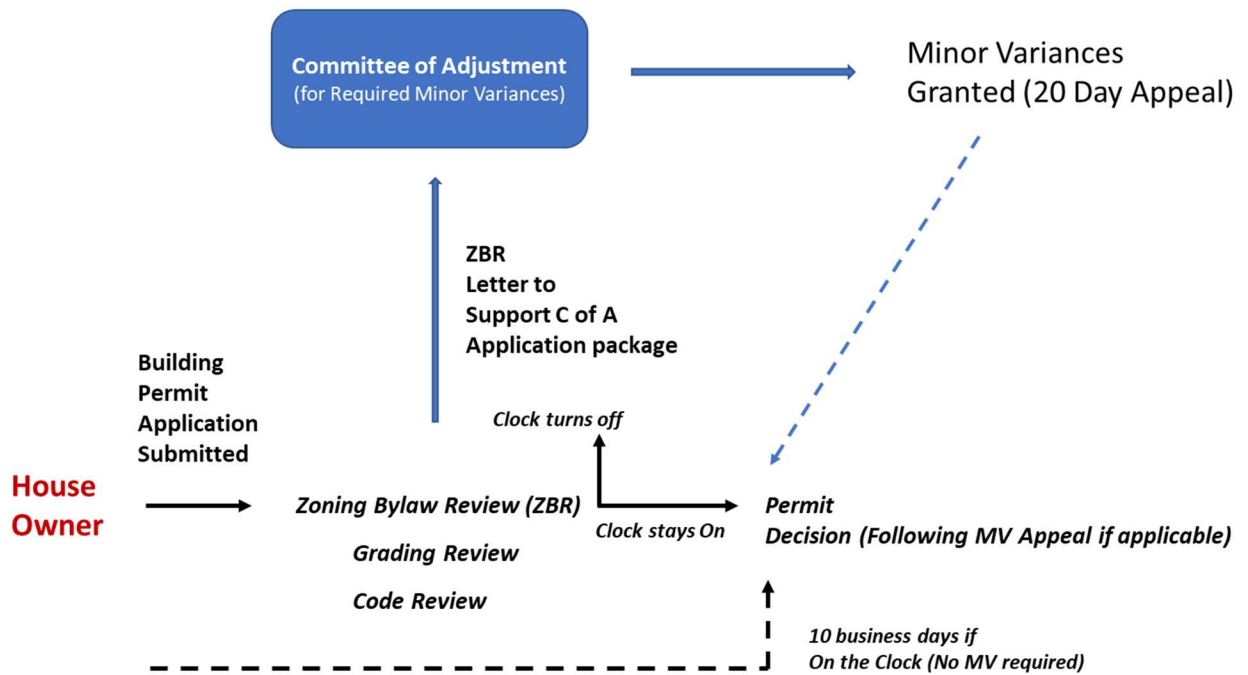
6.5.3 Grading, Elevation and Drainage

Engineering staff review the grading requirements for the Stable Neighbourhood Review Site Plan and the Building permit submission plot plan. The key is consistency of the Building plot plan information with the approved Site Plan (plus Minor Variance as required) drawings and conditions.

6.6 Building Permit Approvals Channel 4: Rest of Town “Infill”

Infill tear down/re-build residential building permits for individual lots of record outside the Stable Neighbourhood area do not require Site Plan approval. Infill Multi-res/ICI files proceed through the Site Plan review process in the same way greenfield Multi-Res/ICI Site Plans are processed.

Infill “Tear Down/Re-Build” Building Permit – Typical As Is Workflow



6.6.1 Zoning Review

The ZBR review of the Building permit submission may identify deficiencies that require a Minor Variance (supported by ZBR letter). If not, the application proceeds “on the clock” to a 10-business day permit decision. If Minor Variances are required, then a Building permit can only be delivered after the 20-day appeal period has ended.

6.6.2 Building Code Review

If no zoning deficiencies are identified, the plans examination/Code review must be compressed within the 10-day permit decision period. If a Minor Variance is required, a significantly lengthened time period is provided before Building permit issuance - reflecting the 20-day appeal period for Variances.

6.6.3 Grading, Elevation and Drainage

Following Building permit submission by the applicant, Grading review/approval is compressed “on the clock” if no Variances are required. Conversely grading review is provided for the Minor Variance application at Committee of Adjustment. The Engineering staff ensure consistency of the approved Minor Variance drawings with the Building permit application grading plot plan drawings.

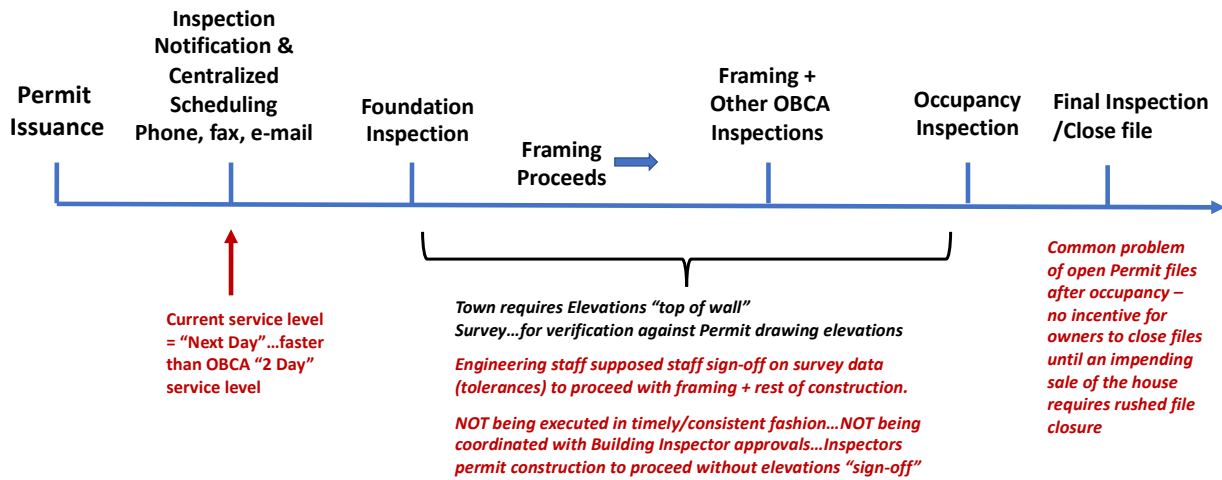
6.7 Inspections + Occupancy Permit + Open Permits

Building Code Act mandated inspections for sub-division generated housing are centrally scheduled by Building admin staff. Inspections are typically scheduled for “next day” - surpassing the Building Code Act mandated 2-day timeframe. A processing pain point has been documented at the time of the Foundation inspection. It involves foundation elevations. The Town requires applicants to provide a valid survey with “top of wall” elevation shots + four corners. Zoning staff review the four corners survey data and Engineering staff review the “top of wall” information. Engineering staff compare the “top of wall” variations compared to the approved elevations set out on the approved permit drawings. If variations are excessive, remediation may be required by the builder. If this elevation review “pause” has any meaningful impact, it must be timely and must precede the builder moving on with framing and subsequent inspections.

Town staff report frequent delays by builders in supplying the survey. Since Engineering staff do not populate City View it is unclear how quickly this step is performed after survey receipt. What is clear is that Building inspectors proceed with Framing and other inspections without the elevations “pause” being executed and documented in timely fashion within CityView. There have been occasions when applicants are poised for the Occupancy inspection, and the “top of wall” elevations sign-off from Engineering is still not in place.

A final pain point to consider is the vexing problem of open permits after Occupancy has been granted. This problem is universal across almost all GTA/Ontario municipalities. Once granted Occupancy the incentive for applicants (or their builders) to address final/minor outstanding inspection issues is much reduced. In fact owners may not even be aware that open permits exist or are a problem. These open permits become an urgent issue when a sale of the house is subsequently being undertaken. The sale cannot close until the permit is closed and the title search is deemed clean. This last minute panic request for a final inspect disrupts planned work assignments in Building departments.

Sub-division Generated Residential Inspection Process – As Is Workflow Coordination Problem



6.8 Post-Construction Compliance: Conditions and Securities

Following Occupancy, Aurora enters the post-construction phase of DAP. A range of Town development agreements are in play at any given point in time - both Site Plan and Sub-division agreements. These agreements feature a series of refundable securities, as well as the timely provision of various assets/amenities. The “As Built” verification of grading solutions in constructed sub-divisions is an important example.

The Town currently has very limited staff inspection capacity (Planning/Building/Engineering/Parks) available to ascertain whether or not agreement signatories are living up to their legally binding obligations as set out in various development agreements. To date, Town staff involved in Planning DAP and Building DAP approvals processes (setting out agreement conditions) are the same staff that might venture into the field to execute inspections confirming condition compliance. Field inspection time robs DAP application processing capacity - thereby creating a potential capacity gap.

The absence of designated inspection staff able to rigorously ensure compliance with development agreements is a significant source of risk. The default position is for the Town to depend on condition confirmation by applicants and their consultants - stamped “As Built” confirmation letters etc. The problem with this approach in the experience of Performance Concepts/Dillon is that these applicant assurances can prove to be incorrect and that transferred liability to applicants actually won’t protect the Town in a civil matter where “everybody gets sued”. Larger Ontario cities have successfully deployed specialized inspectors to deal with a range of DAP agreement compliance issues (e.g. Toronto, Ottawa). Aurora’s post-construction resourcing challenge is common across mid-sized growth municipalities.

6.9 Building DAP Staffing and Workload Capacity

Using Aurora data compiled within the 2019 Ontario “Large Urban” Building Services peer data set, the following workload processing metrics have been developed by Performance Concepts/Dillon:

- Aurora processes approximately 92 Building permits per Building Division staff member. These files reflect a mix of building complexities across Part 3 and Part 9.
- Aurora processes 16.4 residential Building permits (sub-division houses etc.) per Building Division staff member.

These Aurora 2019 staff workload processing ratios are quite efficient compared to the municipal peers set out in *Section 8.1.5* of this Report which contains in-depth comparisons. Aurora’s five municipal peers average 62 total Building permits per staff member and 14.6 residential Building permits per staff member.

Processing capacity additions (i.e. staff) moving forward would not materially erode Aurora’s overall competitive productivity versus the five peers. *Section 8.1.5* of this Report contains the detailed peer by peer workload processing metrics that could be used to justify added staffing.

6.10 Documented Building Division Policies and Procedures

Town Building staff provided the review team with a comprehensive list of policies and detailed procedures. The following policies/procedures were reviewed in detail by Performance Concepts/Dillon:

- | | |
|--|-------------|
| • Foundation Survey | 2006 |
| • Payment of Building Permit and Related Fees | 2006 |
| • Model Home Agreement | 2007 |
| • Building and Partial Permits for Projects Subject to SPA | 2008 |
| • Procedures for Construction without a Permit | 2008 |
| • Inspection Logs and Status Results | 2009 |
| • Permit Process and Procedures | 2009 |
| • Properties of Cultural Heritage Value or Interest | 2010 |
| • Collection of Occupancy & Road Damage Deposits | 2018 |

On a global level the following observations are offered:

- Aurora’s policies and procedures are somewhat dated. For example, the policy on Inspection Logs references log entries “...placed in the binder located in the administration section” and Inspectors relying on their own notes and inspection reports.”
- CityView’s workflow functionality was significantly improved in its 2013 version. Aurora’s Building Division made significant improvements in CityView workflow and timeframe tracking using the 2013 software update. Most of the Town’s core Building policies/procedures pre-date the 2013 CityView upgrade.
- The imminent transition to electronic plans examination in Q2 2021 will further marginalize the existing documented policies and procedures. Technology advances accelerate the useful lifecycle of documented procedures. For example, the *Inspection Logs and Status Results* procedure references “...future CityView enhancements that will automate inspection scheduling and recording.”
- Policies and procedures speak only to the roles and responsibilities of Building Division staff in the Building DAP process. The Building DAP roles of staff in Engineering and York Central Fire are not documented or referenced in detail.

6.11 Building DAP Technology Platform

The Building Division Mentimeter.com survey made it clear that Aurora staff believe technology modernization can be a game changer for Aurora’s Building DAP model. As already noted in the Phase 1 DAP report, Aurora made a corporate commitment to the CityView permitting and workflow tool more than a decade ago. CityView is currently being deployed as a server-based software application with Building DAP workflow functionality that has evolved over time - becoming quite robust after the 2013 upgrade. The Building Division has historically taken the lead in Aurora in terms of integrating its operations/processes within CityView’s workflow functionality. The Building Division has developed permit decision timeframe reporting capabilities within CityView, enabling staff to track actual timeframes against “clock on” and “clock off” timeframe targets. The Building Division has also developed building application data templates within CityView to collect relevant data/information and attach it to workflow progression milestones.

6.11.1 Phase 1 - Electronic Submission + Bluebeam Drawings Mark-up

Technology modernization is afoot in Aurora’s Building DAP delivery model. A technology modernization project (Phase 1) is underway to support online application submission and electronic (no paper) review and mark-up of drawings. Using CityView “Plans Drop” and “Bluebeam” drawings submission/markup technology, Aurora is poised to launch electronic application submissions and fee payments by applicants (Paymantis). This Phase 1 technology modernization initiative will commence in Q2 2021.

6.11.2 Phase 2 - Cloud Based Portal + Upgraded CityView Workflow Tool

A subsequent phase of Aurora’s DAP IT platform modernization is currently in its formative planning stage - featuring a cloud-based version of CityView with an online DAP portal (firewall protected) for streamlined submission intake and fee payment. This cloud-based version of CityView has functional capabilities that allow applicants to track the progress of their files across DAP process milestones. Actual processing timeframes could be compared against targeted timeframes using countdown clock reporting. A Town capital project to fund acquisition/implementation of the Phase 2 solution was approved by Council in the 2021 budget. The Phase 2 project will build on the “bridging” automation delivered by the Phase 1 project - making use of superior technology platforms and improved workflow tool functionality. Project management/staffing recommendations made in our Phase 1 Planning DAP Final Report continue to be valid/appropriate.

6.11.3 Technology Challenges Moving Forward - Building Department

The Building Division is highly committed to the productivity benefits of IT modernization. These benefits will be enhanced by workstation re-configuration (i.e. ergonomic work platforms + larger high quality monitors) to facilitate Bluebeam drawings mark-up. Paperless processes require an appropriately re-configured paperless workspace model to generate a full range of efficiencies.

6.11.4 Technology Challenges Moving Forward - Other Departments

Engineering staff are embedded in Building DAP delivery processes (Grading review/Survey Elevations) but they do not currently populate the CityView workflow tool.

By-law staff occasionally work within Building DAP and also with separate by-law enforcement service delivery channels. The By-law business unit is currently not ready with “As Should Be” mapped processes required for the Phase 2 Portal/cloud-based CityView upgrade

6.11.5 Technology Challenges Moving Forward - York Central Fire

Central York Fire staff are imbedded in Building DAP delivery processes (Multi-res/ICI plans review and inspections) but they do not currently populate the CityView workflow tool.

Central York Fire staff note that Aurora and Newmarket have differing workflow solutions that would require them to be literate in two system “languages”. Central York Fire staff note that the documentation/tracking/reporting burden posed by two differing workflow systems in Aurora and Newmarket could be onerous.

6.12 Cost Recovery Model - Building DAP Fees and Reserve Fund

Aurora’s Building DAP model is an enterprise model - it has been designed to recover 100% of its operating and capital costs from applicants. Building DAP should have zero impact on property taxes.

The Building Code Act sets the ground rules for Building DAP cost recovery. The Act specifically requires that permit fees “must not exceed the anticipated reasonable costs” of Building related services at the global level. This means that subsidization across/within the Building permit fee schedule is permitted, unlike Section 69 of the Planning Act which prohibits subsidization across fee categories.

There is also a requirement to annually report the Direct and Indirect costs of Building Code Act service delivery. This reporting provides transparency about cost recovery deficits or surpluses (aka profits). Permit fees can also cover anticipated costs, which strongly suggests reserve fund contributions are legitimate fee supported expenditures.

6.12.1 Reserve Funds Design

At the end of 2019 Aurora had a Building Reserve Fund balance of \$5.6 million.

Ontario municipal “best practices” around Building DAP Reserve Fund design/management include the following:

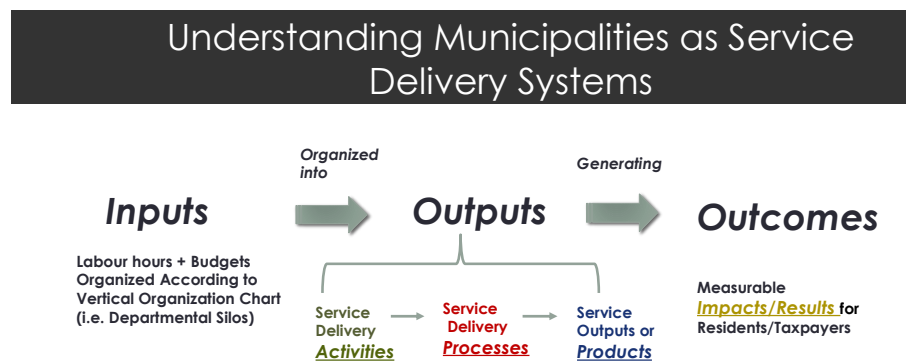
- A third party expert study establishing full-cost Building DAP permit fees and a modeled Reserve Fund accumulation strategy
- A risk management based rationale for the Reserve Fund - commonly referencing the need to maintain credential Building staff during/across an economic downturn/recession in order to ensure they are available during the subsequent economic recovery. The length of the “insured” economic downturn correlates directly with the \$ amount of the Reserve Fund target balance.
- A Reserve Fund target balance (\$) expressed as a multiple of annual direct/indirect costs. This metric demonstrates how many years of processing effort “insurance” is deemed appropriate.
- A policy that describes the categories of operating + capital costs eligible for funding via a reserve fund withdrawal. Direct delivery staff salaries, fleet, IT tools, workflow software licenses, and supporting hardware are common cost objects deemed eligible for coverage.

A Reserve Fund target carries an explicit message to the development community. Once the target balance has been achieved it is not appropriate for the municipality to indefinitely accumulate a higher balance. After all, municipalities are not banks, with a mission to maximize revenues. Modeled permit fee reductions can be considered to minimize any long term excess revenue stream.

Aurora does not have a Building DAP Reserve Fund target balance or any formal policy rationale for Reserve Fund expenditures/withdrawals. Aurora’s 2019 Reserve Fund Balance represents three times its 2019 annual total spending - a very aggressive multiple. Aurora’s Reserve Fund balance and 3x multiple significantly exceed its peer municipalities (see *Section 8.1.5* of this Report).

7.0 Towards Results Based Management - Key Performance Indicators (KPIs)

Building DAP is a horizontal service delivery *system* that involves multiple staff participants within multiple Town business units and the Central York Fire Service. Building DAP is delivered via a series of core service channels/processes for different types of development processes. These service channel/processes produce countable outputs (i.e. permit decisions/inspection decisions). These countable outputs/products create positive outcomes/impacts for both applicants and the existing community.



The Building DAP service delivery system is complex due to the multiplicity of actors and approvals processes associated with different types of construction and the Planning DAP channels that generate Building applications. But Building DAP is measurable and manageable when the right mix of data management and performance measurement tools are brought into play.

7.1 Evaluating Current Building DAP KPIs

In order to select and implement the right Key Performance Indicators (KPIs) for Building DAP, the first step is to clearly define the desired results of various Building DAP service delivery channels. The following figure speaks to desired Building DAP results around capacity, timeliness, and applicant/stakeholder satisfaction with the Building DAP approvals journey.

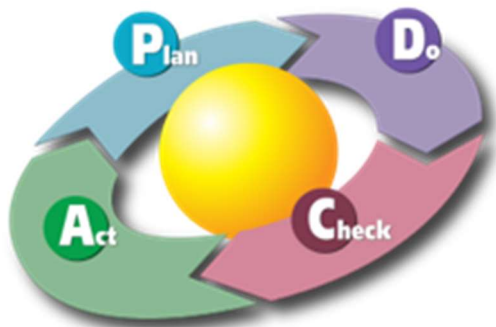
KPIs must answer three fundamental “good management” questions that pertain to Building DAP.:

- How many countable units of service can we produce? (i.e. billable permit/inspection processing hours)
- What is the cost/price of that service? (i.e. unit cost per billable processing hour)
- What level of effectiveness/quality (i.e. decision timeliness) is being achieved?

7.2 Building DAP Scorecard and Accountability Reporting

Results Based Management (RBM) is a cyclical approach/model for achieving efficient and accountable municipal service delivery. The RBM cycle consists of *Plan-Do-Check-Act* components. Building DAP performance targets and a properly resourced delivery model define the “Plan” component. Consistent and dependable execution of mapped/measured processes define the “Do” component. The “Check” component involves the comparison of actual results (i.e. processing timeframes) against performance targets. Based on the “Check” information and conclusions, the “Act” component involves performance target refinements, resourcing adjustments and/or process execution changes. “Act” is all about continuous improvement.

Results Based Management - A Cycle of Continuous Improvement



As was the case for Phase 1 Planning DAP, a modernized Aurora Building DAP model should feature an RBM cycle supported by KPI-derived performance targets. An annual KPI supported Building DAP performance scorecard should be produced and publicly reported to foster transparent accountability. Annual budget decision making should be informed by the Building DAP Scorecard.

The following Building DAP desired performance results can inform the design of a publicly reported Scorecard.



- 1. Stable/adequate capacity to process Building DAP applications



- 2. Timely Building DAP processing/decisions to achieve mandated & targeted timeframes (Countdown clocks)



- 3. Building community/stakeholder satisfaction with Building DAP “off the clock” timelines & value-for-money & IT ease-of-use

Aurora has already developed timeframe reporting capabilities in CityView for Building DAP. The following table sets out a summary of “processing lanes” and the timeframe reporting metrics that apply to each. Most importantly the table also confirms the triaged order/ranking of files in the various categories (A,B,C) when it comes to processing decisions and allocation of finite staff resources.

New Permit Processing Lanes	Proposed Timeframe Target	Triaged Ranking of Applications	Rationale for Triaged Ranking
Processing Lane 1 Residential “On Clock”	OBCA mandated permit decision timeframe	Priority level A	<ul style="list-style-type: none"> OBCA legislative mandate
Processing Lane 2 Residential “Off Clock” via Applicable Law	20 business day “off the clock” timeframe standard	Priority level B	<ul style="list-style-type: none"> Overlaps with Planning Act approvals creating efficient development approvals process (DAP) with overall reduction in thru-put times for applicants
Processing Lane 3 Residential “Off Clock” via Incomplete Technical Submission	“Best efforts” completion following receipt of missing information	Priority level C	<ul style="list-style-type: none"> Lower-level priority for processing - avoids customer service trap of condoning lower quality/incomplete applications
Processing Lane 4 Multi-Res & ICI “On Clock”	OBC mandated permit decision timeframe	Priority level A	<ul style="list-style-type: none"> OBC legislative mandate
Processing Lane 5 Multi-Res & ICI “Off Clock” via Applicable law	20 business day “off the clock” timeframe standard”	Priority level B	<ul style="list-style-type: none"> Overlaps with Planning Act approvals create efficient development approvals process (DRP) with overall reduction in thru-put times for customers
Processing Lane 6 Multi-Res & ICI “Off Clock” via Incomplete technical Submission	“Best efforts” completion following receipt of missing information	Priority level C	<ul style="list-style-type: none"> Lower-level priority for processing- avoids trap of condoning lower quality/incomplete applications

“A” level priority files are complete files (including applicable law). These high quality submissions must be processed according to Building Code Act mandated timeframes for a permit decision. Other files must be put aside when these priority applications are on the processing conveyor belt.

“B” level priority files are technically complete but lack the required applicable law approvals at time of submission. The majority of Aurora’s core applications fall into this category due to the Town’s efficient overlapping Planning DAP/Building DAP processes (Sub-division + Site Plan generated files). The “off the clock” permit decision timeframe target (unofficially adopted by Aurora staff) should apply.

“C” level files are technically incomplete files. If these files are accepted at all by the Town, they should be put aside until applicants provide missing information. No specific permit timeframe target need apply.

8.0 Building DAP Peer Comparisons/Insights

8.1 “Large Urban CBOs” Dataset

The Chief Building Officials of Ontario’s large urban municipalities have developed a reliable/useful data set for peer comparison purposes. Highlights of the 2019 data set are set out in tables below.

Performance Concepts/Dillon have selected five “best available fit” peer comparators for Aurora:

- Cambridge
- Guelph
- Newmarket
- Oshawa
- Richmond Hill

These comparators include two York “border” municipalities, a GTA municipality in Durham, and two additional Golden Horseshoe municipalities. Population density and permit volume data were used to establish the portfolio of comparators.

8.1.1 Comparators Profile

Aurora’s “best available fit” peers are as follows:

Municipality	Population	Area (km ²)	Population Density (pop/km ²)	Permit Applications	Value - issued permits	SFD, Semi & Townhouse
AURORA	62,900	50	1,258	1,199	\$414,610,280	213
CAMBRIDGE	136,810	115	1,190	1,642	\$455,980,194	590
GUELPH	131,794	87	1,515	2,218	\$672,206,832	208
NEWMARKET	88,000	39	2,256	544	\$88,524,500	50
OSHAWA	167,000	143	1,168	980	\$327,062,200	172
RICHMOND HILL	209,000	100	2,090	1,865	\$450,712,477	690
Average of Comparators	146,521	97	1,644	1,450	\$398,897,241	342

While none of the individual peers constitute a perfect fit with Aurora, the overall pool represents a reasonable set of comparators for high level analysis. The average of permit applications processed by the peers (perhaps the key data point) tightly fits with the Aurora data.

8.1.2 Permit Decision Timeframes

Aurora's median completion timeframes for ICI buildings are somewhat longer than the reported average of the peers. Aurora's house completion median timeframe (11 days) closely tracks with the average of the peers. Given the overlapping nature of Aurora's Planning DAP/Building DAP model it is not clear how Aurora can report 90% of applications as "complete". This implies these files are being processed "on the clock" with applicable law in place. Yet if the median time for an Aurora House permit decision is 10 days, then half the processed houses are not complying with the "on the clock" mandated Building Code Act timeframe. Caution is warranted in interpreting the data in this chart - it appears different municipalities have made differing assumptions.

Municipality	% Complete Applications	Median days houses	Median days Small Bldgs	Median days Large Bldgs	Median days Complex Bldgs
AURORA	90	10	15	20	30
CAMBRIDGE	100	20	14	15	25
GUELPH	100	10	9	14	19
NEWMARKET	39	4	5	6	8
OSHAWA	71	10	17	24	17
RICHMOND HILL	N/A	N/A	N/A	N/A	N/A
Average of Comparators	78	11	11	15	17

8.1.3 Fees and Reserve Funds

Aurora's reported ICI fees are lower than the average of the peers - good news from an economic development perspective. ICI buildings generate more property tax revenue per dollar of assessment compared to residential buildings. Aurora's Single Dwelling permit rate is significantly higher than the average of the peers. This rate generates the excess revenue stream that is feeding Aurora's Reserve Fund.

Municipality	Single Dwelling	Townhouse	One Storey Plaza Shell	Multi-Storey Office Shell	Industrial Warehouse
AURORA	\$16.40	\$16.40	\$12.30	\$12.30	\$10.30
CAMBRIDGE	\$15.39	\$15.39	\$13.35	\$20.77	\$10.66
GUELPH	\$15.28	\$15.28	\$16.90	\$16.90	\$1.75
NEWMARKET	\$14.65	\$14.65	\$9.91	\$9.91	\$10.06
OSHAWA	\$13.82	\$13.82	\$12.70	\$13.98	\$13.41
RICHMOND HILL	\$15.55	\$15.55	\$16.65	\$21.30	\$9.05
Average of Comparators	\$14.94	\$14.94	\$13.90	\$16.57	\$8.99

Aurora's Reserve Fund balance is higher than the average of the peers. The Aurora Reserve Fund annual spending multiplier of 3.03 is the highest among the peers. Despite having the second highest Reserve Fund balance (\$5.6M), Aurora is the only peer without an explicit Reserve Fund target balance.

Municipality	2019 Total Permit Fees	Direct Costs (Optional)	Indirect Costs (Optional)	Reserve Balance	Target Balance as a Multiple of Annual Spending	Reserve Balance - Multiple of Annual Spending
AURORA	\$1,760,332	\$1,347,190	\$515,400	\$5,643,638	No	3.03
CAMBRIDGE	\$3,499,132	\$1,820,606	\$678,080	\$3,439,900	1.5	1.38
GUELPH	\$5,183,594	\$2,770,091	\$527,300	\$4,239,686	1 - 1.5	1.29
NEWMARKET	\$2,353,983	\$1,882,252	\$471,731	\$4,158,885	1.5 - 2	1.77
OSHAWA	\$3,371,000	\$2,668,000	\$555,000	\$8,333,000	2	2.59
RICHMOND HILL	\$5,130,862	N/A	N/A	\$4,100,000	N/A	N/A
Average of Comparators	\$3,907,714	\$2,285,237	\$558,028	\$4,854,294	1 - 2	2

8.1.4 Roles & Functions

The staffing model/role descriptions across the peers are quite diverse. Performance Concepts/Dillon have no specific performance observations to offer. Only two of the peers currently offered on-line applications or electronic plans review in 2019. Aurora will join that advanced IT grouping in Q2 2021.

	Aurora	Cambridge	Guelph	Newmarket	Oshawa	Richmond Hill
Zoning	yes	no	yes	yes	yes	yes
Property Compliance Letters	yes	yes	yes	yes	limited	yes
Plan Review	yes	yes	yes	yes	yes	yes
Inspections	no	yes	yes	yes	yes	yes
Site Grading	no	no	eng	eng	no	no
Site Plan Approval	no	yes	plan	plan	no	no
Property Standards	no	no	by-law	by-law	no	no
By-Law Enforcement	no	no	limited	by-law	no	no
Signs	yes	yes	yes	by-law	yes	yes
Licensing	no	yes	no	other	no	no
On-Line Applications	no	yes	res	no	no	no
Electronic Plans Review	no	yes	res	no	no	no
Fire Protection	no	no	yes	yes	no	no

*A point of clarification – the Aurora and Newmarket Fire Protection review function is provided by Central York Fire Service. Differing staff interpretations when completing the Large Urban Survey account for the differing yes/no responses.

8.1.5 Staffing Profiles & Productivity Ratios

Aurora's staffing profile (just the Building Division) is well below the average of the peers. This generates very productive permit processing ratios for Aurora. In Aurora 92 total permits are processed per staff member - compared to an average of 62 permits per staff member across the peers. Aurora processes 16.4 residential (house) permits per staff member compared to an average of 14.6 permits per staff member across the peers.

	Aurora	Cambridge	Guelph	Newmarket	Oshawa	Richmond Hill	Average of Comparators
2019 Total Staff	13	14	34.1	11	23	35	23.42
Admin/Clerical	3	1	8.6	3	3	4	
Admin/Clerical by others	0	1	0	0	0	3	
CBO	1	1	1	1	1	1	
Deputy CBO	0	0	0	0	2	0	
Managers (Permits &/or Inspections)	0	incl	3	0	0	2	
Field Supervisors	0	0	0	0	0	2	
Zoning Review Officer	1	0	1	1	2	3	
Property Standards Officer	0	0	0	0	0	0	
By-Law Enforcement Officer	0	0	2	0	0	0	
Plans Examiner	1	2	5	0	4	3	
Senior Plans Examiner	1	2	0	1	1	4	
Building Inspector	3	1	6.5	1	1	5	
Senior Building Inspector	1	5	3	3	3	1	
Plumbing Inspector	0	0	1	0	1	0	
Senior Plumbing Inspector	1	1	1	1	1	2	
HVAC Inspector	0	0	1	0	0	0	
Senior HVAC Inspector	0	0	0	incl	1	0	
PEO /Building Engineer	1	0	1	0	3	5	
OAA Licensees	0	0	0	0	0	0	
TOTAL PERMITS	1199	1642	2218	544	980	1865	1450
TOTAL RESIDENTIAL PERMITS	213	590	208	50	172	690	342
TOTAL PERMITS/STAFF	92.2	117.3	65.0	49.5	42.6	53.3	61.9
TOTAL RESIDENTIAL PERMITS/STAFF	16.4	42.1	6.1	4.5	7.5	19.7	14.6

9.0 “As Should Be” DAP Findings & Recommendations

Aurora’s Building DAP service delivery model is functioning reasonably well from a process execution perspective.

The Town has adopted industry standard techniques to overlap its Sub-division and Site Plan approval processes with conditional Building permit issuance (e.g. Foundation) and full building permit submission. This compressed overlapping approach benefits applicants/developers who can secure building permits significantly faster than would otherwise be the case in a purely sequential model where Building DAP only commenced when Planning DAP was complete.

Aurora’s overlapping Planning DAP and Building DAP processes are properly sequenced so that applicable law is always in place before full building permits are issued.

Notwithstanding the basic soundness of Aurora’s core processing models, there are a series of necessary process improvement opportunities to consider.

9.1 Building DAP Channel: Subdivision

9.1.1 Inspections Coordination Gap

Finding:

The “As Is” inspection process diagram (Report Section 6.7) highlighted an inspection process shortcoming involving the “top-of-wall” elevation survey data. Applicants should be coordinating the delivery of this survey data to coincide with the Foundation inspection. Town Engineering staff should be rapidly signing-off on the “as-built” elevations versus the plot plan elevations that are part of the approved building permit documentation. Builders should be able to pivot in a day to framing (minimal disruption). The process diagram makes it clear this is not happening.

Recommendation Bundle #1:

- **Building Inspectors should not be issuing a Foundation inspection “pass” unless the top-of-wall elevations sign-off from Engineering staff has been secured.**
- **Engineering staff sign-off decision on “as built” top-of-wall elevations versus plot plan approved elevations should be delivered next-day after survey data submission to the Town.**
- **CityView should be configured to track the top-of-wall elevations sign-off by Engineering as a check-marked requirement for any subsequent inspections “pass” to be registered in CityView.**
- **This new process coordination business rule should be consistently communicated to applicants at the point of Building permit application**

9.1.2 Open Permits Risk Exposure

Finding:

Aurora’s “As Is” model features large numbers of residential building permits remaining open after occupancy has been granted. This problem is common to Ontario growth municipalities. Once granted occupancy, an “open permit” status is often unknown to homeowners. Their builders have often neglected to close the permit. Open permit status becomes a significant problem when owners attempt to sell their house and the title search identifies the open permit. The sale cannot proceed until the permit is closed, and the timing is often urgent.

Town staff are aware of the “open permit” problem and have developed a system of triaged priority permits for action and closure. However, no dedicated staffing resource has been available to deliver focussed effort to solve the “open permit” problem.

Recommendation Bundle #2

The Town should secure a designated contracted staff resource (for a full year if required) to focus on closing post-occupancy residential open permits. This approach has been adopted in Markham and Guelph with some success.

The contracted staff resource can coordinate correspondence/information sharing with the owners of all open permit houses in order to schedule final inspections. This correspondence should clearly explain the owner’s self-interest in closing the permit.

Scheduling can be regularly coordinated with Town inspectors during a pre-selected time each month to execute final inspections and close the permits. A closing permits “blitz” period can also be considered/advertised for homeowners. A quarterly target should be developed for the # of permits closed.

The contracted staff resource should be funded from the Building Reserve Fund.

9.2 Building DAP Channel: Site Plan

9.2.1 Trigger for Accepting Overlapping Applications

Finding:

The Town’s current Building policies/procedures identify the initiation of the first Site Plan technical review cycle as the process trigger point for accepting/action on overlapping Building permit applications. This trigger point is premature based on Ontario growth municipality industry practices, views expressed by Town staff during this Review, and the professional opinion of Performance Concepts/Dillon.

Recommendation Bundle #3

The Town should amend its existing policies/practices by making the completion of a second Site Plan technical review cycle the processing trigger point for accepting/acting upon a complete Building permit application. This new trigger point will provide the optimal amount of overlap to ensure Site Plan drawings and Building permit drawings are consistent and that both accurately represent the approved building footprint location/configuration and site grading.

9.2.2 Grading Approvals During Overlapping Site Plan + Building Permit Processes

Finding:

During the overlapping Site Plan and Building permit processes the Development Engineer executes a review/sign-off of the Site Plan submission package to ensure grading and servicing solutions are workable and appropriate. During this period the Site Plan applicant is also applying for a complete Building permit and may be seeking a conditional Foundation permit. The Development Engineer is not reviewing the submitted Building permit applications to ensure the drawings are identical to the Site Plan drawings that are being reviewed and approved. The rationale for this approach is based on liability - that it is the Site Plan applicant's responsibility to ensure the approved site plan grading solution is referenced in the Building submission. Performance Concepts/Dillon has noted that compliance checks by Town staff between submitted/approved Planning DAP documents/drawings and submitted Building DAP documents/drawings is a standard operating procedure. Compliance checks are the common approach taken by Ontario growth municipalities.

Recommendation Bundle #4

Town policies/procedures should document a requirement a compliance check of submitted grading drawings (as part of the Building permit application) against approved grading drawings from the Site Plan process. This compliance check will eliminate the possibility of alternative versions of drawings being attached to Site Plan and Building permit approvals. It will also eliminate the potential for inconsistent decision-making at subsequent building inspections or "As Built" grading review following completed construction.

9.3 Building DAP Channel: Stable Neighbourhood

9.3.1 Zoning By-law Review (ZBR) Refinements

Finding:

Staff interviews revealed processing confusion on the part of some applicants when it comes to the Zoning By-law Review (ZBR) process. When applicants are informed they may need a Minor Variance they are directed to the Committee of Adjustment. Applicants are assuming that Building staff are producing the ZBR and forwarding it to Committee of Adjustment staff. In fact it is the applicant’s job to provide the ZBR letter to the Committee of Adjustment staff for inclusion in the Minor Variance circulation package no neighbours.

Recommendation Bundle #5

Staff should be required, as standard operating procedure, to inform applicants that the ZBR letter needs to be supplied to the Committee of Adjustment as part of their submission for a Variance.

9.3.2 Zoning By-law Review (ZBR) Quality Control

Finding

Infill and Stable Neighbourhood zoning compliance technical review/calculations are complex and subject to interpretation. Aurora Planners and Zoning Examiners need to standardize their respective approaches to zoning coverage, set-back and height calculations for customized Stable Neighbourhood houses. It is critical that drawings stamped by Town staff contain accurate calculations when files proceed to the Committee of Adjustment. Planning staff report that Zoning By-law Review calculation discrepancies are a recurring problem - not frequent but also not “one off” in nature. Occasionally the need to resolve these ZBR calculations among Town Planners and Zoning Examiners force Minor Variance applications off a given agenda, thereby causing applicant delays by postponing the application.

Recommendation Bundle #6

Planning and Building staff (Zoning Examiners) should engage in a series of internal technical working sessions to resolve differences of interpretation and calculations concerning Stable Neighbourhood coverage, set-back and height. These technical working sessions should result in improved coordination and consistency for technically challenging Committee of Adjustment files. The technical working sessions should address the requirement for the same submitted drawings to be reviewed by Town staff when dealing with a specific application.

9.3.3 Alternatives to Site Plan Approval for Tear Down/Re-Builds

Finding:

Currently Aurora requires applicants in the Stable Neighbourhood catchment area to secure Site Plan approval as an applicable law requirement prior to issuing a Building permit for these infill lot teardown/re-builds. The Town’s Site Plan approval requirement has a number of advantages. Potentially problematic coverage, setback, height, tree protection and grading issues on the property can be addressed in an orderly process before a premature plunge by the applicant into the Building permit “clock on” process. However, Site Plan approval also has disadvantages. Since Site Plans have no legal requirement for public consultation, the interests/perspectives of neighbours with abutting properties may not be adequately heard. This gap presents both political and technical problems for Aurora. The City of Burlington model of a Zoning/Grading/Tree Protection Clearance represents an effective working alternative to Site Plan control. The Clearance acts as applicable law for the Building permit and is delivered more quickly than a Site Plan. Securing this clearance frequently requires a re-route to the Committee of Adjustment for Variances. Public consultation (addressing the challenge of abutting neighbours) is built into the Burlington Clearance + Minor Variance process.

Recommendation Bundle #7

Aurora staff should actively investigate the Burlington “Clearance” alternative to Site Plan for stable neighbourhood teardown/rebuilds. An evaluation report should be delivered to Council no later than Q3 2021 - potentially with an implementation pathway for process changes as appropriate.

9.4 Building DAP Channel: Infill

9.4.1 Notification of Building Permit Applicant re Minor Variance Appeal Period

Finding:

Building permit applicants are able to submit an application during the Minor Variance 20-day appeal period. If the Minor Variance is not appealed, a Building permit can be issued immediately following the end of the appeal period - an efficient overlapping process being the result. However, if the Minor Variance is appealed the applicant’s Building permit application is in limbo (with the fee having been paid) pending resolution of the appeal. If the Variance appeal is successful the Building permit application cannot proceed and the fee may be forfeit. The submission of a Building permit application during the Minor Variance process (especially during the appeal period) is an exercise in risk management by Building permit applicants.

Recommendation Bundle #8

Aurora Building Division staff should be required to inform applicants in writing that Building permit applications submitted during a Minor Variance appeal period may result in a delayed permit decision or the need to re-apply if the Minor Variance is appealed or overturned. The Town should make it clear that Building permit application fees are not refundable in this circumstance. This new business process requirement will inform an applicant’s risk management decision about when to submit the Building permit application.

9.5 Inspections and Occupancy

9.5.1 Consistent Re-Inspection Fee Business Rule/Policy

Finding:

Building Inspectors currently exercise considerable discretion about when/if to charge a re-inspection fee. The Town does not have a stated procedure guiding staff on this decision.

Recommendation Bundle #9

After a failed inspection, the initial re-inspection should be provided to builders without a re-inspection fee being charged. All subsequent re-inspections for that same Code requirement should require a re-inspection fee payment.

Following any 3rd re-inspection (generating a re-inspection fee payment) on a given project, any subsequent re-inspections across the entire project will require payment of a re-inspection fee. This requirement will incentivize builders to ensure readiness/compliance when scheduling inspections.

9.6 Post-Construction Compliance: Conditions and Securities

9.6.1 Absence of Dedicated Staff Resources for Inspections

Finding:

Aurora currently depends on the staff that create development agreement conditions and approve Building applications to “police” compliance by developers/builders in the field. Aurora also depends on self-policing compliance by developers/builders via “As Built” letters. Existing staff do not have available time/capacity to be active in the field inspecting projects to ensure important development agreement legal obligations are being met by builders. No designated staffing capacity for post-construction inspections are in place/available.

Recommendation Bundle #10

Aurora staff should prepare a 2022 budget cycle business case supporting a cross-trained post-construction inspector to confirm/secure compliance with a broad range of development agreement conditions, the timely provision of assets/amenities, and “As Built” confirmation regarding grading and other matters. This position should be funded from permit revenues typically flowing into the Building Reserve Fund and withdrawals from the Reserve Fund’s annual interest investment stream as required.

9.7 Building DAP Staffing and Resourcing

9.7.1 Additional Specialized HVAC Staff Resource

Finding:

The peers comparison in Section 8.1.5 of this Report documents the Aurora Building Division’s efficient staffing model. During Building Division interviews the value-add for a specialized HVAC/Mechanical staffing resource was identified on multiple occasions. Funding would have no property tax impact, and a specialist position would fill a specialized knowledge gap from plans examination + field inspection perspectives. Aurora’s overall staffing efficiency versus peer municipalities would not be compromised.

Recommendation Bundle #11

Aurora’s 2022 budget process should seriously consider the addition of an HVAC specialist Plans Examiner/Inspector position in the Building Division. This position would be funded by permit stream revenue typically funding the already-robust Building Reserve Fund + an allocation of the Reserve Fund’s accrued investment interest revenue stream.

9.7.2 Central York Fire Services – Providing Accountable/Designated Building DAP Support

Finding:

Consistent with the 2020 Phase 1 Planning DAP Modernization Report, there is a need to establish accountable and stable resourcing from Central York Fire for Aurora’s Building DAP delivery model. Central York Fire deploys resources to Aurora + Newmarket for Building DAP plans examination and inspections for multi-residential and ICI projects. Aurora is committed to a cloud based portal/workflow tool model for Building DAP that will require all Town DAP participants to regularly populate CityView and deliver timely services that meet target timeframes.

If Aurora had its own Fire Department, that Department’s commitment to populating CityView and meeting timeframes would not be an issue. Town expectations/requirements of Central York Fire should be exactly the same - timely population of CityView and commitment to “on the clock” and “off-the clock” timeframe performance targets.

Recommendation Bundle #12

Aurora should update/modernize its Building DAP MOU with Central York Fire before the end of 2021. If participating in distinct/simultaneous DAP workflow solutions in Aurora and Newmarket is considered onerous by Central York Fire, Aurora should request Central York Fire dedicate specific staff members to Aurora DAP vs Newmarket DAP - and thereby gain the necessary specialized expertise in CityView.

9.8 Building DAP Technology Platform

9.8.1 Engineering Staff CityView Usage/Tracking

Finding:

Aurora Engineering staff deliver a range of Building plans examination and inspection services. They do not populate the CityView workflow tool, nor do they track timeframes related to “on the clock” or “off the clock” permit decisions. Engineering staff are ready/willing to change their current approach of doing DAP work outside of CityView.

Recommendation Bundle #13

Engineering staff should be trained in CityView without delay. CityView licenses should be purchased as required (without delay) to facilitate tracking of all Building DAP activities and workflows. Active participation in CityView should commence by the end of Q2 2021. CityView workflow milestones should be adjusted to include key milestones delivered by Engineering staff. CityView should not be regarded as a workflow tool for Building Division staff. It must be considered as the definitive “must participate” workflow tool for the entire Building Code Act service delivery model.

9.8.2 Central York Fire CityView Usage

Finding:

Central York Fire staff deliver a range of Building plans examination and inspection services for multi-residential and ICI permit applications and inspections. These staff do not populate the CityView workflow tool, nor do they track timeframes related to “on the clock” or “off the clock” permit decisions.

Recommendation Bundle #14

Aurora’s CAO and Chief Building Official should clearly communicate the Town’s expectations around Central York Fire’s full participation in Planning DAP and Building DAP workflow tracking/performance measurement reporting to the Central York Fire Chief. A commitment from Central York Fire should be secured, and CityView training delivered, by the end of Q2 2021.

9.8.3 CityView Process Drawbridges

Finding:

Workflow tools like CityView can deliver important Building DAP execution discipline. CityView can do so by connecting a sequence of approved milestones together across a permit and its inspections. Until the processing “drawbridge” is signed off and let down in CityView for process “A”, the Town will not proceed with approval at process step “B” or “C”. This drawbridge approach to CityView configuration makes staff accountable for securing sign-offs in sequence and fully populating CityView in a timely fashion once work has been completed.

Currently CityView is not configured to make full functional use of this “drawbridge” functionality. Instead, staff are able to skip over a sequenced processing milestone in CityView and address other workflow milestones out of sequence. This flexibility comes at a cost in terms of ensuring each detailed review step in Building DAP has been addressed by applicants. This is especially true of the sequenced Building Code Act mandated inspections.

Recommendation Bundle #15

The new/upcoming cloud-based CityView workflow upgrade should be configured to make robust use of linked/sequenced “drawbridge” approvals. Core Building DAP process sign-offs should be linked to verified/completed previous milestones in CityView process maps. Town staff should be provided with clear direction on whether/when any exceptions to drawbridge style CityView sign-offs are allowed - thereby avoiding confusion about acceptable procedures.

9.9 Building DAP Fees and Reserve Fund

9.9.1 Reserve Fund Design

Finding:

Peer municipal comparisons in this Report have documented the fact that Aurora currently features very high residential building permit fees and a Building Reserve Fund with a very high current balance. Aurora’s Building Reserve Fund is not supported by a Council approved policy establishing a Reserve Fund target balance, nor a rationale for the categories of expenditures appropriate for Reserve Fund withdrawals. The Town aggressively allocates corporate support function costs (otherwise supported by property taxes) to the Building permit revenue stream for recovery.

Recommendation Bundle #16

Aurora is overdue for an expert 3rd party Building fees review. A full-cost Building fees review should be completed by the end of Q4 2021. The Building fees review should address Aurora’s systemic revenue-side imbalances - namely high residential permit fees generating a high open-ended Reserve Fund balance. The Building fees review should also address the current aggressive allocation of corporate indirect support costs being covered by Building permit revenue streams.

The Town’s 2022 budget cycle should feature a modernized Building fees schedule and rationally designed Reserve Fund that addresses the following priorities:

- ***A new Reserve Fund Target Balance***
- ***A Reserve Fund rationale for capital and operating spending investments***
- ***A Reserve Fund 3-5 year spending plan that funds the entire CityView cloud-based upgrade (portal + workflow). This multi-year spending plan should also address staff workspace and upgraded computer monitor investments required for the envisioned paperless service delivery model. The multi-year spending plan should also address staffing recommendations included in this Final Report.***

BILD should be consulted for input regarding potential staged/sustainable residential Building fee reductions that could contribute to a development-driven Post-COVID economic recovery initiative in Aurora.

9.10 Updated Policies and Procedures

9.10.1 Updated Policies and Procedures Reflecting IT Modernization

Finding:

The “As Is” Section 5.11 of this Final Report references the reality that Building Division policies and procedures have aged beyond their “best before” date. These outdated policies and procedures do not directly address the important roles and responsibilities of Town staff located outside the Building Division who nonetheless play a key role in Building DAP.

Recommendation Bundle #17:

Following the implementation of the CityView portal/cloud-based workflow tool, the Town should conduct a thorough update of its Building DAP policies and procedures. This update should reflect “As Should Be” business processes, timeframe standards and accountability reporting commitments. The policies and procedures update should reflect the role played by CityView in a new paperless service delivery environment.

9.11 Key Performance Indicators

9.11.1 Refined Timeframes, New Performance Targets and Annual Reporting

Findings:

Aurora already does a good job tracking Building permit decision timeframes within CityView. Specific performance measurement refinements will build on the Town’s established competencies.

Recommendation Bundle #18

The Town should adjust its “off the clock” permit decision timeframe standard from 30 calendar days to 20 business days. This will deliver consistency with “on the clock” timeframe measurement.

The Town should set annual business plan performance targets. Targets should be based on the following metrics:

- ***On the Clock Targets (% of permit applications meeting performance standard)***
- ***Off the Clock Targets (% of permit applications meeting performance standard)***

The Town should commit to regular public results reporting and an annual Budget Results Contract. An annual performance briefing should be held with BILD, where the Building DAP performance-based budget and results contract is compared to actual performance results.

10.0 Implementation Roadmap

Change is hard. Change management projects must strike a balance between focused/decisive action and an awareness of limited implementation capacity. The following Implementation Roadmap strikes this balance by creating a phased approach: DO NOW (2021), DO SOON (2022), and DO LATER (2023 & Beyond).

This Building DAP Phase II Implementation Roadmap will need to be coordinated with the previously delivered Planning DAP Phase I Implementation Roadmap. The Performance Concepts/Dillon Team is confident the two roadmaps are compatible for simultaneous implementation.

Change management research demonstrates that drawn-out implementation efforts correlate strongly with failed change management projects. Our focus is primarily on DO NOW in 2021 and DO SOON in 2022 to maintain momentum and enthusiasm for positive change.

10.1 Building DAP Channel: Subdivision

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
1	Inspections Coordination Gap	✓		
2	Open Permits Risk Exposure		✓	

10.2 Building DAP Channel: Site Plan

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
3	Trigger for Accepting Overlapping Applications	✓		
4	Grading Approvals During Overlapping Site Plan/Building Permit	✓		

10.3 Building DAP Channel: Stable Neighbourhood

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
5	Zoning By-law Review (ZBR) Refinements	✓		
6	Zoning By-law Review (ZBR) Quality Control	✓		
7	Alternatives to Site Plan Approval for Tear Downs/Rebuilds	✓		

10.4 Building DAP Channel: Infill

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
8	Notification of Building Permit Application re Minor Variance Appeal	✓		

10.5 Inspections and Occupancy

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
9	Consistent Re-Inspection Fee Business Rule/Policy	✓		

10.6 Post-Construction Compliance: Conditions and Securities

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
10	Absence of Dedicated Staff Resources for Inspections		✓	

10.7 Building DAP Staffing and Resources

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
11	Additional Specialized HVAC Staff Resource		✓	
12	Central York Fire Services – Designated Building DAP Support	✓	✓	

10.8 Building DAP Technology Platform

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
13	Engineering Staff CityView Usage/Tracking	✓		
14	Central York Fire CityView Usage	✓		
15	CityView Process Drawbridges		✓	✓

10.9 Building DAP Fees and Reserve Fund

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
16	Reserve Fund Design	✓	✓	

10.10 Updated Policies and Procedures

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
17	Updated Policies and Procedures Reflecting IT Modernization		✓	✓

10.11 Key Performance Indicators

Bundle #	Recommendation	DO NOW	DO SOON	DO LATER
18	Refined Timeframes, New Performance Targets & Annual Reporting	✓	✓	

11.0 Conclusions & Moving Forward with Change

11.1 3rd Party Assessment

Implementation and execution of organizational change is always challenging. It requires focus and perseverance.

Performance Concepts recommends a 3rd party implementation progress assessment in Q3 of 2022. This progress evaluation will compare actual implementation of the Roadmap against the *Do Now & Do Soon* recommended timeframes in this Final Report.

Remedial actions will be recommended (if required) to keep/get implementation on-track as Aurora transitions from *Do Now* to *Do Soon* across a range of change driven action items.

11.2 Building DAP Performance Improvement: Measurement Lenses to Consider

The Building DAP performance challenges facing Aurora moving forward are focused on process streamlining and consistent execution. Building DAP workload is likely to increase based on Aurora's remaining greenfield development volumes and upcoming effort-intensive infill application volumes. Therefore cost reduction/cost avoidance is not a helpful lens for the Town measuring the performance improvement dividend that can be secured by implementing the recommendations contained in this Report. However residential fee reductions positioned within a post-COVID economic recovery package merits serious consideration by staff and Council. If a 5-10% residential fee reduction is adopted, there should be a measurable increase in post-COVID economic activity due to reduced construction costs. It will be incumbent upon the development community to pass on this price correction to consumers.

Aurora Building DAP performance improvement is best considered via an alternative non-\$ lens that is consistent with LEAN thinking principles that focus on consistently delivered through-put timeframes for the Town's permit and inspection "conveyor belts". The LEAN thinking improvement lens is consistent with industrial/manufacturing analogy of a Building DAP conveyor belt producing a series of "black box" application approval decisions.

Performance Concepts estimates that successful implementation of the "As Should Be" recommendations advanced in this Report will help secure consistent and predictable customer service results associated with IT modernization. The Town is fortunate that BILD is committed to the same goals and has offered to partner in the continuous improvement journey. The Town should benefit from a renewed focus on consistent/measurable processing timeframes, and the correction of identified processing pain points. Aurora Building DAP should be able to deliver more consistently on its timeframe standards, at an overall reduced fee/price for greenfield residential development.

APPENDIX - LETTER FROM BILD



February 26, 2021

Todd MacDonald
President
Performance Concepts Consulting

Sent via email to Todd@performanceconcepts.ca

Dear Mr. MacDonald,

RE: BILD Comments | Town of Aurora Building DAP Review

BILD is the voice of the home building, land development and professional renovation industry in the Greater Toronto Area and Simcoe County. The building and renovation industry provides \$33 billion in investment value and employs 271,000 people the Region. BILD is proudly affiliated with the Ontario and Canadian Home Builders' Associations.

BILD is in receipt of the report entitled "Town of Aurora Building Permit Process Review" dated February 2021. We would like to acknowledge our understanding that this report is to be submitted by Performance Concepts Consulting in association with Dillon Consulting Ltd on February 26th to the Town of Aurora's Senior Management Team. In advance of this submission, BILD on behalf of our York Chapter members would like to thank you for the opportunity to provide the following comments for consideration.

To begin, we would like to extend our appreciation to both you and Mr. Tony Quirk for engaging with BILD to facilitate a dialogue on this item, with the intention of understanding the perspective of the builder as you finalized the aforementioned report. Our members continue to appreciate best practices such as these, and firmly believe the recommendations outlined within this report would be an excellent step toward improvement for the Town of Aurora's Building Services. From this discussion, we would like to mention our principle recommendation for the Town's consideration as they move forward with the recommendations made within the report.

BILD strongly recommends continued discussion and collaboration with the Town on this Building Permit Process Review. We believe that the establishment of a Joint Working Group to focus on process execution and technology modernization would present as a fair and transparent way to move forward.

Together with this, we are happy to offer the following overarching sentiments on the recommendations outlined within the report, in support of upcoming discussions.

Process Improvement and Streamlining

As outlined in *Section 6.7 | Inspections + Occupancy Permit + Open Permits* of the report, there is documentation on process problems that are associated with Top of Wall Elevations. BILD believes that moving forward it may be more feasible to have the Town provide Top Of Wall Elevation tolerances, and then have either the applicant's surveyor or consulting engineer (who approved the lot siting plan for building permit submission) sign off on as-built elevation variances/tolerances. In addition, we strongly support a Top of Wall Elevation review and the need for a required and timely sign-off within the Town's currently utilized CityView workflow tool.

Within *Section 6.4 | Building Permit Approvals Channel 2: Multi-Res/ICI Site Plan* of the report, there is mention of the Town's overlapping Site + Conditional Permits and Complete Above-Ground Permit model. At this time, the practice within the Town is to issue above-ground building permits once the execution of the Site Plan Agreement is provided. With this, we would like to recommend the Town look to the City of Vaughan as a best practice municipality for above-ground construction permits. For reference, in Vaughan the Chief Building Official issues Conditional Building Permits for above-ground construction before the execution of the Site

Plan agreement; this practice ensures applicable law is in place prior to construction proceeds. BILD welcomes further discussions with the Town in this regard.

Modernized DAP Technology

After years of utilizing CityView in the Town, our members have not observed the level of comparable functionality that is associated with other products like it in the marketplace. There are currently a wide range of DAP cloud-based portal/workflow tool solutions that are available, and BILD strongly recommends the consideration of a cloud-based solution beyond CityView. While new to the City, the Concept to Keys (C2K) program in the City of Toronto has been established with the intention of looking beyond traditional server based solutions like AMANDA and CityView. As such, the Town is encouraged to also look beyond this traditional approach. Our members are happy to discuss the topic of a new cloud-based portal/workflow solution with the Town in order to ensure that both municipal and industry functional requirements are met.

Furthermore, BILD recommends the consideration of an expanded YorkTrax option and other modernization options that are supported by Provincial digital funding pools (e.g. Onwards Acceleration Fund).

As such, we would like to take this opportunity to mention the [One Ontario](#) initiative as an additional resource for the Town. As background, this initiative is working to develop data exchange guidelines for the development approvals process in Ontario and is gaining momentum in addition to Provincial support towards improving digital services in municipalities for development approvals.

Public Accountability Reporting

Along with the comments mentioned herein, BILD agrees with the need for public reporting, DAP performance transparency, and the ability to track the progress of DAP files using cloud-based portal technology. As mentioned within the report, we are also in agreement with the creation of an annual performance assessment with the Town as it relates to the Planning and Building DAP performance.

In addition, BILD supports the recommendation that Council endorse/adopt principles for use of the Reserve Fund, as well as the recommendation of a staged reduction in Building Permit Fees as a post COVID-19 economic recovery initiative.

As the Town's community building partner, we look forward to a continued positive and transparent working relationship as this review continues. In this regard, we trust you will find our recommendation helpful and if you have any questions - please do not hesitate to contact the undersigned at vmortelliti@bildgta.ca

Thank you for your time and consideration,

A handwritten signature in black ink, appearing to read "Victoria Mortelliti".

Victoria Mortelliti, BURP.1
Planner, Policy & Advocacy
BILD

CC: *Gabe Di Martino, York Chapter Co-Chair*
Mike McLean, York Chapter Co-Chair
Danielle Chin, Director of Policy and Advocacy, BILD
David Waters, Director of Planning and Development Services, Town of Aurora
Bill Jean, Manager, Building Division and CBO, Town of Aurora
Tony Quirk, Performance Concepts
Members of the BILD York Chapter