

EXECUTIVE SUMMARY

Staff Report ENG033-13

Overall Strategy - This report presents a proposed strategy for managing growth to the year 2031 and describes the impact on the City's Financial Policy Framework. The strategy follows the guiding principles approved by Council in order to create a complete community that will enjoy the same levels of service as exist today while ensuring appropriate risk management for the City's infrastructure assets. The strategy introduces new development financing tools which are required to meet the City's fiscal thresholds and ensure that growth pays for growth to the greatest extent possible within the law. The result will be a City of 210,000 people who all have access to safe drinking water, a clean and healthy environment, walkable neighbourhoods, connected communities and convenient access to transit.

Growth - Under the Provincial *Places to Grow Act*, the City of Barrie is permitted to grow to 210,000 people and 101,000 jobs over a 20 year planning period from 2012 to 2031. The City is required to plan for 40% of this growth as infill and intensification in Former Barrie and 60% in the Annexed Lands.

Public Consultation - Extensive public consultation was completed using a coordinated approach to obtain input on both the Secondary Plans for the Annexed Lands and the Infrastructure Master Plans at the same time. In addition to the required public meetings under the *Planning Act* and the *Environmental Assessment Act*, many other meetings were held with landowners, developers, community groups, agencies and members of the public to discuss their comments arrive at the best overall solution.

Land Use Planning - Secondary Plans for the Annexed Lands have been prepared and will be presented to Council in the near future.

Servicing - This report recommends Council approval of the Infrastructure Master Plans that identify the preferred water, wastewater, stormwater and transportation strategies for servicing infill and intensification growth in Former Barrie and growth in the Annexed Lands. After implementing these strategies, existing and new residents will receive the same levels of service as are provided today for water, wastewater, stormwater and other services such as waste management, parks and recreation, fire, police, libraries, arts & culture and ambulance. The level of service for the City's transportation system will have the same elements as today (roads, transit, cycling paths, sidewalks and walking trails) but with a greater degree of connectivity for cycling and walking throughout the City.

Costs - A fiscal impact analysis was completed to assess the capital and operating costs of growth and asset replacement projects against the City's Financial Policy Framework, specifically as it relates to debt levels and tax/rate affordability thresholds. The starting point for the analysis was a capital program that addressed all the elements of the Master Plans, Asset Management Plan and other forecasted costs. This program was not deemed to be affordable, so a number of different scenarios were evaluated that included consideration for managing asset replacement risks, new infrastructure timing, levels of service, cash flow and debt management. Finally, a scenario was identified that allows growth to occur while maintaining existing levels of service without exceeding the City's key fiscal thresholds. The key to the recommended strategy is a series of new growth financing tools that will require additional investment by developers to pay for the costs of growth. These new tools will allow development to proceed while limiting the impact on existing taxpayers.

Next Steps – Upon approval of this report, the results of the fiscal impact analysis will be presented to the development community to begin discussions leading towards financial agreements in accordance with the new Financial Policies Framework. Staff will also initiate the Development Charges By-law update process. Further information regarding next steps will be presented with the Secondary Plans.

TO: GENERAL COMMITTEE

SUBJECT: GROWTH MANAGEMENT UPDATE: INFRASTRUCTURE MASTER PLANS AND FISCAL IMPACT ANALYSIS

WARD: ALL

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RECOMMENDED MOTION

1. That the update to the Financial Policies Framework – Growth and Development section as attached in Appendix A of staff report ENG33-013 be approved to minimize the financial impact of municipal growth on existing taxpayers by including the use of new development financing tools including:
 - a) Accelerating the timing of payment of development charges
 - b) Front-ending of capital project costs by developers
 - c) Capital contribution payments by developers for growth-related capital infrastructure needs that are not currently funded by Development Charges
2. That the Fiscal Impact Analysis by Watson Associates be approved as a forecast so that Staff may present the results to the development community as the basis for financial agreements that include new development financing tools such as accelerated payments, front-ending, and a capital contribution of not less than \$4,500 per housing unit.
3. That the six Infrastructure Master Plans (Water Supply, Water Storage and Distribution, Wastewater Treatment, Wastewater Collection, Drainage and Stormwater Management, and Multi-Modal Active Transportation) related to growth from 2012-2031 be approved so that staff may complete the public consultation process in accordance with the Municipal Class Environmental Assessment process.

PURPOSE & BACKGROUND

4. The Provincial Growth Plan permits the City of Barrie to plan for a population of 210,000 and 101,000 jobs by the year 2031, with 60% of the post 2015 population growth to occur in the Annexed Lands and 40% as infill and intensification in Former Barrie.
5. In accordance with the three pillars of the City's growth management process, namely land use planning, infrastructure planning and financial planning, and the Council approved themes and principles listed below, the City has prepared two Secondary Plans, six Infrastructure Master Plans and a Fiscal Impact Analysis for growth to the year 2031.
6. The purpose of this staff report is to provide Council with an update on the growth management process, recommend approval of new development financing policies and request authority to complete the Infrastructure Master Plans for servicing growth to the year 2031.
7. The two Secondary Plans for the Annexed Lands (Salem Secondary Plan for the west block, Hewitt's Secondary Plan for the east block) will be presented to Council in the near future along with proposed amendments to the City's growth management policies.

Guiding Principles

8. The growth management themes and guiding principles adopted by Council (refer to Staff Report IDC003-10 and Council motion 09-A-611) have been used as a framework for developing the three pillars of the growth management process: land use planning, infrastructure planning and financial planning:
 - a) Refocus, Redefine, Revitalize
 - i. That municipal services like parks, fire services, roads, water, and wastewater be built at the same time or in advance of the issuance of occupancy
 - ii. That the City of Barrie continue to develop satellite service locations for municipal services in the south end of Barrie to ensure easier access for residents
 - iii. That the growth in working age residents in the City of Barrie not be allowed to outpace the growth of jobs to ensure the City of Barrie stays a strong economic centre, repatriates employment opportunities for residents and minimizes out-commuting
 - b) Getting Around – Choices Abound: Walk, Cycle, Ride, Drive
 - i. That the City of Barrie continue to place a high priority on supporting active transportation (walking and cycling) and on accessibility to public transit in all new growth areas
 - c) Great Places and Green Spaces
 - i. That the City of Barrie continue to plan new neighbourhoods with basic services and shops, including "corner stores" and/or local commercial areas
 - ii. That new neighbourhoods draw on the strengths of historic neighbourhoods: grid street patterns, public spaces, pedestrian-friendly street design (buildings close to street, tree-lined streets, on-street parking, hidden parking lots, garages in rear lane, narrow and slow speed streets)
 - iii. That the City of Barrie continue to provide a diversity of housing types in new neighbourhoods

- d) Practical and Progressive Plans
 - i. That the City of Barrie continue to apply the principle that growth pays for growth to the greatest extent possible within the law
 - ii. That all new neighbourhoods and business areas in the City of Barrie be designed to support resource conservation and environmental stewardship to the greatest extent feasible and include the best practices in the use of district energy, water conservation/recycling and sustainable community planning
- e) Inform, Involve, Inspire
 - i. That all planning efforts for new growth areas occur through extensive consultation with the public, community stakeholders and with the business and development communities

Financial Policies Framework

- 9. The goal of the City's Financial Policies Framework is to "place the City's finances on a sound and sustainable footing so that financial, service and infrastructure standards can be met without resorting to unplanned or excessive increases in rates or disruptive cuts in services." The framework includes thirteen financial elements, one of which is "Growth and Development". The current version of the Growth and Development element is found in Appendix A.

ANALYSIS

Public Consultation

- 10. The City has undertaken extensive public consultation throughout the growth management process in order to ensure that all stakeholders had an opportunity to comment and that their comments were fully considered. At the beginning of the process, the City coordinated the public consultation requirements under the Planning Act with the requirements for the Municipal Class Environmental Assessment process in order to ensure that the land use and infrastructure plans were closely aligned.
- 11. The points of public contact as required under the Municipal Class Environmental Assessment process have been as follows to date:
 - a) Notice of Commencement - January 28 & 29, 2011
 - b) PIC #1, - September 13, 2011
 - c) PIC #2, - April 25, 2012
 - d) PIC #3, - March 6, 2013 (coordinated with the *Planning Act* public meeting)
 - e) PIC #4, - April 3, 2013
- 12. Responses were provided to all comments received through the public meetings and compiled in the Master Plan Public Consultation document. A summary of the major themes heard through the public consultation process related to the Master Plans is provided in Appendix B.

13. A Technical Advisory Committee including public agencies, landowners and developers was established and met several times as a whole and in sub-committees to provide input on the various Master Plans at key stages of the project. In addition, meetings were held with a wide variety of stakeholders throughout the process. The purpose of the meetings was twofold: first, to keep the various groups informed of the progress on the individual Master Plans and second, to involve them in their preparation. The stakeholders included the City's public sector partners, aboriginal and first nation organizations, community groups, developers and landowners. A chronology of these additional meetings is included as Appendix C. In summary, input on the Master Plans was obtained from:
- a) Public Agencies: Provincial Ministries, Ontario Growth Secretariat, Conservation Authorities, School Boards, County of Simcoe, Simcoe Muskoka District Health Unit, Town of Innisfil, Innisfil Hydro, Barrie Police Service, Barrie Utility Coordination Committee, RVH, Georgian College
 - b) Aboriginal Groups: Georgina Island First Nation, Huron Wendat First Nation, Metis Nation of Ontario
 - c) Community Groups: Barrie & District Real Estate Board, Simcoe County Home Builders Association, BILD Simcoe Chapter, AWARE Simcoe/Rescue Lake Simcoe Coalition, Transition Barrie, Living Green Barrie
 - d) Landowners and Developers: Individual property owners, landowner/developer groups, agents and consultants

Infrastructure Planning – Class EA Master Plans

14. Six infrastructure Master Plans have been developed under the Municipal Class Environmental Assessment process that identify the preferred water, wastewater, drainage and multi-modal active transportation strategies to meet the City of Barrie's growth requirements to the year 2031, with consideration for ultimate build-out of the planning areas. A summary of each strategy is provided in Appendix D and figures illustrating the preferred solution for each Master Plan are provided in Appendix E.
15. The strategies outlined in the Master Plans, when implemented, will result in complete, connected communities where residents will continue to enjoy delivery of safe, clean drinking water to their homes and businesses, collection and treatment of wastewater and stormwater for protection of the environment, and a transportation network that provides choices for people to walk, cycle and take transit as they move around the City.
16. The Master Plan documents have been made available for review under separate cover in the Councillor's Lounge, Clerk's Department, Engineering Department, City of Barrie Public Library Branches and online at www.barrie.ca, and include:
- a) Water Supply
 - b) Water Storage and Distribution
 - c) Wastewater Treatment
 - d) Wastewater Collection
 - e) Drainage and Stormwater Management
 - f) Multi-Modal Active Transportation

17. The Master Plans were completed using the Municipal Class Environmental Assessment process (October 2000; Amended September 2007, August 2011), which is an approved process under the *Environmental Assessment Act* that requires the evaluation of alternatives with consideration for the environmental effects of infrastructure projects.
18. Specifically, the Master Plans were conducted in accordance with Approach #2 of the master planning process. By using this approach, the Master Plans, once completed, will fulfill all the environmental assessment requirements for Schedules A, A+, and B projects. This approach will result in significant time and cost savings because the City will not need to undertake separate Schedule B projects after completion of the Master Plans. The Schedule C projects will require completion of phases 3 and 4 of the Municipal Class Environmental Assessment process prior to implementation. Refer to Appendix F for a list of Schedule A, A+, B and C projects.

Infrastructure Planning – Strategic Plans

19. As a fundamental element of the growth management process, in addition to the Master Plans described above, the City has also updated strategic plans to account for growth to the year 2031 for other City services such as waste management, parks and recreation, fire, police, library, arts & culture, ambulance, development services, information technology and general government services. This information will be used as input to the City's budget forecasts and it was an input to the Fiscal Impact Analysis.

Infrastructure Planning – Timing and Implementation

20. The infrastructure staging plan showing timing of major projects to service growth in Former Barrie and the Annexed Lands is provided in Appendix G. The timing is based on growth patterns throughout the City over the planning period. For the Annexed Lands, the timing of infrastructure is carefully coordinated with the phasing of development set out in the proposed Secondary Plans; Phase 1 prior to 2021, Phase 2 from 2022 to 2026 and Phase 3 from 2026 to 2031. The timing of construction of roads, water, wastewater and storm pipes in a particular stretch of road has been coordinated to minimize impacts on the public.
21. The infrastructure staging plan will be implemented through a combination of City-led projects and developer-led projects with City oversight. The local infrastructure will be built by developers through subdivision agreements (for example, local roads and associated water mains, wastewater mains, parks) with City review, inspection and sign-off prior to assumption.

Infrastructure Planning – Levels of Service

22. The levels of service recommended in the Master Plans and Strategic Plans are essentially the same as those provided today. For details, refer to the Level of Service table in Appendix H. The level of service for the City's active transportation system will have the same elements as today (roads, transit, cycling paths, sidewalks and walking trails) but with a greater degree of connectivity for walking and cycling throughout the City. The Multi-Model Active Transportation Master Plan does recommend an increased level of service for transit, namely an increased frequency of buses (more buses on the same routes). However, to remain aligned with the City's financial policy framework, the service level will not be increased during the forecast period. This will be discussed below in relation to the Fiscal Impact Analysis.

Fiscal Impact Analysis – Scenario Planning

23. A Fiscal Impact Analysis (FIA) has been completed using a scenario planning approach. The objective was to identify a financing plan that reflected the goals, principles and thresholds included in the Financial Policies Framework while acknowledging the timing and level of cash inflows/outflows associated with managing growth over the planning period. This comprehensive approach included consideration of the City's fiscal thresholds for debt, rates and taxes, and ensures that "growth pays for growth to the greatest extent possible within the law" in accordance with the guiding principles. The result is a scenario that describes not only the type, level and timing of costs required for managing growth and asset replacement, but also the financing methods and revenue sources required to pay for those costs. For the City of Barrie, this includes a requirement to use new financing methods. The recommended changes to the Financial Policies Framework in Recommended Motion #1 and use of the new development financing tools as described in Recommended Motion #2 are required for the resulting scenario to work as intended.
24. The FIA starts with a snap-shot of the City's fiscal position at the beginning of the planning period, adds in all of the City's forecast capital and operating costs related to infrastructure (growth, asset replacement and other non-growth related costs) over the planning period from 2012 to 2031, determines how these needs will be financed and then calculates the resulting impact on the thresholds set out in the City's Financial Policies Framework.
25. A number of financial assumptions are part of the FIA, such as:
 - a) Financing sources include tax and rate supported reserves, Development Charges, outside recoveries (for example, the Highway 400 Duckworth Interchange project is partly funded by the Federal and Provincial governments) and debt
 - b) Borrowing cost assumptions are rate supported debt at 4% financing for a 20 year term and tax supported debt at 3% financing for a 10 year term
 - c) No Development Charge discounts or exemptions (except where legislated)

Base Case

26. The first step in the Fiscal Impact Analysis was to create a Base Case, which includes the capital costs of all the projects identified in the Infrastructure Master Plans, the City's Asset Management Plan, and other strategic plans for services such as waste management, parks and recreation, fire, police, library, arts & culture, ambulance, development services, information technology and general government services. The value of the Base Case is approximately \$3,600 million over the 20 year planning period, including approximately \$1,600 million in asset replacement costs from the City's Asset Management Plan (average of approximately \$80 million per year over 20 years). As shown in Appendix I, the Base Case includes the current asset replacement backlog and all new requirements over the planning period.
27. The Base Case was found to be unaffordable because the resulting debt and budget requirements were significantly over the City's thresholds as shown in Table 1, as well as the Provincial debt limits. The reason for this was partly due to the total cost of the program and partly due to a peak in capital costs in the first 10 years, which also made the Base Case impractical to implement. Therefore, alternative scenarios were required in order to develop a sustainable program.

Revised Capital Program

28. The next step was to review the capital program and identify opportunities to reduce the overall cost by revising the levels of service to today's standard and deferring projects to beyond the first 10 years to smooth out the peak. The result was a revised scenario with an overall program value of approximately \$3,100 million over the 20 year planning period (average of approximately \$150 million per year over the 20 years), including approximately \$1,200 million in asset replacement costs from the City's Asset Management Plan (average of approximately \$60 million per year over 20 years). Changes from the Base Case included:
- a) Removing approximately \$100 million of buses and transit facility expansion costs by leaving the frequency of buses at the level of service provided today rather than implementing an increased frequency as recommended in the Master Plan. The existing transit routes will remain and be extended into the Annexed Lands. The total number of buses will increase to accommodate growth, but the bus frequency will remain the same as it is today.
 - b) Removing approximately \$400 million of asset replacement costs by deferring medium and low risk tax-based asset replacement projects to beyond 2031. As shown in Appendix I, the revised capital program includes the following percentages of the asset replacement costs in the City's Asset Management Plan: 100% of the water and wastewater asset replacement costs (backlog and new costs), 100% of the extreme and high risk tax asset replacement costs and 9% of the medium and low risk tax asset replacement costs (overall 72% of the City's Asset Management Plan over the planning period). This means that, in order to achieve the City's fiscal thresholds, the less critical (medium and low risk) tax asset replacement projects, such as local roads, park paths and other amenities, will be deferred beyond 2031. This represents effective risk management in that the City will be able to replace assets with the highest impact of failure while accepting a lower level of service for assets that will have less impact if they fail in order to meet its fiscal thresholds. There is some flexibility in the plan (9% of the medium and low risk tax asset replacement costs will be funded) for replacement of these lower risk assets in coordination with other projects, such as the replacement of a local road when the water and wastewater mains are replaced. It is important to note that, although this is a reduction from the Base Case, the revised capital program still reflects a significantly higher investment in asset replacement than current levels.
 - c) Deferring various tax-funded road projects to beyond the first 10 years. The preferred solution outlined in the Master Plan is based on traffic volume forecasts but does not fully consider the time required to implement the program; the Scenario 1 revisions reflect the City's experience with the time required for approvals, Schedule C environmental assessment, design and construction of road and interchange projects; the longer timeframe may result in some traffic congestion until the program is fully implemented but is the only practical way to implement the required program given time and financial realities
 - d) Deferring a number of tax-funded facility projects to beyond the first 10 years. This will ensure a more balanced implementation approach with the new Hewitt's Recreation Centre to be built within the first 10 years of the program, followed by the Allandale Recreation Centre expansion and then the new Salem Recreation Centre.
29. The analysis with the Revised Capital Program was still unaffordable because the resulting debt and budget requirements exceeded the City's thresholds, as shown in Table 1.

New Development Financing Tools

30. The final step in the analysis was to assess the impact of introducing new development financing tools. As shown in Table 1, the City's fiscal thresholds were reached only after adding accelerated Development Charge payments, front-ending payments and a capital contribution to the analysis, as follows:
- a) **Accelerated payment** of hard service (water, wastewater, stormwater, roads) Development Charges at the time of planning approval
 - b) **Front-ending** by developers for all hard service (water, wastewater, stormwater, roads) infrastructure projects required to service the Annexed Lands
 - c) **Capital contribution** of not less than \$4,500 per housing unit to be paid at the time of Building Permit issuance by residential developers in the Annexed Lands; the capital contribution would include:
 - i. 10% mandatory deduction required by the *Development Charges Act*
 - ii. Amounts for transit and library services due to exceeding the service standard upper limit as required by the *Development Charges Act*
 - iii. Growth-related costs that are ineligible under the *Development Charges Act*
31. The results of the Fiscal Impact Analysis are shown in the following table:

Table 1: Fiscal Impact Analysis Scenario Planning to Reach the City's Fiscal Thresholds

Scenario	Budget Thresholds		Debt Thresholds	
	Municipal Taxes do not exceed 4% of average household income	Average water and wastewater costs do not exceed 2.5% of average household income	Principle and interest not to exceed 20% of City's total source revenues	Principle and interest for tax-supported debt not to exceed 10% of City's tax revenue
Base Case	5.1%	0.9%	46%	42%
Revised Capital Program	4.4%	0.8%	27%	26%
Revised Capital Program + accelerated payments	4.3%	0.8%	22%	22%
Revised Capital Program + accelerated payments + front-ending	4.3%	0.8%	22%	20%
Revised Capital Program + accelerated payments + front-ending + voluntary contribution	4.2%	0.8%	20%	19%

Fiscal Impact Analysis - Recommended Scenario

32. Through this analysis it was determined that the only way to create a financially viable growth management plan is to introduce a number of new development financing tools. Therefore, it is recommended that the Growth and Development section of the Financial Policies Framework be updated as attached in Appendix A to allow for the use of these new financing tools, as follows:
- a) Accelerating the timing of payment of Development Charges by developers to the time of planning approval
 - b) Front-ending of capital project costs by developers
 - c) Capital contribution payment by developers of not less than \$4500 per housing unit over and above the Development Charge payments for growth-related capital costs that are not eligible for inclusion in the Development Charges under the *Development Charges Act*
33. With the introduction of these new development financing tools, the FIA demonstrates that the City will be able to finance the new infrastructure required to support the growth mandated by the Province over the next 20 years while adequately managing the risks of asset replacement and maintaining existing levels of service for the residents and businesses of Barrie.

Fiscal Impact Analysis – Implications for Future Policy and Service Level Choices

34. It is important to note that, even with the introduction of these new financing tools, the City will have to manage its budget very carefully in the coming years. The FIA demonstrates that the City will be right at its fiscal thresholds, leaving little financial flexibility for responding to unexpected events or changing capital priorities:
- a) The City will reach the maximum debt limit established in the Financial Policy Framework. Debt charges (principle and interest) are forecast to reach, but not exceed 20% of the City's own source revenues. The maximum limit set by provincial legislation is 25%. This means that the City will have limited flexibility over the forecast period to address new financing requirements or address shortfalls in other revenue sources.
 - b) Development Charge rates cannot be discounted nor can new exemptions be introduced as any discounts or exemptions would increase the costs to existing taxpayers. The FIA forecasts the average Development Charges to be approximately \$44 000 per single unit residential and \$22 per square foot non-residential, which is in the range of charges for similar sized and neighbouring municipalities. This means that the City's DC rates would be comparable to others and minimize the costs required to be paid by existing taxpayers.
 - c) The forecast minimum annual balance in the Tax Capital Reserve is very low, limiting the City's flexibility during the forecast period to address unplanned needs. The forecast balance is as low as \$5.9 million or approximately 5% of the average annual capital budget. This means the City will have limited flexibility over the forecast period to address new financing requirements or address unplanned needs.

- d) The FIA forecasts annual tax increases of approximately 3% on average, with a range of 2% to 7% over the planning period. This means that new revenue from property taxpayers will be required in each year of the forecast period if infrastructure and service levels are going to be delivered as described in this report. The projected increases are largely driven by the increased investment in asset replacement from today's levels, and also by the portion of growth-related capital projects that provides a benefit to existing taxpayers. The actual annual change in property taxation will continue to be subject to Council's annual review and approval. Budget decisions will be dependent on asset management risk levels, the pace of growth, and updated capital needs forecasts.
- e) The FIA was based on estimated costs and financial assumptions. Actual costs and their timing will vary. The status of development, capital program costs and development uptake will be reported regularly to Council through an annual monitoring report, and the plan will be updated through the annual budget process. Again, actual budgets over the forecast period will be subject to Council's annual review and approval, with consideration for current asset management risk levels, the pace of growth, and updated capital needs information.
35. In summary, the recommended financial policy changes and related FIA provides a reasonable and equitable solution for managing the costs associated with significant growth and asset replacement needs over the next 20 years. The scenario described here means:
- a) The City can generally meet its fiscal thresholds while building the infrastructure required to service growth and replace existing assets with the same levels of service that residents and businesses enjoy today.
- b) The City can significantly increase its investment in asset replacement from current levels to address the priority asset replacement needs while meeting its fiscal thresholds. This is a balanced approach that allows the City to manage its risk by replacing the assets with the highest impact of failure and accepting a lower level of service for assets that will have less impact if they fail.
- c) Residents will continue to receive safe, clean drinking water and wastewater will be treated to regulatory standards in order to protect the health of Lake Simcoe.
- d) Drainage and stormwater management will continue to be appropriately managed to protect property and the environment.
- e) The City's transportation network will be maintained, extended and managed to promote a more active, healthy lifestyle.
- f) Parks, recreation facilities and other services will be extended as the City grows to create a complete community.
- g) With the recommended changes to the Financial Policies Framework, the City will be able to grow and prosper within its financial thresholds.

Growth Management Next Steps

36. Upon approval of this report, staff will move forward with a number of initiatives. Staff will present the Salem and Hewitt's Secondary Plans to Council in the near future. Staff will then present the results of the Fiscal Impact Analysis to the development community and begin discussions leading towards financial agreements in accordance with the new Financial Policies Framework. Staff will also start the Development Charges Background Study in preparation for an update to the Development Charges By-law in 2014. Further information regarding next steps will be presented with the Secondary Plans.

37. Also upon approval of this report, staff will proceed to complete the infrastructure Master Plans by filing the Notice of Completion for the Schedule A, A+ and B projects. If the projects are completed with no Part II Order requests, then staff will proceed with the implementation phase of the Municipal Class Environmental Assessment process, according to the required timing and subject to budget approval through the annual budget process. For the Schedule C projects, staff will proceed to Phases 3 and 4 of the Municipal Class Environmental Assessment process, according to the required timing and subject to budget approval through the annual budget process.

ENVIRONMENTAL MATTERS

38. The Infrastructure Master Plans have been completed under the Municipal Class Environmental Assessment process which considers environmental as well as social and cost criteria. The environmental commitments made through completion of the master plans will be carried through to the design and construction phases of the process.

ALTERNATIVES

39. There are three Alternatives available for consideration by General Committee:

Alternative #1 General Committee could decide not to approve the changes to the Financial Policies Framework and the use of the new financing tools as described in this report. This alternative is not recommended as the changes provide a foundation for infrastructure and land use planning that is consistent with Council's principle that growth pay for growth to the greatest extent possible within the law.

Alternative #2 General Committee could decide not to endorse the Fiscal Impact Analysis and request further analysis prior to initiating discussions with the development community. This alternative is not recommended because a comprehensive analysis has been completed.

Alternative #3 General Committee could decide not to approve the Infrastructure Master Plans. This alternative is not recommended as these documents identify the infrastructure required to support growth to 2031 and beyond. This includes forecasted population and economic growth both in the Annexed Lands and intensification within the former City limits. Preparation of the Master Plans has also been co-ordinated with the two Secondary Plans for the Annexed Lands.

FINANCIAL

40. The effect of the recommended changes to the Financial Policies Framework is to provide new financing methods that assist the City with managing the cost of municipal growth. These policy changes will allow growth to proceed at the pace described in this report while adhering to the planning principles approved by Council in 2009.
41. The financial impact analysis forecasts operating and capital requirements with corresponding rate increases, however, Council will continue to establish budgets and rates as part of the annual business planning process.
42. The financial impact analysis will be used to update the City's Long Range Financial Plan. Actual results will be compared to the Long Range Financial Plan at least annually in order to determine the extent to which we are in alignment with our plan or whether adjustments to the plan are required.

LINKAGE TO 2010 – 2014 COUNCIL STRATEGIC PLAN

43. The recommendations, included in this staff report, relate to the following goals identified in the 2010-2014 City Council Strategic Plan:
- a) Strengthen Barrie's Financial Condition
 - b) Manage Growth and Protect the Environment

LIST OF APPENDICES:

- A.** Financial Policy Framework – Growth & Development (existing and revised)
- B.** Infrastructure Master Plan Public Comments
- C.** Additional Stakeholder Consultation Meetings
- D.** Master Plan Summary
- E.** Master Plan Figures and Road Cross Sections
 - Figure 1 - Water
 - Figure 2 - Wastewater
 - Figure 3 - Stormwater
 - Figure 4 - Transit
 - Figure 5 – Ultimate Cycling Network
 - Figure 6 – Road Network
 - Figure 7 – Ultimate Sidewalks and Pathways
 - Road Cross Sections
- F.** List of Municipal Class EA Projects
- G.** Infrastructure Staging Plan
- H.** Infrastructure Levels of Service
- I.** Asset Replacement Forecast

APPENDIX "A"

Financial Policies Framework – Growth and Development

Growth and Development (Existing dated September 26, 2011)

Growth includes capital projects and operating costs related to the economic maturity and expansion within the City. The Development Charges Act permits the City to fund the growth portion of new infrastructure required to support new development from a charge levied at the building permit stage. This infrastructure must be maintained by the City, resulting in the need for an increased operating budget. While new residents bring in more taxation, they also participate in City programs, resulting in increased costs to maintain the same standard of service.

Guiding Principles:

- Asset acquisitions and construction are subject to a cost and benefit analysis that considers initial and lifecycle expenditures and alternative financing arrangements
- The Development Charge (DC) Bylaw will be used to recover the costs of growth to the full extent permitted by legislation (thereby minimizing the financial burden of the costs of growth on existing residents) Growth projects are undertaken as DC's are collected, consistent with the DC Background Study. Certain projects can proceed in advance of collection of DC's subject to the availability of funds/financing
- Other methods will be explored with developers/others to fund growth related projects that are not eligible for development charges
- Official Plan discussion about options to expand the urban boundary should include the projected impact on the operating budget and capital budget as well as an estimate of property tax revenue.

Targets

- DC's to be applied to the full extent permitted by legislation
- The cost associated with growth included in the operating budget will be identified and compared to new assessment generated by growth with impacts to existing taxpayers quantified where possible.
- The cost associated with development charge discounts will be recovered from residential developers identified and reported
- The cost impact of growth will be identified and quantified in the operating budget

Accountability

- Status of Development Charge accounts reported by the Director of Finance annually to Council and the Province
- The cost of growth will be reported as part of the City's Business Plan and Budget

Growth and Development (Revised ENG033-13)

Growth includes capital projects and operating costs related to the economic maturity and expansion within the City. The *Development Charges Act* permits the City to fund the growth portion of new infrastructure required to support new development, subject to a number of exemptions and reductions as set out in the legislation. This infrastructure must be maintained by the City, resulting in the need for an increased operating budget. While new residents bring in more taxation, they also participate in City programs, resulting in increased costs to maintain the same standard of service.

Guiding Principles:

- Official Plan discussion about options to expand the urban boundary should include the projected impact on the City's Long Range Financial Plan and the extent to which it aligns with the City's Financial Policy Framework.
- The pace and scope of growth will be managed to minimize the impact of growth on existing taxpayers and ratepayers. The Development Charge (DC) Bylaw will be used to recover the costs of growth to the full extent permitted by legislation, thereby reducing the financial burden of the costs of growth on existing taxpayers and ratepayers.
- The amount of DC's collected will be maximized by reducing or eliminating DC discounts and exemptions beyond those legislated under the *Development Charges Act*.
- DC's will be applied to growth related projects in accordance with the DC Background Study.
- Where DC reserve funds are insufficient to fund a capital project and internally financing a project is not feasible, debt will be issued and the debt servicing costs will be funded from the DC reserve fund.
- Accelerating the timing of payment of DC's by developers will be considered to reduce the impacts of growth on the City's financial management.
- Front-ending of capital project costs by developers will be considered in order to reduce the impacts of growth on the City's financial management.
- Capital contribution payments by developers over and above DC payments will be considered to pay for growth-related capital costs that are not eligible for inclusion in the DC's under the *Development Charges Act* and reduce the impacts of growth on the City's financial management.

Targets

- DC's to be applied to the full extent permitted by legislation.
- Funding from current taxpayers and ratepayers should not be required to pay for growth costs.
- The operating cost of growth should be less than or equal to tax revenue increases relating to assessment growth.

Accountability

- Status of DC accounts will be reported by the Director of Finance annually to Council and the Province.
- The cost of growth will be reported as part of the City's Business Plan.
- The cost associated with growth included in the operating budget will be identified and compared to new assessment generated by growth with impacts to existing taxpayers quantified where possible.

APPENDIX "B"

Infrastructure Master Plan Public Comments

Category	Theme	General Response
General	Master Plans meeting various regulatory requirements including the Lake Simcoe Protection Plan	The recommendations of the Master Plans meet all regulatory requirements and will be detailed at the subdivision approval stage.
Natural Environment	Natural environment protection	Approximately one third of the Annexed Lands are being designated as a natural heritage system. Remaining lands will be developed to meet regulatory requirements.
Water	Groundwater protection (private wells)	Contract specifications will protect existing private wells through various provisions.
Wastewater Collection	Pumping station and sanitary sewer concerns	Sanitary servicing is proposed for lands included in the 2031 planning horizon as determined by the population assigned by the Province. All servicing alternatives were considered however the preferred solution is based on maximum sewer depth and other factors to obtain the most cost effective method of servicing the entire Annexed Lands.
Drainage	Stormwater Management – water quality & pond locations	<p>Stormwater pond retrofits are subject to a detailed design and approval process. New pond locations and design details will be determined during development application review and approval process. Low impact development techniques will also be implemented.</p> <p>Floodline mapping will only be amended at detailed design as approved by the respective Conservation Authority.</p> <p>Water balance requirement is part of the Lake Simcoe Protection Plan.</p>

Transportation	Traffic Congestion	<p>The Master Plan has recommended projects to accommodate the transportation needs to 2031. Continued consultation with MTO will be conducted during Phase 3 and 4 of the Municipal Class Environmental Assessment (Class EA) process for future Hwy 400 crossings and interchanges.</p> <p>Mobility access to GO Transit hubs is addressed by the Master Plan.</p> <p>The loss of business during road closures is noted and will be mitigated through the construction contract specifications.</p> <p>A multi-year implementation plan for Mapleview Drive East as a five lane arterial road is currently being implemented. The Official Plan Amendment will designate a right-of-way width to accommodate future traffic growth. Additional widenings beyond 5 lanes will be subject to a Class EA, including further public consultation.</p>
Transportation	Active Transportation (cycling, walking, sidewalks, trails)	<p>The Master Plan includes a proposed active transportation network for both Former Barrie and the Annexed Lands.</p>
Transportation	Road Diets / Traffic Calming	<p>Street specific public consultation will be conducted before road diets are implemented.</p>
Transportation	Potential freight rail service	<p>The road network has been designed to permit future rail access to strategic lands.</p>

APPENDIX "C"

Additional Stakeholder Consultation Meetings

The purpose of the agency and stakeholder consultation meetings was to outline the City's growth management program, Annexed Lands Secondary Plan/Citywide Infrastructure Master Plans project and discuss the agency or stakeholder's involvement in the process.

2009

- Metrus Development Inc. (December 1st)
- East Moratorium Landowners Group (December 2nd)
- Ministry of Municipal Affairs and Housing (December 3rd)
- Barrie & District Real Estate Board (December 16th)

2010

- Lake Simcoe Region Conservation Authority (February 9th)
- Innisfil Hydro (February 10th)
- Simcoe County District School Board (February 16th)
- Nottawasaga Valley Conservation Authority (February 18th)
- Canadian Home Builders Association – Simcoe County (February 24th)
- Town of Innisfil (March 10th)
- County of Simcoe (March 12th)
- Ministry of Environment (April 6th)
- Simcoe Muskoka Catholic District School Board (April 14th)
- Metrus Development Inc. (April 30th)
- Lake Simcoe Region Conservation Authority (May 27th)
- Nottawasaga Valley Conservation Authority (June 15th)
- East Moratorium Landowners Group (June 18th)
- Town of Innisfil (June 23rd)
- Ontario Growth Secretariat (June 24th)
- Growth Management Strategy Public Open House (June 29th)
- Provincial Ministries (July 8th)
- County of Simcoe (July 9th)
- Metrus Development Inc. (July 14th)

2011

- Building Industry and Land Development Association (BILD) – Simcoe Chapter (February 25th)
- Barrie Utility Coordination Committee including Bell, Enbridge, Rogers Cable, PowerStream and Innisfil Hydro (February 28th)
- Metrus Development Inc. And East Moratorium Landowners Group (March 4th)
- Ministry of Municipal Affairs and Housing and Ontario Growth Secretariat (March 25th)
- Chippewas First Nation (April 7th)
- Huron-Wendat First Nation (April 20th)
- East Moratorium Landowners Group (May 6th)
- Metis Nation (May 16th)
- Barrie Police Service (May 24th)

2011 Continued

- County of Simcoe Planning Department (June 1st)
- Canadian Home Builders' Association – Simcoe Chapter (June 8th)
- Metrus Development Inc. (June 17th)
- AWARE Simcoe/Rescue Lake Simcoe Coalition (September 8th)
- Transition Barrie – A Member of the Transition Town Network (October 12th)
- Canadian Home Builders' Association Simcoe County (November 17th)
- Ministry of Municipal Affairs and Housing and Ministry of natural Resources (November 24th)
- Simcoe County Municipal Planners Group (November 25th)
- East Moratorium Landowners Group (December 16th)
- Simcoe County District School Board and Simcoe Muskoka Catholic District School Board (December 19th)

2012

- Innisfil Hydro (January 16th)
- Ontario Growth Secretariat (January 19th)
- Living Green Barrie (January 19th)
- Metrus Development Inc. (February 24th)
- Barrie Police Service (February 28th)
- Georgian College (March 13th)
- Barrie Utility Coordination Committee including Bell, Enbridge, Rogers Cable, PowerStream and Innisfil Hydro (March 19th)
- Metrus Development Inc. (March 27th)
- Canadian Home Builders' Association Simcoe County (April 19th)
- Building Industry and Land Development Association (BILD) – Simcoe Chapter (April 27th)
- East Moratorium Landowners Group (June 8th)
- Simcoe Muskoka Catholic District School Board (June 26th)
- Simcoe County District School Board (June 28th)
- Metrus Development Inc. and East Moratorium Landowners Group (July 13th)
- Metrus Development Inc. and East Moratorium Landowners Group (July 24th)
- Simcoe Muskoka Catholic District School Board and Simcoe County District School Board (July 26th)
- Lake Simcoe Region Conservation Authority (August 2nd)
- Ministry of Municipal Affairs and Housing and Ministry of Natural Resources (August 2nd)
- Nottawasaga Valley Conservation Authority (August 2nd)
- Metrus Development Inc. and East Moratorium Landowners Group (August 14th)
- Metrus Development Inc. and East Moratorium Landowners Group (August 16th)
- Nottawasaga Valley Conservation Authority (August 16th)
- Metrus Development Inc. (August 17th)
- Metrus Development Inc. and East Moratorium Landowners Group (September 12th)
- Simcoe County District School Board (September 24th)
- Simcoe Muskoka Catholic District School Board (September 26th)
- Pratt Development Inc. (October 12th)
- Metrus Development Inc. (October 25th)
- Ministry of Municipal Affairs and Housing and Ministry of Natural Resources (October 31st)
- Metrus Development Inc. (November 26th)
- Metrus Development Inc. and East Moratorium Landowners Group (December 14th)

2013

- RVH (January 17th)
- Simcoe County District School Board (January 30th)
- Simcoe County District School Board (February 21st)
- Simcoe Muskoka Catholic District School Board (February 28th)
- RVH (March 5th)
- Metrus Development Inc. (March 7th)
- East Moratorium Landowners Group (March 15th)
- Metrus Development Inc. (March 26th)
- Barrie Utility Coordination Committee including Bell, Enbridge, Rogers Cable, PowerStream and Innisfil Hydro (April 4th)
- Simcoe County District School Board (April 8th)
- Metrus Development Inc. (April 23rd)
- Metrus Development Inc. (May 7th)
- Metrus Development Inc. (May 23rd)
- East Moratorium Landowners Group (May 23rd)
- East Moratorium Landowners Group (May 29th)
- Metrus Development Inc. (June 18th)
- Simcoe County District School Board (June 20th)
- East Moratorium Landowners Group (September 3rd)
- Ministry of Municipal Affairs and Housing (September 4th)
- Metrus Development Inc. (October 3rd)
- Nottawasaga Valley Conservation Authority (October 7th)

APPENDIX "D"

Master Plan Summary

The purpose of the Master Plans is to outline the strategies for creating complete, connected communities where residents will continue to enjoy delivery of safe, clean drinking water to their homes and businesses, collection and treatment of wastewater and stormwater for protection of the environment, and a transportation network that provides choices for people to walk, cycle and take transit as they move around the City. Existing and new residents will also continue to benefit from a range of services provided by the City such as waste management, parks and recreation, transit, fire, police and library.

Water Supply Master Plan

The purpose of the Water Supply Master Plan is to identify the preferred water supply and treatment strategy for providing safe, clean drinking water to the residents and businesses of the City of Barrie to the year 2031, with consideration and flexibility for ultimate build-out of the City.

The existing water supply system includes twelve groundwater wells and one surface water plant treating water from Lake Simcoe, as shown in Appendix E – Figure 1.

The preferred solution is to maintain the existing water supply system, which has sufficient capacity to meet demand projections to 2031, and to continue the City's Water Conservation Program. The strategy assumes a reduction in average daily demand of 5% over the 20 year planning period. Water demand will continue to be monitored and the timing of the next expansion of the surface water treatment plant will be evaluated through subsequent updates of the Water Supply Master Plan.

Water Storage and Distribution Master Plan

The purpose of the Water Storage and Distribution Master Plan is to identify the preferred solution for delivering potable water to homes and businesses as well as for storing water to meet fluctuating demands throughout the day and to protect the City for fire and emergency purposes. The Master Plan covers the period to the year 2031, with consideration and flexibility for ultimate build-out of the City.

The existing water storage and distribution system consists of 6 booster pumping stations, 3 water towers, 2 in-ground storage reservoirs (with a third being constructed) and 600 km of water distribution pipes. The system is divided into water pressures zones according to ground elevation.

Watermains of size 400 mm and greater are considered trunk watermains and will be paid through Development Charges; watermains smaller than size 400 mm are considered local watermains and will be built by developers through agreements as required to accommodate growth.

The preferred solution for water storage and distribution includes the following components as shown in Appendix E – Figure 1.

Annexed Lands

- Extension of trunk water mains into the Annexed Lands
- New 20 ML in-ground storage reservoir and booster pump station on Salem Road between Veteran's Drive and Highway 400
- Twinning of watermain on Veteran's Drive

Former Barrie

- New booster pumping station from the Anne Street Reservoir to reinforce pressure zone 3N
- Watermain improvements in the south end of Former Barrie
- New pressure reducing valves separating pressure zones 2S and 3S
- New trunk watermain on Sunnidale Road to connect the Sunnidale and Anne Street Reservoirs to the water distribution system south of Highway 400
- Additional area specific improvements throughout Former Barrie

Wastewater Treatment Master Plan

The purpose of the Wastewater Treatment Master Plan is to identify the preferred solution requirements to the year 2031 for treating wastewater collected from homes and businesses before it is discharged to the environment, with consideration and flexibility for ultimate build-out of the City.

The existing wastewater treatment facility has a rated capacity of 76 MLD and discharges to Lake Simcoe at the western end of Kempenfelt Bay.

The preferred solution is to maintain the existing wastewater treatment facility, which has sufficient capacity to meet demand projections to 2031, and to continue the City's Water Conservation Program and Inflow and Infiltration Reduction Program. Flows to the facility will continue to be monitored and the timing of the next expansion of the wastewater treatment facility will be evaluated through subsequent updates of the Wastewater Treatment Master Plan.

The strategy also recognizes the requirements of the Lake Simcoe Protection Plan – Phosphorus Reduction Strategy and identifies that the City must implement additional phosphorus removal technology at the wastewater treatment facility by 2015.

Wastewater Collection Master Plan

The purpose of the Wastewater Collection Master Plan is to identify the preferred solution requirements to the year 2031 for collecting and conveying wastewater from homes and businesses to the wastewater treatment facility, with consideration and flexibility for ultimate build-out of the City.

Wastewater mains of size 450 mm and greater are considered trunk mains and will be funded through Development Charges; wastewater mains smaller than 450 mm are considered local mains and will be built by developers through agreements as required to accommodate growth.

The preferred strategy for wastewater collection is based on limiting the number of sewage pumping stations and servicing by gravity where practical, and includes the following components (refer to Appendix E – Figure 2):

Annexed Lands

- Extension of the existing 825 mm Hewitts Creek wastewater main to south of Mapleview Drive East
- Upgrades to the existing Holly Pump Station (PS5) including twinning of the existing forcemain (Phase 1)
- Extension of the existing 975 mm Lovers trunk wastewater main on Huronia Road at Lockhart Road south to McKay Road East then west on McKay Road to Veteran's Drive with appropriately sized sanitary sewer.
- New Salem wastewater pumping station and forcemain south of McKay Road West and west of Veteran's Drive

- New Hewitt's wastewater pumping station and forcemain in the vicinity of Mapleview Drive East and the 20th Side Road
- Twinning of a section of 450 mm wastewater main on Mapleview Drive West just west of Essa Road
- Extension of the existing 1050mm Lovers Creek sanitary trunk sewer on Mapleview Drive East to PS3 on Huronia Road.

Former Barrie

- Decommissioning Wastewater Pump Station 3 (PS3) at Huronia Road north of Saunders Road
- Decommissioning Wastewater Pump Station 4 (PS4) at Bayview Drive and Lockhart Road
- Twinning of the existing 250 mm wastewater main on Bishop Drive between Ferndale Drive and Patterson Road
- Twinning of the existing 300 mm wastewater main on Morrow Road immediately west of Patterson Road
- New 250mm sanitary sewer connection from PS4 to existing sewer on Lockhart Road at Rawson Avenue
- New 1050 mm wastewater main from PS3 to the existing Lovers Creek wastewater main at Mapleview Drive and Lovers Creek

Drainage and Stormwater Management Master Plan

The purpose of the Drainage and Stormwater Management Master Plan is to provide a strategy for the safe and effective management of storm drainage in the Annexation area, while maintaining the health and ecological well-being of the creeks and their tributaries. The Master Plan integrates flood control with opportunities to protect the ground/surface water and the natural environment and provides guidance on strategies to improve water quality in Former Barrie. The Master Plan accommodates growth to the year 2031, with consideration and flexibility for ultimate build-out of the City.

The existing drainage and stormwater system consists of drainage ditches, stormwater pipes, culverts and stormwater ponds throughout Former Barrie generally outletting into existing creeks.

The preferred solution recommends a number of culvert improvements for stormwater conveyance. The preferred solution also recommends using an integrated treatment train approach to mitigate drainage impacts from proposed development:

- The first step in the treatment train will be achieved by Low Impact Development (LID) controls on private lands including source controls (roof top infiltration), lot-level controls (bio-swales) and conveyance techniques (swales). LID's are effective in promoting groundwater infiltration and reducing peak runoff flows during storm events.
- The next step in the treatment train is Storm Water Management Facilities (SWMF). The SWMF's provide MOE enhanced storm water quantity and quality controls at a subdivision level.
- The last step of the treatment train is the protection of vegetation and habitat adjacent to creeks which was assessed as part of the natural heritage strategy and is protected by implementing environmental protection areas adjacent to natural features which are typically conveyed to the City as a condition of development approval.

Finally, the preferred solution includes a Phosphorus Strategy that recommends no net increase in phosphorus loads to creeks and Lake Simcoe from proposed greenfield development. The Master Plan also identifies an opportunity to retrofit existing storm water ponds in Former Barrie to offset increased phosphorus discharges related to growth. Retrofit opportunities to the Drainage System exist both as upgrades to existing ponds and as new ponds. These locations are shown in Appendix E – Figure 3. The Phosphorus Strategy responds to the requirements of the Lake Simcoe Protection Plan, which addresses excessive phosphorous loading entering the lake thus supporting the growth of algal blooms and ultimately reducing dissolved oxygen levels in the lake.

Multi-Modal Active Transportation Master Plan

The purpose of the Multi-Modal Active Transportation Master Plan is to provide a roadmap for accommodating the City's transportation needs to the year 2031, with consideration and flexibility for ultimate build-out of the City.

The existing transportation system includes roads, sidewalks, transit, cycling facilities and walking trails, however the connectivity of certain aspects the system is limited.

The preferred solution is a multi-modal active transportation system with a 20 percent modal split, which means that one in every five trips will occur using active transportation (transit, cycling, walking) rather than through individual motorized vehicles. The strategy includes additional sidewalks on local roads, on-roadway cycling on arterial and collector roads, and off-roadway active transportation pathways designed for more intensive use.

The key elements of the Master Plan are illustrated in figures provided in the Appendices. The transit network is shown in Appendix E – Figure 4. The ultimate cycling networks are shown in Appendix E – Figure 5. Roads that will be upgraded by 2031 and the new number of lanes are shown in Appendix E – Figure 6. Sidewalks, paths and trails are shown in Appendix E – Figure 7.

The preferred solution includes sidewalks on both sides of arterial, collector and local roads in the annexed lands to promote the development of active communities with the exception for the following where sidewalks shall only be required on one side of the street:

- Local streets in industrial areas;
- Residential streets with less than ten dwelling units or cul-de-sacs;
- Window streets;
- A street flanking the Natural Heritage System or a public park; and,
- where the City is satisfied through the a pedestrian circulation plan submission that only one sidewalk is necessary (provided that the street is not a transit route, does not provide direct access to a school, shopping area, park or Village Square, and the street has a maximum right-of-way width of 18 metres).

Sidewalks are a key component in pedestrian mobility providing linkages to neighbourhood amenities, schools and parks. In Former Barrie, sidewalks will be added to both sides of local roads on the streets fronting schools within 250 m of the school, and as local roads are reconstructed, sidewalks will be added to at least one side of the road.

The preferred solution also includes changes to the road right of way (ROW) widths to accommodate cycling lanes and planted centre median islands in some areas. Typical cross sections for local, collector and arterial roads are found in Appendix E – Road Cross Sections. For example, Mapleview Drive from east of Huronia Road to Yonge Street is a two lane roadway that is currently being widened to five lanes. The plan includes an ultimate 41 m ROW for this section of Mapleview Drive to accommodate a future

seven lane cross section. In order to reduce impacts to existing residential properties, the future ROW would come from the south side of Maplevue Drive between Huronia Road and Dean Avenue, and from the north side of Maplevue Drive between Dean Avenue and Yonge Street and continue on the north side east of Yonge Street.

Traffic management guidelines have been included within the Master Plan for improving the quality of life of citizens by mitigating undesirable effects of motor vehicle use, including excessive volumes and speeds, aggressive driver behaviour and providing safe conditions for walking and cycling. The traffic management guidelines consist of traffic management systems and measures such as coordinated traffic signals, roundabouts, road diets, the smart commute program and traffic calming measures.

Waste Management

The City has prepared a 'Sustainable Waste Management Strategy' which will accommodate the population growth that is proposed to occur to 2031. A strategy has been developed that incorporates socially acceptable, financially responsible and environmentally sound components to meet these challenges. The strategy includes diversion targets, priority initiatives and an implementation schedule. Through the implementation of the strategy there will be ongoing monitoring and a Public Awareness and Communication Plan to determine the progress of the strategy.

Parks and Recreation

The recommendations 2010 Parks & Recreation Strategic Master Plan (PRSMP) were reviewed to account for the growth projections. The various indoor and outdoor needs were determined based on the criteria identified in the 2010 PRSMP. These amenities included such elements as ice pads, soccer fields and playgrounds.

With respect to active parkland, the City will use the Planning Act dedications as well as other strategies to acquire the necessary land in which park and recreation opportunities will be located. With the planning framework modifications to the designation of Natural Heritage Areas, there may some modifications to the way that the active parkland areas are established.

Fire

A Fire Station Location study has been completed to determine the station location needs to meet the level of service established in the 2009 Fire Master Plan for the expanded City area for the projected population and employment growth to 2031. A new station #6 in the Hewitt's secondary plan and a relocation of Station #5 is recommended.

Police

The future accommodation needs of the Barrie Police Service are being included as part of the First Responders Campus Development Plan. It is proposed that the Police facility will be constructed in two phases to accommodate the projected growth to 2031.

Library

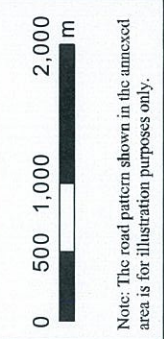
To meet the Barrie Public Library's strategic objective of 'Community-building - through strong branch and service development', the long range planning includes the provision of library facilities concurrent with the proposed Hewitt's and Salem community centres.



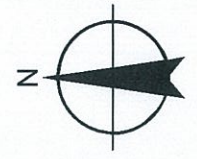
The City of **BARRIE**
Infrastructure
Master Plan
to 2031

Existing Well	Existing Reservoir	Proposed Watermain Annexed Lands
Proposed Well	Proposed Reservoir	Proposed Watermain Former Barrie
Existing Booster Pumping Station	Existing Tank	City Boundary
Proposed Booster Pumping Station	Surface Water Treatment Plant	Annexed Lands

FIGURE 1
Water
November 2013



Note: The road pattern shown in the annexed area is for illustration purposes only.



The City of
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Infrastructure
Master Plan
to 2031

- Proposed Force Main
- Force main to be Upgraded
- Proposed Trunk Sanitary Sewer
- Existing Pumping Station
- Proposed Pumping Station
- Pumping Station to be Removed
- Pumping Station to be Upgraded
- Wastewater Treatment Plant
- City Boundary
- Annexed Lands

FIGURE 2
Wastewater

November 2013



Note: The road pattern shown in the annexed area is for illustration purposes only.

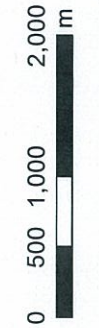


Note:
Stormwater management ponds required for
Annexed Lands and culvert improvements
are not shown.

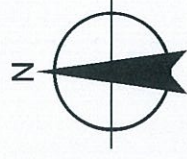
Potential Pond Retrofit Locations

- City Boundary
- Annexed Lands
- Proposed Ponds
- Existing Ponds

FIGURE 3
Stormwater
November 2013



Note: The road pattern shown in the annexed area is for illustration purposes only.



Note:
Transit routes will be extended into
annexed lands as development occurs

FIGURE 4
Transit
November, 2013

Note: The road pattern shown in the annexed area is for illustration purposes only.

TRANSIT HUB

- GO Rail Station and Major Hub Bus
- Major Hub Bus
- Minor Hub Bus

TRANSIT ROUTE 2013

- Route # 10
- Route # 90
- Route # 9
- Route # 8
- Route # 8 School Special
- Route # 7

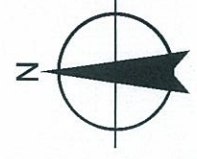
Legend:

- Route # 6
- Route # 5
- Route # 4
- Route # 3
- Route # 2
- Route # 1

Map Symbols:

- Parks
- Schools
- City Boundary
- Annexed Lands

APPENDIX "E"



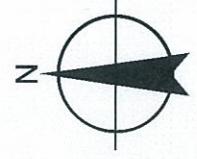
The City of
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 Infrastructure
 Master Plan
 Beyond 2031

- Road Right of Way Cycling Facilities**
- Existing On Roadway Cycling Facilities
 - Proposed On Roadway Cycling Facilities
 - Existing Off Roadway Cycling Facilities
 - Proposed Off Roadway Cycling Facilities
 - - - Road Diet with On Road Bike Lanes
-
- Parks
 - Schools
 - City Boundary
 - Annexed Lands

FIGURE 5
 Ultimate
 Cycling Network
 November, 2013

0 495 990 1,980 m

Note: The road pattern shown in the annexed area is for illustration purposes only.

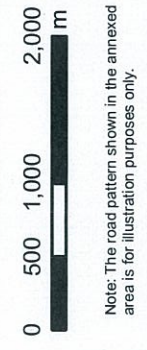


Note:
Existing roads with no proposed changes, existing roads that are only being urbanized, and new 2 lanes local roads within the Annexed Lands are not highlighted on this map.

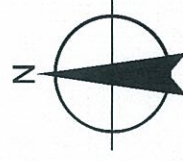
The City of
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Infrastructure
Master Plan
to 2031

- Arterial/ Collector Roadway Changes to 2031**
- 7 Lanes
 - 5 Lanes
 - 3 Lanes
 - 2 Lanes
 - Road Diet With On Road Bike Lanes
 - Interchange Improvements
 - New Railway Crossing Grade Separation
 - City Boundary
 - Annexed Lands

FIGURE 6
Road Network
November, 2013



Note: The road pattern shown in the annexed area is for illustration purposes only.



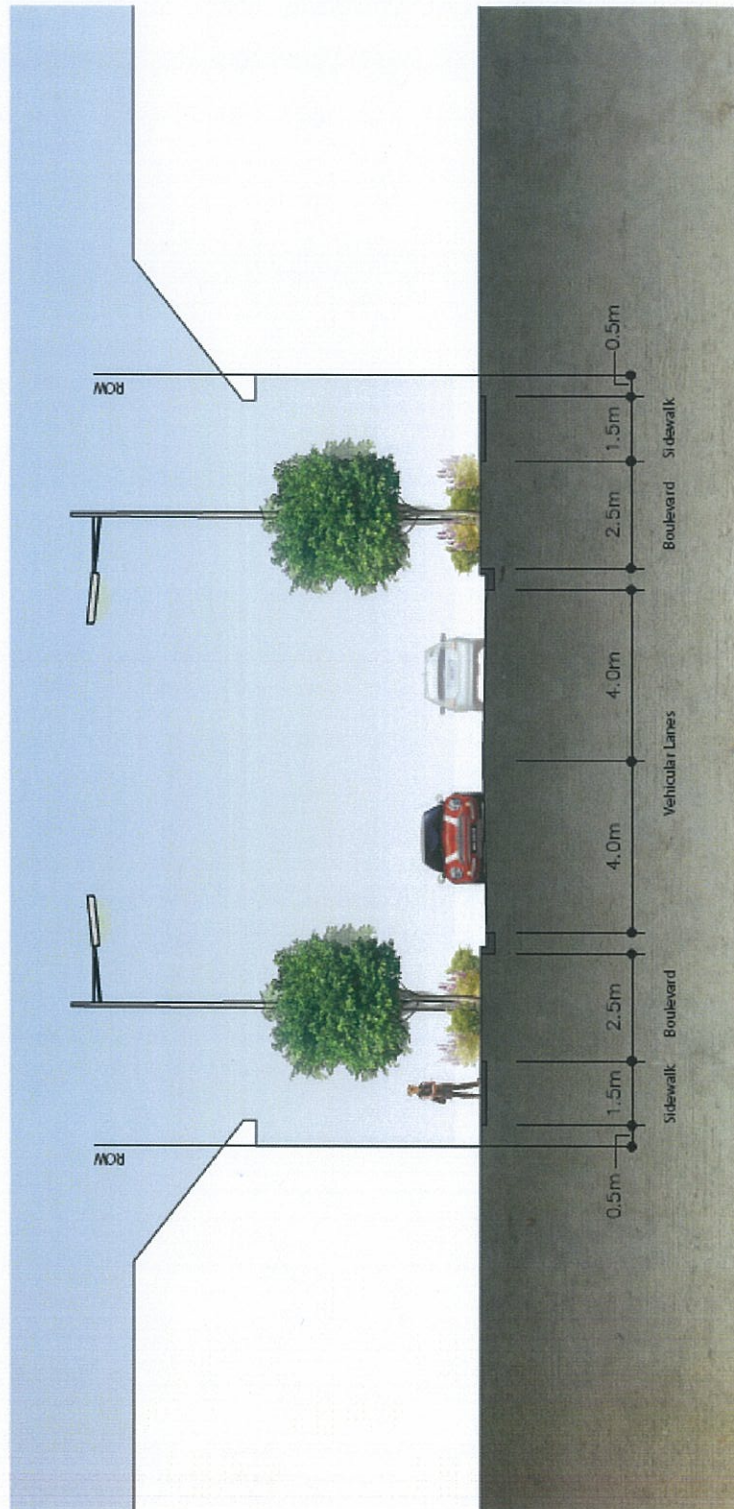
Note: Sidewalks not shown in Annexed Lands.



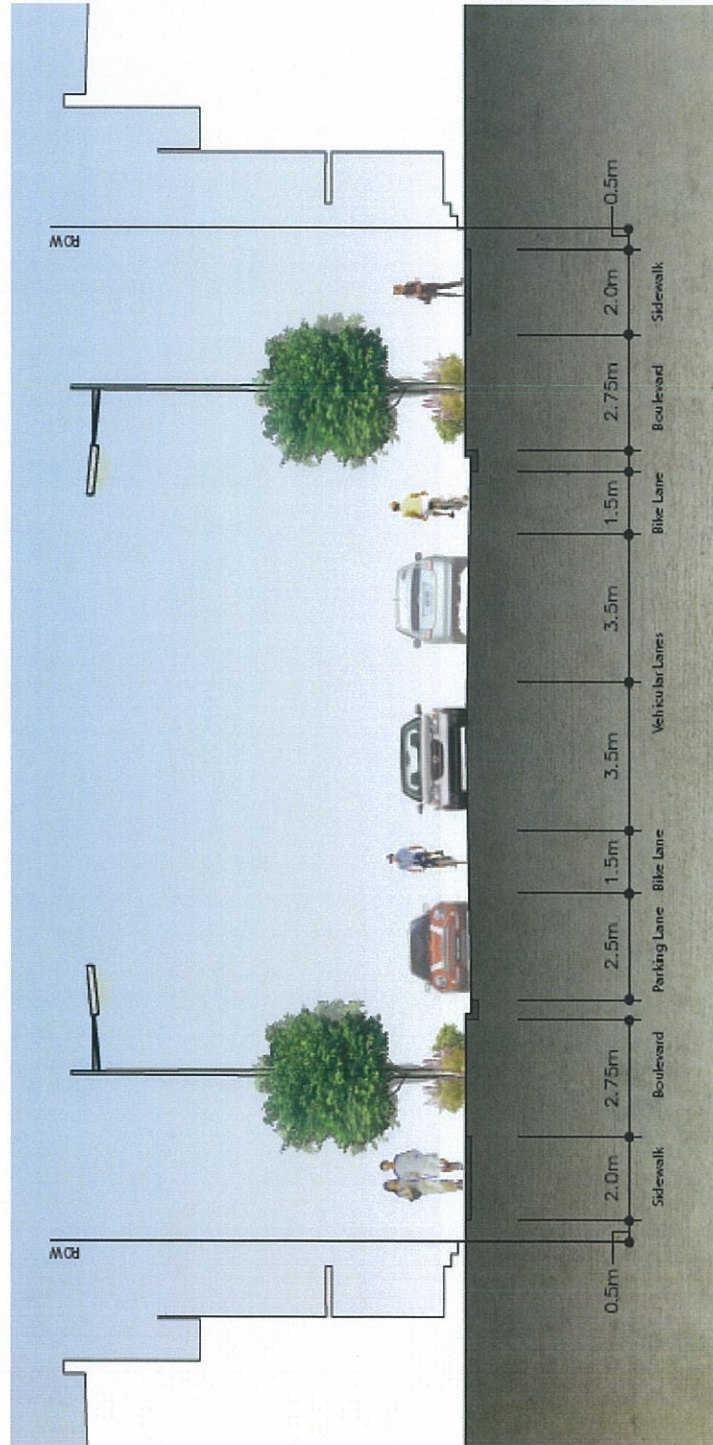
FIGURE 7
Ultimate Sidewalks and Pathways
November, 2013

Note: The road pattern shown in the annexed area is for illustration purposes only.

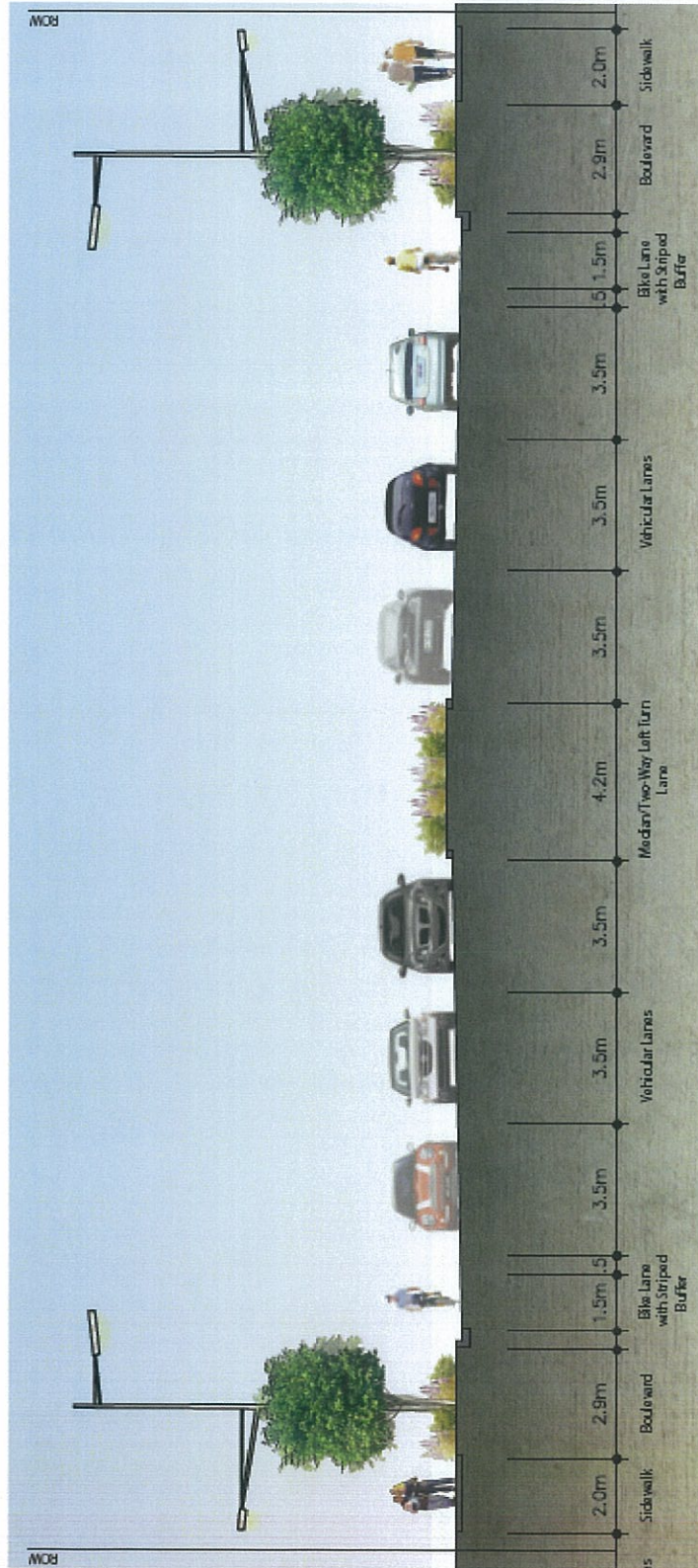
APPENDIX "E"
Road Cross Sections
Local Road - 18 m Residential



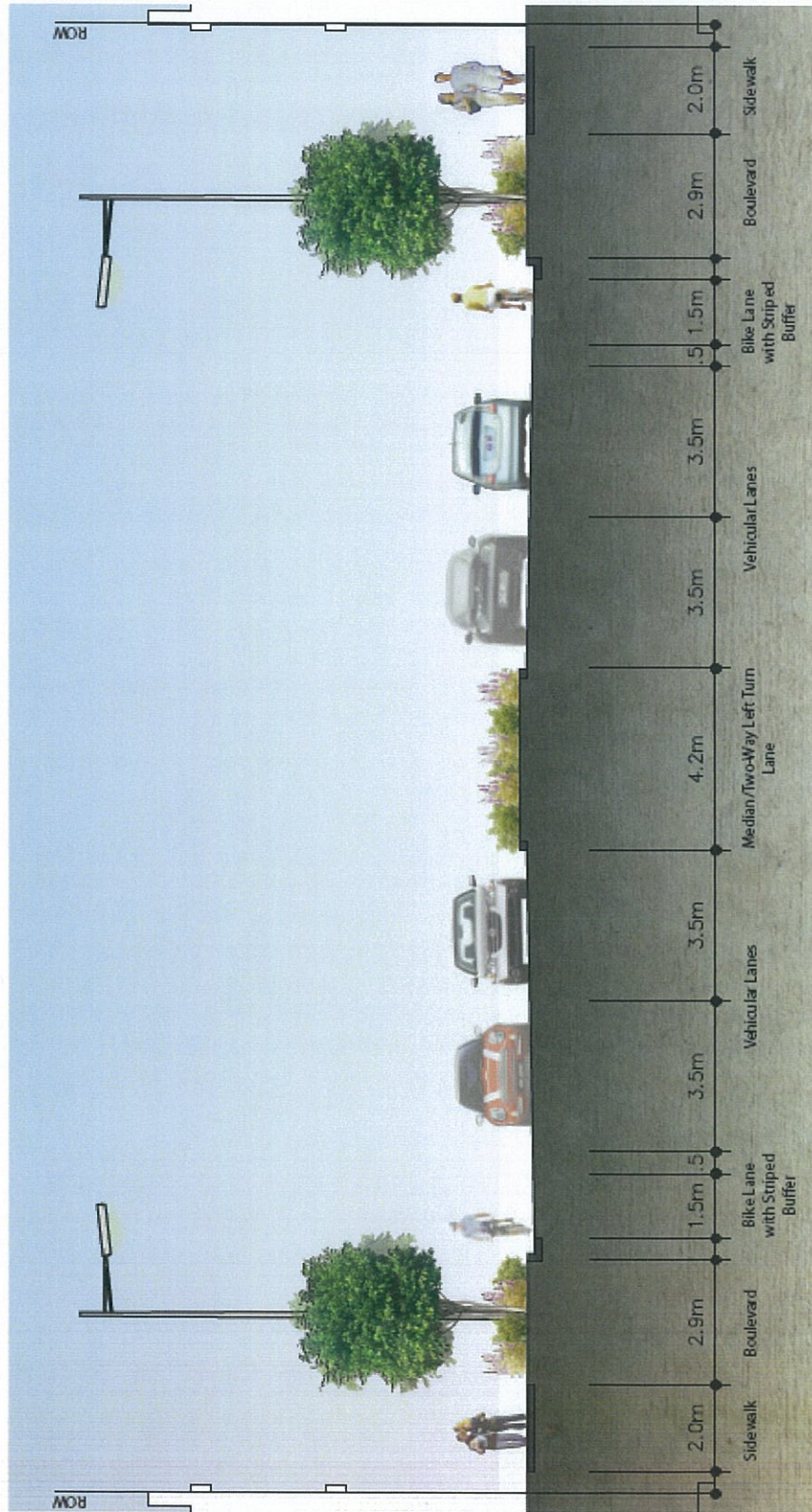
Minor Collector Road - 24 m Residential



Arterial Road - 41 m 7-lane with buffer bike lanes



Arterial Road - 34 m 5-lane with buffer bike lanes



APPENDIX "F"

List of Municipal Class EA Projects

Project Description Including Delineation (i.e. from point X to Y)	Class EA Schedule
<u>Water Storage and Distribution Master Plan Components</u>	
Intensification Improvements	
Berczy Street – Eugina Street north to Codrington Pumping Station; Zone 1 Reinforcement (upsizing existing 300 mm)	A+
Poyntz Street – Dunlop Street East north to Worsley Street; Zone 1 Reinforcement (upsizing existing 250/300 mm)	A+
Poyntz Street –Worsley Street north to Berczy Street; Zone 1 Reinforcement (upsizing existing 300mm)	A+
Miller Drive – Sproule Drive north to Edgehill Drive; Zone 1 Reinforcement (upsizing existing 150 mm)	A+
Dunlop Street East – Mulcaster Street east to Poyntz Street; Zone 1 Reinforcement (upsizing existing 250 mm)	A+
Penetanguishene Road – Indian Arrow Road north to Blake Street/Steel Street; Zone 2N Reinforcement	A+
Berczy Street – Eugina Street north to Codrington Street; Zone 2N Reinforcement (upsizing existing 300 mm)	A+
Eugina Street – Berczy Street east to Albert Street; Zone 2N Reinforcement (upsizing existing 100 mm)	A+
Eugina Street – Albert Street east to Dundonald Street; Zone 2N Reinforcement (upsizing existing 100 mm)	A+
Eugina Street – Dundonald Street east 350 m; Zone 2N Reinforcement (upsizing existing 150 mm)	A+
Eugina Street – St Vincent Street west 5 m; Zone 2N Reinforcement (upsizing existing 150 mm)	A+
Duckworth Street – St Vincent Street north to Codrington Street; Zone 2N Reinforcement (upsizing existing 150/200 mm)	A+
Duckworth Street – Codrington Street north to Napier Street; Zone 2N Reinforcement (upsizing existing 100/150 mm)	A+
Duckworth Street – Napier Street north to Steel Street; Zone 2N Reinforcement (upsizing existing 150 mm)	A+
Duckworth Street – Steel Street north to Grove Street East; Zone 2N Reinforcement (upsizing existing 150/200 mm)	A+
Duckworth Street – Grove Street East north to Bell Farm Road; Zone 2N Reinforcement (upsizing existing 150/200 mm)	A+
Cundles Road East – St Vincent Street east 300 m; Zone 2N Reinforcement (upsizing existing 200 mm)	A+
Leacock Drive – Leacock Pumping Station north to Browning Trail; Zone 3N Reinforcement	A+
Leacock Drive – Browning Trail north to Letitia Street; Zone 3N Reinforcement	A+
Bayview Drive – Big Bay Point Road north to Little Avenue; Zone 2S Reinforcement	A+
Bourbon Circle, Consort Drive and Sun King Crescent intersection southwest to Mapleview Drive East (private property); Zone 2S Reinforcement	A+
Mapleview Drive East – Huronia Road east to Country Lane/Stunden Lane; Zone 2S Reinforcement (no existing pipes)	A+
Mapleview Drive West – County Road No. 27 east to Red Oak Drive; Zone 3S Reinforcement & Supply (no existing pipes)	A+
County Road No. 27 – Mapleview Drive West north to Hubbert Cres Easement; Zone 3S Reinforcement (no existing pipes)	A+
County Road No. 27 – Hubbert Cres Easement north 840 m; Zone 3S Reinforcement (no existing pipes)	A+
County Road No. 27 – Mapleview Drive West south to Lougheed Road; Zone 3S Supply (no existing pipes)	A+
County Road No. 27 – Lougheed Road south to Street A; Zone 3S Supply (no existing pipes)	A+

Proposed Zone 3N Pumping Station north to Letitia Street and west along Letitia Street to Leacock Drive; Zone 3N Reinforcement	A+
Leacock Drive – Letitia Street north to Lampman Lane; Zone 3N Reinforcement	A+
Lampman Lane – Leacock Street west to Browning Trail; Zone 3N Reinforcement	A+
Little Avenue – Garden Drive east to Huronia Road; Zone 2S Reinforcement	A+
Tiffin Street – Ferndale Drive North east to Patterson Road; Zone 1 Reinforcement (upsizing existing 300 mm)	B
Tiffin Street – Patterson Road east to Dymment Road; Zone 1 Reinforcement (upsizing existing 300 mm)	B
Tiffin Street – Dymment Road east to Anne Street South; Zone 1 Reinforcement (upsizing existing 300mm)	B
Sandford Street cul-de-sac; Zone 1 Reinforcement sac connection pipe to Short Street cul-de-sac; Zone 1 Reinforcement	B
Zone 3N Pumping Station; Zone 3N Reinforcement	B
Sunnidale - Wellington Street to Letitia Street	B

Annexed Land Improvements

Mapleview Elevated Tank north to Mapleview Drive West and east to Bryne Drive	A+
Mapleview Drive West – Mapleview Elevated Tank west to Veterans Drive	A+
Essa Road – Mapleview Drive West south to Athabaska Road	A+
Essa Road – Athabaska Road south to Street A	A+
Essa Road – Street A south to Salem Road	A+
Essa Road – Salem Road south to Street L	A+
Veterans Drive – Mapleview Drive West south to King Street	A+
Big Bay Point Road – SWTP east to Sandringham Drive	A+
Madelaine Drive/Ashford Drive – Mapleview Drive East north to Big Bay Point Road	A+
Essa Road – Street L south to McKay Road West	A+
Salem Road – Essa Road east to Street B	B
Salem Road – Street B east to Reid Drive	B
Salem Road – Reid Drive east to Veterans Drive	B
Veterans Drive – Salem Road south to Street D	B
Big Bay Point Road – 210 m east of The Queensway east to Street M	B
Big Bay Point Road – Street M east to Street N	B
Veterans Drive – Street D south to Street E	B
Veterans Drive – Street E south to McKay Road West	B
McKay Road West – Reid Drive east to Veterans Drive	B
McKay Road West – 165 m west of Reid Drive east to Reid Drive	B
McKay Road West – Veterans Drive east 410 m to Hwy 400 proposed interchange	B
McKay Road West – 410 m east of Veterans east to Hwy 400 proposed interchange boundary	B
McKay Road West – Street F east 615 m	B

Annexed Land Improvements (Continued)

Royal Jubilee/Sun King/Consort/Sandringham – Maplevue Drive E north to Big Bay Point Road	B
Maplevue Drive East – Madelaine Drive east to west of Royal Jubilee Drive	B
McKay Road West – Street G east to Street F	B
McKay Road West – Street H east to Street G	B
Lockhart Road Reservoir	B
Lockhart Road Pumping Station	B
Lockhart Road – Lockhart Road Res & PS east to Huronia Road	B
Huronia Road – Maplevue Drive East south to Lockhart Road	B
Maplevue Drive East – Huronia Road east to Madelaine Drive	B
Lockhart Road – Veterans Drive east to Lockhart Road Res & PS	B
McKay Road West – Street I to Street H	B
McKay Road West – Street C east to Street I	B
McKay Road West – Essa Road east to Street C	B
McKay Road West – Hwy 400 interchange east to Street K	B
Big Bay Point Road –Street N east to 20 Sideroad	B

Wastewater Collection Master Plan Components

Twinning Holly Pumping Station forcemain from pump station north along CR27 to just west of Maplevue Drive and Essa Road for Project 21101-a	A+
McKay Road trunk sewer from Huronia Road to 1200m west of Veteran's Drive	A+
Twin existing 450mm trunk sanitary sewer on Maplevue Drive, east Essa Road	A+
Huronia trunk sewer from McKay Road to Lockhart Road	A+
Decommissioning Pumping Station #3	A+
Construction of trunk sewer on Huronia Road and Maplevue Drive connecting Pump Station #3 to the existing trunk sewer at Lovers Creek	A+
Decommissioning Pumping Station #4 and construction of sewer gravity sewer	A+
Twinning sanitary trunk on Morrow Road east of Patterson Road	A+
Huronia Road trunk sewer south of McKay Road to municipal boundary	A+
Phase 2 of Salem PS: additional pumping capacity	A+
Phase 2 of Hewitts PS: additional pumping capacity	A+
Upgrade of Holly Pumping Station	B
Hewitt's trunk extension from Maplevue Drive to Phase 1-3 boundary	B
Hewitt's trunk extension along Hewitts Creek to Maplevue Drive	B
Twinning sewer between Ferndale Drive and Patterson Road along Bishop Drive and within existing utility corridor	B
New Salem Pump Station south of McKay Road West and west of Veteran's Drive	B
Approximately 200m of twin forcemain east of Project 21301	B
Hewitt's trunk extension south of Phase 1-3 boundary to Lockhart Road	B
New Hewitts pumping station at Maplevue Drive and 20th Sideroad	B
Approximately 730 metres of twin forcemain along Maplevue Drive East west of the 20th Sideroad	B
Sanitary Pump Station at Salem and Highway 400	B

Drainage Master Plan Components

Culvert Capacity Improvements to Convey the 100 year Storm

County Road 27 between Loughheed Road and Salem Road	B
Salem Road between Essa Road and County Road 27	B
Essa Road south of Salem Road	B
Essa Road between Salem Road and Athabaska Road	B
Salem Road between Veterans Drive and Essa Road	B
Mckay Road approximately 850 meters west of Veteran's Drive	B
Mckay Road approximately 100 meters east of County Road 27	B
Veterans Drive between Mckay Road and Salem Road	B
Huronion Road approximately 50 meters south of Salem Road	B
Huronion Road approximately 500 meters north of Mckay Road	B
Huronion Road south of Mckay Road	B
Lockhart Road between Finsbury Street and Yonge Street	B
Barrie Collingwood Railway approximately 275 meters south of Lockhart Road	B
Barrie Collingwood Railway approximately 400 meters north of Mckay Road	B
Mapleview Drive East between Yonge Street and Royal Jubilee Drive	B
Lockhart Road approximately 700 meters east Yonge Street	B
Lockhart Road approximately 1300 meters east of Yonge Street	B
20th Side Road approximately 850 meters north of Lockhart Road	B
20th Side Road approximately 25 meters south of Mapleview Drive	B

Culvert Capacity Improvements to Convey the 50 year Storm

Highway 400 between Mckay Road and Lockhart Road/Salem Road	B
Highway 400 south of Mckay Road	B

Stormwater Pond Retrofits

Retrofit existing pond west of Bryne Drive, south of Essa Road and east of Essa Road	A+
Retrofit existing pond north of Livingstone Street and east of Ford Street	A+
Retrofit existing pond south of Sunnidale Road, east of Livingstone Street and west of Anne Street	A+
Retrofit existing pond south of Cundles Road and north of McVeigh Drive	A+
Retrofit existing pond south of Hurst Drive, west of Wallwins Way and east of Minets Point Road	A+
Retrofit existing pond south of Brunton Cres and east of Dixon Court	A+
Retrofit existing pond south of Chalmers Drive and east of Loon Avenue	A+
Retrofit existing pond south of Little Avenue and west of Firman Drive	A+
Retrofit existing pond east of Welham Road and south of Ellis Drive	A+
Retrofit existing pond east of Welham Road at Hooper Road	A+
Retrofit existing pond north of Mary Anne Drive and east of Cox Mill Road	A+
Retrofit existing pond north of Saunders Road and west of Bayview Drive	A+
Retrofit existing ponds north of Hubbert Crescent / Bear Creek Drive at Red Oak Drive	A+
Retrofit existing pond west of Bayview Drive and north of Lockhart Road	A+

Retrofit existing pond south of Hurst Drive and east of Coxmill Road	A+
Retrofit existing pond North of Wildwood Trail, east of Ferndale Drive and south of Ardagh Road	A+
Retrofit existing pond north of Rosenfeld Drive and west of Penetanguishene Road	A+
Retrofit existing pond north of Cardinal Street and west of St Vincent Street	A+
New pond west of Vincent Street and south of Laurie Crescent	B
Retrofit and expand existing pond north of Ottaway and east of St. Vincent Street	B
New pond east of Sunnidale Road and north of Highway 400	B
New pond south of Coulter Street, west of Bayfield Street and north of Highway 400	B
New pond north Big Bay Point Road, east of Huronia Road and west of Pickett Crescent	B
New pond east of Walnut Crescent	B
Retrofit existing pond south of Lakeshore Drive and west of Minets Point Road	B
New pond south of Tiffin Street, west of Patterson Road and north of Phillips Street	B
New pond west of Highway 400, east of Patterson Road north of Fraser Court	B
New pond south of Chieftan Crescent between Bayview Drive and Fairview Road	B
New pond north of Harvie Road and east of Beacon Road	B
New pond west of Highway 400 and east of Morrow Road	B
New pond north of Aradagh Road and east of Patterson Road	B
New pond west of Lougheed Road at Athabaska Road	B
New pond south of Ellis Drive and west of Welham Road	B

Multi Modal Active Transportation Master Plan Components

Former Barrie - Transit Components

Garage and Maintenance Facility	Garage and Maintenance Facility – 2016, 2021, 2026	A
Terminal Facilities	Terminal Facilities Total – 2021, 2026	A
Bus Stops	Bus Stops Total – 2016, 2021, 2026, 2031	A+
Queue Jump Lanes	Queue Jump Lanes Total – 2026	A+
HOV Lanes	HOV Lanes Total – 2021, 2026	A+

Former Barrie – New Roads Components

Anne-Baldwin Connector	Adelaide Street	Innisfil Street	B
Bryne Drive	North of Caplan Avenue	Existing North Cul-de-Sac	C
Big Bay Point Road	Bryne Drive	East of Fairview Road	C
Harvie Road	250m west of Bryne Drive	Bryne Drive	C
Welham Road	South Cul-de-Sac	Lockhart Road	C
Ross Street	Bayfield Street	Maple Avenue	C

Former Barrie – Interchanges

Duckworth Interchange	C
Harvie / Big Bay Point Interchange	C

Former Barrie – Roads Widened with Additional Through Lanes and AT

Burton Avenue	Bayview Drive	Milburn Street	B
Commerce Park Drive	Bryne Drive	140m West of Bryne Drive	B
Georgian Drive	Duckworth Street	Johnson Street	C
Cundles Road East	Livingstone Street East	Duckworth Street	C
Duckworth Street	Bell Farm Road	Cundles Road East	C
Bayfield Street	Grove Street	Cundles Road	C
Ferndale Drive North	Dunlop Street West	Tiffin	C
Dunlop Street West	Ferndale Drive North	Barrie City Limits	C
Dunlop Street West	Anne Street	Cedar Pointe Drive	C
Essa Road	Fairview Road	Highway 400 N-E/W Ramp	C
Harvie Road	250m west of Bryne Drive	Veterans Drive	C
Big Bay Point Road	East of Fairview Road	Huronia Road	C
Mapleview Drive	Huronia Road	Country Lane	C
Mapleview Drive	Country Lane	Yonge Street	C
Essa Road	Osmington Entrance	Fairview Road	C
Essa Road	Highway 400 N-E/W Ramp	Ardagh Road / Bryne Drive	C
Bryne Drive	Mapleview Drive	South of Mapleview Drive	C
St. Vincent	Sperling	Bell Farm	C
Tiffin Street	Lakeshore	Ferndale Drive	C
Lakeshore / Tollendal	Tiffin	Bay Lane	C
Huronia Road	Herrell Avenue	Big Bay Point Road	C
Essa Road	Ferndale Drive / Veterans Drive	Mapleton	C

Former Barrie – Roads Widened with Two-Way Left Turn Lane Only and AT

Anne Street South	Essa Road	Adelaide Street	B
Ross Street	Toronto Street	Maple Avenue	B
Collier Street	Poyntz Street	Blake Street	B
Bayview Drive	Little Avenue	Big Bay Point Road	C
Big Bay Point Road	Loon Avenue	Dean Avenue	C
Wellington Street West	Bayfield Street	Sunnidale Road	C
Anne Street North	Dunlop Street West	Wellington Street	C
Anne Street South	Tiffin Street	Essa Road	C
Baldwin Lane	Innisfil Street	Bayview Drive	C
Huronia Road	Yonge Street	Herrell Avenue	C
Little Avenue	Yonge Street	Hurst Drive	C
Bryne Drive	South of Essa Road	North Cul-de-sac	C
Bryne Drive	South Cul-de-sac	North of Caplan Avenue	C
Innisfil Street	Tiffin Street	Essa Road	C
Blake Street	Collier Street	Johnson Street	C
Essa Road	Anne Street South	Osmington Entrance	C
Essa Road	Mapleton	Former City Limits	C
Fairview Road	Essa Road	Little Avenue	C

Harvie Road	Veterans Drive	Essa Road	C
Tiffin Street	Ferndale Drive	Dunlop Street West	C
Minet's Point Road	Lakeshore Dr / Tollendal Mill Road	Yonge Street	C
Welham Road	Big Bay Point Road	Mapleview Drive East	C
Welham Road	Mapleview Drive East	South Cul-de-sac	C
Bayview Drive	Burton Avenue	Springhome Road	C
Anne Street North	Wellington Street	Edgehill Drive	C
Huronia Road	Big Bay Point Road	Lockhart Road	C
Bayview Drive	Springhome Road	Little Avenue	C
Welham Road, Truman, Hamilton	Huronia	Big Bay Point Road	C
Bell Farm Road	St. Vincent Street	West of Duckworth Street	C
Ardagh Road	Patterson	Essa	C
Bradford	High	Tiffin	C
Little Avenue	Fairview Road	Yonge	C

Former Barrie – Roads Reconstructed to Urban Standard (No Additional Vehicle Lanes) with AT

Churchill Drive	Bayview Drive	Welham Road	A+
Saunders Road	Bayview Drive	Huronia Road	A+
Penetanguishene Road	Steel Street	Barrie City Limits	C
Miller Drive	Dunlop Street West	Edgehill Drive	C
Hart Drive	Dunlop Street West	Vespra Street	C
Dyment Road	Vespra Street	Tiffin Street	C

Former Barrie – Roads Improved in Intensification Corridors for AT and Streetscape

Essa Road	Tiffin Street	Cumberland Street	B
Duckworth Street	Bell Farm Road	Wellington Street East	B
Essa Road	Cumberland Street	Anne Street South	B
Dunlop Street West	Anne Street	High Street	C
Bayfield Street	Ross Street	Grove Street	C

Former Barrie – Roads Restriped with Reduction in Through Lanes for Cycling and/or TWLTL

Cundles Road West	Anne Street North	Leacock Drive	A+
Livingstone Street West	Kozlov Street	Anne Street North	A+
Ferndale Drive North	Benson Drive	Livingstone Street West	A+
Hurst Drive	Big Bay Point Road	Cox Mill Road	A+
Ardagh Road	Ferndale Drive South	County Road 27	A+
Dean Avenue	Big Bay Point Road	Madelaine Drive	A+
Madelaine Drive	Yonge Street	Mapleview Drive	A+
Prince William Way	Big Bay Point Road	Mapleview Drive	A+
Collier Street	Mulcaster Street	100m west of Mulcaster Street	A+

Transportation Projects in the Annexed Lands

Garage and Maintenance Facility	Garage and Maintenance Facility – 2016, 2021 & 2026	A
Terminal Facilities	Terminal Facilities Total – 2021 & 2026	A
Bus Stops	Bus Stops Total – 2016, 2021, 2026 & 2031	A+
Queue Jump Lanes	Queue Jump Lanes Total – 2026	A+
HOV Lanes	HOV Lanes Total – 2021 & 2026	A+

Annexed Lands – New Roads

Salem Road	East of Highway 400 (Items not included in Projects 2210 or 2211)	West of Highway 400	C
McKay Interchange			C

Annexed Lands – Roads Widened with Additional Through Lanes and AT

Big Bay Point Road	Prince William Way	Collector 11	C
Mapleview Drive	Yonge Street	Prince William Way	C
Lockhart Road	Bayview Drive	Yonge Street	C
McKay Road West	West Boundary of Interchange	Reid Drive	C
McKay Road East	East Boundary of Interchange	Huron Road	C
Veterans Drive	Salem Road	540m south of Salem Road	C
Veterans Drive	540m south of Salem Road	McKay Road West	C
Yonge Street	Mapleview Drive East	Madelaine Drive	C
Lockhart Road	Yonge Street	Prince William Way	C
McKay Road West	Highway 400	West Boundary of Interchange	C
McKay Road East	Highway 400	East Boundary of Interchange	C
Yonge Street	Madelaine Drive	Lockhart Road	C
Lockhart Road	East of Highway 400	Bayview Drive	C
Salem Road	West of Highway 400	Veterans Drive	C

Annexed Lands – Roads Widened with Two-Way Left Turn Lane Only and AT

Big Bay Point Road	Collector 11	280m east of Collector 11	B
Lockhart Road	Prince William Way	160m east of Collector 11	B
Mapleview Drive	Prince William Way	430m east of Collector 11	C
Salem Road	Veterans Drive	County Road 27	C
McKay Road	Reid Drive	190m east of Collector 4	C
Essa Road	Former City Limits	Trans-Canada Pipeline	C
Huron Road	Lockhart Road	Barrie City Limits	C
McKay Road	190m east of Collector 4	290m west of Collector 4	C
McKay Road	290m west of Collector 4	630m west of Collector 4	C
Veterans Drive	McKay Road West	Barrie City Limits	C

Former Barrie - Signed on Road Bicycle Route (no property impacts)

Nelson Street	Georgian College entrance	Codrington Street	A
Cook Street	Georgian College entrance	Codrington Street	A
Puget Street	Steel Street	Shantybay Road	A
Steel Street	Blake Street	Duckworth Street	A
Codrington Street	Puget Street	St Vincent Street	A
Shantybay Road	East City Limits	Blake Street	A
Vancouver Street	Blake Street	Kempfenfelt Drive	A
Duckworth Street	Steel Street	St Vincent Street	A
Gunn Street	Berczy Street	Davidson Street	A
Davidson Street	Gunn Street	Grove Street	A
Berczy Street	Gunn Street	Penetang Street	A
Grove Street	Davidson Street	Peel Street	A
Peel Street	Rose Street	Grove Street	A
Grove Street	Bayfield Street	Toronto Street	A
Wellington Street East	Duckworth Street	Bayfield Street	A
Penetang Street	Duckworth Street	Mulcaster Street	A
Dunlop Street East	Duckworth/ Dundonald Street	Mulcaster Street	A
Owen Street	Grove street	Collier Street	A
Toronto Street	Grove Street	Lakeshore Drive	A
Mcdonald Street	Codrington Street	Sophia Street East	A
Codrington Street	Mulcaster Street	Mcdonald Street	A
Sophia Street East	Mcdonald Street	Bayfield Street	A
Sophia Street West	Bayfield Street	Ross Street	A
Sunnidale Road	Wellington Street West	Livingstone Street West	A
Lillian Crescent	Cundles Road West	Cundles Road West	A
Ford Street	Hanmer Street	Lillian Street	A
Letitia Street	Sunnidale Road	Leacock Drive	A
Lampman Lane	Leacock Drive	Browning trail	A
Lewis Lane	Browning Trail	Fox Run	A
Browning trail	Lampan Lane	Fox Run	A
Cloughley Drive	Benson Drive	Ferndale Drive	A
Benson drive	Ferndale Drive	Cloughley Drive	A
Fox Run	Leacock Drive	Edgehill Drive	A
Edgehill Drive	Ferndale Drive	Miller Drive	A
Eccles Street	Dunlop Street West	Perry Street	A
Perry Street	Eccles Street	Innisfil Street	A
Innisfil Street	Perry Street	Baldwin Lane	A
Victoria Street	Lakeshore Drive	Innisfil Street	A
Wright Drive	Ardagh Road	Summerset Drive	A
Patterson Road	Tiffin Street	Ardagh Road	A

Holgate Street	Innisfil Street	Robinson Street	A
Robinson Street	Holgate Street	Burton Avenue	A
Bayview Drive	Burton Avenue	Gowan Street	A
Milburn Street	Gowan Street	Burton Avenue	A
Gowan Street	Bayview Avenue	Milburn Street	A
Former City Rail Station	Gowan Street	Lakeshore road	A
White Oaks Road	Waterfront Bike Path	Brennan Avenue	A
Minets Point Road	White Oaks Road	Hurst Drive	A
Brennan Avenue	White Oaks Road	Hurst Drive	A
Tollendal Mill Road	Hurst Drive	Tyndale Road	A
Tyndale Road	Dock Road	Tyndale Park entrance	A
Dock Road	Coxmill Road	Tyndale Road	A
Golden Meadow Road	Dock Road	Hurst Drive	A
Coxmill Road	Warnica Road	Tollendal Mill Road	A
Warnica Road	Coxmill Road	Dodson Road	A
Dodson Road	Warnica Road	Big Bay Point Road	A

Former Barrie - Signed on Road Bicycle Route (no property impacts)

Ashford Drive	Big Bay Point Road	Yonge Street	A
Firman Drive	Little Aveune	Herrell Avenue	A
Herrell Avenue	Firman Drive	Leggott Avenue	A
Leggott Avenue	Herrell Avenue	Big Bay Point Road	A
Loon Avenue	Big Bay Point Road	Huron Road	A
Dean Avenue	Madeline Drive	Mapleview Drive East	A
Sandringham Drive	Big Bay Point Road	Prince William Way	A
The Queensway	Big Bay Point Road	Prince William Way	A
Country Lane	Yonge Street	Mapleview Drive East	A
Harvie Road	Essa Road	Emms Drive	A
Emms Drive	Harvie Road	Mapleton Avenue	A
Mapleton Avenue	Veterans Drive	Essa Road	A

Former Barrie – Addition of On Road Bicycle Lanes (no property impacts)

Johnson Street	Georgian Drive	Shantybay Road	A+
Grove Street East	Penetanguishene Road	Davidson Street	A+
Grove Street East	Peel Street	Bayfield Street	A+
Blake Street	Penetanguishene Road	Johnson Street	A+
Rose Street	St Vincent Street	Peel Street	A+
Ferris Lane	Cundles Road East	Bayfield Street	A+
St Vincent Street	Duckworth Street	Blake Street	A+
Kempfenfelt Drive	Duckworth Street	Dunlop Street East	A+
Livingstone Street East	Cundles Road East	St Vincent Street	A+

Hanmer Street	St Vincent Street	Stanley Street	A+
Stanley Street	Hanmer Street East	Livingstone Street East	A+
Kozlov Street	Hanmer Street West	Cundles Road West	A+
Coulter Street	Cundles Road West	Mall Street	A+
Hanmer Street West	Finlay Road	Anne Street North	A+
Livingstone Street West	Anne Street North	Ferndale Drive North	A+
Anne Street North	Sunnidale Road	Hanmer Street West	A+
Cundles Road West	Leacock Drive	Livingstone Street West	A+
Leacock Drive	Livingstone Street West	Edgehill Drive	A+
Edgehill Drive	Anne Street North	Ferndale Drive North	A+
Eccles Street North	Wellington Street West	Dunlop Street West	A+
Donald Street	Eccles Street North	Wellington Street West	A+
Summerset Drive	Nicholson Drive	Wright Drive	A+
Mapleton Avenue	Ardagh Road	Essa Road	A+
Marsellus Drive	Mapleton Avenue	Mapleview Drive West	A+
Hurst Drive	Coxmill Road	50 meters East of Kingsbridge Road	A+
Veterans Drive	Essa Road	Harvie Road	A+

Former Barrie - Addition of Sharrows (no property impacts)

Duckworth Street	Bell Farm Road	Steel Street	A+
St Vincent Street	Bell Farm Road	Wellington Street East	A+
St Vincent Street	Hanmer Street East	Sperling Drive	A+
Cundles Road East	Livingstone Street East	Ferris Lane	A+
Livingstone Street East	St Vincent Street	Stanley Street	A+
Hanmer Street East	Stanley Street	Bayfield Street	A+
Hanmer Street West	Bayfield Street	Finlay Road	A+
Cundles Road West	Kozlov Street	Anne Street North	A+
Wellington Street West	Sunnidale Road	Anne Street North	A+
Anne Street North	Wellington Street West	Edgehill Drive.	A+
Ferndale Drive south	Tiffin Street	Approx 100 m south of Tiffin Street	A+
Ferndale Drive south	Approx 50m North of Bishop Drive	Essa Road	A+
Burton Ave	Milburn Street	Minet's Point Road	A+
Big Bay Point Road	Dean Avenue	Prince William Way	A+
Big Bay Point Road	Huron Road	Loon / Leggott Avenue	A+

Former Barrie - Addition of Off Road Multi-use Path for Two way Bike Traffic (no property impacts)

Mapleview Drive West	Veterans Drive	Essa Road	A+
Yonge Street	Mapleview Drive East	Ashford Drive/ Madeline Drive	A+

Former Barrie – Off-Road Pathways

Nine Mile Portage Trail	Browning Trail	Trans-Canada Trail	A+
Harvie Road Pathway	Mapleton Avenue	Trans-Canada Pipeline Trail	A+
East Bear Creek Trail	Trans-Canada Pipeline Trail	Former City Limits	A+
South Kempenfelt Trail	Lover's Creek Trail	Dock Road	A+
South Kempenfelt Trail	Cox Mill Road	Hewitt's Creek Trail	A+
Hewitt's Creek – Crimson Ridge Connector	Hewitt's Creek Trail	Crimson Ridge Road	A+
Nelson Pathway	Codrington Street	North Shore Trail	A+
Duckworth Pathway	Duckworth Street	North Shore Trail	A+
Mulcaster-Queen Connector	Mulcaster Street	Berczy Street	A+
Trans-Canada Pipeline Trail	Miller Drive	Benson Drive	A+
Lover's Creek Trail	Tollendal Mill Road	Hurst Drive	A+
North Shore Trail	Barrie City Limits	Mulcaster Street	A+
Waterfront Trail	Mulcaster Street	Tiffin Street	A+
Waterfront Trail	Tiffin Street	Minet's Point Road	A+
Bishop–Alva Connector	Crawford Street	Bishop Drive	A+
Ferndale–Browning Connector	Ferndale Drive North	Browning Trail	A+
Trans-Canada Trail	Simcoe Street	Lakeshore Drive	A+
Bayfield Connector	Lakeshore Drive	Waterfront Trail	A+
St. Vincent Connector	Waterfront Trail	Blake Street	A+
Tiffin Connector	Lakeshore Drive	Waterfront Trail	A+
Victoria Connector	Lakeshore Drive	Waterfront Trail	A+
Simcoe Connector	Lakeshore Drive	Waterfront Trail	A+
Queen's Park Trail	Ross Street	High Street	A+
Cook Connector	Collingwood Street	North Shore Trail	A+
Harvie Road Pathway	Oakside Court	Emms Drive	A+
Sutherland Connector	South Kempenfelt Trail	North of Taylor Drive	A+
Camelot Connector	Hewitt's Creek Trail	Camelot Square	A+
East Lover's Creek Trail	Lover's Creek Trail	Former City Limits	A+
Shamrock Trail	Hewitt's Creek Trail	Shamrock Lane	A+
Loon–Country Connector	Loon Avenue	Country Lane	A+
Bunkers Creek Trail	Bradford Street	Waterfront Trail	B
Dyments Creek Trail	John Street	East of Waterfront Trail	B
Patterson Road Pathway	Patterson Road	Essa Road	B
North Bear Creek Trail	Mapleview Drive West	East Bear Creek Trail	B
Hewitt's Creek Trail	Lake Simcoe	Mapleview Drive East	B
Georgian College Pathway	Duckworth Street	Cheltenham Road	B
Nelson Connector	Georgian College Pathway	Nelson Street	B
Gallie Connector	Georgian College Pathway	Gallie Court	B
Trans-Canada Pipeline Trail	Former City Limits	Dunlop Street West	C
Trans-Canada Trail	Minet's Point Road	Lover's Creek Trail	B
Trans-Canada Trail / Lover's Creek Trail	South of Hurst Drive	Lockhart Road	B
Grove Street Extension Trail	Toronto Street	Sunnidale Road	B

Bear Creek School Trail	Bear Creek Secondary School	Woodfern Court	B
Allandale Connector	Cumberland Street	Burton Avenue	B
Internal Connector Pathways – 2026 & 2031	Various	Various	B

Annexed Lands – Off-Road Pathways

Trans-Canada Trail	Lockhart Road	2031 Urban Boundary	B
Trans-Canada Trail	2031 Urban Boundary	Reid Drive	B
Trans-Canada Trail	Reid Drive	Bicycle Boulevard N of Collector 2	B
Trans-Canada Trail	Bicycle Boulevard S of Collector 2	2026 Urban Boundary	B
Trans-Canada Trail	2026 Urban Boundary	Trans-Canada Pipeline Trail	B
Trans-Canada Trail / Trans-Canada Pipeline Trail	Trans-Canada Trail	Barrie City Limits	B
Trans-Canada Pipeline Trail	Trans-Canada Trail	Salem Road	B
Trans-Canada Pipeline Trail	Salem Road	Former City Limits	B
Madelaine – Collector 10 Connector	Yonge Street	Collector 8	B
Madelaine – Collector 10 Connector	East of Collector 8	Hewitt's Creek Trail	B
Winchester Terrace Trail	Winchester Terrace	West of Collector 11	B
West Bear Creek Trail	County Road 27	East Bear Creek Trail	B
East Bear Creek Trail	Former City Limits	West Bear Creek Trail	B
East Bear Creek Trail	West Bear Creek Trail	Trans-Canada Trail	B
East Bear Creek Trail	Trans-Canada Trail	McKay Road West	B
East Bear Creek Trail	McKay Road West	Barrie City Limits	B
Dunn Street Connector Trail	East Bear Creek Trail	Dunn Street	B
Trail 1	West Bear Creek Trail	Trans-Canada Trail	B
Trail 1	Trans-Canada Trail	Barrie City Limits	B
East Lover's Creek Trail	Former City Limits	2016 Urban Boundary	B
East Lover's Creek Trail	2016 Urban Boundary	Lockhart Road	B
Hewitt's Creek Trail	Mapleview Drive East	Madelaine – Collector 10 Connector	B
Hewitt's Creek Trail	Madelaine – Collector 10 Connector	Lockhart Road	B
Madelaine – Collector 10 Connector	Hewitt's Creek Trail	West of Collector 10	B
Sandy Cove Creek Trail	Lockhart Road	Collector 11	B
Local Street Connection	Trans-Canada Trail	North of Collector 4	B

Former Barrie – Other Sidewalk Infill

Sidewalk Infill – Year 2013 to 2031	Various	Various	A+
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APPENDIX "G"
Infrastructure Staging Plan

Major Infrastructure	Timeline for Construction		
	2012 - 2021	2022 - 2026	2027 - 2031
Water Storage and Distribution			
Booster Pumping Station to provide Zone 3N reinforcement	✓		
Trunk Watermain from SWTP to Salem Road Reservoir	✓	✓	
Salem Road In-ground Storage Reservoir & PS		✓	
Wastewater Treatment			
Co-Generation and Biogas Treatment	✓		
Inlet Works Screen Installations	✓		
Phosphorus Facility	✓		
Wastewater Collection			
Hewitt's Trunk Sewer Extension to Mapleview & Phase 1 Boundary	✓		
Holly Pump Station (PS5) and Forcemain	✓		
Lovers Trunk Sewer Extension along Mapleview, Huronia & McKay	✓		
Pump Station 3 & Pump Station 4 decommissioning	✓		
Salem Pump Station & Forcemain		✓	
Hewitt's Pump Station & Forcemain			✓
Drainage & Stormwater Management			
Culvert Improvements Lakeshore Drive	✓		
Kidds Creek Drainage Improvements Dunlop St. to Eccles St.	✓		
Lovers Creek Culvert Improvements at Mapleview Drive	✓		
Whiskey Creek Culvert Improvements at Highway 400	✓		
Storm Water Management Pond Retrofits	✓	✓	✓
Multi-Model Active Transportation			
Duckworth Interchange	✓		
McKay Interchange	✓		
Dunlop Interchange		✓	✓
Harvie / Big Bay / 400 Interchange			✓
Essa Road Interim Improvements	✓		
Georgian Drive (Duckworth to Penetanguishene Road)	✓		
Harvie / Big Bay / 400 Crossing	✓		
Mapleview (Yonge to Prince William) - GO Crossing	✓		
Mapleview Dr (Hurononia-Country Lane) Widening to 5 Lanes	✓		
McKay Transportation Improvements (Reid to Huronia)	✓		
Salem (Veteran's to CR27)	✓		
Veteran's (Salem to McKay)	✓		
Lakeshore (Tiffin to Toronto)	✓	✓	
Bayfield and Interchange Improvements (Grove to Cundles)		✓	
Bryne Drive (Caplan to Essa)		✓	
Essa Road Interchange Improvements		✓	
Lockhart (Yonge to Prince William) - GO Crossing		✓	
Lockhart Bayview to Yonge		✓	
Mapleview Drive (Country Lane to Yonge Street)		✓	
Salem/Lockhart Highway 400 Crossing		✓	

Major Infrastructure (Continued)	Timeline for Construction		
	2012 - 2021	2022 - 2026	2027 - 2031
Tiffin Lakeshore to Ferndale		✓	
Hurononia (Big Bay Point Road to Lockhart)			✓
Lakeshore (Tiffin to Bay Lane)			✓
St Vincent Highway 400 overpass			✓
Big Bay Point Road (Bayview to Huronia)	✓	✓	✓
Cycling Network	✓	✓	✓
Sidewalks	✓	✓	✓
Transit			
Transit Garage	✓		
Fleet Expansion & Replacement	✓	✓	✓
Bus Stops	✓	✓	✓
Specialized Fleet Addition & Replacement	✓	✓	✓
Fare Collection System	✓		
Waste Management			
Landfill Re-Engineering	✓		
South End Eco Centre – Ops Campus	✓		
Establish Reuse Centers		✓	
Gas Collection	✓	✓	✓
Parks			
Barrie Waterfront Improvements associated with Lakeshore Drive Relocation	✓		
Lampman Lane Community Center / Park Refurbishment	✓		
North Shore Trail Ecological Restoration	✓		
Memorial Park Redevelopment	✓		
Land Acquisition Sports Complex	✓	✓	
Additional Parkland Needs	✓	✓	✓
Playground Replacement	✓	✓	✓
Recreation Centres			
Hewitts Recreation Centre	✓		
Allendale Replacement and Expansion	✓	✓	
Salem Recreation Centre		✓	✓
Fire & Emergency Services			
Hewitts Station #5	✓		
Salem Station #6	✓		
Training Center	✓		
Aerial Platform Truck	✓		
Police			
79 Bell Farm Road	✓		
Additional Facility Space	✓	✓	
Library			
Hewitts Library	✓		
Salem Library	✓	✓	
Additional Facilities			
Convert Existing Terminal to Market	✓		
Marina Improvements	✓		
South Works Lands	✓		
70 Collier Improvements	✓		

APPENDIX "H"
Infrastructure Levels of Service

Service	Current Level of Service	Planned Master Plan Level of Service	Level of Service Modified Through Fiscal Impact Analysis	Comments
Water				
Water Supply	Water treatment meets or exceeds regulatory requirements	No change	No change	
Water Distribution	Watermains, pumping and storage infrastructure meets or exceeds regulatory requirements	No change	No change	
Wastewater				
Wastewater Treatment	Wastewater treatment meets or exceeds regulatory requirements Phosphorus treatment to meet 0.18 mg/L monthly average and annual load of 4993 kg	No change Phosphorus treatment to meet 0.1 mg/L annual average and annual load of 2774 kg (modified Environmental Compliance Approval requirement by June 2, 2015)	No change	The new Phosphorus requirement is to meet Lake Simcoe Protection Plan (LSPP) legislation
Biosolids	Biosolids management meets or exceeds regulatory requirements	No change	No change	
Wastewater Collection	Wastewater collection system meets or exceeds regulatory requirements	No change	No change	
Drainage				
Stormwater Management	Storm sewers, culverts and channels designed to meet or exceeds regulatory requirements Quantity Control through Stormwater management ponds and on-site storage	No change Quantity Control through Stormwater management ponds, on-site storage and low impact	No change	Low impact development techniques include infiltration trenches, bioswales and permeable pavement

Service	Current Level of Service	Planned Master Plan Level of Service	Level of Service Modified Through Fiscal Impact Analysis	Comments
	<p>Quality Control through Stormwater management ponds and mechanical devices</p> <p>Phosphorus impacts mitigated through best efforts to move to no net phosphorus loading increase from new development</p>	<p>development techniques to ensure best efforts to achieve a water balance</p> <p>Quality Control through Stormwater management ponds, mechanical devices and low impact development</p> <p>Phosphorus impacts mitigated:</p> <ul style="list-style-type: none"> • Intensification – best efforts to achieve no phosphorus load increase • Annexed Lands – move to no net increase in phosphorus loading from new development 		<p>Requirement to move to no net increase in phosphorus loading from new development is a requirement of LSPP legislation</p>
Transportation				
Road Network	<p>Road network comprised of local, collector and arterial roads.</p> <p>Level of Service D meaning vehicles are spaced about 8 car lengths apart, speeds above 50 km/hr, minor incidents create delays</p>	<p>No Change</p> <p>Level of Service E, meaning vehicles are spaced about 6 car lengths apart, speeds above 50 km/hr, incidents create serious delays</p>	No Change	A level of Service E is a common standard in larger urban areas
Local Road Capacity	<p>Up to 2,000 vehicles/day</p> <p>2 Lane Roads</p> <p>8.5 metre Road Widths</p>	<p>No Change</p> <p>No Change</p> <p>8 metre Road Widths (Residential) and 9.4m Road widths (Employment)</p>	No Change	
Collector Road Capacity	<p>Up to 15,000 vehicles/day</p> <p>2-4 Lane Roads</p> <p>11m-14m Road Widths</p>	<p>No Change</p> <p>2-3 Lane Roads</p> <p>12.5m-15.75m Road Widths</p>	No Change	

Service	Current Level of Service	Planned Master Plan Level of Service	Level of Service Modified Through Fiscal Impact Analysis	Comments
Arterial Road Capacity	Greater than 15,000 vehicles/day 2-7 Lane Roads 18m-25m Road Widths	No Change No Change 14.2m-29.2m Road Widths	No Change	
Bicycle Network	Bicycle Lanes including painted dedicated bicycle lanes Fragmented implementation	Implementation within Former Barrie over 20 years Connected network	Implementation within Former Barrie over 40 years	
Sidewalks	Local Roads - One Side Collector Roads - Both Sides Arterial Roads - Both Sides	Local Roads: Former Barrie – At least one side or road except roadways with School frontage to have two sides, Annexed Lands – Generally both Sides No Change No Change	No Change	A connected network of sidewalks and trails is an important part of developing a complete walkable community
Trails	Fragmented and Underdeveloped	Connected Network	Former Barrie – Implementation over 40 years Annexed Lands – No Change	
Transit	Hub System 400m Between Bus Stops 3% Transit Modal Share (3% of all trips are by transit)	No Change No Change 7% Transit Modal Share (7% of all trips are by transit)	No Change No Change 3% Transit Modal Share (3% of all trips are by transit)	To reduce fiscal impact, proposed to expand the transit into Annexed Lands and maintain the current level of service (same frequency of buses)
Waste Management	Disposal of solid waste generated within the City boundary to regulatory requirements.	No Change	No Change	

Service	Current Level of Service	Planned Master Plan Level of Service	Level of Service Modified Through Fiscal Impact Analysis	Comments
Parks & Recreation				
– Parks and Outdoor Facilities	Outdoor facilities requirements based on levels established in Parks and Recreation Strategic Master Plan. (ie area per 1000 residents, facilities per capita or facilities per number of registrants)	No Change (Parkland requirements through a variety of available land use classifications)	No change	
– Community Centres	Indoor facilities requirements based on levels established in Parks and Recreation Strategic Master Plan. (ie facilities per capita or per number of registrants)	No change	No change	
Fire & Emergency Services	10 Firefighters on the scene of a residential fire within 10 minutes. 90% of the time and a first road arrival within 6 minutes 90% of the time.	No change	No change	
Library	Community building – strong branch and service development	No Change	No Change	

APPENDIX "I"

Asset Replacement Forecast

	Percent of Needs Included		
	Water	Wastewater	Tax
Base Case			
Backlog	100%	100%	100%
Extreme & High	100%	100%	100%
Medium & Low	100%	100%	100%
Total	100%	100%	100%
Revised Capital Program			
Backlog	100%	100%	100%
Extreme & High	100%	100%	100%
Medium & Low	100%	100%	9%
Total	100%	100%	67%