

Chapter 18: River Road Secondary Plan

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- Schedule 1 – Neighbourhood Structure
- Schedule 2 – Open Space Structure
- Schedule 3 – Street/Active-Transportation Structure
- Schedule 4 – Land Use Structure

18.1 Introduction

The River Road area is within the designated Urban Area in the City of Cambridge. The River Road Secondary Plan establishes a vision, principles and policies for the design and development of the River Road area. It also establishes the general land use patterns and conceptual location of community infrastructure such as parks and trails, roads, and services.

The lands subject to this Section of the Official Plan are identified in Schedules 1 to 4, which are attached hereto and form part of this Official Plan.

In addition to the identified Schedules and the following text, this Secondary Plan also includes the following appendices:

Appendix A – River Road Secondary Plan Report (June 2021) Appendix B – Supporting Documents:

- Phase 1 Background Report Memorandum (June 2020)
- Cultural Heritage Resource Assessment Study – Existing Conditions Report (January 2020, updated March 2020, May 2020 and March 2021)
- River Road Secondary Plan Traffic Study (March 2021)
- River Road Neighbourhood Plan Functional Servicing Assessment (June 2021)

18.1.1 Purpose of the Secondary Plan

The purpose of the River Road Secondary Plan is to provide a land use strategy to guide the detailed planning and development of the River Road Community in a manner that integrates infill development with the existing neighbourhood and adjacent rural character of River Road, while respecting and protecting surrounding natural features.

The River Road Community is planned to contribute to the achievement of a complete community and provide opportunities for a full range of housing, transportation options including active transportation, provision of a new park and protection of existing natural open space. The Secondary Plan is to provide an appropriate framework to organize the community neighbourhood structure, transportation, park, natural open space and cultural heritage elements.

Development within the River Road Secondary Plan will conform to and implement the Regional Official Plan and the City of Cambridge Official Plan. In addition to the policies of this Secondary Plan, all other parts of the City of Cambridge Official Plan shall apply. In the event of a policy conflict, the River Road Secondary Plan will prevail.

18.1.2 Structure of the Secondary Plan

The Secondary Plan consists of the following:

- a) Neighbourhood Vision in Section 18.2
- b) Neighbourhood Structure in Section 18.3
- c) Land Use Structure in Section 18.4
- e) Servicing Strategy in Section 18.5
- f) Transportation Strategy in Section 18.6
- g) Implementation in Section 18.7
- h) Schedules 1 to 4

18.1.3 Goals of the Secondary Plan

The goals of the River Road Secondary Plan are to:

- a) establish a community structure and land use strategy for lands within the secondary plan area;
- b) identify a vision and design principles for the community;
- c) ensure orderly development of the community by providing direction and guidance to the review and approval of development applications and by providing a phasing strategy that provides for the logical development of the community;
- d) identify, preserve and enhance, where possible, significant natural features and areas;
- e) deliver an enhanced River Road street cross section that preserves the views of the Speed River and associated natural features and areas as well as the road's character;
- f) efficiently use infrastructure and community facilities;
- g) ensure an appropriate mix of housing types and sizes, and promote opportunities for affordable housing;

- h) ensure the conservation of identified built heritage resources (refer to Appendix B Cultural Heritage Resource Assessment Study – Existing Conditions Report (January 2020, updated March 2020, May 2020, March 2021));
- i) identify a road network and identify opportunities for transit and active transportation;
- j) identify the optimal River Road cross section to safely and comfortably accommodate for pedestrian and cycling movement while introducing traffic calming strategies;
- k) ensure compatible built form and transition in densities relative to surrounding existing development; and,
- l) enhance the existing character of the River Road corridor.

18.2 Neighbourhood Vision

The River Road Secondary Plan Vision is based on the growth and development tenets found in the City of Cambridge Official Plan to:

“Develop a community that supports and emphasizes River Road’s unique rural character and built heritage features, in a way that allows residents and visitors to better enjoy the natural environment and scenic views associated with the Speed River.

The community is envisioned as a sustainable and accessible neighbourhood with a range of housing, a pedestrian friendly environment and multiple recreational opportunities.”

Furthermore, the Vision for the River Road Secondary Plan lands is intended to encourage and manage development in a manner that delivers a vibrant and diverse community. Key components of the Vision reflected in the policies herein and related schedules include:

1. The enhancement of River Road as a scenic "promenade" route along the Speed River through the implementation of a distinctive streetscape and built form character strategy fronting onto the street;
2. The preservation and enhancement of the existing River Road streetscape through the implementation of a special residential character zone that seeks to maintain the area's character through the implementation of a River Road typical streetscape and built form character elements such as building setbacks, height and massing;
3. The development of a neighbourhood-scaled open space network that is sensitive to the site's existing natural features and provides pedestrian links to adjacent public open space amenities;
4. The development of a community with a diverse range of housing types; and,
5. The implementation of a connected street system.

18.3 Neighbourhood Structure

The Secondary Plan is based on a Neighbourhood Structure organized around River Road as a key character element with a central internal neighbourhood all connected by an active transportation system, a local road network and an integrated open space network. The objectives of the Neighbourhood Structure are to:

- a) Plan for a more complete community that is walkable and can accommodate various modes of transportation by means of a more compact form and densities that contribute to achieving the density targets of the approved Regional and City of Cambridge Official Plans.
- b) Provide an open space network of integrated and connected public spaces, including a new park (minimum 0.6 ha up to 1.5 ha in size), and trail link to the Red Wildfong Park, an enhanced active transportation network along River Road, existing mid-block connectors, and existing stormwater management facilities and natural features.
- c) Locate higher density development along internal roads and on larger landholdings in the Secondary Plan area.
- d) Ensure compatibility of scale and form between new and existing development in the vicinity and provide for appropriate transitions between existing and proposed development.
- e) Promote active streetscapes.
- f) Design the built form in a manner which is sensitive to the adjacent natural heritage system and mitigates impacts on natural features, functions and linkages through buffers, development setbacks, and stormwater management and other infrastructure best practices.
- g) Promote sustainable design throughout the built environment to promote efficient use of energy, land, and infrastructure.
- h) Design spaces that provide safe living and working environments through the consideration of Crime Prevention Through Environmental Design (CPTED) principles.
- i) Coordinate the location of parks with the active transportation network including community trails, walkways and bike lanes.
- j) Coordinate traffic calming and pedestrian protection measures with the open space network and other public spaces including the trail system along River Road.

The River Road Neighbourhood Structure is shown on Schedule 1 and the main elements are:

- a) **Residential Neighbourhoods** comprised of lands designated Village Residential and Neighbourhood Residential as identified on Schedule 4 and described below:
 - i. Village Residential – Fronting onto River Road, these lands are to frame and enhance the road’s character through River Road specific built form and siting parameters while accommodating new active transportation infrastructure.
 - ii. Neighbourhood Residential – Larger landholdings internal to the secondary plan, these lands might be anchored by open space at its centre (pending draft plan application process) and planned to contribute to the overall housing mix and density targets of the community as a whole.
- b) **Existing Natural Open Space System** – Comprised of existing natural heritage features such as wetlands, the natural areas associated with the Speed River as well as the flood plain. The system frames the overall structure of the Plan by maintaining and conserving these areas.
- c) **Proposed Parks/Open Space** – Comprised of a centrally located proposed open space amenity and active transportation links to the adjacent existing open spaces of Red Wildfong and Sault Parks.
- d) **The Road System** – Comprised of an internal north-south and east-west public road system and a private road system intended to facilitate pedestrian, cycling and vehicular movement. The Road System extends into existing roads intersecting the study area, such as McMeeken and Alderson Drives.

18.3.1 Sustainable and Healthy Neighbourhood

The community design elements structuring the River Road Secondary Plan area are the physical land use planning manifestation of a strategy that seeks to achieve social, economic, and environmental sustainability.

Development in the River Road Secondary Plan is envisioned to achieve:

- a) Social sustainability by encouraging a diverse community that offers a wide range of housing mix to a wide range of people with different backgrounds, age, lifestyles and socio-economic status;
- b) Economic sustainability by continuing to encourage home occupation related employment and increasing the local population that can support Cambridge’s business community; and,

- c) Environmental sustainability by:
 - i. integrating active transportation infrastructure that encourages walking and cycling;
 - ii. encouraging environmentally responsible design and construction practices;
 - iii. the integration, protection and enhancement of natural features and landscapes into building and site design;
 - iv. promoting practices, which conserve water, and protect or enhance water quality;
 - v. on a site-specific basis, certain techniques such as the use of roof top gardens and the re-use of grey water will be encouraged provided that groundwater infiltration targets are not compromised; and,
 - vi. design of stormwater management should consider Low Impact Development (LID) measures, on-site infiltration on a distributed basis, adaptive management design, reduced chloride impacts, and resiliency of wetlands and resilient stormwater management strategy as outlined in the Functional Servicing Report.

18.3.2 Cultural Heritage

Cultural heritage resources within the River Road Secondary Plan area shall be conserved. Development in the River Road Secondary Plan is envisioned to promote development which respects and reflects the physical and cultural identity and the heritage attributes of the area. Development that is adjacent to significant cultural heritage resources are to be of an appropriate scale and character.

The conservation of existing cultural heritage as identified in the Cultural Heritage Resource Assessment Study, Existing Conditions Report (refer to Appendix B) is encouraged in accordance with and to implement the policies of Chapter 4: Cultural Heritage Resources of this Plan. The City will consider evaluating all properties identified as potential cultural heritage resources in the Cultural Heritage Resource Assessment Study, Existing Conditions Report (refer to Appendix B) under Ontario Regulation 9/06 and the City's Cultural Heritage Value Evaluation Criteria to ensure that all potential cultural heritage resources that merit designation are conserved.

If the City does not evaluate potential cultural heritage resources under Ontario Regulation 9/06 and the City's Cultural Heritage Value Evaluation Criteria, the City may require submission of a heritage impact assessment with any Planning Act application on or adjacent to an identified existing or potential cultural heritage resource or any demolition application. The heritage impact assessment will further assess the cultural heritage value of the identified potential cultural heritage resources under Ontario Regulation 9/06 and the City of Cambridge's Cultural Heritage Value Evaluation Criteria to ensure that the existing cultural

heritage resources in the Secondary Plan area are conserved.

The following mitigation measures and/or alternative development approaches should be considered in development design to reduce the potential for adverse impacts to potential cultural heritage resources in the area:

- a) Avoidance and mitigation to allow development to proceed while retaining potential cultural heritage resources in situ and intact;
- b) Avoidance protocols to isolating development and land alterations to minimize impacts on significant built and natural features and vistas;
- c) In support of Section 4.2.1(b) and other policies of this Plan, the City encourages design approaches that:
 - i. Ensure compatible lot patterns, situating parks and storm water ponds near a heritage resource;
 - ii. Limit height and density of buildings on adjacent and nearby lots;
 - iii. Ensure infill development that is compatible with heritage resources; and,
 - iv. Use vegetation buffer zones, tree planting, and other design measures, implemented through the review and approval of plans of subdivision and site plan applications.

Where appropriate, architectural design guidelines may be required for buildings on adjacent and nearby lots to help integrate and harmonize mass, setback, setting, and materials.

18.3.2.1 River Road – Potential Scenic Heritage Road and Cultural Heritage Landscape

It has been determined that River Road merits recognition as a City of Cambridge Scenic Heritage Road as a scenic route with a ‘moderate’ scenic quality. The City will consider identifying River Road as a scenic heritage road upon the establishment of policies in accordance with Section 4.14 of this City Official Plan. Until such policies are created, River Road was found to meet the criteria for recognition as a potential cultural heritage landscape under the Region of Waterloo’s criteria and could be recognized as such by the City.

A proposed Statement of Significance and list of attributes has been included within the Cultural Heritage Resource Assessment Study, Existing Conditions Report (refer to Appendix B). These attributes should be considered in concert with roadway improvements intended for improving public safety within the Secondary Plan area.

18.3.3 Existing Natural Open Space System

The lands designated Existing Natural Open Space System are shown on Schedule 1. The goal of the Existing Natural Open Space System is to maintain, restore and enhance existing natural features and associated ecological functions and ensure their continued existence within the urban landscape.

The Existing Natural Open Space System retains and protects all provincially, regionally and municipally designated natural features including provincially significant wetlands, river slopes erosion allowances and the regulatory floodplain associated with the Speed River.

18.3.3.1 Objectives

- a) To conserve and protect the area's natural open space system as an integral component of the community by providing clear and unobstructed visual and physical links to natural features where feasible and appropriate;
- b) To ensure a connected open space system is implemented and comprised of the existing natural features, stormwater management facilities, streets, trails, new public park with a formal and accessible trail connection through Red Wildfong Park to Melran Drive and McMeeken Drive;
- c) To encourage the conservation and integration of existing hedgerow and woodland features into the community's overall design and development.

18.3.3.2 Policies

In addition to the policies in Section 8.8, the following policies shall apply to the lands designated as Existing Natural Open Space System on Schedule 1 of this Secondary Plan:

- a) Buffers and development setback distances will address potential impacts and protect and enhance natural features. Setback distances and buffer widths vary by natural feature to ensure development does not interfere with the hydrologic function of the feature. This is to include areas within 120 metres of all provincially significant wetlands and wetlands greater than or equal to 2.0 hectares in size, and areas within 30 metres of wetlands less than 2.0 hectares in size. O. Reg. 150/06, s. 2 (1); O. Reg. 57/13, s. 1 (1-3).
- b) Development and site alteration within the buffers areas is subject to further detailed study and evaluation in a future site-specific Environmental Impact Study.
- c) Development, infrastructure and site alteration which may be considered within the buffer areas include:
 - i. Limited portions of stormwater management facilities and associated grading;

- ii. Recreational trails and associated grading; and,
 - iii. Site alteration associated with grading incursions to address landscape; and anomalies as required to achieve sound engineering practice and design.
- d) Development or site alteration within natural features and buffers will be prohibited except as may be required for the permitted uses specified in Section 18.3.3.2(c).
- e) The Existing Natural Open Space System will maintain or enhance existing linkages within and between large natural areas and restore linkages between natural areas where existing connectivity is degraded. Linkages are intended to provide movement areas for a range of wildlife and provide suitable dispersal corridors.
- f) The Existing Natural Open Space System will provide opportunities for ecological enhancements to improve plant and wildlife habitat.
- g) Opportunities for additional enhancements (wildlife crossing enhancements) should be considered during the detailed design of River Road and the development planning stage.
- h) Environmental Impact Studies, Hydrogeologic Assessments, Chloride Impact Assessment and Stormwater Management Plans will be required to form part of a “complete application” and as supporting information for draft plans of subdivision, plans of condominium and major zoning by-law amendment applications.

18.3.3.3 Regulated Environmental Features

18.3.3.3.1 Regulated Wetland/Environmental Features

Regulated Wetland/Environmental Features on Schedules 2, 3 and 4 recognize the limits and associated minimum buffers of a Provincially Significant Wetland. The ecological and hydrologic functions of the lands designated Regulated Wetland/Environmental Features shall be protected, maintained, or, where possible, improved for the long-term, recognizing linkages between and among natural heritage features and areas.

The Regulated Wetland/Environmental Features designation is intended to:

- a) protect the health and water quality of the natural heritage feature;
- b) conserve biodiversity;
- c) protect significant natural heritage features and their associated functions; and,
- d) protect surface and ground water resources.

18.3.3.3.2 Natural Heritage Overlay

The Special Policy Area Overlay on Schedules 1, 2, 3 and 4 recognizes natural heritage features, which contribute to the Natural Heritage System.

- a) Additional environmental study is required to determine the exact boundaries and buffers to protect the features and functions to the satisfaction of the City of Cambridge, the Grand River Conservation Authority and Region of Waterloo.
- b) The proponent shall be required to submit an Environmental Impact Study as part of any future development application to demonstrate that there will be no significant negative impact on the natural heritage features or their functions.
- c) Should it be demonstrated through an Environmental Impact Study that a natural heritage feature may be reduced or removed, the adjacent land use designation shall apply.

18.3.4 Open Space

The River Road Community will provide opportunities for residents to live, work, learn and play and will contribute to the achievement of a complete Cambridge community. The proposed open space network encourages active transportation, recreation, and opportunities to connect across the neighbourhood. A new park, a trail system along River Road, a trail connection through Red Wildfong Park, existing pedestrian connections and other elements of the active transportation network (such as sidewalk and on-road cycling routes) are identified on Schedules 1, 2, 3 and 4.

18.3.4.1 Policies

A new park is envisioned to be located central to the community's larger land holdings and may serve as a community hub. The new park will also feature a trail connection through the Red Wildfong forested area to connect to Melran Drive and to McMeeken Drive.

18.3.4.2 Existing Trees

The rural character of the River Road Secondary Plan area is established by the abundance of trees. They occur throughout the study area with a large concentration located at the east edge of the plan area immediately adjacent to the existing community. Trees are an important component of the River Road Secondary Plan area as they enhance the character of the area, provide wildlife habitat, nourish and protect soil from wind and water erosion.

- a) Development of the Secondary Plan area should seek to maintain canopy and the Urban Forest Plan target. The area as a whole should meet the Urban Forest Plan canopy target (30% canopy) by protecting existing trees (in the natural area), adding

new street trees, buffer compensation plantings, and anticipated private property landscaping plans/trees in condominium blocks.

- b) A tree management plan / tree by-law permit for removals, street tree plans, as well as applicable Landscape Plans on Site Plan submissions, will be requirements for development applications.
- c) Integration of the treescape into future development plans as part of rear yards or as important element of front yards and future streets is required.
- d) Tree plantings should include a variety of native trees, appropriate to the local habitat.

18.4 Land Use Structure

The land use structure was developed on the basis of building on the rural character of River Road by generally maintaining the existing lot fabric along the roadway, while planning for a mix of low to medium density residential development east of the River Road corridor and west of existing developed areas.

The land use structure and planned densities for the River Road Secondary Plan area are based, in part, on the policies of Section 2.6.1.8 of the Official Plan directing that infill, intensification and redevelopment within existing neighbourhoods will be minor in nature and will be designed to respect existing character. While planned infill, intensification and redevelopment is more limited when compared to other areas in the City, the policies of the River Road Secondary Plan will allow for a mix of residential dwelling types and forms with new development.

Development throughout the River Road Secondary Plan area shall be encouraged to create a sense of identity and place through the use of various means including attractive built form, architectural design treatments, high quality building materials, decorative lighting, decorative street signs, boulevard treatments, and landscaping elements. The following policies are intended to apply to all new developments or redevelopment within the River Road Secondary Plan area to ensure the overall design vision and objectives for the area are achieved.

18.4.1 General Policies

- a) Residential lands in the River Road Secondary Plan area are designated Village Residential and Neighbourhood Residential. The Village Residential designation applies primarily to lands located along River Road, while the Neighbourhood Residential designation applies to lands that are located more centrally in the broader River Road community (i.e., east of River Road and west of the existing residential neighbourhood). The locations of the Residential designations are shown on Schedule 4.
- b) Lands within the River Road Secondary Plan area will be planned to achieve an overall minimum density of 12 units per hectare and a maximum density of 16 units per hectare. Accessory apartments are not included in the calculation of density. Individual development applications may have densities lower than 12 or higher than 16 units per hectare provided that the City is satisfied that the total overall density within the Secondary Plan area, at full build-out, will conform to the overall planned density range.
- c) The River Road Secondary Plan area will be planned, designed and zoned to achieve a variety of housing types, styles and lot sizes. Single detached lots will be planned to

have a variety of lot widths, unless specified otherwise in this Plan.

- d) Secondary residential units and special needs housing are permitted within Village and Neighbourhood Residential designations and will be regulated by the Zoning By-law.
- e) Community gardens and other compatible forms of urban agriculture may be permitted in all residential areas.
- f) Residential streetscapes shall be designed to allow for on-street parking through creative design solutions such as varying housing types and lotting patterns.

18.4.2 Affordable Housing

The City encourages opportunities to locate affordable rental and ownership housing within the Secondary Plan Area (as defined in the Provincial Policy Statement). The City encourages a diverse range of tenure types and unit sizes scaled to meet the City's housing needs.

18.4.3 Built Form and Lotting Policies

- a) With the exception of along River Road, a mix of lot frontages along all street blocks will be encouraged. Long blocks of similar frontages will be discouraged.
- b) A variety of building forms are encouraged. Harmonious built form typologies are encouraged within the River Road community to collectively establish a sense of place and neighbourhood character.
- c) Built form should frame intersections and provide attractive and defining entrances to the community.
- d) All building forms are encouraged to address the street in a manner that supports an active streetscape for pedestrians. Primary building entrances will be required to be oriented towards the public realm and garage walls and driveways will be required to minimize their presence on the streetscape.
- e) Consideration will be given to the location, orientation and design of Priority Lots. Through the development application review process, priority lots should be identified.
- f) Priority Lots may include corner lots; terminating view/vista lots; lots along elbow streets; and open space lots.
- g) Buildings on corner lots will be required to articulate façades on both street frontages. Buildings on corner lots shall be oriented towards the higher-order street where possible and appropriate.

- h) Buildings at terminating vistas will be encouraged to be designed as landmarks, with architectural innovation and quality urban design that reflects the community character.
- i) The built form in close proximity to the lands designated Natural Open Space System or Open Space will be designed to be sensitive and complementary to these areas and maintain and create opportunities for views and vistas to these areas, where appropriate.
- j) Variation and excellence in building design, including architectural features, building materials, style, colour and other individual design elements, is encouraged and will be reviewed through applicable development applications. Continuous, blank facades are discouraged. Built forms may be further defined and implemented through the City's Zoning By-law and site plan approval.
- k) Design briefs are required in support of future development applications and will identify priority lots such as vista, terminating view, corner lots, etc. Prior to the issuance of permits, enhanced elevations will be prepared for the identified lots in accordance with the River Road Urban Design Policies with the requirement imposed as a condition of approval.

18.4.4 Land Use Policies

18.4.4.1 Village Residential

- a) The planned intent of the Village Residential designation is to complement River Road's historic development pattern and scale in the form of ground-oriented housing in a low-rise format.
- b) The Village Residential land use designation will permit single detached, semi-detached, and triplex dwellings with a target density of 9 units per hectare and a maximum density of 13 units per hectare. Accessory dwelling units are also permitted but are not included in the calculation of density.
- c) The maximum building height in the Village Residential land use designation will be 2 storeys and will be regulated by the Zoning By-law.
- d) In addition to the built form, landscape and vegetation are an important character element of River Road. Generous naturalized front "meadows" are intended to ensure the area's distinctive rural character is maintained as it accommodates for new development in accordance with Section 18.4.5.7.2.

18.4.4.2 Neighbourhood Residential

- a) The planned intent of the Neighbourhood Residential designation is to provide opportunities for a range of residential typologies in a medium density format that deliver on the diversity of dwelling types and densities encouraged to support the City's range of accommodation options.
- b) The Neighbourhood Residential land use designation will permit single detached, semi-detached, triplex, fourplex, townhouse, stacked townhouse, back-to-back townhouse and stacked back-to-back townhouse dwellings to a maximum density of 40 units per hectare. Accessory units are also permitted but are not included in the calculation of density.
- c) Building heights will be a maximum of 3 storeys and will be regulated by the Zoning By-law with specific consideration being given to maximum building height and compatibility relative to existing development in the immediate vicinity to ensure appropriate transition between existing and proposed development.

18.4.5 Urban Design Policies

18.4.5.1 Urban Design Vision

The Urban Design Vision for the River Road Secondary Plan builds on the overall Vision and objectives for the River Road Secondary Plan, and is based on the City of Cambridge's Official Plan and aims to deliver a new community that:

"(...) supports and emphasizes River Road's unique rural character and built heritage features, in a way that allows residents and visitors to better enjoy the natural environment and scenic views associated with the Speed River.

(...) Is envisioned as a sustainable and accessible neighbourhood with a range of housing, a pedestrian friendly environment and multiple recreational opportunities."

The urban design vision encourages and manages development in a manner that delivers a vibrant and diverse community. Integral to this vision is the design and integration of the Village Residential and Neighbourhood Residential areas, each with a variety of residential housing options. In addition, the urban design vision delivers policies to ensure a high-quality, sustainable and accessible public realm and private realm.

18.4.5.2 Development Block Design

Block length and design define and structure neighbourhoods, influencing development opportunities, movement options and neighbourhood character. Each guideline may not be appropriate for all instances and an alternative may be better suited for a specific

development. Therefore, variations to these provisions may be considered by City staff and where applicable Council, when it is demonstrated that an exception may be appropriate, provided that adjustments to block lengths maintain and facilitate pedestrian movement throughout the community through the provision of clear and safe pedestrian connectors and walkways.

The following are design guidelines for block design in the River Road Secondary Plan area:

- a) To maximize connections and permeability for both vehicular and active transportation modes, the street should be based on a grid pattern that is modified in response to natural open space, built heritage or existing street conditions.
- b) Block lengths should generally range between 60 to 100 metres to promote walkability.
- c) New developments that are adjacent to existing built form should pursue opportunities to integrate with or connect to existing streets. The number of connections should be maximized to increase permeability.
- d) Blocks longer than 100 metres may be considered on an individual basis where other block alternatives are not feasible. In such cases, publicly accessible pedestrian walkaways should be provided to facilitate pedestrian circulation and access.
- e) Draft plans shall be designed to ensure that residents are generally located within a 200 to 400 metre radius (2.5-to-5-minute walk) to a parkette or to other passive recreational elements such as trailheads, neighbourhood park, community park, or school.
- f) Where possible, existing hedgerows should be conserved and integrated into the neighbourhood's local street and block pattern.
- g) Where rear lanes are used, the maximum lane length should be no more than 180 metres in order to provide for a maximum 90 metre hose length from fire hydrants located on road connections. Where the 180-metre length is exceeded, an on-street hydrant location and fire hose access to the rear lane shall be provided.
- h) The use of cul-de-sacs should be minimized, except where necessary due to grading and topography or at view terminus sites. Where cul-de-sacs are used a pedestrian and/or bicycle through-connection should be provided to promote active transportation.
- i) Significant hedgerows within public open space or parks and/or rear backyards should be protected where possible and feasible. Any grading activities around the hedgerows should be minimized.

18.4.5.3 Public Realm Improvement

18.4.5.3.1 Streetscape General Guidelines

Where appropriate and feasible, collector, local and private roads streetscape design will include sidewalks on at least one side of the street, on-road or separated bicycle lanes and trail connections, subject to the following guidelines:

- a) The careful evaluation of the alignment of streets adjacent to existing hedgerows and wooded areas to ensure the site's existing natural features are visible and part of the community's open space network;
- b) Construction of Low Impact Design Stormwater Management Galleries can be implemented along the proposed roadway boulevards to provide both quality and quantity control for the proposed development. Subject to groundwater levels and soil conditions, these could consist of bio-swales and/or sub-surface infiltration galleries or sub-surface storage cells. (Refer to Appendix B: River Road Neighbourhood Plan Functional Servicing Assessment);
- c) Streets should have a relatively consistent building edge in order to provide spatial definition and containment to the street. A minimum and maximum front and exterior setback zone is defined in the accompanying Zoning By-law; and,
- d) A utility strategy where utilities are clustered or grouped where possible to minimize visual impact should be developed as part of the draft plan process.

18.4.5.3.2 Street Tree Guidelines

The combination of both public realm improvements as well as the design guidelines for the private realm are intended to increase the overall tree canopy along River Road and support the overall City-wide target for a 30 percent tree canopy. To support the achievement of the target, the City will:

- a) Endeavour to create an extensive tree canopy over all pedestrian connections in the Secondary Plan Area;
- b) Ensure street trees are spaced every 12 meters to continue the treed streetscapes of the surrounding neighbourhood as well as meet the standards of the Engineering Development Manual; and,
- c) Promote the use of innovative systems which allow for best practices in arboricultural maintenance.

18.4.5.3.3 Existing Trees

The conservation of trees aims to provide the best conditions for growth, to encourage stand renewal and to improve the health, diversity and appearance of the landscape, through three basic approaches: cleaning, thinning and stand improvement.

- a) Cleaning is done in young stands to regulate composition and favour valuable species.
- b) Thinning can remove up to 35% of the medium age (25 years) stand to allow the remaining quality trees more room and light to grow fuller and faster.
- c) Stand improvement harvests large mature trees for sale and removes defective, crooked and leaning specimens and inferior species. A few large dead trees and snags are left for wildlife habitat.

18.4.5.4 Open Space

The River Road Secondary Plan area is envisioned to include a centrally located park as well as a system of interconnected pedestrian walkways and trail facilities (refer to Figure 2: Open Space Structure). The Natural and Recreation Open Space Systems are consistent with the Official Plan designations (Section 8.8) and permitted uses.

18.4.5.5 Active Transportation

18.4.5.5.1 Public Pedestrian Network

New active transportation connections are illustrated in Figure 3. The network is comprised of a system of pedestrian street sidewalks, walkways and trails with the intent of providing pedestrians with options to get to their destination using the most direct route. The following active transportation connections have been identified:

- a) **Sidewalks along all public and private streets** – As integral components of the community open space system and active transportation network, sidewalks are required along all streets in the community.
- b) **Multi Use Trail along River Road** – Envisioned as a pedestrian and cycling multi use facility on the east side of the road, the River Road multiuse trail is intended to improve the road conditions by introducing a much needed safe and comfortable pedestrian and cycling route.
- c) **Existing pedestrian walkway connecting Skipton Crescent to River Road** - Located in the north side of the secondary plan area, this pedestrian connection runs east-west and is to be maintained as development along River Road occurs.

- d) **Future pedestrian link at Laneway 211** – This pedestrian connection is intended to provide a pedestrian connection to River Road through the future proposed private road to Olivewood Way. An easement for public pedestrian access over the private road to Olivewood Way will be conveyed to the City as a condition of any development.
- e) **Existing pedestrian and cycling connection between Olivewood Way and McMeeken Drive** – Located on the easterly edge of the secondary plan area, this connection is to remain as development occurs to ensure a pedestrian mid-block connector is maintained and transverses the long block defined by Skipton Crescent to the east and River Road to the west.
- f) **Future trail connections to Red Wildfong Park** – The new park will provide a trail connection through the wooded area of Red Wildfong Park through to Melran Drive and McMeeken Drive.

In order to encourage walkability within the neighbourhood, and improve circulation and pedestrian access, the following guidelines are intended to create accessible, safe and inviting pedestrian connections:

- a) All public streets are to provide for sidewalks on both sides of the street with the exception of River Road where a multi-use trail on the east side of the road is to be located.
- b) All private streets are to provide for a sidewalk on one side of the street.
- c) In order to accommodate the needs of persons with disabilities, and the elderly, sidewalks should be designed to applicable municipal and AODA standards with a preferred 1.8 metres minimum width and should be continuous throughout the community.
- d) Pedestrian walkways providing a link across blocks should be 6.0 metres wide to avoid creating narrow pedestrian alleys.
- e) Trails will be 3 metres wide and asphalt to conform with the Trails Master Plan. To minimize disturbance in natural features (e.g. Red Wildfong Park forested area) the City may consider a narrower trail width of 2 metres to minimize disturbance to the natural features while still maintaining the intent of the Trail Master Plan and compliance with the Accessibility for Ontarians with Disabilities Act (AODA) regulation.

- f) Crime Prevention Through Environmental Design (CPTED) principles should be used in the design of public pedestrian walkways, such as:
 - i. Adequate lighting;
 - ii. Clear sight lines, allowing view from one end of the walkway to the other;
 - iii. Provide appropriate landscaping, but avoid landscaping that might create blind spots or hiding places;
 - iv. Adequate fencing and fenestration adjacent to public walkways to provide opportunities for casual surveillance; and,
 - v. Integrating activity generating uses such as seating areas or other amenities.

18.4.5.5.2 Cycling Network

On-street and multi-use trails have been proposed for the Secondary Plan area. Where possible, new bicycle lanes will be provided in accordance with the Bike Your City: Cycling Master Plan (2020) and link with the existing cycling network in Cambridge. The following are guidelines for the cycling network:

- a) Where cycling routes intersect major intersections, route signage should be provided.
- b) Access to cycling routes should be clear and unobstructed.

18.4.5.6 Natural Heritage System

A Natural Heritage System (NHS) has been established, which is comprised of a Provincially Significant Wetland and Speed River Waterway. In addition, the Regional Official Plan identifies Regionally Significant Core Environmental Features and Significant Valleys in the Secondary Plan Area. The designated areas are subject to further Environmental Impact Studies that must be reviewed and approved by the Region and City in consultation with the Grand River Conservation Authority. The following guidelines are for land designated in the NHS:

- a) Integrate the NHS as a key structural element of the neighbourhood by providing appropriate views, vistas and connections, as well as providing a range of development interfaces that offer opportunities for public visual and physical access while also limiting access where necessary.
- b) Physical barriers, such as lot fencing, should be reviewed and considered in areas where access and encroachment are to be restricted. Fencing should be coordinated as a condition of draft plan approval to ensure consistent fencing design is established.

- c) For homes adjacent to the NHS, homeowner education and stewardship should be encouraged through the distribution of a homeowner's pamphlet as a condition of draft approval. Information in the pamphlet may include conservation practices and protection of the surrounding NHS, which include the identification of native plant species appropriate to the existing ecosystem, and the avoidance of organic waste dumping.
- d) Carefully consider the design and location of parking areas, three stream receptacle bins or street furniture to ensure that the edge of the NHS is not degraded. This can be achieved through larger setbacks or landscaped buffers with private and decorative fencing.

18.4.5.7 Private Realm Guidelines

New residential developments within the River Road Secondary Plan will integrate with the existing built form and scale of its context. It is essential that future community and architectural design solutions address matters of scale, siting and massing through the implementation of the design best practices contained in the Secondary Plan. These Urban Design policies aim to reinforce the structure and character of River Road and provide general direction for housing typology, housing mix, building form and landscaping.

To ensure an attractive streetscape is delivered, architectural controls shall be developed to address detailed building design aspects such as: massing, grading differentials, elevation articulation, garage articulation, materials colour and quality, roof design as well as the proposed siting strategy. An Architectural Control process can be implemented as part of the Draft Plan of Subdivision conditions and agreement phase to be coordinated between City staff and the proponent. In addition, site plan control should apply to any development on lands along the River Road frontage in accordance with the policies of Section 18.7.

18.4.5.7.1 Housing and Mix Diversity

A variety of residential typologies and architectural styles, elements, and material detailing should be considered to create distinctive and complementary character, as well as provide visual interest.

Universally accessible housing options should be provided to accommodate the widest spectrum of people to live in the community, regardless of age, ability and socio-economic status. Lifecycle housing options should be provided to support a variety of age groups, including houses designated especially for seniors (ex: bungalows).

18.4.5.7.2 Street Interface

The interface between the public realm of streets and the private realm of developments is a transitional space that should be designed to promote and enhance walking and a sense of

personal safety and comfort throughout this community. The following guidance pertains to the treatment of these interfaces.

Houses should be designed to frame the street edge with a consistent front setback, and have front doors, windows, verandas, and entry features facing the road.

- a) Front entry elements should be articulated through the use of framing materials, colour and built form including porches, arches or articulated front steps.
- b) Porches should be designed to be functional and useable. Porches are permitted to encroach into the front yard setback.
- c) Front porches should not be enclosed as primarily open structures, not solid walls. Solid, low fences can be used if made of local stone. House entry features should be articulated through detailing and/or a variation of materials such as porticos and/or decorative treatments around the main door including stone, mill work, sidelights, accent lighting, or house number sign.
- d) Decorative fencing around front and/or exterior side yards adjacent to the dwelling should not block the view of the sidewalk from the house. Their height should be limited to 1.2 metres, and they should offer a level of transparency as primarily open structures, not solid walls. Solid, low fences can be used if made of local stone.
- e) No two adjacent buildings should exhibit the same architectural style.

Meadows and Lawns

Maintaining generous front setback areas in a naturalized manner is intended to ensure the area's distinctive rural character is maintained as it accommodates new development. The following are some environmentally friendly, neighbourhood character building guidelines for front lawn design and maintenance.

- a) Minimize lawn areas and substitute with naturalized, meadow like areas for wildlife.
- b) In the process of designing naturalized front lawns include visible design cues of human intention such as:
 - i. Mow the edges along paths such as sidewalks or trails as a clear cue to onlookers that the property is actively managed.
 - ii. Cluster plants to create rhythm.
 - iii. Introduce crisp edges and bold patterns as strong cues of vegetation management. One way to achieve this is to add both high (like large shrubs and trees) and low (like flowering annuals and grasses) plants.

- c) For lots fronting onto River Road a combination of trees (to provide further shade to the proposed multi use trail), as well as a combination of native vegetation and ground cover planting is encouraged.
- d) Avoid herbicide sprays. If absolutely necessary, use selective herbicides and selectively spot spray the largest and most obnoxious weeds.
- e) Use drought-resistant grasses. They require little watering and do not brown during dry spells.
- f) Cut grass to a minimum of 2" high. This reduces stress on the grass and shades bare patches to discourage weeds.
- g) Sow in a clover mix to cover 1/4 to 1/3 of the lawn area. Clover provides needed nitrogen to the lawn, adds colour and scent and out-competes weeds.
- h) Sow wildflowers into the lawn as was common in medieval times and known as "flowery medes." Low-growing flowers that co-exist with grass include English daisies, clover and chamomile.
- i) Sow small bulbs such as crocuses or scilla into the lawn for spring showing.
- j) Plant native plant species that provide continuity with the naturalized landscapes of the rural character of River Road.
- k) Locate non-native exotic plants around the residence and separated from native plants.

18.4.5.7.3 Garages and Driveways

The design of garages and driveways can have a major impact on the visual character of the individual dwelling and the collective streetscape. These guidelines intend to enable a cohesive streetscape where attached garages and driveways complement instead of dominating the streetscape.

Front Garages

The following guidelines shall be applied in order to minimize the presence of attached and detached garage buildings accessed from the front of the lot:

- a) Vehicular driveways and garage wall for residential buildings fronting onto River Road may be located offside streets or a rear laneway. When driveway and front- loaded garages are proposed, their presence on the landscape should be minimized through the consolidation of driveways and the setback of garage walls.

- b) The front elevation of the house shall be designed so that its front entrance design and architectural elements reduce the visual dominance of the garage and the front driveway. Garages shall not protrude beyond the main front wall of the dwelling unit.
- c) Garages must be a natural extension of the design, massing, and material of the main dwelling.
- d) For buildings within the Village Residential designation, garages should be set behind the main building face notwithstanding the presence of a porch feature.
- e) Garages should be paired to allow for more substantial front yard green space.
- f) A variety of garage door configurations and styles should be provided.
- g) Tandem garage designs are encouraged to help minimize the impact of garage width on the elevation and in turn on the streetscape.

Lane-Accessed Garages

Garages that are accessed from a laneway can either be detached or attached to the main dwelling at the rear. Attached garages can either be set into the house with access at the rear, or they can be attached to the main dwelling through a breezeway, which forms a side courtyard for amenity space.

- a) Where possible, garages should be paired to allow for increased rear yard, or an outdoor parking pad to accommodate resident parking.
- b) Accessory units located above detached garages are encouraged on wider corner units.

Driveways

- a) Driveways should be designed to reduce the amount of pavement on front yards and enhance the visibility of the street.
- b) Driveway widths should generally be no larger than the interior width of the garage.
- c) Driveways off River Road should, when feasible, be paved with gravel as an appropriate rural character material. Avoid the use of asphalt paving as it represents an urban character material.
- d) The use of semi-permeable or permeable paving materials and treatment is encouraged.
- e) Driveways are encouraged to be paved with light-coloured or permeable materials to reduce storm water runoff and reduce heat island effect.

- f) Driveways should be located as far as possible from parks, open space features, public walkways, and intersections.

18.4.5.7.4 Priority Lots

Priority Lots have high public exposure and include buildings facing and flanking River Road; buildings adjacent to parks and open space; corner lots; gateway corner lots; and T-intersection / key view terminus lots. The identification and treatment of Priority Lots should be determined through the Draft Plan Subdivision process and Site Plan Agreement. The following provides guidance on the allocation of such lots.

Buildings Facing and Flanking River Road

- a) Units facing or flanking onto River Road should be given special consideration in architectural design, massing, orientation, and siting. Materials should be of high architectural quality.
- b) For dwellings flanking River Road, the main front door should be visible from, and oriented to, the exterior side elevation of the house with access to the sidewalk. The entries should be articulated through the use of entry features such as projecting porches facing the street.
- c) Side elevations flanking River Road should be consistent with the front elevation in terms of materials, fenestration style and detailing.
- d) Façades should be highly articulated through coordinated fenestration, masonry detailing, accent gables, dormers, and/or other special treatment.

Buildings Adjacent to Parks and Open Space

- a) Front, side and rear elevations exposed to public spaces should be well articulated. Articulation of buildings may also include changes in material colours and texture, changes in building plane, and variation of roof lines. The rear portions of buildings may benefit from rear yard covered porches. A combination of fenestration, bay windows, material changes and dormers may be used in addition to other design elements to achieve the objective.
- b) Side and rear elevations should have a similar design and use materials that are consistent in architectural design and material with those used on front elevations. Architectural detailing such as corbelling should continue from front to side elevations, where visible to the public.

- c) For units flanking onto public spaces, a highly articulated side face is encouraged. Architectural design and material should match the front facade's quality. Side main entrances are an alternate means to achieve this.
- d) The location of porches, windows, and entry doors for units should maximize opportunities for overview and safety.
- e) Projecting porches should emphasize the entrance as well as to reduce the presence of the garage.
- f) Driveways of adjacent homes should be located as far away as possible from public space
- g) It is encouraged that medium to high density housing typologies are located adjacent or nearby open space so as to provide those residents with access to green space as well as increase the opportunities for social surveillance.

Corner Lots

- a) Side or rear elevations visible from the street should have windows, materials, and other architectural treatments equal in quality to the front elevation of the house.
- b) Corner windows and wrap-around porches should be included to emphasize a corner location. Where possible, the entry door should be located on the exterior side elevation of the house with direct access to the sidewalk.
- c) Townhouse units should be encouraged as bookends to residential blocks.

Gateway Corner Lots

Gateway corner units are typically dwellings that are located at the entry to the community from adjacent areas. These units should be designed with the following principles in mind:

- a) Gateway dwellings should be given special consideration in architectural design, massing, orientation, siting and materials, and shall be of high architectural quality.
- b) Entry elements and porches are encouraged to produce interest in the façade as well as to help define the entrance to the neighbourhood.
- c) Pairing of similar model dwellings on lots directly opposite each other is encouraged to establish and enhance a gateway condition.
- d) It is encouraged that landscaping and landscape features are provided as a means to accentuate the unit and create an inviting atmosphere.

T Intersections / Key View Terminus

T intersections occur when one road terminates at right angles to another. Consideration should be given to homes at the top of the T intersection and the last two lots on either side of the road that terminates at the intersection.

- a) Architecture on lots at the end of T intersections should have facade designs that utilize elements such as coordinated fenestration, masonry detail, and entry elements.
- b) Pairing of side yards is encouraged to form a landscaped area at the terminus of the T intersection.
- c) Buildings sited at the end of the view corridor should be designed with architectural elements that address these views.

18.4.5.8 Green Infrastructure and Building

The following green infrastructure and building best practices are a compilation of suggested sustainable strategies highly encouraged in the design of River Road's new community.

18.4.5.8.1 Energy Efficiency

- a) All new developments are encouraged to be built adhering to the following requirements for sustainability:
 - i. Grade related (3 storeys or less) residential buildings achieve a minimum performance level that is equal to ENERGY Star U or equivalent standards; and,
 - ii. Mid-rise (3 storeys) residential buildings shall be designed to achieve greater energy efficiency than the Model National Energy Code for Building.
- b) Where feasible, alternative community energy systems such as geo-exchange, sewer heat recovery, and/or inter-seasonal thermal energy should be provided.
- c) Grade related residential unit driveways are encouraged to be paved with light-coloured material to reduce the heat island effect.
- d) To minimize energy consumption and encourage the integration of passive building systems, buildings should be oriented to maximize the potential for sunlight and natural ventilation.
- e) The strategic use of deciduous trees is strongly encouraged as part of a free cooling strategy to help with evapotranspiration and shading.

- f) Building design is encouraged to utilize opportunities associated with large expanses of roof areas to implement solar thermal, photovoltaic systems, green roofs or water harvesting systems.
- g) Energy Star compliant or equivalent appliances are encouraged to be provided in cases where the developer provides appliances.
- h) Alternative energy sources such as solar thermal, photo voltaic panels or the inclusion of “roughed in” facilities to accommodate such alternative energy sources are encouraged to be provided.

18.4.5.8.2 Water Efficiency and Stormwater Management

- a) All new buildings are encouraged to achieve a 20% or greater water conservation efficiency than that required by the Ontario Building Code.
- b) Irrigation of all public open spaces/structures should implement a rainwater harvesting program, and can include the use of rain barrels, and/or infiltration trenches provided water balance objectives are met.
- c) Grade-related residential unit driveways should be paved with permeable materials to reduce stormwater runoff where supported by agencies.
- d) At site-plan level, developments with five or more dwellings should be encouraged to increase the level of perviousness in order to promote at-source stormwater management, reduce peak flows and lessen the dependence on end-of-pipe facilities such as stormwater management ponds. Pervious areas can include landscaped areas and/or areas containing permeable paving. Permeable pavement is not recommended for surfaces that require active winter maintenance (e.g. parking lots and vehicle drive aisles) due to adverse impacts of de-icing salt application on ground water resources.
- e) In order to reduce the volume of run-off into the storm drainage system, surface water run-off flows should be directed to landscaped areas and the use of hard surfaces should be minimized.
- f) Innovative sustainable technologies in the capture, conveyance, and treatment of storm run-off to reduce potential pollutants/ contaminants are encouraged.
- g) New residential units should be designed to incorporate gray water pipe infrastructure, where permitted, in accordance with the Ontario Building Code and health regulations.

- h) Indoor water usage should be minimized in new buildings through the installation and use of water-efficient fixtures, fittings and appliances, such as dual-flush toilets, faucets, and shower heads.
- i) Low maintenance and drought-resistant landscaping is encouraged.
- j) To conserve and protect the area's natural heritage features, stormwater runoff from all new developments shall be collected and treated to an Enhanced standard (as per Ministry of Environment, Conservation and Parks guidelines).
- k) In order to avoid the negative impacts of flooding in the downstream watershed, all new development post development peak stormwater flows shall be attenuated to pre-development conditions for up to and including the 100-year return period design storm event.
- l) All downspouts from residential development shall discharge to at grade landscaped areas.
- m) Adequate and safe minor and major storm conveyance systems shall be required for all new development.
- n) Low Impact Development methods will be strongly encouraged to be utilized in this new community in conjunction with traditional stormwater management techniques, except areas such as paved surfaces that require active winter maintenance.
- o) The target is to capture, detain, utilize, or infiltrate all stormwater runoff from all storms up to the 25mm design storm event where soil conditions permit.
- p) Increasing the size and capacity of the major and minor storm systems, and the associated stormwater management systems and facilities, should be considered in order to increase the community's level of resilience against the impacts of climate change (i.e., severe storm events).

18.4.5.8.3 Material Resources and Solid Waste

- a) A minimum of 25% recycled/reclaimed materials is encouraged to be used for new infrastructure including roadways, parking lots, sidewalks, unit paving, stormwater management facilities, sanitary sewers, and/or water pipes.
- b) All buildings should utilize best practices for design and construction techniques in order to reduce the amount of construction waste produced.
- c) Where feasible, streetscape and building materials should be chosen and determined by suitability, durability, ease of maintenance, and cost effectiveness.

- d) Green building materials should be used to reduce impacts on the environment.
- e) Building materials should be purchased and/ or obtained from responsible, ethical, and whenever possible, local sources.
- f) The use of recycled and reclaimed material for new buildings is encouraged in order to reduce the negative environmental effects of extracting and processing materials.
- g) Waste volumes should be reduced through the provision of recycling and/or re-use and compost stations as well as drop off points for potentially hazardous waste.

18.4.5.8.4 Lighting

- a) Lighting should be downcast to reduce light pollution and address night sky condition.
- b) Exterior lighting spill-over onto the street or adjacent properties should be minimized.
- c) High efficiency street lighting should be used so as to reduce energy consumption by at least 15% of the baseline annual energy use.
- d) For residential buildings, external lighting should incorporate lighting controls that use motion sensors and/or timers to improve energy efficiency.

18.4.5.8.5 Sustainable Program

Sustainable programs should encourage opportunities for community-based initiatives such as carpooling, community composting, waste reduction, educational, and stewardship programs. Some examples of such programs are as follows:

- a) Education Packages
 - i. Owner/tenant education packages regarding household activities to conserve household energy and water resources, access to transit, recycling and composting programs, and depots should be provided at the time of purchase or rental.
 - ii. Encourage homeownership afford-ability for low-income families through the provision of sites for non-profit or charitable Homeownership Programs.
- b) Mobility Programs
 - iii. Carpooling or car share programs are encouraged for residents of multi dwelling residential buildings. Dedicated parking spaces for carpooling or car share programs should be provided with clear signage.

18.4.5.8.6 Innovative Design

In order to encourage exemplary performance above the requirements set out in this document, innovative design is strongly encouraged and should be recognized.

Innovative elements and performance should identify the intent of the proposed innovation, while demonstrating and describing the design approach and strategies utilized to achieve sustainable performance measures that exceed those set out in this document.

18.5 Servicing Strategy

18.5.1 Water and Sanitary Servicing

All development in the River Road Secondary Plan area shall occur on full municipal water and wastewater services. As part of the implementation of this Secondary Plan, the City will work with the Region of Waterloo to ensure that there is adequate water and sanitary servicing capacity to accommodate the long-term planned development for the River Road Secondary Plan Area. The River Road Neighbourhood Plan Functional Servicing Assessment (June 2021) completed in conjunction with this Secondary Plan has provided a long-term servicing strategy for providing water servicing and gravity sanitary sewer outlets for developments within the study area.

18.5.2 Municipal Servicing

As part of the implementation of this Secondary Plan, and the policies of Chapter 6 of this Official Plan, the City will undertake an analysis of local infrastructure to ensure that adequate servicing is in place to accommodate the planned growth for the area. The River Road Neighbourhood Plan Functional Servicing Assessment (June 2021) has provided both interim and long-term servicing strategies for the study area.

18.5.2 Development Applications and Servicing Requirements

The City may also require development applications to be supported by site-specific servicing studies.

18.5.3 Sustainable Storm Water Management

The municipality encourages innovative measures to help reduce the impacts of urban runoff and maintain base groundwater flow. Such measures may include bioswales, permeable pavers, rain barrels, green roofs and green buildings. Developers should ensure that engineered and/or enhanced infiltration of stormwater runoff originating from paved surfaces is mitigated from the impact of de-icing salt application on ground water resources.

18.5.4 Coordination of Public Work

The City will work with the Region to ensure that planned public works for the area are coordinated to minimize the impacts of construction on the residents within the Secondary Plan Area. Coordination efforts will consider the phasing of streetscape improvements, any future road works and maintenance, as well as any upgrades to water and sanitary networks.

18.6 Transportation Strategy

18.6.1 Street / Active Transportation Structure

The vision for the Street / Active Transportation Structure on Schedule 3 is to deliver complete streets designed to enable safe access for all users with particular emphasis on vulnerable road users in accordance with City standards with a clear road hierarchy based on a connected modified grid network that accommodates for all modes of travel fundamental in the implementation of an identifiable, great community.

18.6.2 Objectives

The objectives of the transportation network are to:

- a) Develop a well-connected integrated network of streets, paths and trails that enhances connectivity and safely accommodate various modes of active transportation, including walking and cycling.
- b) Design the community at the pedestrian scale to promote social interaction, active streetscapes and a walkable neighbourhood;
- c) Preserve River Road's character through the implementation of a special land use character (Village Residential) zone and a specific road solution based on a modified functional rural cross section;
- e) Incorporate traffic calming measures, where warranted, and pedestrian crossings within the neighbourhood and along River Road;
- f) Facilitate the implementation of an interconnected road network extending to adjacent neighbourhood areas;
- g) Distribute traffic to the surrounding road network;
- h) Minimize traffic impacts on adjacent communities; and
- i) Minimize impacts on the surrounding natural features.

18.6.3 General Policies

- a) The planning, design and construction of all roads and walkways within the River Road Neighbourhood will have regard to the conservation of significant natural and cultural heritage features and contribution to the overall streetscape design.
- b) The design of the transportation network will provide for all forms of travel including walking, cycling, public transit and the automobile through:

- i. The creation of a modified-grid street network with short walk-able blocks that are generally not to exceed 250m in length;
 - ii. The use of site planning and urban design techniques that foster attractive and safe pedestrian-friendly streetscapes and built form;
 - iii. The implementation of a River Road unique functional rural cross section that includes active transportation amenities in accordance with Figures 2 and 3;
 - iv. The provision of continuous pedestrian systems (sidewalks) and linkages to community trails and open spaces; and
 - v. The provision of multi-use pathways including cycling facilities, improved public and private pedestrian amenities, well planted greenways, and uses which encourage walking.
- c) The implementation of Transportation Demand Management measures, to reduce the reliance on vehicle usage and encourage active transportation, shall be considered as part of every application for new development or redevelopment within the Secondary Plan area.
 - d) Development applications may be required to provide Transportation Impact Studies to the satisfaction of the City and Region.

18.6.4 Streetscape Policies

Streetscapes throughout the River Road community are important components of the public realm. Streetscapes will be designed to enhance community character and sense of place. Streetscape design shall be focused along the community's public and private streets to include: River Road, McMeeken Drive, Alderson Drive and any other new local public and/or private streets.

- a) A high-quality public realm along streets will be achieved by coordinating the design of individual site elements, the overall transportation network and individual development applications along the streetscape.
- b) Backlotting along the three primary streets (River Road, McMeeken and Alderson Drives) will be prohibited. On corner lots, the main building's face shall be oriented towards the higher-order street.
- c) Residential streetscapes shall be designed to ensure the provision of sufficient on-street parking through creative design solutions such as varying housing types and lotting patterns.

- d) Streets shall be designed to be more pedestrian friendly through various means, including human scale massing of built form along the street, pedestrian-scale lighting, landscape treatments and street furniture. Streetscape plans for all public and private streets shall be required as a condition of draft plan approval.
- e) Local streets shall be designed to encourage on-street cycling safety consistent with the City's Cycling Master Plan.

18.6.4.1 River Road

As one of the most iconic scenic routes in the City of Cambridge, River Road is envisioned as a future pedestrian and cyclist friendly corridor. Its design is to:

- a) Accommodate for an east multiuse trail accessible to pedestrians and cyclists;
- b) Explore the implementation of a rural cross section with deciduous trees and swales as an essential component of its engineering and its streetscape character that also incorporates risk mitigation design measures related to the application of de-icing salt in accordance with the policies of the Source Protection Plan;
- c) Be framed by a relatively consistent building edge in order to provide spatial definition and containment to the street consistent with historic lotting patterns as per Zoning By-law directives; and,
- d) Implement a utility strategy where utilities are clustered or grouped where possible to minimize visual impact.

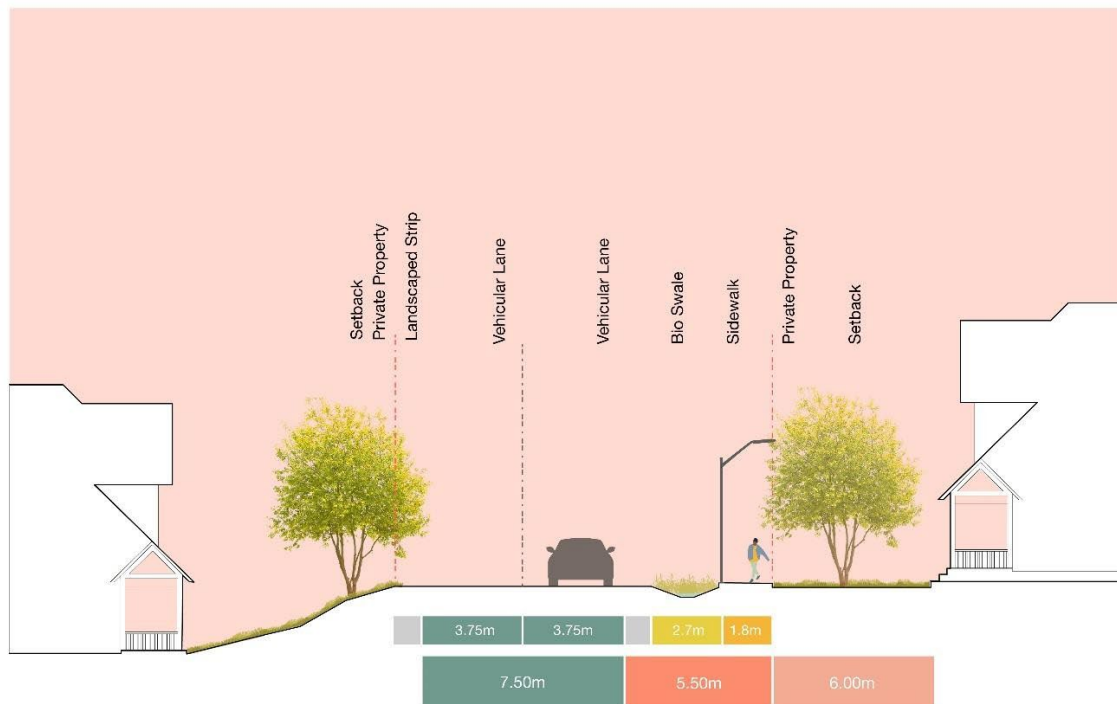
The preliminary design of River Road's future cross section is based on the intent of preserving the road's rural scale while ensuring a sustainable storm water management strategy, servicing upgrades (as needed) and a safe and comfortable active transportation route (i.e., pedestrian and cycling trail) are part of the road's ultimate design. The preliminary road solution is based on a modified functional rural cross section to be implemented as development occurs. Future road enhancements will require an average of an additional six (6.0) metres to be added to the right of way.

Phase 1, Short Term (current 14.0m right of way) - Figure 2: River Road Interim Cross Section

- a) Maintain the road's rural character (i.e., slopes shoulders) and a 7.5m pavement width.
- b) Any upgrades to River Road should include the replacement of the 3-cable guiderail system along the embankment.

- c) Ensure sustainable water management measures are introduced as part of the interim road upgrades such as the illustrated bioswale.
- d) Introduce a 1.8m pedestrian (AODA compliant) sidewalk on the east side of the road.
- e) The proposed interim upgrades (i.e., sidewalk and bioswale) are important visual traffic calming elements. Further opportunities to buffer pedestrians from travelling vehicles should be explored to include the planting of native grasses (along the bioswale) and/or street trees where feasible.

Figure 2: River Road Interim Cross Section



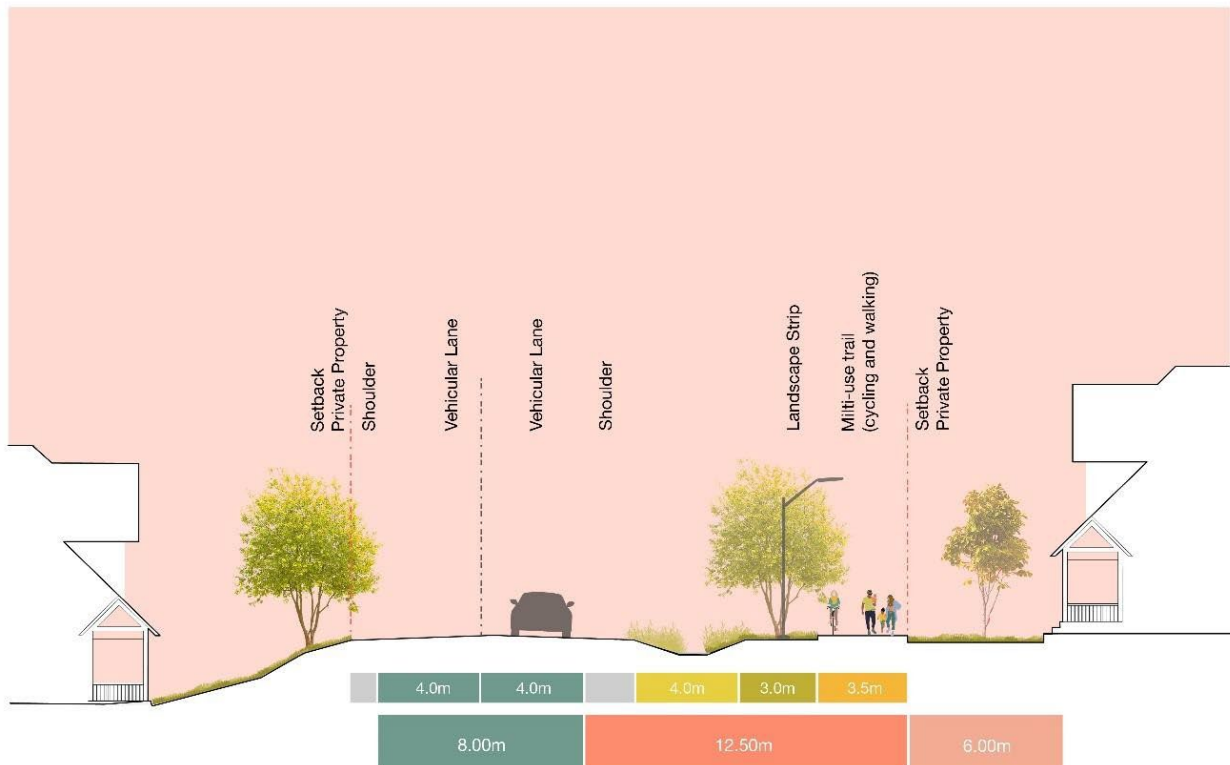
Phase 2, Mid to Long Term (20m right of way) - Figure 3: River Road Ultimate Cross Section

- a) Maintain the road's rural character (i.e., sloped shoulders) and widen pavement to 8m.
- b) Ensure sustainable water management measures remain as part of the road design solution by widening the interim bioswale to comply to City standards (refer to 20m rural cross section City standard C108).
- c) Introduce a 3.5m combined pedestrian and cyclist trail on the east side of the road.
- d) The proposed ultimate upgrades (i.e., multiuse trail and bioswale) are important visual traffic calming elements. Further opportunities to buffer pedestrians from travelling

vehicles should continue to be explored to include the planting of native grasses (along the bioswale) and street trees immediately adjacent to the multiuse trail as further pedestrian and cyclist protection.

- e) Introduce a street lighting strategy primarily focused on illuminating the multi-use trail. The future street lighting strategy will need to ensure no light spills over the westerly side of the road along the wetland areas.

Figure 3: River Road Ultimate Cross Section



18.6.5 Local Roads

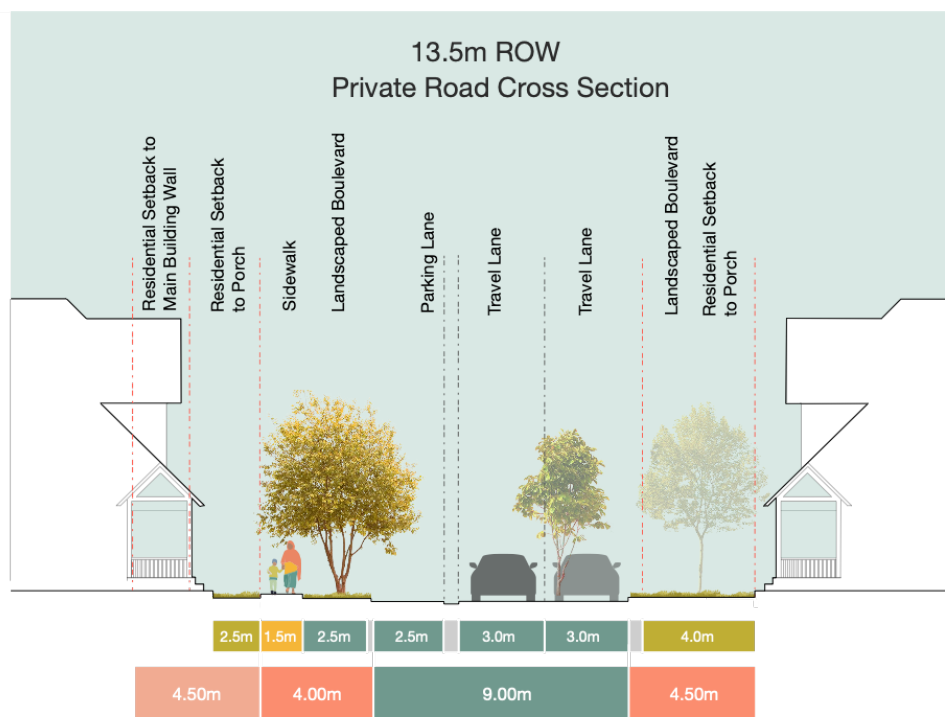
- a) The local street network should facilitate vehicle, cycling and pedestrian connections throughout the neighbourhood.
- b) The local street network should be based on a modified grid form or other road pattern that results in a high level of connectivity. A discontinuous street pattern and dead-end streets are discouraged.
- c) All local roads will have a minimum width of 18.5 metres.

- d) Pedestrian sidewalks shall be provided on both sides of all local streets.
- e) On-street parking is encouraged on one side of the street.

18.6.6 Private Roads

- a) Private roads are permitted in specific conditions subject to City's standards and to the approval of the City of Cambridge.
- b) Private roads should facilitate vehicle and cycling connections and must provide for pedestrian links throughout the neighbourhood.
- c) When present, private roads are an integral component of a neighborhood by providing for a continuous street system. A discontinuous street pattern and dead-end streets are discouraged.
- d) An on-street parking lane is not necessarily required if suitable dedicated visitor parking areas are provided within the development site to the City's satisfaction.

Figure 4: Private Road Cross Section



18.6.7 Active Transportation

- a) A network of bicycle routes and multi-use trails will be provided throughout the community.

- b) Conceptual multiuse trail and on street routes and linkages are shown in Schedule 3.
- c) River Road should provide for an off-road pedestrian and cycling route. Multiuse trail facilities should be designed to be consistent with the City of Cambridge Bikeway Network plan.
- d) The local road network should provide for on road cycling routes. On road cycling facilities should be designed to be consistent with the City of Cambridge Bikeway Network Plan.
- e) Sidewalks will be provided on both sides of all streets located internal to the community.
- f) Priority pedestrian crossings will be further defined and implemented through the plan of subdivision approval process.
- g) Traffic calming measures should be coordinated with pedestrian crossings and other elements of the active transportation network as shown in Schedule 2. Traffic calming measures should be shown on a consolidated plan in support of draft plans of subdivision with special emphasis given to pedestrian connections to planned and existing open space amenities as well as a safe pedestrian crossing.

18.7 Implementation

18.7.1 General Implementation

The River Road Secondary Plan shall be implemented through a variety of tools, including but not limited to:

- a) the planning and development application process, through tools such as site plan approval, plans of subdivision and condominium, and land severances;
- b) The City shall amend the site plan control by-law to include new development on properties fronting River Road.
- c) The City shall acquire drainage easements over existing stormwater outlets to the Speed River;
- d) the City of Cambridge Transportation Master Plan;
- e) the City of Cambridge Zoning By-law;
- f) the City's Parks Master Plan (to be completed);
- g) the City's Cycling Master Plan; and
- h) other tools as described in this Chapter.

18.7.2 Municipal Works

All future municipal works undertaken by the City of Cambridge within the Secondary Plan Area shall be consistent with the policies of this Plan and the Region of Waterloo's Official Plan.

18.7.3 Amendments

Unless otherwise stated in this Plan or the City's Official Plan, applications for development which do not align with the Policies or Maps of this Plan shall require an Official Plan Amendment. Amendments to the Official Plan shall be subject to policies of the Official Plan and shall require a planning justification report, along with any other supporting studies identified through the pre-consultation process.

18.7.4 Zoning By-law

18.7.4.1 Alignment with Zoning By-law

The City will update its zoning by-law to ensure that the land use and design policies for this Secondary Plan are reflected in the City's zoning by-law.

18.7.4.2 Amendments to Zoning By-law

Applications for development within the Secondary Plan Area shall be subject to the policies of this Secondary Plan and the City's Official Plan (where applicable). Amendments to the zoning by-law shall be subject to policies of the Official Plan/Secondary Plan and shall require a planning justification report, along with any other supporting studies identified through the pre-consultation process.

18.7.5 Site Plans, Plans of Subdivision and Condominium and Severances

Applications for site plan review, plans of subdivision, plans of condominium and land severances to sever shall be consistent or conform with Provincial policies, and the policies of this Secondary Plan, City of Cambridge's Official Plan and the Regional Official Plan. All forms of development fronting on River Rd. shall require site plan approval and the City shall amend the existing site plan control by-law.

18.7.6 Supporting Studies

Prior to site plan approval, the completion and implementation of various studies may be required as conditions of a site plan or subdivision agreement depending on the location and nature of the development proposal. Studies may include but are not limited to: Scoped Environmental Impact Statements; Tree Management Plans; Hydrogeological Studies; Chloride Impact Studies and Salt Management Plans; Spill Prevention, Response and Contingency Plans; Stormwater Management Reports; Traffic Impact Studies; Functional Servicing; and/or Stationary Noise Studies. Any required on-site implementation measures identified in the study will be secured as part of a site plan agreement with the City.

18.7.7 Coordination with the Region

The City will work with the Region of Waterloo, who is the approval authority for this Plan, to ensure that the policies of this Plan are implemented, including consideration of any opportunities to implement the urban design and public realm improvements through any future Regional works. The City also encourages the Region of Waterloo to consider opportunities for affordable housing development within the Secondary Plan area.

18.7.8 Phasing and Financial Tools

18.7.8.1 Municipal Capital Improvements

The City will prepare a phasing strategy to assist with the implementation of this Secondary Plan and more particularly to any streetscape and/or servicing improvements to River Road. The Phasing Strategy should consider the following:

- a) The expecting timing of development, including the expected built-out of vacant lands and redevelopment of existing areas;
- b) The timing and funding approach for River Road's infrastructure and public realm improvements; and,
- c) Any other projects or initiatives which may impact the timing of development.

18.7.8.2 Development Charges

The City will include any growth-related infrastructure identified in this plan as part of the next Development Charges By-law update in accordance with the City's local service policy.

18.7.8.3 Parkland Dedication

The new park as noted in the maps, will be acquired through parkland dedication, purchase of lands, cash-in-lieu of parkland dedication, and/or expropriation if necessary. A minimum park size of 1 ha is generally pursued but given constraints in the area, and the size and location of the preferred park site, the City will accept an approximately 0.7 ha park. Cash-in-lieu of parkland dedication will be required from all other Secondary Plan subject sites as they develop.

18.7.9 Monitoring

The City will prepare a monitoring program to track the implementation of the Secondary Plan and report on the progress of its implementation. The monitoring program should identify development statistics for residential intensification and the status of the various actions identified in this Plan (such as the upgrades to River Road).

The Secondary Plan monitoring should be undertaken in conjunction with other monitoring activities described in the Secondary Plan chapter of the Official Plan.

18.7.10 Updating the Plan

The City will comprehensively review the policies of this Secondary Plan at the 10-year review of the City's Official Plan. Depending on the outcomes of the review, the City may decide to update the Plan.

18.7.11 Conflicts with Official Plan

In the event of a conflict between the City of Cambridge's Official Plan and this Secondary Plan, the policies of the Secondary Plan shall prevail.

18.7.12 Boundaries

The boundaries shown on the Secondary Plan Maps are approximate, except where they meet with existing roads, river valleys or other clearly defined physical features. Where the general intent of this Secondary Plan is maintained to the satisfaction of the Municipality.

Schedules

