COMMITTEE REPORT



Planning & Building, Engineering and Environment

Committee

SERVICE AREA Planning, Building, Engineering and Environment

DATE October 15, 2012

SUBJECT Guelph Innovation District: Release of Draft Secondary

Plan

REPORT NUMBER 12-89

SUMMARY

The draft Guelph Innovation District (GID) Secondary Plan embraces a vision, design and policy statements supporting a new kind of employment area that strives for carbon neutrality, employment opportunities within an innovation cluster, urban village with appealing places to live, work, play and learn, all within a rich natural and cultural heritage setting. The Plan covers a 436 ha area located south of York Road, east of Victoria Road South, west of Watson Parkway South, and includes lands south of Stone Road. The need for a new land use policy framework surfaced with the announced closure of the Guelph Correctional Centre and the Wellington Detention Facility.

The Plan builds on the Local Growth Management Strategy, Community Energy Initiative, and recent economic development strategies including Prosperity 2020 and the Agri-Innovation Cluster Strategy. The draft Secondary Plan largely follows the structure of the City's Official Plan Update (OPA 42 and 48). The policies presented enhance the policies included in the City's Official Plan and on occasion repeat policies and definitions, given the status of OPA 42 and 48 which still require final approval.

The GID Secondary Plan process has been underway since early 2005 and has involved extensive consultation with internal departments, external agencies, stakeholders and the public. The public release of the draft Secondary Plan is a major milestone following Council's support of the preferred vision, principles, objectives and design for the lands in January 2013. A final Secondary Plan will be developed based on comments received on the draft which will form the basis of an Official Plan Amendment, incorporating the Secondary Plan as part of the City of Guelph's Official Plan. An informal open house will be held before the end of 2012, followed by a statutory public meeting at the beginning of the 2013. Council adoption of the Official Plan Amendment is anticipated in March 2013.

This report presents the draft GID Secondary Plan for receipt.

Purpose of Report:

To present a draft Secondary Plan for the Guelph Innovation District and inform Committee of its public circulation.

Committee Action:

To receive the draft Secondary Plan for the Guelph Innovation District.

RECOMMENDATION

"THAT Committee Report No. 12-89, dated October 15, 2012 from Planning, Building, Engineering and Environment, regarding the Guelph Innovation District Draft Secondary Plan be received."

BACKGROUND

The City of Guelph initiated the preparation of a Secondary Plan for the Guelph Innovation District (GID) in early 2005. The 436 ha area is located south of York Road, east of Victoria Road South, west of Watson Parkway South, and includes lands south of Stone Road.

The majority of the lands are currently designated as "Special Study Area" by the City's Official Plan, requiring the completion of a planning study to "examine future land uses, servicing, phasing of development, transportation and impact assessment on natural heritage features and cultural heritage resources."

The draft Secondary Plan is a response to the City's Official Plan policies and builds on the Local Growth Management Strategy, Community Energy Initiative, and recent economic development strategies including Prosperity 2020 and the Agri-Innovation Cluster Strategy. The work has encompassed extensive public consultation and coordination efforts with the Province of Ontario who is the primary landowner within the District, owning roughly half of the lands. Key project milestones have been the subject of various Committee and Council reports and workshops with the latest Council Report No. 12-18 being presented on January 30, 2012. On January 30, 2012 Council supported the use of the preferred vision, principles, objectives, design and implementation approach set-out in PBEE Report No. 11-104, as amended by Council Report No. 12-18, as the basis for the completion of the Secondary Plan (See Attachment 1).

The preferred vision, principles, objectives and design developed for the Guelph Innovation District followed an intensive public consultation process and a design charrette. Building on the vision, principles and objectives developed for the District, the preferred design was based on an analysis of design precedents, public feedback on potential design elements, and a design charrette for city and consultant staff. Foundational pieces leading towards the preferred design are presented in the Guelph Innovation District Recommended Option Booklet which was included as an attachment to Committee Report No. 11-104 dated December 12, 2011(See Attachment 2).

REPORT

The draft Guelph Innovation District (GID) Secondary Plan, included as Attachment 3, builds on Council's support of the preferred vision, principles, objectives and design on January 30, 2012 presented in Council report No. 12-18.

The Draft Secondary Plan document contains a detailed set of land use and development policies that:

- guide all future development within the plan area;
- promote best practices for sustainable infrastructure and community design working towards carbon neutrality;
- establish protective buffers for environmental features;
- identify collector road alignments; and
- provide a high level urban design direction to guide the creation of a unique and memorable place.

The draft Secondary Plan largely follows the structure of the City's Official Plan Update (OPA 42 and 48). The policies presented enhance the policies included in the City's Official Plan and on occasion repeat policies and definitions, given the status of OPA 42 and 48 which still require final approval. Once the Secondary Plan is finalized, approved and in full force and effect, it will form part of the City of Guelph's Official Plan.

Overview of Draft Secondary Plan

Highlights from each section are reviewed below followed by revisions to Council's supported preferred vision, principles, objectives and design.

Chapter 1: Vision and Planning and Development Principles

Highlights:

The Secondary Plan begins with the vision, principles and objectives for the Guelph Innovation District. The statements focus on the creation of a compact, mixed use community providing meaningful places to live, work, shop, play and learn. The District will predominately support innovative, sustainable employment uses adjacent to an urban village connecting a full range of residential uses with compatible employment uses. The area builds on and supports the rich natural and cultural heritage resources of the area including the stunning Eramosa River Valley and historic Reformatory Complex. The mix of uses, prioritization of active transportation modes (pedestrian and cyclist), and protection of natural and cultural heritage features all help the District work towards carbon neutrality.

Revisions:

A few refinements have been made to the statements supported by Council in January 2012. The most significant change is the inclusion of Objective 4d) to specifically recognize the importance of an appropriate transition area between the southeast residential neighbourhood and the industrial and major utility uses to the north. Specific references to the development of an agri-innovation cluster have also been softened by focusing on a knowledge-based innovation cluster and treating agriculturally related industries as a subset of knowledge based business

along with environment, information technology, advanced manufacturing, health and related science sectors. Other changes are minor in nature and improve the clarity of the statements.

Chapter 2: Natural and Cultural Heritage

Highlights:

The Natural Heritage System policies included in the draft Secondary Plan build upon the policies and schedules of OPA 42. The policies reinforce that development and site alteration are not permitted within Significant Natural Areas, except as identified in the General Permitted Uses and Significant Natural Areas policies of OPA 42. Development and site alteration may be permitted within Natural Areas and on adjacent lands within the Natural Heritage System subject to other policies within OPA 42. The Natural Heritage policies also recognize official plan policies dealing with species at risk, the importance of surface water features and fish habitat, and urban forest protection, enhancement and restoration. Public access and protection of the Natural Heritage System is supported by the provision of a single loaded perimeter local road along the western edge of the Eramosa River and by a river crossing, prioritizing active transportation modes, connecting the two sides of the river valley. The importance of the Eramosa River and its associated natural heritage elements, including the topography of the site, are key policy drivers.

The Cultural Heritage policies included in the draft Secondary Plan build upon the cultural heritage policies of OPA 48. The policies cover cultural heritage resources (municipally listed, provincially listed and designated), cultural heritage landscapes and archaeological resources. Specific references are made to both the historic Reformatory Complex, which is a provincially listed cultural heritage resource, and the Turfgrass Institute Building, which is a municipally listed cultural heritage resource. The policies provide significant support to the historic Reformatory Complex by requesting the appropriate authority to hold heritage conservation easement(s). The protection of the Turfgrass Institute Building is simply supported, leaving the general policies contained within OPA 48 to determine the appropriate level of protection.

Schedule A specifically presents the Natural Area, Significant Natural Area, Ecological Linkages, and Restoration Areas within the District as per Council adopted OPA 42 and identifies cultural heritage resources and the cultural heritage landscape within the District. The Schedule also includes existing and proposed roads, the Eramosa River and other waterbodies, site contours, proposed river crossing and existing built forms as reference elements to provide context.

Revisions:

No revisions have been made to natural and cultural heritage elements identified in the preferred design supported by Council. Only minor edits were made to Vision, Principle and Objectives involving natural and cultural heritage resources.

Chapter 3: Energy, Servicing and Stormwater

Highlights:

A number of key design elements incorporated into the preferred design for the Guelph Innovation District reflect an emphasis on energy and sustainable servicing and stormwater design. In particular the mixing of uses, close proximity of residential land uses and compatible employment opportunities, density of development, prioritized active transportation network, and the layout of road networks supporting solar orientated lot creation, all provide a foundation for the use of renewable energy sources, reduced energy demand and support for district energy systems.

To a large extent the policies contained within the City's Official Plan, as amended by OPA 48, will govern this component of the Secondary Plan along with the key design elements discussed above. The Secondary Plan policies do expand upon stormwater management policies within the City's Official Plan recognizing the importance of encouraging low impact development measures and water conservation measures. The policies also provide connections to the Community Energy Plan and the preparation of an implementation strategy outlining initiatives, targets, phasing and performance monitoring of a carbon neutral strategy for the GID.

Revisions:

Only minor edits were made to Principle and Objectives involving energy, infrastructure and sustainability.

Chapter 4: Mobility

Highlights:

The mobility policies included within the draft Secondary Plan focus on the movement of both goods and people with an emphasis on active transportation modes (walking and cycling) and the use of transportation demand management in support of the carbon neutral vision for the District. A balanced mobility system that is continuous and connected is essential to link land uses and activities effectively. Schedule B: Mobility presents the existing perimeter arterial roads and rail line, a trail network on both sides of the Eramosa River, active transportation links (including a river crossing), proposed major transit stops at key nodes, and two new collector roads (extension of College Avenue East and a high road linking Victoria Road South with Stone Road East). Local roads are not shown on Schedule B: Mobility but are influenced by policy proposed by the draft Secondary Plan and will be managed through the development approval process. A key design element discussed with the community was a single loaded perimeter road located on the west side of the Eramosa River that would follow the Natural Heritage System and maintain public access to open views of the river corridor. In addition, the policies support the provision of an appropriate local road connection from York Road to Dunlop drive through the historic Reformatory Complex.

Parking policies reinforce the District's carbon neutral Vision by encouraging shared parking arrangements amongst uses, allowing on a site-by-site basis suitable on-

site parking reductions, and supporting priority parking for carpool vehicles, alternative energy vehicles, car-shares, scooters and motorcycles.

Revisions:

The most significant change to the preferred design supported by Council in January 2012 is the treatment of the high road, which connects Victoria Road South with Stone Road through the high points of the site, as a collector instead of as an arterial road, resulting in no new arterial roads proposed within the site. The mobility schedule also shows additional Active Transportation Links south of the College Avenue east extension, between Victoria Road South and the Eramosa River, to help stitch together the green edges within and outside of the District and support transportation demand management measures. Only minor edits were made to the Principle and Objectives involving mobility.

Chapter 5: The Public Realm

Highlights:

The public realm policies of the draft Secondary Plan rely upon the general urban design policies of the City's Official Plan as amended by OPA 48. The policies regulate the design and development of publicly owned spaces within the District (parks and open spaces, roads and sidewalks) and the relationship of the built environment to these important public spaces. Policies governing streets are supportive of the active transportation focus of the Secondary Plan's mobility chapter by requiring safe, accessible, functional and attractive pedestrian-orientated public streets and recognizing the desire to create mid-block pedestrian and bicyclist connections interconnecting all modal networks. Policies also reinforce the carbon neutral vision of the District by supporting a high degree of landscaping to increase the area's tree canopy and facilitate stormwater management facilities.

Parks and public open spaces serve as key public gathering places within the District helping to stitch together employment and residential populations along with commercial and other supportive uses to the District's key users. Schedule C: Land Use identifies two existing public park spaces and the creation of two new public park spaces, each with distinct roles and functions within the District. The importance of both active and passive activities, tree canopy, linkages between parks and open spaces with the trail network and stormwater management facilities, public art, and community engagement opportunities are all recognized by the policies. Proposed major transit stops and nodes are also recognized in both the policies and schedules of the draft Secondary Plan.

Revisions:

Only minor edits were made to Principle and Objectives involving the public realm.

Chapter 6: Land Use and Built Form

Highlights:

The land use and built form policies of the draft Secondary Plan along with Schedule C: Land Use, shape and regulate the general pattern of development including land uses and the structuring of these uses within the District's built form (e.g. building

type, density and height). This chapter embeds the preferred design for the District within the draft Secondary Plan which is informed by the Vision, Principles and Objectives of Chapter 1 and supported by the other chapters of the Plan. The preferred design works with the topography of the site and includes key collector roads, a proposed river crossing, nodes at key gateways, and flexible land use categories to support a mix of principally employment, residential and commercial uses. The natural heritage system, built heritage resources, and cultural heritage landscape are clearly denoted to ensure their protection. The City's current land holdings south of Dunlop Dr. are shown as major utility which supports the current Waste Resource Innovation Centre (WRIC) and the solar facility under development located south of Cargill and west of the WRIC.

The preferred design supports a modified grid and block pattern that best facilitates a compact, transit-oriented community while ensuring flexibility within the road network to accommodate a range of traffic volumes and types, providing greater efficiency with respect to the provision of municipal services. The design maximizes frontage along key arterials and supports a fine grained urban fabric along the eastern extension of College Avenue. The transit-oriented design locates density close to high frequency transit stops along Victoria Road and promotes live—work within the western portion of the development thereby reducing trip generation and parking requirements. Roads will optimize alternative transportation modes including dedicated bike lanes along internal collector roads. In addition, sustainable infrastructure considerations include maximizing southern exposure through the design of a long east-west development axis and ensuring minimum shadowing from high density developments.

The policies and land use schedule include specialized land use categories specific to the GID, Natural Heritage System categories from Council adopted OPA 42, and works with the land use categories included in adopted OPA 48. The adopted Official Plan Amendment 48 land use categories used include Open Space and Park, Major Utility, Industrial, Service Commercial, and Neighbourhood Commercial Centre.

The cultural heritage landscape and built heritage resources of the historic reformatory complex are shown as Adaptive Re-use in the northeast portion of the site. The majority of lands within the Residential category would support medium density residential housing forms.

A Special Residential Area (SRA) category is proposed for the majority of the existing estate rural residential development located at the southeast corner of the District. The SRA designation would allow limited additional infill residential development as a minor building out of the existing Glenholm Drive neighbourhood. The existing nineteen (19) residential properties are currently serviced by private wells and septic systems. As part of the GID Secondary Plan work, staff assessed the potential use of alternative servicing arrangements to accommodate the limited infill residential development. The assessment concluded that all new development should require full municipal services in keeping with current Official Plan policies. The rationale for this position is summarized below:

- 1. Current Official Plan municipal servicing policies prohibit development on private services to avoid sprawl, premature municipal servicing, and potential negative impacts on the City's water resources and natural heritage features.
- 2. City allows a few existing residential properties to continue on private services, however redevelopment of these properties cannot proceed without municipal services.
- 3. Provision of private communal services for new development is not preferred due to source water protection concerns, difficulty in maintaining consistent standards between City infrastructure and private communal systems, high operation, maintenance and decommissioning costs despite low initial construction costs, and implications for the City including the liability of having to assume the responsibility for the operation, maintenance and decommissioning of private communal services after they are built.

Water services are currently available on Stone Road. Sanitary servicing could be provided in conjunction with the development of abutting lands as part of the widening of Stone Road. Alternatively, sanitary servicing on Stone Road at Watson Parkway could be achieved with a pumping station and connection to internal servicing of other District lands. The details of sanitary servicing in this area will need to be addressed through future servicing studies for specific development sites. Currently no timeframe has been established for servicing the development of this portion of the District.

The Corridor Mixed Use category located at Nodes and along key Arterial and Collector Roads would permit high density residential development and other uses that would support the District's residential and employment population. The majority of employment land, outside of the Industrial and Major Utility categories, would occur within two Employment Mixed Use categories permitting a mix of industrial, commercial and institutional uses. The Employment Mixed Use 1 category also permits residential uses while the Employment Mixed Use 2 category, used near the Major Utility land use located at the southeast corner of the District, excludes new residential uses.

The open space and park locations present a neighbourhood sized park for the urban village located adjacent to the current Turfgrass Institute building and a larger park area located within the area shown as Employment Mixed Use 1 that would support larger active programmable activities such as soccer games. The two public park anchors connecting the residential and employment area, create an informal environment to play, share, learn and spark innovation. The neighbourhood park within the urban village is approximately 1.5 ha. and the larger park within the employment area is approximately 3 ha. Schedule C shows the conceptual location and size of future neighbourhood and community parks which will serve as a guide during the development approvals and park planning process and will be further refined with consideration to the City's recreational needs at the time of development. The conceptual design of future parks and the enhancement of existing parks will involve community consultation.

The neighbourhood park is envisioned as an internal park providing open space amenities to residents /workers living within the area bounded by College Avenue, the high road and Victoria Road South. The park will optimize community benefit of the park space to the core residential neighbourhood north of College. In addition the proposed neighbourhood park meets City parkland criteria such as proximity to residential area served, adequate street frontage and sufficient table land (less than 4% slope).

The larger park shown within the employment area is currently envisioned in the GID Draft Secondary Plan as year-round programmable space for employees and residents west of the Eramosa River. This type of recreational space could serve as a point of attraction for the hi-tech, R&D, creative work force that the District is attempting to attract. Moreover, it would provide for non-employment forms of activity within the site serving to bring activity to the area after typical business hours. It also serves as an effective terminus of the southern extension of Corridor Mixed Use along High Street from College Avenue. The placement of the park within the employment area makes use of a relatively flat area, thereby reducing grading requirements and takes advantage of off-peak parking within the employment area. The location shown provides an effective transition between mixed use and employment and serves as a companion public space with the neighbourhood park within the Residential area.

Discussions are continuing with the Province concerning their proposal for use of the cultural heritage landscape area fronting York Road on the east side of the Eramosa River as a park. City staff are continuing their assessment of the Province's request which may result in the establishment of park space within the cultural heritage landscape on the Guelph Correctional Centre lands in addition to the parkland shown on Schedule C. Policies regarding the Adaptive Re-use designation for the Guelph Correctional Centre lands, outside of the Natural Heritage System, permit park and open space uses.

Schedule D presents a separate height schedule in the draft Secondary Plan which works in concert with height and density policies contained within the Plan. Height regulations within the District are based on protecting viewsheds, making use of existing grades, supporting transit, and recognizing transportation capacity. Key viewsheds that are protected within the design include western views towards the downtown and northeastern views towards the historic reformatory complex and landscape. Views towards the Waste Resources Innovation Centre will be minimized.

Revisions:

Changes have been made to the preferred design supported by Council in January 2012 along with revisions to the principles and objectives.

The draft Secondary Plan changes the Open Space and Park linear area wedged between the Significant Natural Area on the west side of the Eramosa River and the Employment Mixed Use 1 area to Employment Mixed Use 1. In addition the Corridor Mixed Use area along the College Avenue East extension has been reduced and converted to Employment Mixed Use 1 to provide for a continuous corridor of

employment mixed use space adjacent to the Natural Heritage System. The amount of Employment Mixed Use 1 area north of the College Avenue East extension has been decreased in favour of additional Residential lands in response to feedback from the Province.

Chapter 7: Interpretation and Implementation

Highlights:

Chapter 7 reiterates that the Guelph Innovation District Secondary Plan is subject to the interpretation and implementation policies of the Official Plan with the Zoning By-law implementing the policies and schedules of the Secondary Plan. In addition, the policies recognize that implementation will be dependent upon the City's capital budget and other financial mechanisms.

The Secondary Plan policies will be further supported by a GID Implementation Strategy, alternative development standards and architectural technical guidelines, for low rise development. The GID Implementation Strategy will be critical to further articulate, coordinate and activate the implementation of the Secondary Plan, specifically components of the Plan related to achieving carbon neutral development. The implementation strategy will identify carbon neutrality targets and describe a range of mechanisms, tools and initiatives that may be utilized to achieve identified targets.

The draft Secondary Plan policies also make reference to the potential establishment of a design review committee and the use of height bonusing within the nodal areas located within Corridor Mixed Use designations, for priority community benefit, in particular benefits from carbon neutrality. The policies direct the City to take a partnership approach with the Province and other key stakeholders to work towards the effective and efficient development of the lands which encompasses assessing: site/servicing development models for priority areas including the extension of College Avenue East; development of research and development clusters with post-secondary institutions; redevelopment of the historic reformatory complex; and coordination of marketing and business development efforts targeting knowledge based innovation sector businesses.

Schedule E: Phasing presents four (4) development phases in recognition of servicing considerations, capital programming and land assembly. The development phases also present a mechanism for ensuring that each phase of the development contributes to achieving the overall GID residential and employment targets with the Zoning By-law establishing the required mix of uses within each phase. Lands would not be released for development purposes until it was demonstrated that the residential and employment targets are met with existing and approved development. The chapter ends with key definitions. The identified developments and development phasing can be accommodated by the existing and planned transportation system and servicing infrastructure. For the purposes of timing infrastructure upgrades it is assumed that development activity in the GID lands will mostly occur after 2016, although it is noted that the redevelopment of specific properties such as the former Wellington Detention Centre and the former

Correctional Centre may commence sooner with limited infrastructure improvements.

Revisions:

Not applicable. No direct connections to preferred vision, principles, objectives and design supported by Council on January 30, 2012.

Other Issues

Southeast Development:

As part of Council's support of the preferred vision, principles, objectives and design for the Guelph Innovation District Secondary Plan on January 30, 2012, Council directed staff to work with surrounding residents and other stakeholders where potential buffers would be required to minimize impacts to those identified areas and to establish areas to be addressed both for short term and for long term plans. In the short term the City will be extending the existing berm located north of Stone Road at the southern edge of the City's Waste Resources Innovation Centre. In addition, a second berm, just south of the former Subbor building, is being investigated which would be more effective in blocking views to the former Subbor building, especially for properties west of the City's access road to the former Subbor building. The berm(s) will serve as a visual barrier between the City's Waste Resources Innovation Centre and the residents south of Stone Road. A request was made by a resident to also include a berm north of Stone Road, west of the Subbor access road. These lands are intended for parks purposes which means clear sightlines from public streets are imperative for safety purposes so a berm could not be supported. The resident was informed that as part of the parks planning process, a public consultation strategy will be followed which includes both direct mailings to properties within the immediate area along with newspaper advertising for the general public. In the long term the Employment Mixed Use 2 area shown on both the north and south side of Stone Road should serve as an effective transitional use between the Waste Resources Innovation Centre and the residential uses within the proximity of Glenholm Drive. Further buffering can be accommodated through the zoning and development approvals processes.

Provincial and Interdepartmental Project Linkages

Progress on the Secondary Plan continues to be leveraged and coordinated with work being undertaken by the Province and other City Departments.

The Province remains supportive in the ongoing planning exercise and is currently undertaking an Optimal Use Study for the former Guelph Correctional Centre site that will help inform a suitable real estate strategy for the site that aligns with key policies and principles emerging out of the secondary plan process. A draft study has been completed and is currently being reviewed by City staff. In addition, the Province has retained a heritage consultant to complete an Adaptive Re-use Study for the twelve (12) heritage structures identified by the Province. Provincial staff will keep City staff and Heritage Guelph, the City's Municipal Heritage Committee, informed of the work underway. The Expression of Interests (EOI) released for the former Guelph Correctional Centre and Wellington Detention Centre sites remain active. Conestoga College has expressed an interest in the former Guelph

Correctional Centre site. To further advance the sale of the above two surplus properties and as a means of testing the current market on proposed design elements of the Guelph Innovation District, including carbon neutrality aspirations and tools, the Province is undertaking a market sounding exercise. The Province has agreed to work with the City on the market sounding work in light of our Memorandum of Understanding, similar to opportunities granted to the City in influencing the content of the Province's EOI releases.

The City's Economic Development Department is currently working on a business case in concert with the Province, Conestoga College and the University of Guelph regarding the establishment of a new campus on the former Guelph Correctional Centre site. This work has been identified as one of Council's six (6) key initiatives to begin implementation of the Corporate Strategic Plan. The draft Secondary Plan policies and proposed designations are supportive of this ongoing work. The establishment of a new campus within the GID would serve as an ideal catalyst to the vision for the Guelph Innovation District as a compact, mixed use community serving predominately as the home of innovative, sustainable employment uses and offering meaningful places to live, work, shop, play and learn.

The City's Community Energy Division continues to work towards defining and achieving energy-related carbon neutrality for the GID as a "scale-project" within the Community Energy Initiative. Carbon neutral development relies on minimizing energy demand so that low carbon and carbon neutral energy supply options, such as district energy and renewable energy sources (e.g. solar), become feasible.

The draft Secondary Plan contains some broad directional policies that refer to carbon neutrality as a GID goal. The Plan includes language that requires developments to connect to a district energy system, if available. The Plan also supports implementation of a solar photovoltaic farm by designating land south of Cargill, west of the City's Waste Resource Innovation Centre, as "Major Utility". Beyond the energy-related vision of carbon neutrality for the GID, the draft Secondary Plan includes language and broader initiatives relating to mobility, land use and built form, as covered by planning policies and schedules included within the draft Secondary Plan.

While the draft Secondary Plan contains some policies regarding energy-related carbon neutrality, most of the specific development-related requirements relating to carbon neutrality will be included within the GID Implementation Strategy. The City is continuing discussions with the Province on how the carbon neutral vision of the District can best be defined, measured and operationalized with the intent of developing appropriate strategies for inclusion within the GID Implementation Strategy.

Other initiatives, including district energy and solar projects, are being spearheaded by Community Energy outside of the Secondary Plan framework. For instance, the solar farm proposed for the site is awaiting further approval from the Province under the Feed-In-Tariff program. Implementation of a district energy system is being pursued through Envida, Guelph Hydro's unregulated arm, and will involve significant interface with existing and future GID tenants.

Work Plan and Next Steps

The following sets out the City's next significant dates for the completion of the Guelph Innovation District Secondary Plan:

Oct. 15, 2012	Release Draft Secondary Plan for Public Review
Nov. 2012	Hold Public Open House
Jan. 2013	Conduct Statutory Public Meeting at Council
March, 2013	Council Adoption

The ultimate goal is to incorporate the Secondary Plan within the City's Official Plan. A final Secondary Plan will be developed based on comments received on the draft which will form the basis of an Official Plan Amendment. An informal open house will be held before the end of 2012, followed by a statutory public meeting at the beginning of the 2013. Council adoption of the Official Plan Amendment is anticipated in March 2013.

3.0 CORPORATE STRATEGIC PLAN

Organizational Excellence - Strategic Direction 1.2: Develop collaborative work teams and apply whole systems thinking to deliver creative solutions.

Innovation in Local Government - Strategic Direction 2.1: Build an adaptive environment for government innovation to ensure fiscal and service sustainability.

Innovation in Local Government - Strategic Direction 2.2: Deliver public services better.

Innovation in Local Government - Strategic Direction 2.3: Ensure accountability, transparency and engagement.

City Building - Strategic Direction 3.1: Ensure a well designed, safe, inclusive, appealing and sustainable City.

City Building - Strategic Direction 3.2: Be economically viable, resilient, diverse and attractive for business.

4.0 FINANCIAL IMPLICATIONS

Capital Budget approval has been given by Council for completion of the Secondary Plan at \$340,000. An FCM Green Municipal Fund grant will contribute \$142,252 towards the budget. The first FCM installment of \$75,188.79 has been received.

5.0 DEPARTMENTAL CONSULTATION

The attached draft Secondary Plan reflects circulation comments received from the following Departments: Building Services, Engineering Services, Solid Waste Resources, Wastewater Services, Water Services, Community Energy, Economic Development, Culture and Tourism, Parks and Recreation, Guelph Transit, Public Works, Legal and Realty Services. In addition, Guelph Junction Railway and Infrastructure Ontario staff have been consulted on relevant sections.

6.0 COMMUNICATIONS

A comprehensive public consultation process has been followed throughout the development of the Secondary Plan including a public design workshop to explore design options and preferences for the lands. Infrastructure Ontario continues to be an active participant along with the Grand River Conservation Authority who have both agreed to provide in-kind support as part of the FCM Green Municipal Fund Grant. Heritage Guelph, the City's Municipal Heritage Committee, will continue to be consulted on heritage matters. The City's River Systems Advisory Committee and Environmental Advisory Committee will also be circulated for comment.

Public and stakeholder consultation will continue throughout the Secondary Plan process. Both an informal open house and a statutory public meeting regarding the Official Plan Amendment that will incorporate the Secondary Plan into the City's Official Plan will be scheduled later this year and early next year. Information on this project continues to be updated on the City's website, www.guelph.ca/innovationdistrict.

7.0 ATTACHMENTS

Attachments are available on the City's website at guelph.ca/innovationdistrict. Click on the link for the October 15, 2012 Committee Report (with attachments).

Attachment 1: Council supported Preferred Vision, Principles, Objectives and Design (January 30, 2012)

Attachment 2: Guelph Innovation District Recommended Option Booklet (Dec. 2011)

Attachment 3: Draft Guelph Innovation District Secondary Plan

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Attachment 1: Council Supported Preferred Vision, Principles, Objectives and Design (January 30, 2012)

A Vision for Guelph's Innovation District

The Guelph Innovation District (GID) is a compact, mixed use community that straddles the Eramosa River in the City's east end. The District will serve predominately as the home of innovative, sustainable employment uses with an adjacent urban village connecting residential and compatible employment uses. It is at once highly energetic and intimately familiar, because it showcases an entirely new approach to planning, designing, and developing urban places, and at the same time, reflects Guelph's history and celebrates the rich heritage resources of the District, including the stunning river valley, dramatic topography and views, and historic Reformatory complex.

The GID is beautiful, pedestrian-focused and human-scaled. It provides a fine-grained mix of land uses at transit-supportive densities, offers meaningful places to live, work, shop, play and learn, and supports a wide range of jobs and residents. It protects valuable natural and cultural heritage resources, even while it fully integrates them into the new community, features sustainable buildings and infrastructure, and works towards carbon neutrality. It makes needed connections for all modes of transportation, but in a manner that prioritizes pedestrians, cyclists and transit users over drivers, and stitches the District into the overall fabric of the City. It is exciting and new and feels like it has been part of the City for a long time.

Principles & Objectives

Principle #1: NATURAL & CULTURAL HERITAGE

Protecting What is Valuable to create a place that respects natural and built heritage resources making citizens stewards of the resources for current and future generations.

Objectives:

- a) Preserve and enhance the extensive natural heritage system, including the Eramosa River valley.
- b) Respect the existing topography and sightlines, including river vistas and views of both Downtown and the Reformatory complex.
- c) Ensure public access opportunities to the natural heritage system and cultural heritage resources and promote their celebration, especially river vistas and edges, the Provincially Significant Earth Science Area of Natural and Scientific Interest, and the Reformatory complex.
- d) Integrate the natural heritage system and cultural heritage resources with surrounding land uses and provide opportunities for compatible research, educational, recreational, transportation and urban agricultural uses.
- e) Encourage, where appropriate and feasible, the preservation and adaptive reuse of the cultural heritage resources, including the Reformatory complex and associated cultural heritage landscape.
- f) Create a sustainable natural heritage system, and open space and parks network which provides both active and passive recreational needs.

Principle #2: ENERGY, INFRASTRUCTURE + SUSTAINABILITY

Building Green Infrastructure that is efficient, focuses on renewable energy sources, and supports an integrated distribution system enabling a carbon free lifestyle.

Objectives:

- a) Create a framework for the District to work toward carbon neutrality and exceed Community Energy Plan targets.
- b) Support development of an integrated energy distribution system, which maximizes connections between energy generation opportunities (producers) and end users (provides opportunities for local energy generation, maximizes connections between generation opportunities and end users, and minimizes overall energy use).
- c) Support cradle-to-cradle processes where the waste by-products/surpluses of one activity are used as resources by another (e.g. industrial ecology).
- d) Include efficient, long-term and community based strategies to conserve and manage energy, water, wastewater, stormwater and solid waste.
- e) Develop a model community that showcases sustainable, green, low impact urban development.
- f) Embrace innovation, establish best practices, and serve as a learning environment for other communities across Guelph and Southern Ontario.

Principle #3: MOBILITY

Making Connections that serve the community, allow current and future generations to walk to daily needs, and provide convenient transit services to access broader activities.

Objectives:

- a) Integrate the District with the City as a whole, with clear connections to Downtown, the University of Guelph campus, and nearby neighbourhoods.
- b) Provide a transportation system (streets, sidewalks, cycle paths, trails, and rail) that serves the District, provides rational and efficient connections for all modes of transportation, and provides public access to the natural heritage system.
- c) Provide a land use pattern, urban design guidelines and supportive transportation system that connects us with our daily needs, including transit services, within a 10 minute walk (400 500 m distance).
- d) Provide universal access that prioritizes pedestrians, cyclists and transit users over drivers by providing an extensive pedestrian and cycling network with direct, safe and healthy travel routes, and convenient, affordable transit service which is integrated with the rest of the City.
- e) Build new connections for pedestrians, cyclists and potentially transit users across the Eramosa River valley to better connect uses and activities.
- f) Integrate the Guelph Junction Railway within the new community as a potentially powerful people and goods mover.
- g) Ensure that the capacity of existing and new streets is sufficient to support the District, while managing traffic impacts on adjacent neighbourhoods.

Principle #4: COMMUNITY DESIGN

Creating Meaningful Places to bring people, activities, environment(s) and ideas together, creating a sense of arrival and inclusion.

Objectives:

- a) Create a District of landmark quality with a strong and recognizable identity on par with the Downtown and the University of Guelph.
- b) Define gateways and community focal points (nodes) on both sides of the Eramosa River, as well as a network of areas that are safe, healthy, coherent, vibrant, and comfortable.
- c) Create a cohesive, efficient and vibrant transition area that will provide common supportive uses and built form to connect the urban village node and employment area while still maintaining the unique function and identity of each area.
- d) Respect the southeast residential neighbourhood through the design and inclusion of an appropriate transition area between the residential uses and the industrial and major utility uses to the north.
- e) Define a block and parcel fabric that knits uses together and encourages new buildings to define the edges of streets, parks, and open spaces to provide a friendly face to encourage social interaction, safety, and a human scale.
- f) Create an accessible network of public facilities, parks, and open spaces which serves the new community and surrounding neighbourhoods, and is integrated with the natural heritage system and cultural heritage resources.
- g) Encourage high quality urban and architectural design that responds to and respects the District's unique setting, natural and cultural heritage, edges and adjacent uses.
- h) Create a memorable landmark area/structure to serve as a beacon/partner to the Church of Our Lady in Downtown Guelph.
- i) Increase the overall tree canopy, and encourage the use of native vegetation and edible landscapes, where appropriate, in restoration areas, parks, open spaces and along streets throughout the new community.
- j) Respect (and build upon) the beaux-arts design of the cultural heritage landscape component of the Reformatory complex.

Principle #5: LAND USE, DENSITY + DIVERSITY

Mixing it Up to create vibrant, resilient, and efficient spaces that make it possible, easy, and enjoyable to reduce our ecological footprint.

Obiectives:

- a) Create an integrated, compact, mixed use District that provides an opportunity for people to live close to job opportunities and supportive daily services.
- b) Achieve transit supportive densities with human scaled built form.
- c) Establish a fine grained mix of land uses, building types and tenures in the new community, providing accessible choices for living, working, shopping, playing and learning.
- d) Promote mixed use developments in appropriate locations that provide three or more significant uses ideally in a vertical built form or if in separate buildings within a walkable environment.
- e) Provide for a diverse cross section of residents with a mix of residential uses, building types and tenures in an urban village-type setting that is affordable,

- accessible and allows people to age in place and remain within the same neighbourhood as their needs change.
- f) Provide for a significant number and variety of jobs with a range of employment uses, building types and scales, including those related to the development of an agri-innovation cluster, green jobs, and the information and communication technology sector.
- g) Define a flexible block and parcel fabric that encourages evolution over time.
- h) Plan for a land use mix and densities which contribute to achieving the City's overall population, employment and density targets.

Principle #6: EMPLOYMENT

Growing Innovative Business and Employment opportunities that support the agri-innovation sector, green jobs and knowledge based industries, within a compact, mixed use community.

Objectives:

- a) Accommodate a significant share of Guelph's employment growth to 2031.
- b) Establish the role of the GID as a key area supporting the growth of an agriinnovation cluster making connections to the Downtown and the University.
- c) Nurture and capitalize on the GID as a recreational and tourist destination.
- d) Create a setting that reinforces the GID as a high density employment area that attracts provincially, nationally or internationally significant employment uses.
- e) Encourage employment uses within the former reformatory lands that can showcase the site's built heritage resources and cultural heritage landscape.
- f) Target the GID as a key location for agri-innovation businesses, green jobs and knowledge-based industries such as the information and communication technology sector and post-secondary institutions.
- g) Support strategic and collaborative economic development partnerships within the GID and surrounding community.
- h) Encourage a supportive business environment by fostering learning and innovation within the GID.
- i) Pursue projects that are economic priorities for the GID and contribute to innovative and sustainable employment uses that are compatible with a mixed use environment, including residential uses.
- j) Protect and support existing industrial uses recognizing their contribution to the City's overall employment, waste management services, and carbon footprint reduction.

Guelph Innovation District PREFERRED DESIGN

Infrastructural Framework

Proposed Pedestrian Crossings Proposed Major Transit Stops Collector Roads Arterial Roads Trail Network 0000

Existing Rail

Active Transportation Link

Node

810

Built Heritage Resource

Existing Built Form

Cultural Heritage Landscape

Land Use Framework Waterbodies

Natural Heritage System^a Natura I Area Significant Natura I Area

111111

Open Space and Park

Special Residential Area Corridor Mixed Use Residential

Employment Mixed Use 2 Employment Mixed Use 1 Major Utility

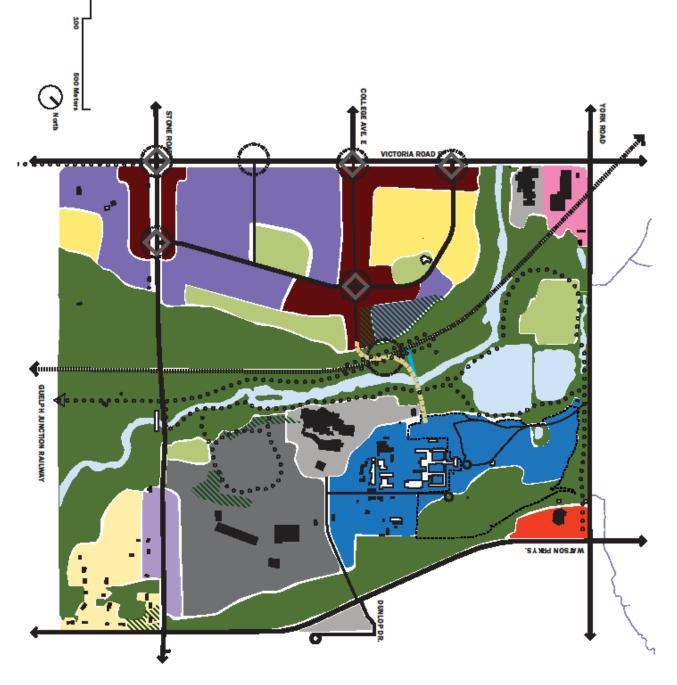
Service Commercial Adaptive Re-use

Industrial

Neighbourhood Commercial Centre

*NHS as per council adopted OPA 42

Note: Stormwater management fadilities are not shown; however, a number of stormwater management facilities will be required to service the GID development lands.



GID Preferred Design Terminology

Active Transportation Link

A conceptual route supporting a direct and logical link/connection for active transportation modes such as walking and cycling.

Adaptive Re-use (GID)

An area containing cultural resources of provincial significance where the conservation, rehabilitation, restoration, maintenance and re-use of historic buildings and landscapes will serve as the focal point of new development having a mix of compatible uses including institutional, educational, commercial, residential and live/work in a form that respects both the existing heritage built form and heritage landscape features and relationships between heritage elements considered for adaptive re-use and redevelopment.

Built Heritage Resource

One or more significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community. These resources may be identified through designation or heritage conservation easement under the *Ontario Heritage Act*, or listed by local, provincial or federal jurisdictions. *Built heritage resources* include those properties that have been included in the Couling Architectural Inventory as it is completed and as it may be amended. All buildings, structures, landscapes, monuments, installations or visible remains constructed prior to 1927, but not limited to those constructed prior to 1927, shall be considered to be *built heritage resources* until considered otherwise by the Heritage Guelph. This definition is the same as the one included in the draft Official Plan.

Corridor Mixed Use (GID)

An area comprising primarily vacant or under-utilized lands that is targeted for significant growth within the University of Guelph-Downtown-GID trinity, having a mix of residential, commercial, live/work, institutional, and educational uses within a highly compact development form that will contribute to the creation of focal points and transition areas comprising high quality urban and architectural design and a well-connected, pedestrian-oriented, public realm.

Cultural Heritage Landscape

A defined geographical area of heritage significance which has been modified by human activities and is valued by the community. It may involve a grouping(s) of individual heritage features such as structures, spaces, *archaeological sites*, and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts. Examples may include, but are not limited to *Heritage Conservation Districts* designated under the *Ontario Heritage Act*, parks, gardens, neighbourhoods, townscapes, farm-scapes, battlefields, main streets, cemeteries, trail ways and industrial complexes of *cultural heritage value or interest*. This definition is the same as the one included in the draft Official Plan.

Employment Mixed Use 1 (GID)

An area that is targeted for significant growth as a key landmark area in the University of Guelph-Downtown-GID trinity, having a mix of compatible uses focusing on higher density, innovative and sustainable uses including industrial,

commercial, educational and institutional and to a lesser extent residential and entertainment uses that will serve to support the role of the business area as an agricultural innovation centre. Uses are compatible with surrounding uses in regard to impacts such as noise, odour, loading, dust, and vibration. Low density employment uses such as logistics and warehousing are not permitted.

Employment Mixed Use 2 (GID)

An area that is targeted for significant growth as a key landmark area in the University of Guelph-Downtown-GID trinity, having a mix of compatible uses focusing on higher density, innovative and sustainable uses including industrial, commercial, educational and institutional and to a lesser extent entertainment uses that will serve to support the role of the business area as an agricultural innovation centre. Uses are compatible with surrounding uses in regard to impacts such as noise, odour, loading, dust, and vibration. Low density employment uses such as logistics and warehousing are not permitted.

Industrial

The predominate use of land in this category will be traditional industrial uses, including the manufacturing, fabricating, processing, assembly and packaging of goods, foods and raw materials. Commercial uses will not be permitted. This category is the same as the Industrial designation in the current and draft Official Plan.

Major Utility

This category recognizes utility uses that are operated by the City or under agreement with the City, serve a City-wide function, and may not be appropriate within an industrial designation. Permitted uses would include facilities for waste reuse, recycling, reclamation, recovery, composting or anaerobic digestion. This category is the same as the Major Utility designation in the draft Official Plan.

Natural Area

An area within the Natural Heritage System that is not recognized as significant as used in the term Significant Natural Area. A Natural Area may include: other wetlands, cultural woodlands, and habitat for significant species. Development or site alteration may be permitted within a Natural Area subject to the results of an Environmental Impact Statement or Environmental Assessment. This category is the same designation included in Council adopted OPA 42.

Natural Heritage System

A system comprised of *natural heritage features*, areas and *ecological linkages*, including surface and ground water or areas, including surface and ground water features, and *ecological linkages*. Together, these elements maintain local biological, hydrological and geological diversity and functions, support viable populations of indigenous species, and sustain local ecosystems. The system also includes lands that have been identified for *naturalization* and/or *restoration* or have the potential to be restored to a natural state. This category is the same as the Natural Heritage System designation included in Council adopted OPA 42.

Neighbourhood Commercial Centre

This category is comprised of one or several commercial buildings on one or more properties within a compact node. It is intended to primarily serve the shopping needs of residents living and working in nearby neighbourhoods and employment districts. The category is subject to minimum and maximum gross floor areas. This

category is the same as the Neighbourhood Commercial Centre designation in the draft Official Plan.

Nodes

Nodes represent points, centres or areas that may be junctions where transportation, retail, residential and employment activities intersect. Nodes should exude a strong sense of place.

Open Space and Park

This category encompasses public or private areas where the predominate use or function is active or passive recreational activities, conservation management and other open space uses. This category is the same as the Open Space and Park designation in the draft Official Plan.

Residential

The predominate use of land within this category will be medium density housing forms such as townhouses and apartments. This category will be similar to the Medium Density Residential designation in the current and draft Official Plan.

Service Commercial

This category is intended to provide a location for highway-orientated and service commercial uses which may include commercial uses of an intensive nature that can conflict with residential land uses.

This category is the same as the Service Commercial designation in the current and draft Official Plan.

Significant Natural Area

Significant means:

In regard to *natural heritage features or areas* meeting the criteria for one or more of the following NHS components:

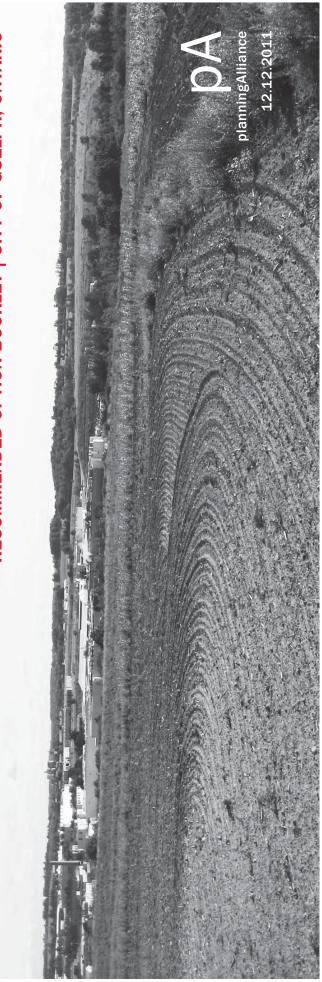
- a. Areas of Natural and Scientific Interest (Earth and Life Science)
- b. Habitat for Endangered and Threatened Species
- c. Significant Wetlands
- d. Surface Water Features and Fish Habitat
- e. Significant Woodlands
- f. Significant Valleylands
- g. Significant Landform
- h. Significant Wildlife habitat (including Ecological Linkages)

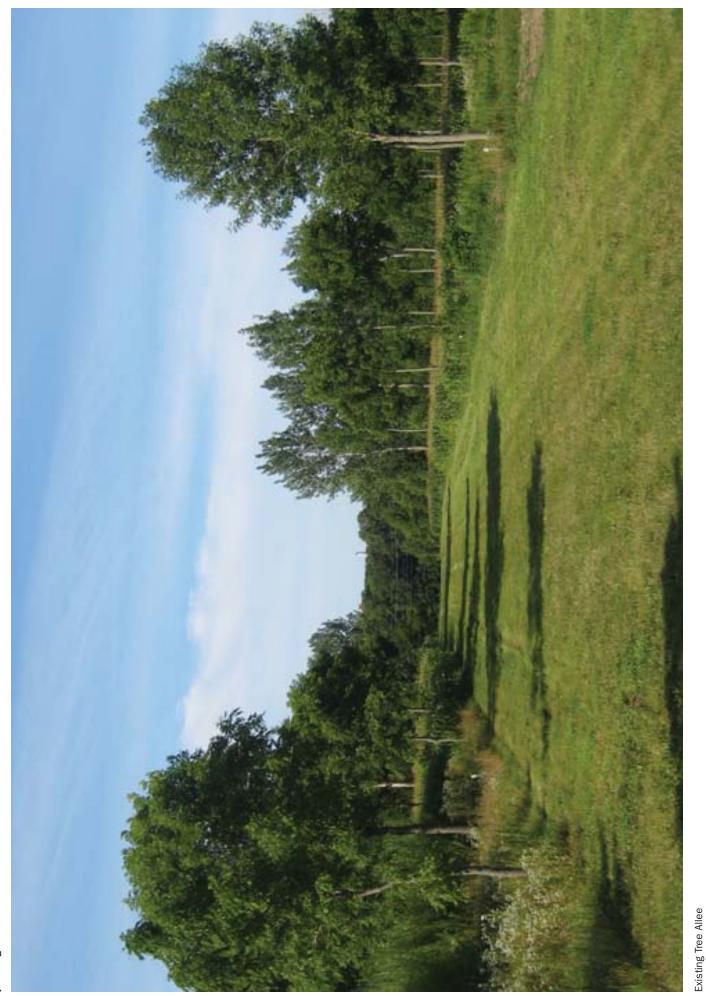
This category is the same as the Significant Natural Area designation in Council adopted OPA 42.

Special Residential Area (GID)

An area containing primarily low density residential forms with limited servicing potential.

GUELPH INNOVATION DISTRICT RECOMMENDED OPTION BOOKLET | CITY OF GUELPH, ONTARIO





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- 1.1 What is the GID?
- 1.2 How did we get here?
- 1.3 What is our direction?
- 1.4 Stakeholders
 - Vision & Principles

2.0

- 2.1 Vision
- 2.2 Principles
- Design Approach 3.0

3.1 Introduction

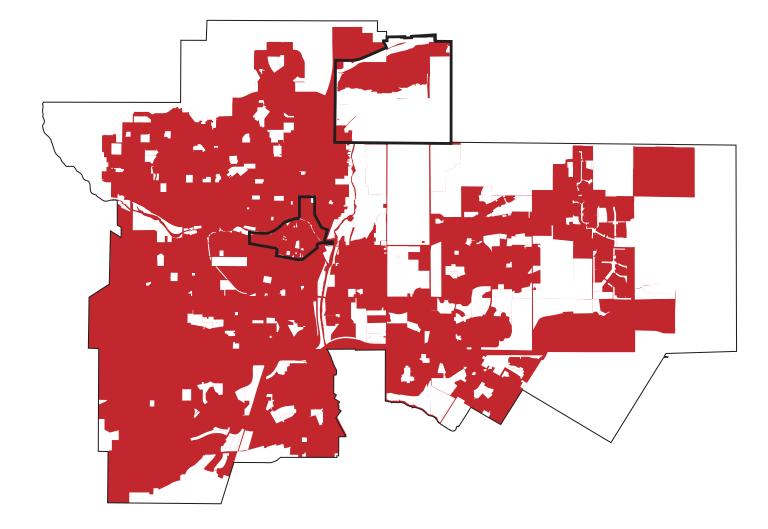
- 3.2 Area Structure Plan
- 3.3 Precedents
- **Alternative Design Options**

4.0

- 4.1 Option A The Green Grid
- 4.3 Application of the Principles 4.2 Option B - Follow the Land
- 4.4 Building + Testing the Options
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- 6.1 Introduction
- 6.2 Key Design Elements
- **Definitions** 7.0
- Appendix A Land Use Precedents
- Appendix B Open Space Precedents



5% of Guelph's Total Area + The G.I.D. Represents

15% of Guelph's Undeveloped Lands

Guelph 8850 Ha
Developed + Protected Lands 7550 HA
Developable 1300 HA

Guelph Innovation District Lands 454 Ha

Developed + Protected Lands 248 HA

Developable 206 HA

1.0 INTRODUCTION

UPPER CANADA

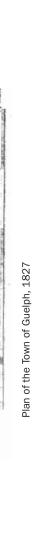
GUELF

1.1 WHAT IS THE GID?

The City of Guelph is developing a Secondary Plan for the lands included within the Guelph Innovation District to guide the transformation of the area to a carbon neutral district integrating an urban village with employment lands supporting an agri-innovation cluster within the City.

This booklet is to be used as a guide to the design process, formation and evaluation of the conceptual land use options for the Area. This booklet contains the following sections:

- Introduction
- Vision and Principles
- Design Approach
- Alternative Design Options
- · Composite Design Option
- Preferred Design





Turf Grass Research Institute



View from Victoria Road South

0 D THAW 0 000 Ö 7007 0 Waste Resource Correctional Guelph 8 COUNT COUNTY OF STREET 0 occurrence acticles Former Wellington Detention Centre Agro-Forestry & Research **Guelph Turfgrass** Institute and S IS NOSMALES THE STORY OF THE Produced by the City of Guelph Planning & Building, Engineering and Environment Planning Services July 2011 Guelph Innovation District Secondary Plan Area ■ Meters Major Institutional Open Space and Recreation Institutional / Research Park Corporate Business Park * Guelph Airport Special Study Areas | Significant | Natural Areas Regeneration Natural Areas CountyRoads Waterbodies Utility Areas Industrial 250 **Proposed Land Use** Areas Proposed Land Use Designations (Draft Official Plan) 1:15,000 General Residential (Built-Up Area) General Residential (Greenfield Area) 250 125 0 Municipal Boundary 0 Neighbourhood Mixed Use Nodes Commercial Office Residential Community Mixed Use Nodes Medium Density Residential Commercial Service Areas High Density Residential Watercourses Downtown City Streets Key Map Buildings

Guelph Innovation District City of Guelph, Ontario Figure 1: Proposed Land Use

1.0 INTRODUCTION

1.2 HOW DID WE GET HERE?

The subject lands incorporate a mix of built-up and greenfield development on the southeast edge of the City that is in transformation from its institutionally-dominated past to its future as a critical third node in the emerging agri-innovation cluster centers trinity connecting the GID with the University of Guelph and the Downtown.

The City of Guelph is in the third and final phase of the Secondary Plan process. Work undertaken in Phases I and II prepared the necessary baseline information, conducted various rounds of consultation with key stakeholders, held thirteen (13) public meetings and workshops and identified preliminary land use concepts for the site.

These initial concepts have been elaborated within the two alternative design options presented in this booklet. The recommended option that will emerge from the evaluation of the alternative design options will form the basis of the Secondary Plan.



4	lotal Area	lotal Area Developed Cultural	Cultural	Natural	Gross
	(na.)	1	Landscape	Heritage System	Developable Area
	66	16		30	53
ally	233	11	21*	100	101
Owned					
Privately	122	24		46	52
Owned					
TOTAL	453	51	21	176	206

Figure 2: Context

neighbourhood commercial

site boundary

Puegend

service commercial

institutional

employment mixed use industrial employment

1111

residential mixed use

greenlands

Figure 3a: Phase II Land Use Concept A

neighbourhood commercial

site boundary

service commercial

institutional

employment mixed use

industrial employment residential mixed use

greenlands



Figure 3b: Phase II Land Use Concept B

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1.0 INTRODUCTION

1.3 WHAT IS OUR DIRECTION?

The Secondary Plan is to be structured around the overall vision for growth and development within Guelph as contained within the Official Plan. The Secondary Plan will guide development within the GID towards carbon neutrality. It is also to be informed by Guelph policy contained in the Guelph Growth Management Strategy, Prosperity 2020, Agri-Innovation Cluster Plan, Community Energy Initiative and other policy direction as required.

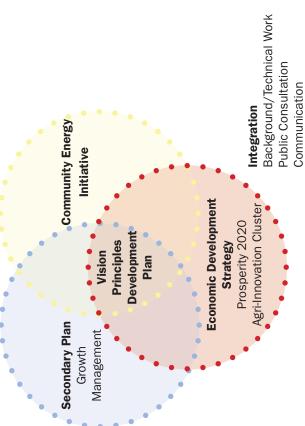


Figure 4: Integration Diagram

1.4 STAKEHOLDERS

Extensive consultation has been conducted with respect to development of the Area. To date, the City has facilitated the following public meetings and workshops:

- Jan 25, 2005: First Public Consultation Meeting
- Apr 6, 2005: Community Workshop
- Feb 1, 2007: Public Information Session
- Apr 12, 2007: Special Information Session: York District Lands
- Jun 18, 2007: Public Town Hall 1

Aug 7, 2007: Public Town Hall 2

- Dec 10, 2007: Information Session for Landowners South of Stone Road
- Apr 5, 2008: Urban Design Charrette
- · Jun 18, 2009: Community Workshop
- Feb 8, 2010: Council Workshop
- Jul 19, 2011: Council Information Session
- · Sep 15, 2011: Public Design Workshop
- Oct 18, 2011: Design Charette



2.0 VISION + PRINCIPLES

2.1 VISION

The Guelph Innovation District (GID) is a compact, mixed use community that straddles the Eramosa River in the City's east end. The District will serve predominately as the home of innovative, sustainable employment uses with an adjacent urban village connecting residential and compatible employment uses. It is at once highly energetic and intimately familiar, because it showcases an entirely new approach to planning, designing, and developing urban places, and at the same time, reflects Guelph's history and celebrates the rich heritage resources of the District, including the stunning river valley, dramatic topography and views, and historic Reformatory complex.

The GID is beautiful, pedestrian-focused and human-scaled. It provides a fine-grained mix of land uses at transit-supportive densities, offers meaningful places to live, work, shop, play and learn, and supports a wide range of jobs and residents. It protects valuable natural and cultural heritage resources, even while it fully integrates them into the new community, features sustainable buildings and infrastructure, and works towards carbon neutrality. It makes needed connections for all modes of transportation, but in a manner that prioritizes pedestrians, cyclists and transit users over drivers, and stitches the District into the overall fabric of the City. It is exciting and new and feels like it has been part of the City for a long time.

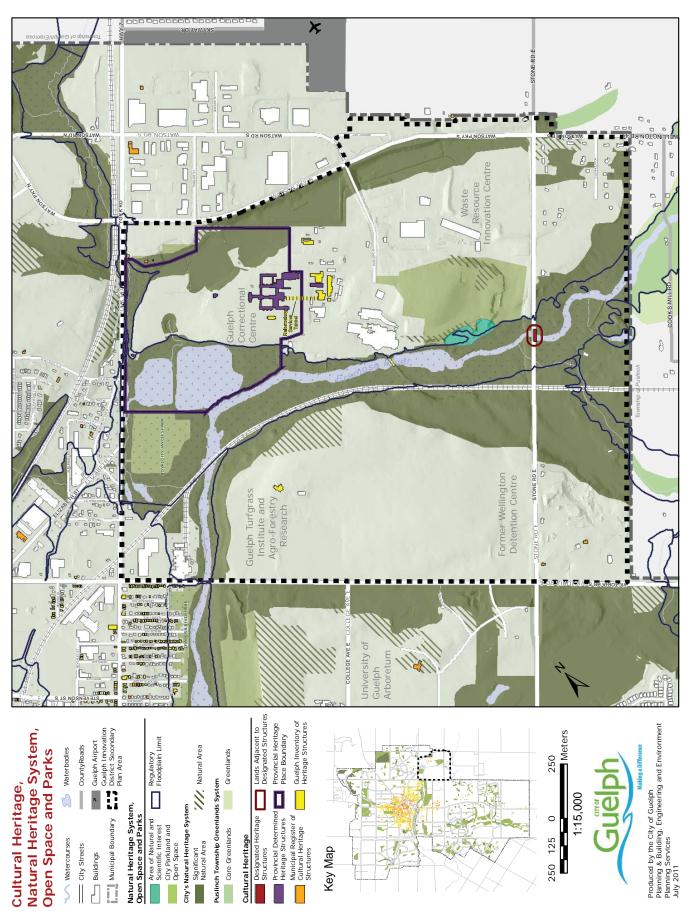


Figure 5: Official Plan Schedule 2 - Natural Heritage Features and Development Constraints

2.0 VISION + PRINCIPLES

2.2 PRINCIPLES

2.2.1 NATURAL + CULTURAL HERITAGE

Protecting What is Valuable to create a place that respects natural and built heritage resources making citizens stewards of the resources for current and future generations.

Objectives

- a) Preserve and enhance the extensive natural heritage system, including the Eramosa River valley.
- b) Respect the existing topography and sightlines, including river vistas and views of both Downtown and the Reformatory complex.
- c) Ensure public access opportunities to the natural heritage system and cultural heritage resources and promote their celebration, especially river vistas and edges, the Provincially Significant Earth Science Area of Natural and Scientific Interest, and the Reformatory complex.
- d) Integrate the natural heritage system and cultural heritage resources with surrounding land uses and provide opportunities for compatible research, educational, recreational, transportation and urban agricultural uses.
- e) Encourage, where appropriate and feasible, the preservation and adaptive reuse of the cultural heritage resources, including the Reformatory complex and associated cultural heritage landscape.
- f) Create a sustainable natural heritage system, and open space and parks network which provides both active and passive recreational

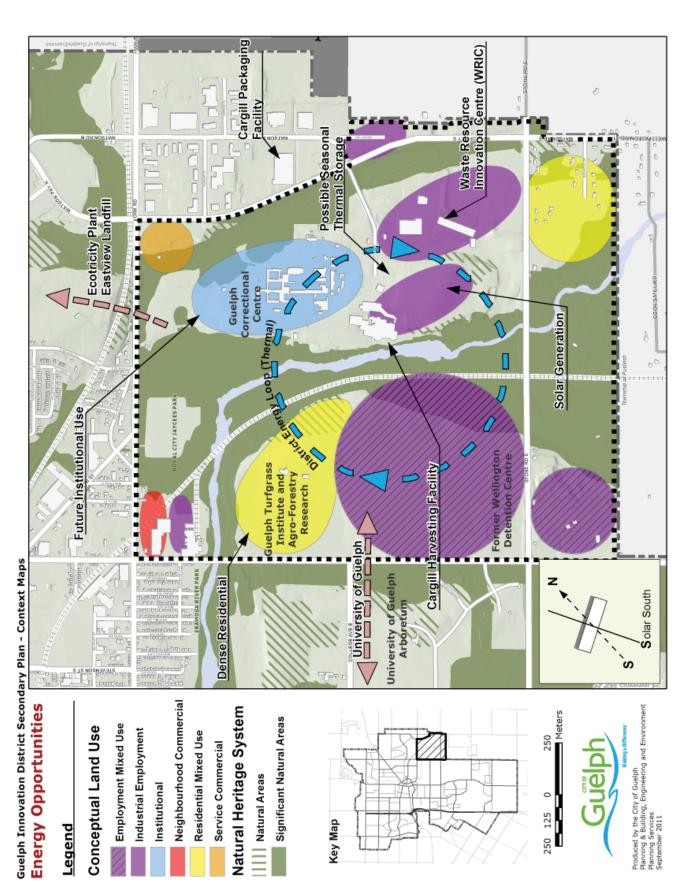


Figure 6: Energy Opportunities

2.2 PRINCIPLES

2.2.2 ENERGY, INFRASTRUCTURE + SUSTAINABILITY

Building Green infrastructure that is efficient, focuses on renewable energy sources, and supports an integrated distribution system enabling a carbon free lifestyle.

- a) Create a framework for the District to work toward carbon neutrality and exceed Community Energy Plan targets.
- b) Support development of an integrated energy distribution system, which maximizes connections between energy generation opportunities (producers) and end users (provides opportunities for local energy generation, maximizes connections between generation opportunities and end users, and minimizes overall energy use).
- c) Support cradle-to-cradle processes where the waste by-products/ surpluses of one activity are used as resources by another (e.g. industrial ecology).
- d) Include efficient, long-term and community based strategies to conserve and manage energy, water, wastewater, stormwater and solid waste.
- e) Develop a model community that showcases sustainable, green, low impact urban development.
- f) Embrace innovation, establish best practices, and serve as a learning environment for other communities across Guelph and Southern Ontario.

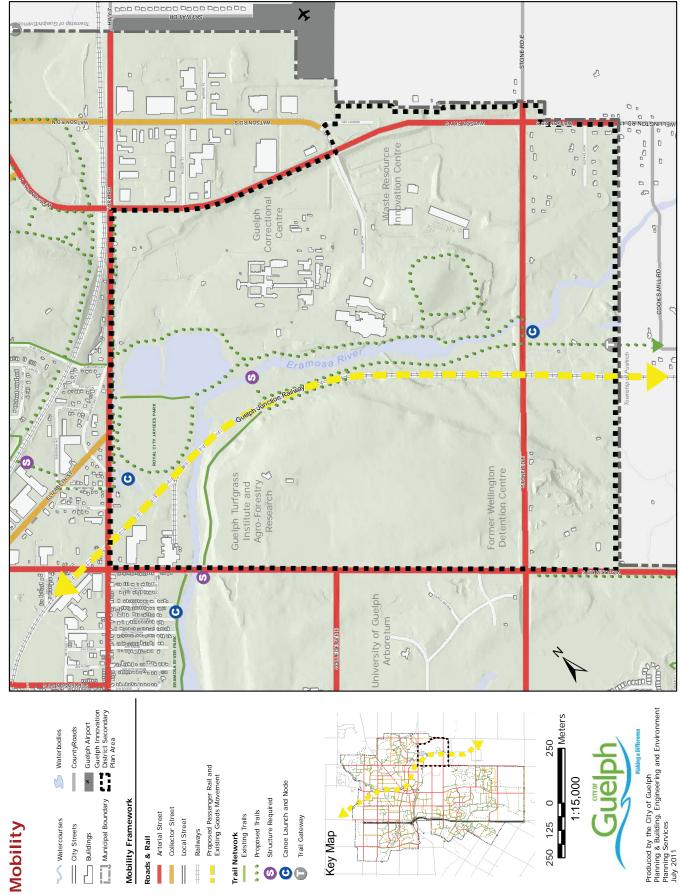


Figure 7: Mobility

2.2 PRINCIPLES

2.2.3 MOBILITY

Making Connections that serve the community, allow current and future generations to walk to daily needs, and provide convenient transit services to access broader activities.

- a) Integrate the District with the City as a whole, with clear connections to Downtown, the University of Guelph campus, and nearby neighbourhoods.
- b) Provide a transportation system (streets, sidewalks, cycle paths, trails, and rail) that serves the District, provides rational and efficient connections for all modes of transportation, and provides public access to the natural heritage system.
- c) Provide a land use pattern, urban design guidelines and supportive transportation system that connects us with our daily needs, including transit services, within a 10 minute walk (400 500 m distance).
- d) Provide universal access that prioritizes pedestrians, cyclists and transit users over drivers by providing an extensive pedestrian and cycling network with direct, safe and healthy travel routes, and convenient, affordable transit service which is integrated with the rest of the City.
- e) Build new connections for pedestrians, cyclists and potentially transit users across the Eramosa River valley to better connect uses and activities.

- f) Integrate the Guelph Junction Railway within the new community as a potentially powerful people and goods mover.
- g) Ensure that the capacity of existing and new streets is sufficient to support the District, while managing traffic impacts on adjacent neighbourhoods.

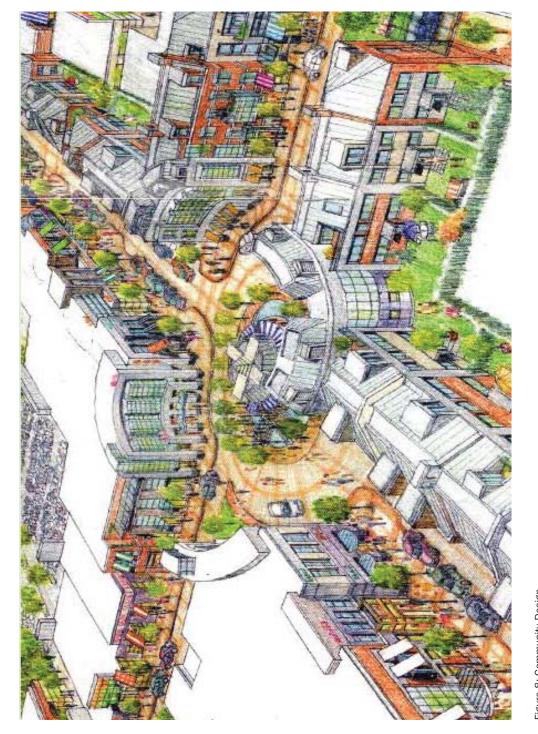


Figure 8: Community Design

2.2 PRINCIPLES

2.2.4 COMMUNITY DESIGN

Creating Meaningful Places to bring people, activities, environment(s) and ideas together, creating a sense of arrival and inclusion.

- a) Create a District of landmark quality with a strong and recognizable identity on par with the Downtown and the University of Guelph.
- b) Define gateways and community focal points (nodes) on both sides of the Eramosa River, as well as a network of areas that are safe, healthy, coherent, vibrant, and comfortable.
- c) Create a cohesive, efficient and vibrant transition area that will provide common supportive uses and built form to connect the urban village node and employment area while still maintaining the unique function and identity of each area.
- d) Define a block and parcel fabric that knits uses together and encourages new buildings to define the edges of streets, parks, and open spaces to provide a friendly face to encourage social interaction, safety, and a human scale.
- e) Create an accessible network of public facilities, parks, and open spaces which serves the new community and surrounding neighbourhoods, and is integrated with the natural heritage system and cultural heritage resources.
- f) Encourage high quality urban and architectural design that responds to and respects the District's unique setting, natural and cultural heritage, edges and adjacent uses.

- g) Create a memorable landmark area/structure to serve as a beacon/partner to the Church of Our Lady in Downtown Guelph.
- h) Increase the overall tree canopy, and encourage the use of native vegetation and edible landscapes, where appropriate, in restoration areas, parks, open spaces and along streets throughout the new community.
- i) Respect (and build upon) the beaux-arts design of the cultural heritage landscape component of the Reformatory complex.



Figure 9: Compact, mixed-use community

21

2.0 VISION + PRINCIPLES

2.2 PRINCIPLES

2.2.5 LAND USE, DENSITY + DIVERSITY

Mixing it Up to create vibrant, resilient, and efficient spaces that make it possible, easy, and enjoyable to reduce our ecological footprint.

- a) Create an integrated, compact, mixed use District that provides an opportunity for people to live close to job opportunities and supportive daily services.
- b) Achieve transit supportive densities with human scaled built form.
- c) Establish a fine grained mix of land uses, building types and tenures in the new community, providing accessible choices for living, working, shopping, playing and learning.
- d) Promote mixed use developments in appropriate locations that provide three or more significant uses ideally in a vertical built form or if in separate buildings within a walkable environment.
- e) Provide for a diverse cross section of residents with a mix of residential uses, building types and tenures in an urban village-type setting that is affordable, accessible and allows people to age in place and remain within the same neighbourhood as their needs change.

- f) Provide for a significant number and variety of jobs with a range of employment uses, building types and scales, including those related to the development of an agri-innovation cluster, green jobs, and the information and communication technology sector.
- g) Define a flexible block and parcel fabric that encourages evolution over time.
- h) Plan for a land use mix and densities which contribute to achieving the City's overall population, employment and density targets.

Figure 10: Trinity Diagram

2.2 PRINCIPLES

2.2.6 EMPLOYMENT

Growing Innovative Business and Employment opportunities that support the agri-innovation sector, green jobs and knowledge based industries, within a compact, mixed use community.

- a) Accommodate a significant share of Guelph's employment growth to 2031.
- b) Establish the role of the GID as a key area supporting the growth of an agri-innovation cluster making connections to the Downtown and the University.
- c) Nurture and capitalize on the GID as a recreational and tourist destination.
- d) Create a setting that reinforces the GID as a high density employment area that attracts provincially, nationally or internationally significant employment uses.
- e) Encourage employment uses within the former reformatory lands that can showcase the site's built heritage resources and cultural heritage landscape.
- f) Target the GID as a key location for agri-innovation businesses, green jobs and knowledge-based industries such as the information and communication technology sector and post-secondary institutions.
- g) Support strategic and collaborative economic development partnerships within the GID and surrounding community.

- h) Encourage a supportive business environment by fostering learning and innovation within the GID.
- i) Pursue projects that are economic priorities for the GID and contribute to innovative and sustainable employment uses that are compatible with a mixed use environment, including residential
- j) Protect and support existing industrial uses recognizing their contribution to the City's overall employment, waste management services, and carbon footprint reduction.



Figure 11: Aerial Vantage from the South

3.0 DESIGN APPROACH

3.1 INTRODUCTION

Preparation of the two alternative design options presented in the options. The designs were informed from the bottom-up through a subsequent section enlisted a design approach that was guided by Area Structure Plan (integrated within the city) established critical elements that were retained within each of the neighbourhood precedent review of a range of employment, residential and mixed use centres that served as building blocks for the formation of the block patterns and building typologies represented within each of the Vision, and Planning (and Development) Principles. the options

Residential









75 UNITS/HA = 100% Desired Density

The GID is targeting a residential density of 75 units per hectare.

Employment





145 JOBS/HA = 100% DESIRED DENSITY

The GID is targeting an employment density of 145 jobs per hectare.

3.2 AREA STRUCTURE PLAN

heritage system, infrastructure framework, strategic connections Building from the consultations and visioning completed to date and in adhering to the Principles in Section 2.0, an Area Structure Plan was drafted that contains the main developable areas and core and viewsheds were all depicted within the Area Structure Plan. Not only does the Area Structure Plan identify critical elements within open space to be considered within the site. A natural and cultural the site but it also stresses connectivity with adjacent lands. The topography of the area was also critical to identifying the common design elements inherent to the Area Structure Plan. It continues to inform the overall layout of each alternative design option by providing natural breaks, transitional areas and scenic viewsheds within the site. In turn, the Area Structure Plan was utilized as the foundation for two alternative design options for the District, each containing blocks, mixed use employment blocks, industrial areas and others contained within the Area Structure Plan. Both Options highlight the common design elements such as an urban village, residential themes found in the planning principles for this site.

3.2 AREA STRUCTURE PLAN

ndustrial Park

WATSON PRKY S

D City of Guelph YORK ROAD VICTORIA ROAD STONE ROAD COLLEGE North 0 0 0 0 Existing Hydro Corridor Existing Built Form Heritage Built Form Strategic Views Potential Connections Potential Nodes Waterbodies Arterial Roads Existing Gateways Potential Gateways Trail Network Minor Staging Area Guelph Junction Railway Potential Mobility Hubs/Platforms Solar Orientation Open Space Framework City of Guelph Boundary G.I.D. Study Area Boundary Cultural Heritage Landscape ANSI Areas Stormwater Management Ponds Floodline Infrastructural Framework Collector Roads Potential Roads Canoe Launch Major Staging Area Trail Gateway Opportunities Natural Heritage System Proposed Pedestrian Bridge 500 Meters (CONTINUED)

Guelph Innovation District City of Guelph, Ontario Figure 12: Area Structure Plan

Urban < > Rural Interface

a 0

> 0 0 0

0 0

000

Reformatory Regeneration Area Utilize the existing built form to create a mixed-use

employment and research node.

New Pedestrian Bridge

A new pedestrian crossing, central to the site, would directly connect the Urban Village south of the Eramosa with the Reformatory Regeneration Area to the North.

Urban Village

A compact mixed-use neighbourhood designed with the site's natural features, and designed to maximize views to the Downtown and across the Eramosa.

Potential New Bridge

Allow for construction of a new bridge across the Eramosa.

College Extension + Site Gateway

Extend College Avenue into the site.

Transition Zone

Mixed use buffer area between residential and empolyment uses

Ridge Road

A "high road" could bisect the site and provide views to the

north and south. **Edge Road**

Green Connections

the top-of-bank views across the valley with a single loaded road. Allow for continuous access to the Natural Heritage System and

Arboretum < > Eramosa

Employment Gateway

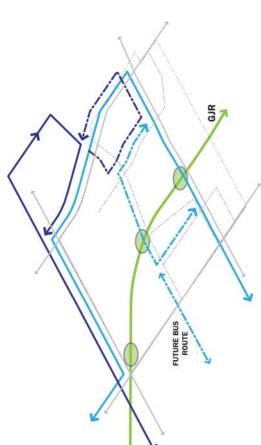
Access to employment areas north and south of Stone Road, located ~200m west of the Victoria intersection.

Industrial Gateway

Access to industrial employment areas north of Stone Road, located ~200m west of the Watson intersection.

Victoria Green

Maintain and enhance the green character of Victoria Road.



industrial development to provide direct empolyment connections to City Centre

Bus Route 4 Route 4 could be looped into the

Public Transit

Route 70, the perimeter loop, could be pulled into the site to provide public

Bus Route 70

transport access deep into the site.

could link into the GID through a series

of mobility hubs.

The GJR potential for commuter rail

Guelph Junction Railway

ARIO: Agricultural Research Institute of Prov: Province

WRIC: Waste Resource Innovation

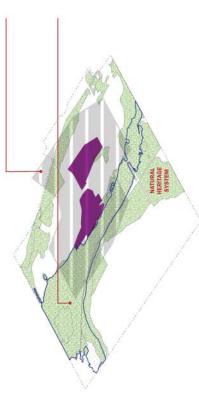
Centre

CARGIILL

PROV

PROV

PRIVATE



Existing Land Ownership

Ontario

Development Restrictions

PRIVATE

Class 3 Buffer

300m buffer from existing industrial land uses.

Floodline

Flood Protection Area

3.0 DESIGN APPROACH

3.3 PRECEDENTS

The design process itself, was informed by a precedent review of multi- and single-use employment and residential development both within Canada and internationally. A wide spectrum of precedents was reviewed to inform development of the options: from ecoindustrial areas to mixed use employment areas and campus business parks to residential developments. The form and density of these developments were assessed and used to guide the design of the signature block layouts and road patterns presented within each option.

Moreover, the precedents established density thresholds necessary to meet the employment and residential targets that would establish the public realm within the site. The precedents became critical "building blocks" in the design process. Several examples of these precedents, or building blocks, appear below and in Appendix A.

Kalundborg Eco-industrial Park, Kalundborg, Denmark









- Industrial symbiosis in Kalundborg: industrial co-operation between a number of companies and Kalundborg Municipality, all of which exploit each other's residuals or by-products mutually.
- other companies. The outcome is reduced consumption of resources and One company's by-product is an important resource to one or several a significant reduction in environmental strain
- 20 projects, all of which are environmentally and financially sustainable

3.0 DESIGN APPROACH

3.3 PRECEDENTS (CONTINUED)

Dockside Green, Victoria - British Columbia, Busby, Perkins & Will Architects







- Dockside Green is being built with the intention of fulfilling a three-part philosophy of environmental, social, and economic responsibility
- Home to a centralized biomass gasification plant that allows Dockside Green to be carbon neutral or even negative in terms of greenhouse gas production but even allow it to sell energy to surrounding communities
- Supports local businesses, in particular those that are innovative in terms of technology
- Created a Housing Affordability Strategy









- Innovation Place is one of the most successful university-related research parks in North America.
- Saskatchewan, and builds on the institution's strengths in agriculture, The park is situated on 80 acres adjacent to the University of information technology, and environmental and life sciences.
- Home to approximately 140 clients, employing more than 3,000 people in 19 buildings across the park.
- Also home to the renowned Bio Processing Centre, providing custom processing for the nutraceutical, cosmetic and agri-food industries.

DESIGN APPROACH

3.3.1 RESIDENTIAL PRECEDENTS

i. LOW RISE RESIDENTIAL PRECEDENTS

Ypenburg Low-Rise Residential Block Ypenburg HagenEiland, Netherlands **BEST PRACTICE**

Block Area : 1.29 ha [12,995 m2] Lots : 58 Average Lot Size : 190 m2 Average Unit Footprint : 60 m2

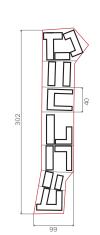
ii. MID + HIGH RISE RESIDENTIAL PRECEDENTS











BEST PRACTICE

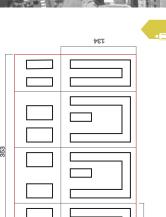
Bo01 Housing BlockMalmo, Sweden

Block Area: 1.6 ha [16,325 m2] Lots: 7 Average Lot Size: 5,925 m2 Total Footprint: 6,610 m2

Average Building Footprint: 510 m2

Average Floors: 4

184% DESIRED DENSITY



Average Lot Size: 230 m2 Total Footprint: 3975 m2 Average Building Footprint: 82 m2 Average Floors: 5

Hammarby Sjostad Stockholm, Sweden

Block Area: 1.1 ha [10,910 m2]

Lots: 8

273% DESIRED DENSITY



Figure 13: Residential Precedents

III. STREETVIEWS AND LOW, MID + HIGH RISE RESIDENTIAL BLOCKS

DESIGN APPROACH

3.3.2 EMPLOYMENT PRECEDENTS

i. EMPLOYMENT (NON-INDUSTRIAL) PRECEDENTS

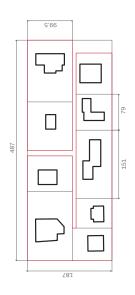
Guelph Business / Research Park University Area : Research Lane LOCAL

Block Area: 84.075 m2

Average Lot Size : 9340 m2 Total Footprint : 14,600 m2 Average Unit Footprint : 1620 m2 Lots:9

Average Floors: 4 [58,000 m2 total]

Block FAR: 0.69

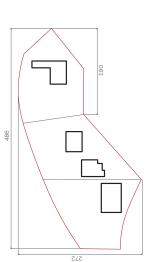








105% 153 Jobs /HA



Green Park Reading, England

Block Area: 69,905 m2 Lots: 3 Average Lot Size: 23,300 m2

BEST PRACTICE

Average Unit Footprint : 2830 m2 Average Floors : 6 [50,910 m2 total] Block FAR: 0.73

Total Footprint: 8485m2





ii. INDUSTRIAL PRECEDENTS

Guelph Industrial Site: Northwest Speedvale + Edinburgh

LOCAL

Lots:6 Average Lot Size: 24,527 m2 Total Footprint: 35,718 m2

Block Area: 147,165 m2

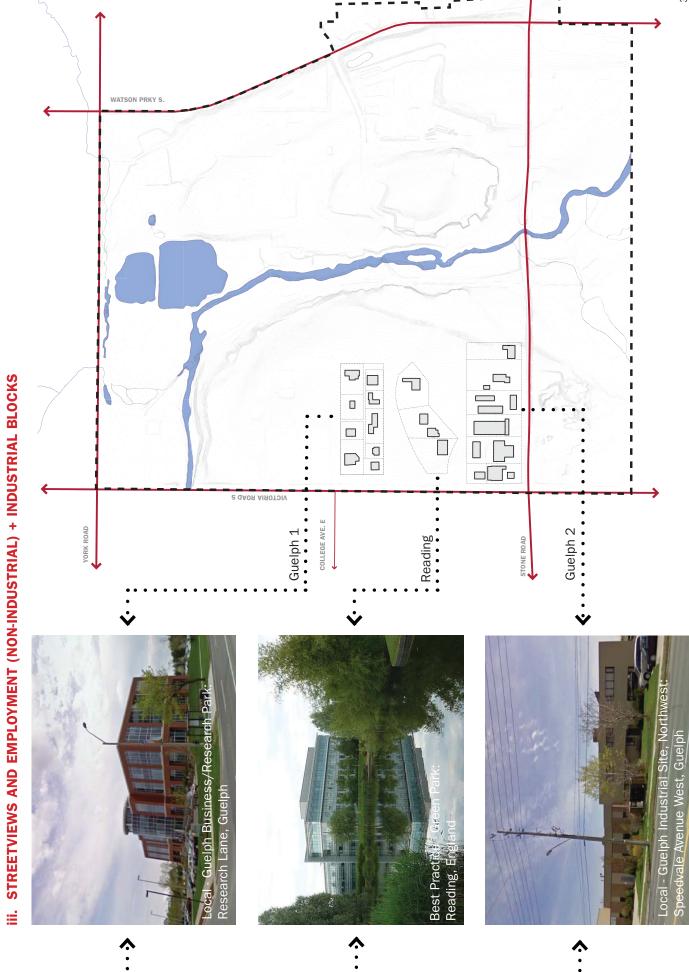
Average Unit Footprint : 2750 m2 Assumed FAR : X





Figure 14: Employment Precedents

Guelph Innovation District City of Guelph, Ontario



4.0 ALTERNATIVE DESIGN OPTIONS

4.1 OPTION A

4.1.1 THE GREEN GRID

The design of Option A began with an assessment of the historic development patterns of neighbouring developments, particularly with the neighbouring community of Two Rivers to Downtown Guelph (Central Business District). The historic development pattern and land use efficiencies associated with a grid-based development pattern provided a critical starting point for the design of Option A.

Option A advances the historic grid pattern of central Guelph into the site and supplements the road system with a green network of linear open space in the western portion of the site. College Avenue will form the primary spine of the development in the west as mixed-use corridor connecting the Arboretum and the Eramosa River. Parallel to the College axis is a series of tree-lined streets, boulevards and linear open space that integrate recreational spaces, existing roadways, and local infrastructure including stormwater retention and runoff.

Option A ensures access to the Natural and Cultural Heritage system through a green grid which permeates throughout the site. This Option also emphasizes Community Design through a mix of residential and employment uses which connect to a network of public facilities, parks and open spaces.



4.1.2 OPEN SPACE FRAMEWORK

Green Grid

Option A utilizes a green grid to define and inform the location and dimensions of development blocks. The green grid would provide alternative pathways within the site and offer localized recreation areas for use by residents and workers. The gridded, green, network of parkettes, paths and storm water facilities provide eastwest linkages between the arboretum and Eramosa River thereby extending the green network, including the tree canopy between the Arboretum and the Eramosa valley.

Urban Agriculture

To support future institutional development, parts of the reformatory grounds are set aside for agricultural production. Both Options integrate urban agriculture in the north east portion of the site which is adjacent to cultural and natural heritage, stormwater and adaptive reuse areas.

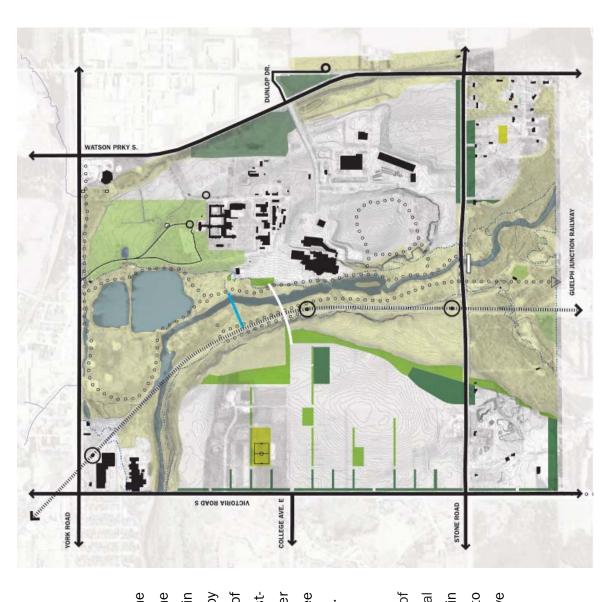


Figure 15: Option A - Open Space Framework

4.0 ALTERNATIVE DESIGN OPTIONS

4.1.3 ACCESS: CIRCULATION

Circulation within the site is defined by two primary access points in the west and two primary access points in the east. The western portion of the site is to be accessed in part by an eastern extension of College Avenue from its current terminus at Victoria Road and a northern connection off Stone Road while the western portion of the site will continue to be served by access points off of Watson Parkway and a new access point off of Stone Road.

Transit will form a key component of the grid and offer an efficient system of bus and rail transit within the site – primarily along the main arterials and along the rail corridor. The extension of the College Axis will serve as the main street for the western portion of the site.

Collectors and Local Roads

Additional principal streets segment the development into sub-parcels, which serve as development blocks that can be developed incrementally or independently. Each development block would be subdivided by a network of local roads to facilitate access and circulation within local sites.



Figure 16: Option A - Circulation

4.1.4 LAND USE

Centres

Urban Village

Option A's urban village is fronted on three sides by mixed-use development while overlooking the Eramosa River at the site's highest vantage point.

Southeast Village

The proposed development in the southwest portion of the site enhances existing land uses by providing a mix of residential uses ranging from low to high-rise mixed-use.

Density

Higher lot densities are positioned around the periphery of land use divisions and adjacent to principal roads. Residential density while immediately adjacent to the urban village provides greater access to the NHS for future residents.

Corridors

Along College Avenue a transition of densities and land uses provide for an important spine that defines the site. North of College are proposed residential and mixed-use blocks, while to the south live-work units are proposed.

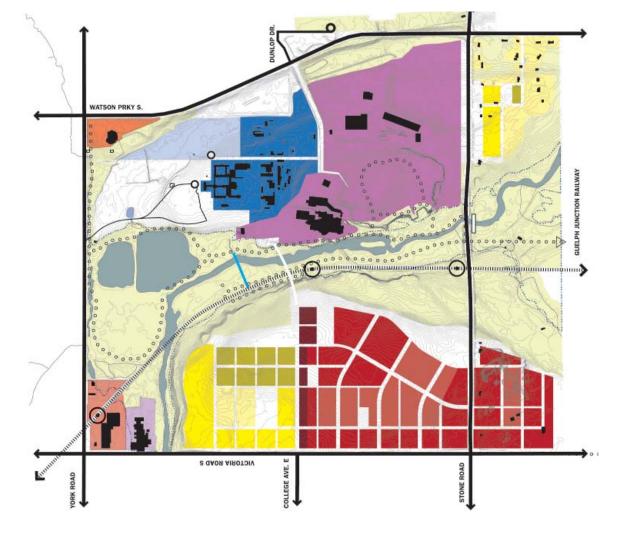


Figure 17: Option A - Land Use

ALTERNATIVE DESIGN OPTIONS

4.1.5 OPTION A

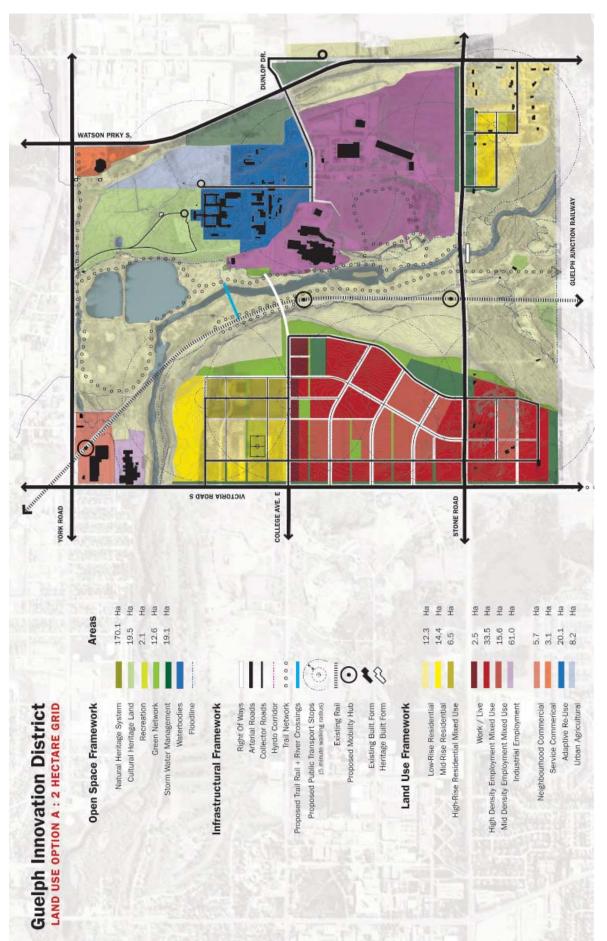


Figure 18: Option A

Option A Key Features

Road Hierarcy

Option A makes a road hierary appropriate to the constrasting land use on the North and South side of Stone Road

Peripheral Roads

Principal streets segment the development into sub-parcels, potentially developed incrementally and/or independantly.

Green Arterials

Both Victoria and Stone are buffered by greenspace.

2 Hectare Lots

The grid of the tree planting structure is carried into the industrial district to segment the remaining lands into 2 Hectare, rectalinear peices.

Urban Village

Option A's Village is fronted on three sides by mixed use development while overlooking the Eramosa at the site's highest vantage point.

Dense Edges

Higher lot densities are positioned around the periphery

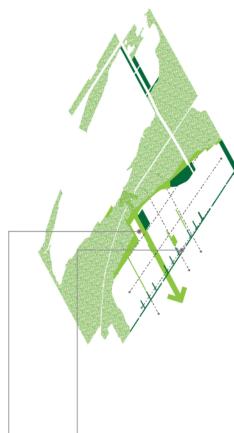
College Avenue Axis The primary access into the development is an extension of land-use divisions and adjacent principal roads.

Green Grid

of College axis. Connecting the arboretum and Eramosa is a set of tree lined boulevards and recreational spaces.

Option A draws upon the existing planting grid of trees, utilizing the metrics of the planting to inform the dimensions of blocks to permit the greatest retention of trees. As well, a grided green network of parkettes, paths and storm water facilities link new development to the Arboretum and Eramosa.





4.0 ALTERNATIVE DESIGN OPTIONS

4.2 OPTION B

4.2.1 FOLLOW THE LAND

The design of Option B is based on the topography of the site – using contours and landforms to define road placement and intersections. The resulting curvilinear street pattern is a low-impact alternative that follows the land. The resulting design is adaptable to accommodate solar-oriented block patterns and minimizes the amount of cut and fill and grading requirements for site preparation.

Option B utilizing and preserving existing topography allows for an enhanced plan that maximizes viewsheds to Natural and Cultural Heritage resources on the site as well as Energy and Sustainability through solar oriented blocks. Land Use and Densities are defined by a unique block and parcel fabric which is defined by a curvilinear street grid.



4.2.2 OPEN SPACE FRAMEWORK

Green Rim

Surrounding and buffering the development is a continuous band of green space and storm water management facilities that expand and contract to create a variety of exterior spaces.

Green Arterial

Victoria Avenue retains its role as a transportation and transit spine and is buffered by stormwater management facilities. These facilities build from the University of Guelph Arboretum offering a softer transition into the GID from west to east.

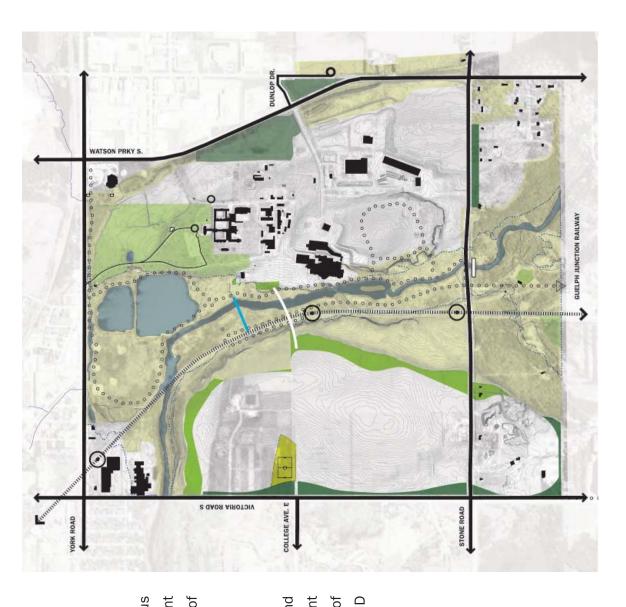


Figure 19: Option B - Open Space Framework

4.0 ALTERNATIVE DESIGN OPTIONS

4.2.3 ACCESS: CIRCULATION

High Road

All road routings in Option B follow the natural slope of the site. The primary road through the development runs across the high ground, affording views back to Guelph's centre and across the Eramosa River.

Stone Road Frontage

Option B locates employment frontage along Stone Road, providing a "gateway" into the development.



Figure 20: Option B - Circulation

4.2.4 LAND USE

Centres

Urban Village

Option B's centre is located at the intersection of the College Avenue extension and Ridge Road, and is fronted on all sides loosely forming a "square."

Southeast Village Option

The proposed development in the southeast quadrant is comprised of a mix of mid to high density employment mixed-use areas as well as live-work blocks.

Density

The overall density of Option B is the same as that of Option A, however the distribution of density in this Option differs as it caters to the unique topography of the site.

Corridors

The main corridor serves as a central spine within the site, connecting residential, live-work and employment land uses. The main corridors follow the contours of the site and are centred in the site design to allow for outer blocks to take advantage of views of the natural heritage afforded by the topography of the site.



Figure 21: Option B - Land Use

ALTERNATIVE DESIGN OPTIONS

4.2.5 OPTION B

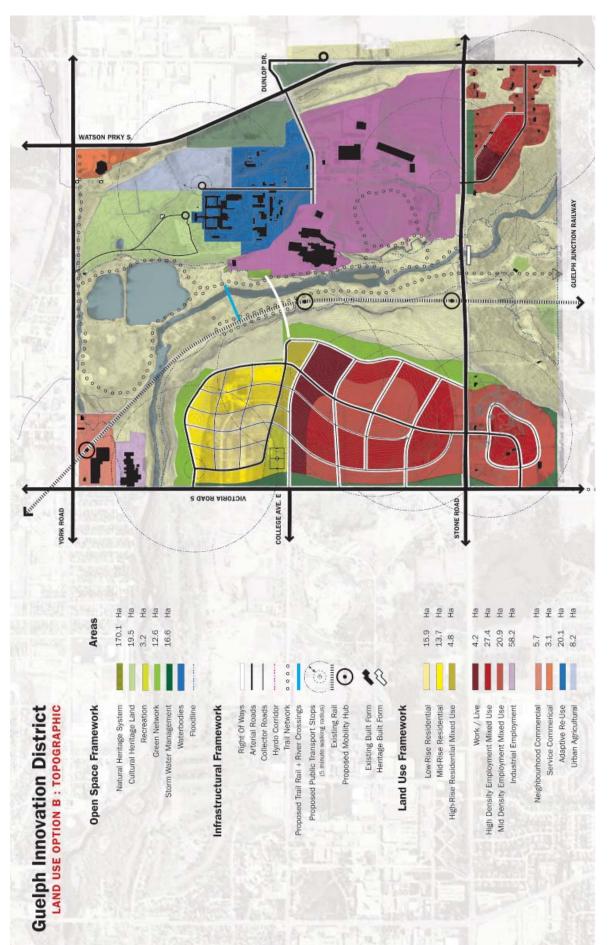


Figure 22: Option B

Option B Key Features

ligh Road

All road routings in Option B follow the natural slope of the site. The primary road through the development runs across the high ground, affording views back to Guelph's centre and across the Eramosa.

Localized College Avenue

College Avenue becomes a local road once it crosses Victoria Street. The threshold between the Live-Work units and the Residential Area to the North is not marked by a wide right of way.

Southeast Employment Option

Allowing for a potential future of mid and high density employment across from and complementary to the Industrial Usage North of Stone Road

Urban Village

Option B's centre is located at the intersection of the College Avenue extension and Ridge Road, and is fronted on all sides loosely form a "square."

Stone Road Frontage

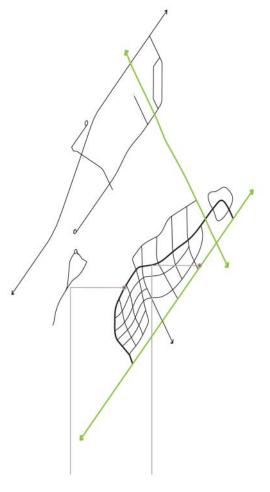
Option B locates employment frontage along Stone road, providing a "gateway" into the development.

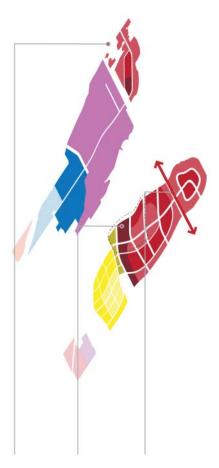
College Avenue Axis

The primary access into the development is an extension of College axis. Connecting the arboretum and Eramosa is a set of tree lined boulevards and recreational spaces.

Green Rim

Surrounding and buffering the development is a continuous band of green space and storm water management facilities that expand and contract to create a variety of exterior spaces.







4.0 ALTERNATIVE DESIGN OPTIONS

4.3 APPLICATION OF THE PRINCIPLES

i. OPTION A

Access to the Natural and Cultural Heritage system is ensured through a green grid of tree-lined streets, parks and open spaces which permeate throughout the site.

College Ave will serve as a vibrant main street with a diversity of heights and uses

A gridded street network serves the new community with rational and efficient connections for all users (e.g. cyclists, pedestrians)

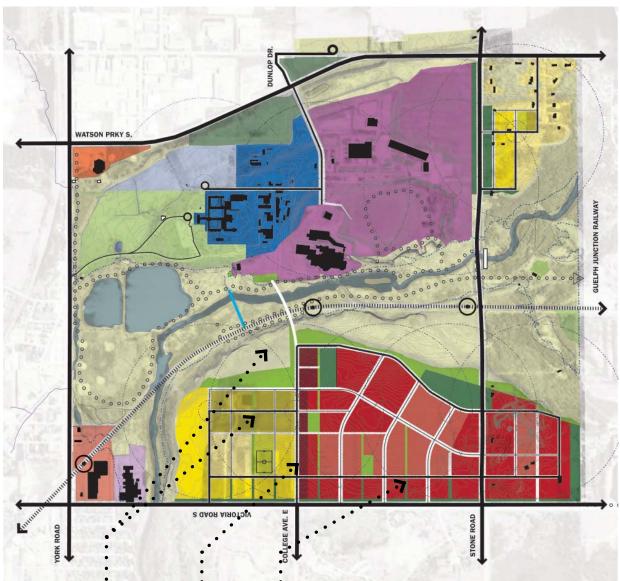


Figure 23: Option A - Application of the Principles

ii. OPTION B

Land Use and Densities are defined by a unique block and parcel fabric which is defined by a curvilinear street grid.

Option B utilizing and preserving existing topography allows for an enhanced plan that maximizes viewsheds to Natural and Cultural Heritage resources on the site as well as Energy and Sustainability through solar oriented blocks.



Figure 24: Option B - Application of the Principles

O ALTERNATIVE DESIGN OPTIONS

4.4 BUILDING AND TESTING THE OPTIONS

The following figures display the various built form and density types found in the precedent review in Section 3.3 and how they informed the design layouts of both Option A and Option B. Selected residential and employment precedents are illustrated within both options to visually orient the precedent blocks within the land use context.

4.4.1 RESIDENTIAL BLOCKS

i. OPTION A

- The blocks can be efficiently broken and repeated to create a patterning effect of well structured community-centric building clusters that allow for lower density to transition to higher density:
- This grid would be based on a hectare as the basic unit and the building size would reflect this
- Ribbons of green multi programmable space could also be included in this residential section
- Sustainable best practices can be ensured by consistent treatment of the facade, as the European precedents show



Figure 25: Option A - Building and Testing the Options; Residential Blocks

Building blocks shown in above option are Hammarby, Sweden and Ypenburg, Netherlands.

51

ii. OPTION B

- Having less repetitive, more flexible blocks can follow this more organic layout, enabling more unique community gathering spaces and more flexible ways for buildings to transition from lower to higher density
- These building, like the streets, would also be based on the topography and the building foundation structure would reflect this
- Pocket parks, community gardens and other uses of residential space would create individuality along these lines.
- Sustainable best practices can be ensured by custom treatment of the facade

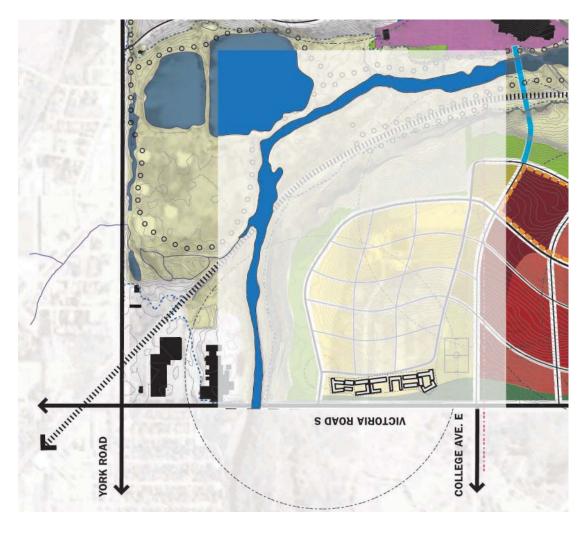


Figure 26: Option B - Building and Testing the Options; Residential Blocks
Building block shown in above option is BoO1 Housing Block, Sweden.

ALTERNATIVE DESIGN OPTIONS

4.4.2 EMPLOYMENT (NON-INDUSTRIAL) + INDUSTRIAL BLOCKS

i. OPTION A

- Innovative or Standard buildings can be accommodated on the regular grid an extension of Guelph's existing block structure
- To be accommodated in this layout are the following uses:
- High and low mixed use employment blocks,
- Work/live
- Other flexible spaces
- Efficiency of land allows us to reach our density targets without controlling building geometry too closely.

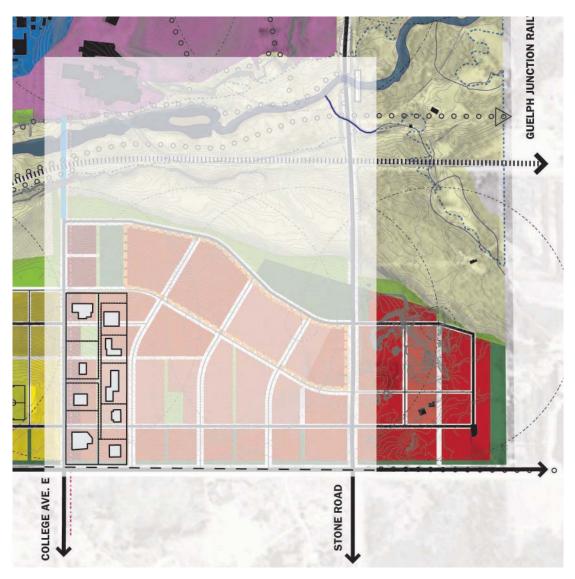


Figure 27: Option A - Building and Testing the Options; Employment + Industrial Blocks Building block shown in above option is the Guelph Business/Research Park.

ii. OPTION B

- Well spaced buildings with ample room for plantings and other landscape amenities models from the western ideal of expansive development
- To be accommodated in this layout are the following uses:
- High and low mixed use employment blocks,
- Work/live
- Other flexible spaces
- Low impact development would protect natural features

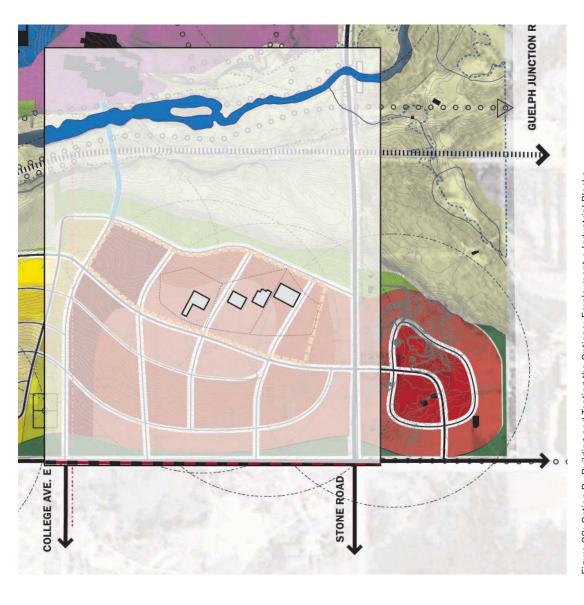


Figure 28: Option B - Building and Testing the Options; Employment + Industrial Blocks Building blocks shown in above option is the Reading Business Park in England.

O ALTERNATIVE DESIGN OPTIONS

4.5 SUSTAINABLE DESIGN

One useful system for benchmarking successful sustainable design is meeting best practice design standards such as LEED ND (Leadership in Energy and Environmental Design for Neighbourhoood Development). LEED ND recommends a block alignment for Solar Orientation as follows:

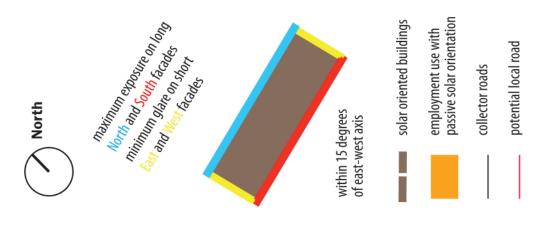
"Locate the project on existing blocks or design and orient the project such that 75% or more of the blocks have one axis within plus or minus 15 degrees of geographical east-west, and the east-west lengths of those blocks are at least as long as the north-south lengths of the blocks."

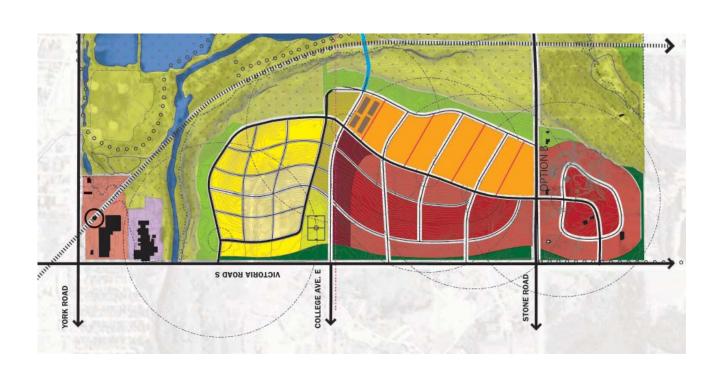
i. OPTION A

Rotating the grid 30 degrees from the Guelph standard brings the Western edge of the central employment site within 15 degrees of the east-west axis

ii. OPTION B

Following the contours makes this option conducive to having lots of area with solar orientation, also within 15 degrees of the east-west axis





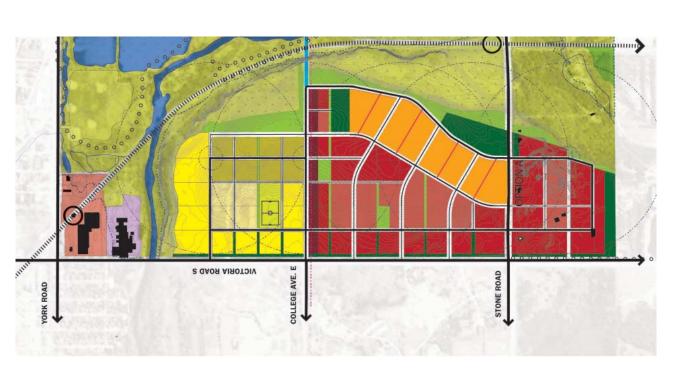


Figure 29: Solar Orientation Options

5.0 COMPOSITE DESIGN OPTION

5.1 INTRODUCTION

A detailed Composite Design Option was developed which built upon a community workshop and design charette results which harmonized the best qualities of both options, public input and the City's goals for the site. Working through this process was necessary to allow specific design elements to be reflected in the Secondary Plan. The following provides an overview of the public design workshop and design charette.

5.2 ANALYZING THE OPTIONS

i. PUBLIC SESSION

On September 15th, 2011, a Public Design Workshop was held at the City of Guelph to discuss the design components of Alternative Land Use Options A and B. In small breakout groups, discussions revolved around the open space, circulation and the land use composition of the options.

Unique elements from each option were endorsed by residents such as the linear park structure of Option A and the topographic sensitivity of Option B. Many felt that there were too many intersections with Victoria Road and that a more integrated land use mix was favourable and could be achieved.

Public input was then evaluated and summarized to help inform the decision-making in a final Design Charette held on October 18,

II. DESIGN CHARETTE

The purpose of this day-long, invitational workshop exercise was to:
a) summarize the key elements, opportunities and constraints from each of the two Alternative Design Options summarized at the September 2011 Public Design Workshop; and

 b) forge a general consensus on which of these elements should be carried forward and/or revised to establish directions for a single preferred design framework.

Key elements discussed from the two options included:

- A preferred road hierarchy and block pattern
- Preference for the College Street Extension
- Edge transitions
- Open space form and location
- Density distribution
- Preferred building heights
- · Infrastructure and energy requirements

The session began with an overview of the relative strengths and weaknesses of the two options, with direct comparisons made between contrasting approaches to the various elements described above. The group subsequently debated the merits of each with due consideration of environmental, market, sustainability, and community design principles. Ideas were recorded through a combination of text and annotated sketches, the outcomes of which informed the final recommended option.

5.3 COMPOSITE DESIGN OPTION

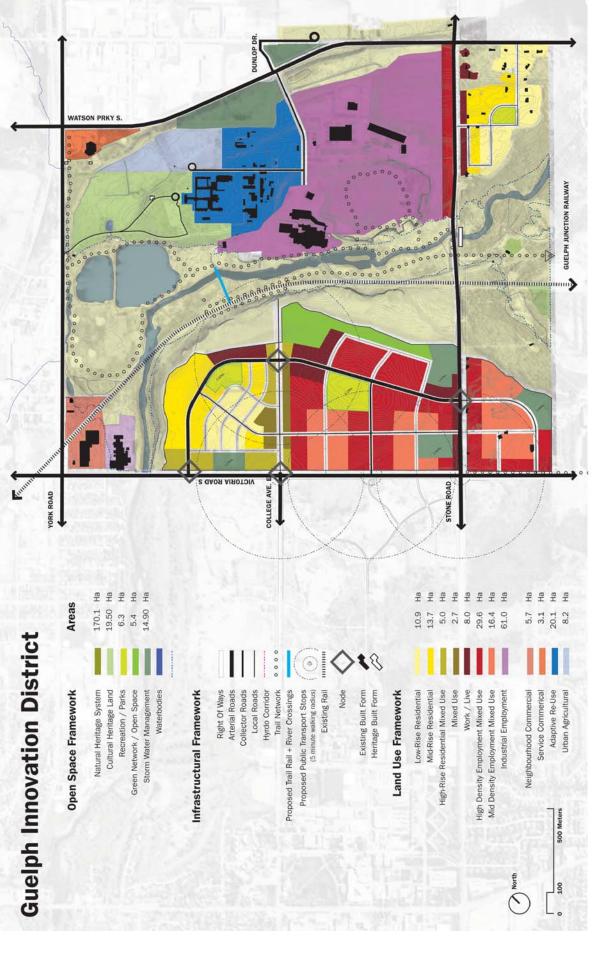


Figure 30: Composite Design Option

6.0 PREFERRED DESIGN

6.1 INTRODUCTION

upon the Vision, Principles and associated Objectives. Initially, a detailed composite design option was developed to build upon the The preferred design for the Guelph Innovation District is built community workshop results and ensure that desirable features, local road systems and subdivision are attainable.

6.2 KEY DESIGN ELEMENTS

The preferred design works with the topography of the site and nodes at key gateways, and flexible land use categories to support The City's current land holdings south of Dunlop Dr. are shown The natural heritage system, built heritage resources, and cultural as major utility which would support the current Waste Resource includes key arterial and collector roads, a proposed river crossing, a mix of principally employment, residential and commercial uses. heritage landscape are clearly denoted to ensure their protection. Innovation Centre and the solar facility under development

6.2.1 CIRCULATION

supports a fine grained urban fabric along the eastern extension of The preferred design maximizes frontage along key arterials and College Avenue. The transit-oriented design locates density close to work within the western portion of the development thereby reducing The preferred design incorporates a modified grid and block high frequency transit stops along Victoria Road and promotes livepattern that best facilitates a compact, transit-oriented community. trip generation and parking requirements.

6.2.1 OPEN SPACE FRAMEWORK

A Neighbourhood Park is located adjacent to the current Turfgrass Institute building and a larger Community Park is located in the employment area south of College Avenue which will support arger active programmable activities. The park space in the above two locations makes the best use of surrounding land uses, site topography and provides focal areas for both the urban village and employment area

6.2.1 LAND USE

The preferred design includes specialized land use categories specific to the GID, Natural Heritage System categories from Council adopted OPA 42, and land use categories proposed in the draft Official Plan. The Corridor Mixed Use category located at Nodes density residential development and other uses that would support the District's residential and employment population. The majority of employment land, outside of the Industrial and Major Utility categories, would occur within two Employment Mixed Use categories Residential uses are permitted in one of the employment mixed use categories and excluded in the other. The cultural heritage landscape and built heritage resources of the former reformatory site are designated as Adaptive Re-use in the northeast portion of the site. The majority of lands within the Residential category Residential Area (SRA) category is proposed for the majority of the and along key Arterial and Collector Roads would permit high would support medium density residential housing forms. A Special existing estate residential development located at the southeast permitting a mix of industrial, commercial and institutional uses.

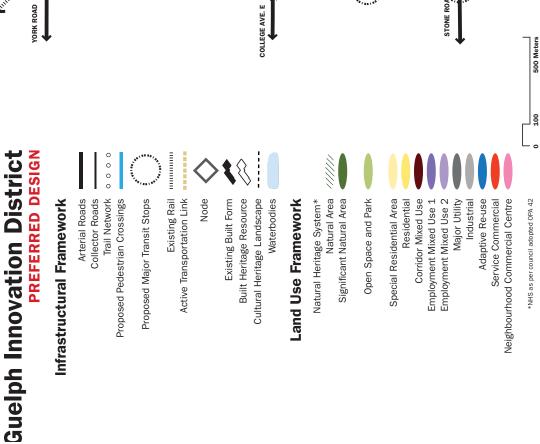
corner of the District.

GUELPH JUNCTION RAILWAY

6.2 PREFERRED DESIGN

YORK ROAD

WATSON PRKY S.



*NHS as per council adopted OPA 42 Note: Stomwater management facilities are not shown; however, a number of stormwater management facilities will be required to service the GID development lands.

North

500 Meters

STONE ROAD"

Figure 31: Preferred Design

7.0 DEFINITIONS

Agri-Innovation Cluster: consists of two main subsectors, each of which includes several niche areas. The first category, food and wellness, includes functional foods and nutriceuticals, as well as food and beverage firms; the second, agri-business, includes firms involved in bioproducts, plant science, animal health, agri-energy and agri-tech. The Guelph Agri-Innovation Cluster comprises over 150 organizations, including 64 companies, 38 food and agri-business associations, 8 cluster support organizations, and approximately 43 research centres and initiatives that are important to the research capacity of the cluster.

Carbon-neutral: making no net release of carbon dioxide to the atmosphere. This is achieved by calculating total carbon emissions, reducing them where possible, and balancing remaining emissions with the purchase of carbon offsets. Planting trees is one way in which to offset emissions.

Community Energy Plan: an energy initiative to aid Guelph in creating a healthy, reliable and sustainable energy future by continually increasing the effectiveness of how they use and manage their energy and water resources. The main goals under the plan are to use less energy in 25 years than they do today, consume less energy per capita than comparable Canadian cities and to produce less greenhouse gas per capita than the current global average.

Draft Secondary Plan for the Downtown - Envision Guelph Downtown: will set a long term vision to guide future development within the study area over the next 20 years. It will focus on how change should occur downtown with an emphasis on land use and urban design. It will become part of the City's Official Plan.

Gateway: type of place-making device that transforms strategic access points in the City's network of transportation corridors and open spaces into pleasing and memorable arrival points.

Guelph Official Plan: the official plan is a statement of goals, objectives and policies intended to guide future land use, physical development, growth and change within the corporate limits of the City of Guelph. The policies of the Plan are designed to promote public interest in the future development of the City, to maintain the good quality of life for the citizens of Guelph, to reduce uncertainty concerning future development, and to provide a basis for the Zoning By-law and other land use controls.

Industrial ecology: concerned with the shifting of industrial process from linear (open loop) systems, in which resource and capital investments move through the system to become waste, to a closed loop system where wastes can become inputs for new processes.

Net Density: means the concentration of residential development, calculated by dividing the total number of dwellings by the net area of the site developed for residential purposes. This term excludes roads and road rights-of-way and areas that have been dedicated to the City or another public agency.

Nodes: points, centres or areas that may be junctions where transportation, retail, residential and employment activities intersect. Nodes should exude a strong sense of place.

Prosperity 2020: Prosperity 2020 defines the strategic directions recommended for Guelph to sustain and enhance Guelph's position as a competitive and prosperous location for private and public sector investment over the period to 2020. These strategic directions make Guelph a community of choice for talent of the future, support and maximize economic benefit and target icon status for a vibrant, transit connected, mixed use centre.

Provincially Significant Earth Science Area of Natural and Scientific Interest (ANSI): an official designation by the provincial Government of Ontario applied to contiguous geographical regions within the province that have geological or ecological features which are significantly representative provincially or regionally.

Secondary Plan: serves as a guide for future development in defined areas of the City. It adapts and implements the objectives, policies, land use designations and overall planning approach of the City's Official Plan to fit with local contexts. It also establishes local development policies unique to an area that will guide growth and change in that area.

Universal access: enables all citizens to reach every destination served by their public street and pathway system. Universal access is not limited to access by persons using automobiles. Travel by bicycle, walking, or wheelchair to every destination is accommodated in order to achieve transportation equity, maximize independence, and improve community livability. Wherever possible, facilities are designed to allow safe travel by young, old, and disabled persons who may have diminished perceptual or ambulatory abilities.

Urban agriculture: the practice of cultivating, processing and distributing food in, or around, a village, town or city. Urban agriculture can also involve animal husbandry, aquaculture, agroforestry and horticulture. These activities also occur in peri-urban areas as well.

Urban village: refers to an urban form typically characterized by: medium density development; mixed-use zoning; the provision of good public transit; and an emphasis on urban design - particularly pedestrianization and public space.

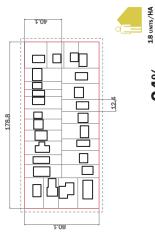
APPENDIX A LAND USE PRECEDENTS

APPENDIX A

LOW RISE RESIDENTIAL PRECEDENTS

LOCAL Guelph Low-Rise Residential Block 1 Downtown : Cork | Durham | Dublin | Glasgow

Block Area: 1.43 ha [14,330 m2] Lots: 26 Average Lot Size: 550 m2 Average Unit Footprint: 1.17 m2



24% DESIRED DENSITY







Guelph Low-Rise Residential Block 2

York Road Area: Whitepine | Beecham

Average Lot Size : 545 m2 Average Unit Footprint : 210 m2

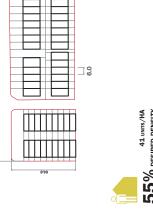
Block Area : 1.63 ha [16,345 m2] Lots : 30

214.7 136.0

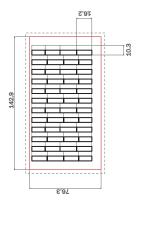
Guelph Low-Rise Residential Block 2 York Road Area : Kingsmill | Hayes | Boult

33% Desired Density





199.0





North Shore Residential Block Port Credit, Ontario

Block Area: 1.22 ha [12,200 m2] Lots: 50 Average Lot Size: 244 m2 Average Unit Footprint: 114 m2

Ypenburg Low-Rise Residential Block 2 Ypenburg HagenEiland, Netherlands

Block Area: 1.1 ha [10,910 m2] Lots: 48 Average Lot Size: 230 m2 Total Footprint: 3975 m2 Average Unit Footprint: 82 m2

APPENDIX A

MID + HIGH RISE RESIDENTIAL PRECEDENTS

Guelph Mid Rise Residential Block 1Silvercreek Parkway

Block Area: 43,875 m2

Average Lot Size: 7,315 m2
Total Footprint: 10,145
Average Unit Footprint: 780 m2
Average Floors: 3

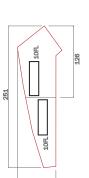
129

Guelph Low-Rise Residential Block 3 York Road Area : Whitepine | Beecham LOCAL

Block Area: 54,350 m2

Average Lot Size: 18,116 m2 Total Footprint: 15,310 Average Unit Footprint: 1700 m2 Average Floors: 3



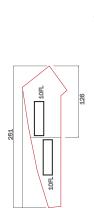


Guelph High-Rise Residential Block 2

York Road Area : Kingsmill | Hayes | Boult









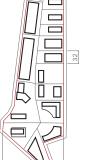
Lots: 2 Average Lot Size: 5,925 m2 Total Footprint: 2000 m2 Average Unit Footprint: 1000 m2 Average Floors: 10

Block Area: 11,850 m2



 $256\%_{\text{ DESIRED DENSITY}}^{\text{480 Residents/HA}}$





175% DESIRED DENSITY

Dockside Green Victoria, British Columbia

Block Area: 5.5 ha [53,180 m2] Lots: 17 Average Lot Size: 3125 m2 Total Footprint: 16,930 m2 Average Unit Footprint: 847 m2 Average Floors: 5

APPENDIX A

EMPLOYMENT (NON-INDUSTRIAL)

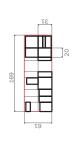
LOCAL

Guelph CentreDowntown Block

Block Area: 10,286 m2

Lots: 19 Average Lot Size: 540 m2 Total Footprint: 5915

Average Unit Footprint: 422 m2 Average Floors: 2 [11,830 m2 total] Block FAR: 1.15



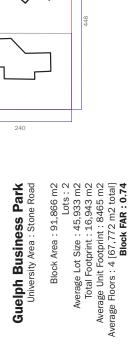


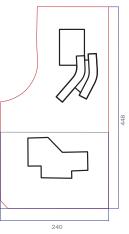




169



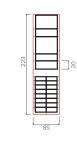




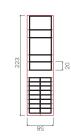
113% DESIRED DENSITY











Waterloo Business / Research Park University Area : RIM Campus

Average Lot Size: 17,485 m2 Total Footprint: 10,060 Block Area: 69,945 m2 Lots: 4

Average Unit Footprint: 2010 m2 Average Floors: 6 [60,360 m2 total] **Block FAR: 0.86**

Santa Coloma Business Park Badalona, Spain

Block Area: 12,925 m2 Lots: 21

Average Lot Size: 615 m2
Total Footprint: 9585 m2
Average Unit Footprint: 455 m2
Average Floors: 4 [38,340 m2 total]
Block FAR: 2.97

APPENDIX A

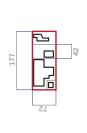
INDUSTRIAL

York Road Industrial Site: Central York Road + Kingsmill

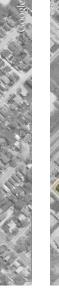
Block Area: 12,775 m2

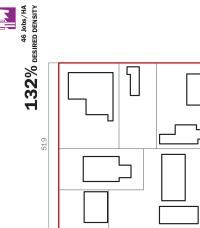
Average Lot Size: 3.195 m2 Total Footprint: 4,730 m2 Average Unit Footprint: 1180 m2 Assumed FAR: X











677

Guelph Industrial Site: Northwest

Speedvale + Lewis



Average Lot Size : 38885 m2 Total Footprint : 59,691 m2 Average Unit Footprint : 9950 m2 Assumed FAR : X

Block Area: 233,295 m2 Lots: 6





797

Ludlow Eco Business Park Ludlow, England

Block Area: 86,555 m2 Lots: 7

Average Lot Size: 12,365 m2 Total Footprint: 22,150 m2 Average Unit Footprint: 690 m2 Assumed FAR: X



Guelph Innovation District City of Guelph, Ontario



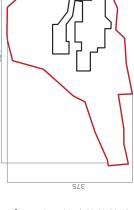
91% DESIRED DENSITY

LOCAL **Guelph Industrial Site: Cargill**York District Lands

Block Area: 127,575 m2

Lots: 1

Average Lot Size: 127,575 m2
Total Footprint: 20,690 m2
Average Unit Footprint: 20690 m2
Assumed FAR: X

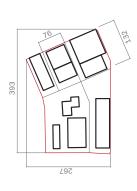


86 JOS# NA 246% DESIRED DENSITY





170% DESIRED DENSITY



Kalundburg Industrial Park Kalundburg, Denmark

BEST PRACTICE

Block Area: 78,910 m2 Lots: 5 Average Lot Size: 15,780 m2 Total Footprint: 37,600 Average Unit Footprint: 5371 m2 Assumed FAR: X



OPEN SPACE PRECEDENTS **APPENDIX B**

APPENDIX B

OPEN SPACE

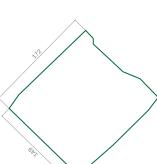
Guelph City Hall Plaza

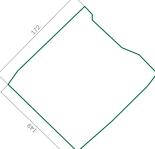
Open Space Area: 1,918 m2

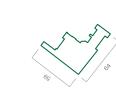














St. George's Square Guelph

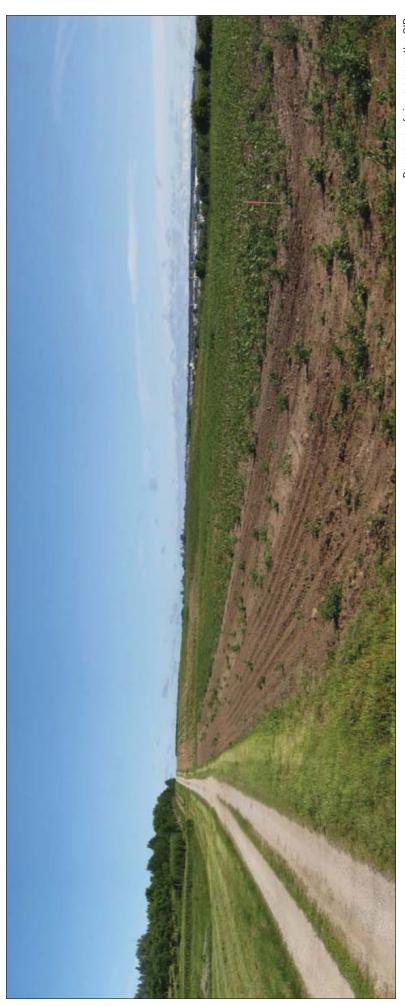
Open Space Area: 2,377 m2

University of Guelph Quad

Open Space Area: 26,796 m2

Town Square Oakville

Open Space Area: 1,946m2



Panorama of views across the GID.

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GUELPH INNOVATION DISTRICT SECONDARY PLAN

October 2012

Prepared By:

planningAlliance

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INTRODUCTION

The purpose of the Guelph Innovation District (GID) Secondary Plan is to establish a detailed planning framework consisting of a Vision, Principles and Objectives and Policies and Schedules to guide and regulate future development of the GID Planning Area. Readers of this Secondary Plan should also refer to the comprehensive Official Plan for overarching city-wide policies also applicable to the GID.

The GID Planning Area comprises lands bounded by York Road to the north, Victoria Road South to the west and Watson Parkway South to the east and extending south to Stone Road East, also inclusive of lands south of, and immediately adjacent to, Stone Road East.

A number of policies are contained in the Plan as follows:

- Chapter 1 Vision, Principles and ObjectivesChapter 2 Natural and Cultural Heritage
- Chapter 3 Energy, Servicing and Stormwater
- Chapter 4 Mobility
- Chapter 5 The Public Realm
- Chapter 6 Land Use and Built Form
- Chapter 7 Interpretation and Implementation

A number of official Schedules appear in this Plan, consisting of:

- Schedule A Natural and Cultural Heritage
- Schedule B Mobility
- Schedule C Land Use
- Schedule D Height
- Schedule E Phasing

CHAPTER 1: VISION, PRINCIPLES AND OBJECTIVES

1.1 A Vision for Guelph's Innovation District

The Guelph Innovation District (GID) is a compact, mixed use community that straddles the Eramosa River in the City's east end. The District will serve predominately as the home of innovative, sustainable employment uses with an adjacent urban village connecting residential and compatible employment uses. It is at once highly energetic and intimately familiar, because it showcases an entirely new approach to planning, designing, and developing urban places, and at the same time, reflects Guelph's history and celebrates the rich heritage resources of the District, including the stunning river valley, dramatic topography and views, and historic Reformatory Complex.

The GID is attractive, pedestrian-focused and human-scaled. It provides a fine-grained mix of land uses at transit-supportive densities, offers meaningful places to live, work, shop, play and learn, and supports a wide range of jobs and residents. It protects valuable natural and cultural heritage resources while fully integrating them into the new community, features sustainable buildings and infrastructure, and works towards carbon neutrality. It makes needed connections between all modes of transportation, but in a manner that prioritizes pedestrians, cyclists and transit users over drivers, and stitches the District into the overall fabric of the City. It is exciting and new and feels like it has been part of the City for a long time.

1.2 Principles & Objectives

Principle 1: Protect What is Valuable

Creating a place that respects natural and built heritage resources, making citizens stewards of the resources for current and future generations.

- a) Preserve and enhance the extensive *Natural Heritage System*, including the Eramosa River valley.
- b) Respect the existing topography and sightlines, including river vistas and views of both Downtown and the historic Reformatory Complex.
- c) Ensure compatible public access opportunities to the Natural Heritage System and cultural heritage resources, including those designated in the Official Plan, and promote their celebration, especially river vistas and edges, the Provincially Significant Earth Science Area of Natural and Scientific Interest, and the historic Reformatory Complex.
- d) Integrate the *Natural Heritage System* and cultural heritage resources with surrounding land uses and provide opportunities for compatible research, educational, recreational, transportation and urban agricultural uses.
- e) Ensure, where appropriate and feasible, the preservation and adaptive reuse of cultural heritage resources, including the historic Reformatory Complex and associated cultural heritage landscape.

f) Create a sustainable open space and parks network which provides both active and passive recreational opportunities.

Principle 2: Create Sustainable and Energy Efficient Infrastructure

Building infrastructure that is efficient, focuses on renewable energy sources, and supports an integrated energy distribution system that enables a carbon free lifestyle.

Objectives

- a) Create a framework for the District to work toward carbon neutrality and exceed the City's Community Energy Plan targets, building infrastructure that is efficient, where feasible that focuses on renewable energy sources, and supports an integrated distribution system that enables a carbon free lifestyle.
- b) Support development of an integrated energy distribution system, which maximizes connections between energy generation opportunities (producers) and end users (provides opportunities for local energy generation, maximizes connections between generation opportunities and end users, and minimizes overall energy use).
- c) Support cradle-to-cradle processes where the waste by-products/surpluses of one activity are used as resources by another (e.g. industrial ecology).
- d) Include efficient, long-term and community based strategies to conserve and manage energy, water, wastewater, stormwater and solid waste.
- e) Develop a model community that showcases sustainable, green, low impact urban development.
- f) Embrace innovation, establish best practices, and serve as a learning environment for other communities across Guelph and Southern Ontario.

Principle 3: Establish a Balanced Mobility System

Making connections that serve the community, allow current and future generations to walk or cycle to daily needs, and provide convenient transit services to access broader activities.

- a) Integrate the District with the City as a whole, with clear connections to Downtown, the University of Guelph campus, and nearby neighbourhoods.
- b) Provide a transportation system (streets, sidewalks, cycle paths, trails, and rail) that serves the District, provides rational and efficient connections for all modes of transportation, and provides public access to the *Natural Heritage System*.
- c) Provide a land use pattern, urban design policies and standards and supportive transportation system that connects us with our daily needs, including transit stops, within a 5-10 minute walk of most residents (400 m distance).
- d) Provide universal access that prioritizes pedestrians, cyclists and transit users over drivers by providing an extensive pedestrian and cycling network with direct, safe and healthy travel routes, and convenient, affordable transit service which is integrated with the rest of the City.
- e) Build new connections for pedestrians, cyclists and potentially transit users across the Eramosa River valley to better connect uses and activities.
- f) Integrate the current commercial rail line within the new community as a potential transportation hub and commuting centre for the movement of people and goods.
- g) Ensure that the capacity of existing and new streets is sufficient to support the District, while managing traffic impacts on adjacent road networks and neighbourhoods.

Principle 4: Promote a healthy diversity of land uses and densities

Creating meaningful places to bring people, activities, environment(s) and ideas together, creating a sense of arrival and inclusion.

Objectives

- a) Create a District of landmark quality with a strong and recognizable identity on par with the Downtown and the University of Guelph.
- b) Define gateways and community focal points (nodes) on both sides of the Eramosa River, as well as a network of areas that are safe, healthy, coherent, vibrant, and comfortable.
- c) Create a cohesive, efficient and vibrant transition area that will provide common supportive uses and built form to connect the urban village node and employment area while still maintaining the unique function and identity of each area.
- d) Respect the southeast residential neighbourhood through the design and inclusion of an appropriate transition area between the residential uses and the industrial and major utility uses to the north.
- e) Define a block and parcel fabric that knits uses together and encourages new buildings to define the edges of streets, parks, and open spaces to provide a friendly face to encourage social interaction, safety, and a human scale.
- f) Create an accessible network of public facilities, parks, and open spaces which serves the new community and surrounding neighbourhoods, and is integrated with the *Natural Heritage System* and cultural heritage resources.
- g) Encourage high quality urban and architectural design that responds to and respects the District's unique setting, natural and cultural heritage, edges and adjacent uses.
- h) Create a memorable landmark area/structure to serve as a beacon/partner to the Church of Our Lady Immaculate in Downtown.
- i) Increase the overall tree canopy, and encourage the use of native species and edible landscapes, where appropriate, in restoration areas, parks, and open spaces and along streets throughout the new community.
- j) Respect (and emulate where appropriate) the Beaux-Arts design of the cultural heritage landscape component of the historic Reformatory Complex.

Principle 5: Create an Attractive and Memorable Place

Mixing it up to create vibrant, resilient, and efficient spaces that make it possible, practicable, and beneficial to reduce our ecological footprint.

- a) Create an integrated, compact, mixed use District that provides an opportunity for people to live close to job opportunities and supportive daily services.
- b) Achieve transit supportive densities with human-scaled built form.
- Establish a fine grained mix of land uses, building types and tenures in the new community, providing accessible choices for living, working, shopping, playing and learning.
- d) Promote mixed use developments in appropriate locations that provide three or more significant uses, ideally in the same building, or if in separate buildings, within a walkable environment.
- e) Provide for a diverse cross section of residents with a mix of residential uses, building types and tenures in an urban village-type setting that is affordable, accessible and allows people to age in place and remain within the same neighbourhood as their needs change.

- f) Provide for a significant number and variety of jobs with a range of employment uses, building types and scales, including those related to the development of a knowledgebased innovation cluster, green jobs, and the information and communication technology sector.
- g) Define a flexible block and parcel fabric that encourages evolution over time.
- h) Plan for a land use mix and densities which contribute to achieving the City's overall population, employment and density targets.

Principle 6: Grow Innovative Business and Employment Opportunities

Grow Innovative Business opportunities that support the knowledge-based innovation sector, green jobs and knowledge-based industries, within a compact, mixed use community.

- a) Accommodate a significant share of Guelph's employment growth to 2031.
- b) Establish the role of the GID as a key area supporting the growth of a knowledge-based innovation cluster, which may include the agriculture, environment, information technology, advanced manufacturing, health and related science sectors, making connections to the Downtown and the University.
- c) Nurture and capitalize on the GID as a recreational and tourist destination.
- d) Create a setting that reinforces the GID as a high density employment area that attracts provincially, nationally and/or internationally significant employment uses.
- e) Encourage employment uses within the historic Reformatory Complex that can showcase the site's built heritage resources and cultural heritage landscape.
- f) Target the GID as a key location for knowledge-based innovation sector businesses, green jobs and knowledge-based industries such as the information and communication technology sector and post-secondary institutions.
- g) Support strategic and collaborative economic development partnerships within the GID and surrounding community.
- h) Encourage a supportive business environment by fostering learning and innovation within the GID.
- i) Encourage economic opportunities for the GID that contribute to innovative and sustainable employment uses that are compatible with a mixed use environment, including residential uses.
- j) Protect and support existing industrial uses, recognizing their contribution to the City's overall employment, waste management services, and carbon footprint reduction.

CHAPTER 2: NATURAL AND CULTURAL HERITAGE

2.1 Intent

The natural and cultural heritage policies below are provided to shape and regulate the preservation and enhancement of the *Natural Heritage System* and cultural heritage resources found within the Guelph Innovation District. The policies below are informed by the Vision and supporting Principles which seek to reflect Guelph's history and celebrate the rich heritage resources of the District, including the Eramosa River valley, dramatic topography and views, and historic Reformatory Complex.

2.2 General Natural and Cultural Heritage Policies

Natural Heritage

- 2.2.1 As identified on Schedules A and C, a significant portion of the District is within the *Natural Heritage System* and is subject to the Significant Natural Areas and Natural Areas policies found in Section 4.0 of the Official Plan.
- 2.2.2 The *Natural Heritage System* within the site area includes features such as the Eramosa River Valley that are important for their environmental and social values. The Guelph Innovation District works in harmony with the *Natural Heritage System* which forms the basis of the plan through its integration by the provision of natural breaks, transitional areas and scenic viewsheds within the site. In addition, a single loaded perimeter local road along the western edge of the Eramosa River provides a public edge, vistas and greater protection opportunities. The *Natural Heritage System* shall be protected, preserved and enhanced so that it may fill its role as the centerpiece of the District.
- 2.2.3 The City will identify and support opportunities to provide greater public access to the *Natural Heritage System* including examining potential for a pedestrian footbridge located central to the site, providing a direct connection between the western development and the Reformatory complex to the east and linking trail systems subject to an environmental assessment or EIS.
- 2.2.4 The City shall control access to the *Natural Heritage System* through wayfinding and signage along public trails to minimize impacts on flora and fauna.
- 2.2.5 Passive recreational activities will be supported within the Natural Heritage System
- 2.2.6 Essential transportation infrastructure where it is part of an active transportation facility will be supported within Significant Valleylands subject to an environmental assessment or ElS.
- 2.2.7 The Provincially Significant Earth Science *ANSI* shown on Schedule 4A within the District presents opportunities for important low impact scientific and educational activities.

These activities will be supported and showcased in conjunction with the adjacent trail network shown on Schedule B.

Cultural Heritage

- 2.2.8 As identified on Schedules A and C, the eastern portion of the District is predominantly designated as Adaptive Re-use within a cultural heritage landscape with built heritage resources in the historic Reformatory Complex. Land uses within the cultural heritage landscape boundary are subject to the provisions of the cultural heritage resource policies found in Section 4.8 of the Official Plan. Policies related to the Adaptive Re-use land use designation can be found in Section 6.4 of this Secondary Plan.
- 2.2.9 Ontario Heritage Trust or the appropriate authority will be requested to hold heritage conservation easement(s) for all features identified as provincially significant heritage resources.
- 2.2.10 A conceptual plan shall be required as part of a Cultural Heritage Resource Impact Assessment to ensure that the cultural heritage resources within the site will be conserved and incorporated into any future design intent.
- 2.2.11 All land uses within the District are subject to the provisions of the cultural heritage resource policies found in Section 4.8 of the Official Plan.
- 2.2.12 It is the intent of this Secondary Plan to conserve *cultural heritage landscapes*, such as the area delineated as the historic Reformatory Complex on Schedule A that have been modified by human activities and are valued by the community.
- 2.2.13 New development shall preserve and enhance the cultural heritage landscape character through integrating cultural heritage resources, landscape elements and important views in site design.
- 2.2.14 For archaeological resources, prior to site alteration or soil disturbance relating to a Planning Act application or a Site Alteration application under the Municipal Act, any required archaeological assessment shall be approved by the Province of Ontario and the City, indicating there are no further concerns for *archaeological resources* within the subject area.
- 2.2.15 Encourage the retention and integration of the Turfgrass Institute Building into the Guelph Innovation District community. New development shall have regard for the building form, material and existing views towards the Turfgrass Institute. Where feasible, landscape features associated with the Turfgrass Institute are to be incorporated within the planned public open space and park adjacent and south of the building.

Topography

2.2.16 The topography associated with the Eramosa River Valley within the Guelph Innovation District offers appealing vistas towards the historic Reformatory Complex as well as the Downtown, providing a distinctive character to the area. Future development shall take

- advantage of favourable topography and vistas and minimize the need for re-grading on site, where possible.
- 2.2.17 Any proposed bridge crossing of the Eramosa River will utilize the existing slopes and maintain the topography of the Significant Valleyland.

Significant Natural Areas

- 2.2.18 Development and site alteration are not permitted within designated Significant Natural Areas of the Natural Heritage System. Exceptions are identified in the General Permitted Uses and Significant Natural Areas policies of the Natural Heritage System of the Official Plan.
- 2.2.19 Where development is proposed on *adjacent lands* to Natural Areas, including the Significant Valleyland of the Eramosa River an Environmental Impact Statement (EIS) shall be required in accordance with the Official Plan.
- 2.2.20 All development on *adjacent lands* to the *Significant Valleylands* as shown on Schedule 4D of the Official Plan shall be subject to site plan control where design issues such as compatibility with adjacent and nearby development, sensitivity to local topography and natural features will be reviewed.

Natural Areas

2.2.21 Development and site alteration may be permitted within all or parts of Natural Areas and/or adjacent lands within the Natural Heritage System in accordance with the General Permitted Uses and Natural Areas policies of the Natural Heritage System of the Official Plan.

Species at Risk

2.2.22 The Significant Habitat for Provincially Endangered and Threatened Species policies of the Official Plan apply to the GID.

Surface Water Features and Fish Habitat

2.2.23 Enhancement and *restoration* of existing surface water features and their riparian areas will be encouraged to support *fish habitat* and the improvement of water quality and quantity.

Urban Forest

2.2.24 The Guelph Innovation District also includes *hedgerows*, smaller wooded areas and individual trees that are part of the urban forest. *Development* and *site alteration* will identify opportunities for protection, enhancement and *restoration* of the urban forest and contribute to maintaining and increasing *canopy cover*.

CHAPTER 3: ENERGY, SERVICING AND STORMWATER

3.1 Intent

The energy, infrastructure and sustainability policies below will shape and regulate the development of sustainable, green, low impact urban development within the Guelph Innovation District. The policies below are informed by the Vision and supporting Principles which seek to exceed Community Energy Plan targets, develop an integrated renewable and alternative energy generation and distribution system, and implement efficient, long-term, community-based strategies to conserve and manage energy, water, wastewater, stormwater and solid waste These policies together with the mixed-use, active transportation and transit-oriented design of the GID will minimize its carbon footprint in the GID and increase the overall sustainability of development in the City.

3.2 General Policies

- 3.2.1 Development in the GID shall contribute to the City's overall carbon reduction targets as set out in the climate change policies of the Official Plan and the City's Community Energy Plan.
- 3.2.2 The City will prepare an implementation strategy outlining initiatives, targets, phasing and performance monitoring of the GID carbon neutral strategy.

The City will limit energy usage and emissions from transportation through provision of infrastructure that encourages walking, cycling, use of public transit, use of low-energy vehicles, and reduced vehicular trips within a live/work community.

3.2.3 Development in the GID shall contribute to the City's overall waste diversion targets and align with the Solid Waste Management Master Plan through such measures as developing a street-side recycling program, and other programs to promote waste reduction and diversion.

3.3 Energy

- 3.3.1 All development must comply with Energy Policies of the Official Plan, in particular Sections 3.18 and 4.7, and the following specific policies:
 - a) All new development in the GID shall have regard for the goals and strategies of the City's Community Energy Plan;
 - b) The City shall work with Guelph Hydro and other key stakeholders on the development of a District Energy System for the GID if such a system is feasible for the GID;
 - c) New development shall be district energy ready subject to the City establishing District Energy Ready Guidelines; and
 - d) All new buildings within the GID shall connect to a district energy system, if available. Buildings can be excluded from mandatory connections should they

- exceed the energy efficiency of the district energy plant and have a lower carbon intensity.
- 3.3.2 Development in the GID will be encouraged to approach carbon neutrality in a costeffective manner through gains in energy efficiency in the built form and by sourcing additional needs from renewable energy sources such as wind, solar, and biomass energy.
- 3.3.3 Developers and owners of all new and existing buildings shall be encouraged to determine and label building energy performance in accordance with standards as may be adopted by the City.
- 3.3.4 Within the GID, 100% of the available roof area will be encouraged to be dedicated to roof top solar technologies such as photovoltaic or solar thermal.

3.4 Water and Wastewater Servicing

- 3.4.1 The Guelph Innovation District (GID) development shall comply with Official Plan policies for water and wastewater systems.
- 3.4.2 Development within the GID shall proceed in accordance with the Water and Wastewater Master Plan and the City of Guelph Water Conservation and Efficiency Strategy as updated from time-to-time. Given the importance of "Innovation" for the GID, demonstration of water efficiency shall be required for all new development.
- 3.4.3 Industrial, Commercial and Institutional (ICI) development shall be encouraged to decrease water use through the reuse and/or substitution of water demands via greywater reuse or rainwater harvesting. Developers shall be required to demonstrate the efficient use of potable water with any development application. A target of 250 litres per day, per employee, is proposed for the new ICI development.

3.5 Stormwater

- 3.5.1 Guelph Innovation District (GID) development shall comply with Official Plan policies on Water Resources, Source Water Protection and related stormwater management policies, in particular Sections 4.3 and 6.4, and the following specific policies:
 - a) Low Impact Development (LID) measures intended to minimize stormwater run-off and recharge groundwater systems, including rainwater harvesting and reuse systems, bio-swales or water features, infiltration measures, permeable paving materials and green roofs, shall be encouraged; and
 - b) The City will explore opportunities to integrate end-of-pipe stormwater management storage and treatment facilities, including constructed wetlands/ponds, and LID measures into the public realm areas such as open space, amenity areas and right of ways, where feasible and appropriate.
- 3.5.2 All development shall be required to adhere to any approved City policies, guidelines and standards including the Stormwater Management Master Plan (2011) and the Design Principles for Stormwater Management (1996). These plans and guidelines are

intended to augment the Ontario Ministry of the Environment's Stormwater Management Practices Planning & Design Manual, as amended from time-to-time and are intended to achieve the highest level of utilization, aesthetics, environmental benefits and ease of maintenance for stormwater management facilities.

- 3.5.3 In order to ensure that a balanced water budget is achieved post development, the City will require monitoring of stormwater management infrastructure for an appropriate period after development. Where infiltration targets (developed for a balanced water budget) are not being achieved, the City may require additional monitoring conditions be met prior to considering the release of additional lands for development.
- 3.5.4 GID development shall comply with the recommendations and requirements of the City of Guelph Source Water Protection Plan.
- 3.5.5 Infiltration stormwater best management practices (BMPs) (other than increased topsoil depth) that are to be located on private lands are to be listed on land title agreements. The City should have easements for rights to access and maintenance over BMPs located on private lands.
- 3.5.6 The City shall minimize the amount of chloride (salt) infiltration into groundwater through best management practices when applying salt to streets during winter months. In addition, the City may secure the use of stormwater winter by-pass systems (bypassing the infiltration best management systems that receive treated runoff from roadways and parking areas) so long as it is demonstrated in technical studies submitted in support of the development process that a balanced annual water budget (surface runoff, groundwater recharge, evapotranspiration) can still be obtained.
- 3.5.7 Stormwater management facilities shall be lined to prevent contaminants from infiltrating into the groundwater system. Lining of stormwater management facilities may not be required under the following conditions:
 - a) Enhanced pre-treatment of runoff prior to drainage discharging to the facility; and
 - b) Winter bypass of first flush runoff to prevent contamination of groundwater by chloride (salt) laden runoff. Diversion of the first flush runoff shall not negatively impact the receiving GID drainage system due to potential increase in peak flows.
- 3.5.8 Stormwater management erosion controls should be designed to mitigate the impacts of development on the receiving drainage system. In the absence of determining critical erosion threshold flows for local watercourses (Clythe, Torrance and Haditi Creeks) stormwater erosion controls should be designed using the erosion control sizing guidelines in the MOE's Stormwater Management Planning and Design Manual. Stormwater erosion controls should be flexible and adaptive in design to facilitate potential changes once critical flows have been established and erosion controls assessed using continuous hydrologic modeling as part of future studies.

CHAPTER 4: MOBILITY

4.1 Intent

The mobility policies contained in the Plan strive to establish a balanced mobility system inclusive of a rational and integrated network with roads, cycling facilities, sidewalks and paths that are designed, built and maintained with equal consideration for all users. This balanced system must be comprised of: a fully integrated network with adjacent systems and destinations; sufficient transportation capacity within the network to absorb growth; and a long term plan for integration with the Guelph Junction Railway (GJR). The use of Transportation Demand Management (TDM) will ensure the system obtains the carbon neutral vision of the District while offering an effective and efficient integrated transportation and recreational trail system.

4.2 General Mobility Policies

- 4.2.1 Establish a legible network of public roads in a modified grid format. This hierarchy of arterial, collector and local roads shall establish the general urban structure of the District, and establish the scale of future development blocks.
- 4.2.2 Wherever possible, public roads shall be aligned to respect the existing topography of the District and minimize need for site alteration.
- 4.2.3 As a defining feature of the development pattern and public realm, all streets shall exhibit a high quality of streetscaping, landscaping, signage and amenity.
- 4.2.4 Long term infrastructure decisions within the District shall consider and provisions should be made for the future possible construction of a bridge crossing over the Eramosa River valley. Infrastructure crossing the river will prioritize active transportation modes and public transit as shown on Schedule B.
- 4.2.5 All roads shall provide for the safe and efficient movement of people and goods, with appropriate separation of truck traffic from areas planned for high levels of pedestrian and cyclist activity. Where necessary, traffic management measures shall be incorporated into the street design of the local street network.
- 4.2.6 The GID has been planned to encourage residents and employees to take active transportation and transit modes to support overall sustainability and carbon neutral objectives of this Plan.
- 4.2.7 Active transportation shall be encouraged as a primary, safe, appealing and convenient mode of transportation to, from and within the District. Pedestrian infrastructure shall be developed with sidewalks provided on both sides of all local streets. A cycling network shall be incorporated into both the street network and city-wide trail system.
- 4.2.8 Victoria Road South, York Road, Watson Parkway South and Stone Road East are arterial roads that provide access to and through the GID increasing connectivity.
- 4.2.9 The City will improve York Road, Victoria Road South and Stone Road East according to relevant approved Environmental Assessments to accommodate traffic generated by development of the GID.

4.3 Special Policies

Transportation Demand Management (TDM)

- 4.3.1 The City shall work with transit providers, developers and businesses within the University-Downtown-GID trinity area to develop and implement TDM measures that promote the use of active transportation modes, public transit, car-sharing and/or carpooling.
- 4.3.2 The City may require large-scale *development* or businesses to complete a TDM plan. TDM plans will describe facilities and programs intended to discourage single-occupancy vehicle trips, minimize parking and promote active transportation modes, public transit, and car-sharing and/or carpooling.
- 4.3.3 The City may permit reduced parking standards for developments which demonstrate through a TDM plan and implementation strategy that a reduction in parking standards is appropriate.

Active Transportation - Walking and Cycling

- 4.3.4 Active Transportation Links are identified in Schedule B. Active Transportation Links act as active linkages for non-motorized active transportation modes such as walking, jogging, running, cycling, in-line skating and skateboarding. They may also serve as an accessible route for users in wheelchairs. Active Transportation Links connect cycling and transit systems as well as communities and cultural heritage destinations within the site, including the historic Reformatory Complex.
- 4.3.5 The transportation network depicted in Schedule B is inclusive of bicycles and pedestrians providing a continuous and connected system integrating future neighbourhoods to existing neighbourhoods.
- 4.3.6 An Active Transportation Network shall ensure access and integration of all transportation modes within the network inclusive of:
 - a) Pedestrian linkages shall be provided where feasible to the river valley trail network:
 - b) Dedicated bicycle lanes shall be provided on both sides of collector and arterial roads;
 - Bicycle rack and/or storage facilities conveniently located near to facilitate access to a range of uses, transit stop locations and trail canoe launch and node locations; and
 - d) If future development necessitates extension of College Avenue East over the Eramosa River Valley, consideration shall be given to controlled access for transit and pedestrian traffic.
- 4.3.7 Construction of cycling facilities, such as bicycle lanes, routes and/or cycle tracks shall align with the Guelph Bicycle Transportation Plan guidelines for details regarding design standards.

Public Transit

- 4.3.8 Proposed Major Transit Stops are depicted in Schedule B. To maximize accessibility and transit capture potential, the GID has been planned to have all development within a 5 to 10 minute walk of amenities and transit stops.
- 4.3.9 Public transit and its related infrastructure and amenities, including bicycle rack and/or storage facilities, shall form an integral component of the mobility network.
- 4.3.10 Where appropriate, special paving treatments including distinct visual and tactile materials are to be incorporated wherever designated Nodes coincide with Proposed Major Transit Stops. These raised, visually contrasting surfaces should clearly delineate pedestrian connections between street corners, street edges and transit stops.
- 4.3.11 The Active Transportation Link shall provide adequate integration with a future Proposed Major Transit Stop along the existing GJR corridor. Future linkages with the Proposed Major Transit Stop will serve uses on both sides of the Eramosa River and incorporate barrier-free accessible design.

The Road Network

- 4.3.12 The road network serving the Guelph Innovation District shall generally be built in accordance with the road classifications and alignments identified in Schedule B.
- 4.3.13 Alternative development standards will be developed where appropriate to meet the objectives and policies of this Plan.

Arterial Roads

4.3.14 Arterial roads shall be designed and built in accordance with the standards outlined in Table 1.

Collector Roads

- 4.3.15 Collector roads shall be designed and built in accordance with the standards outlined in Table 1.
- 4.3.16 A new collector road will provide a north-south link through the District as depicted in Schedule B and the following:
 - a) North of College Avenue East this collector road shall provide the primary roadway connection to the district's residential community. This segment of the collector road shall intersect with local roads, with the number and location of intersections to be determined through the development process; and
 - b) South of College Avenue East the collector road establishes the main spine for the District's mixed use employment area. Accommodation for extension of the road south of Stone Road East will be determined through the development process.
- 4.3.17 A separate east-west collector road is depicted in Schedule B to provide mid-block access in both the mixed-use corridor and employment mixed use area, and access between Victoria Road South and the District's new north-south collector road.

Local Roads

- 4.3.18 Local roads shall be designed and built in accordance with the standards outlined in Table 1. Local road alignments shall be determined through the development approval process.
- 4.3.19 Consideration shall be given to an appropriate connection from York Road to Dunlop Drive through the adaptive reuse area identified in Schedule C to ensure public connectivity and access to cultural heritage landscape and built heritage resources where appropriate.

Parking

- 4.3.20 Wherever feasible, landowners are encouraged to enter into shared parking arrangements with adjacent uses and/or landowners. The shared parking approach takes advantage of different peak periods and reduces the overall additive peak hour use supply while also meeting the peak demands of individual uses. Occupancy Rates can be included as part of a shared parking table in the implementing *Zoning By-Law*.
- 4.3.21 The City may grant, on a site-by-site basis, suitable reductions in on-site parking requirements where off-site parking can be provided within 50 m of a principal building entrance, or car-share / carpooling, or transit pass arrangements are made, high levels of transit exist, or are planned, or affordable housing is proposed as per policy 5.11.6 of the Official Plan. A Parking Study, prepared by a qualified professional, and provision of a binding parking lease agreement, shall be required by the municipality in order to evaluate and determine an appropriate reduction.
- 4.3.22 Where parking is provided, priority spots for carpool vehicles, alternative energy vehicles (such as hybrids and electric cars), car-shares, scooters and motorcycles shall be allocated. Such provisions shall be implemented in the *Zoning By-law*.
- 4.3.23 Parking areas for non-residential uses shall generally be located at the rear or side of buildings. All parking areas shall incorporate landscaping features to screen views of parking areas to the street.
- 4.3.24 The City of Guelph will consider cash in lieu parking strategy as part of the implementing *Zoning By-Law* which shall consider the following:
 - a) Cash in lieu options for mixed use areas with large institutional anchors;
 - b) Provision of underground, semi-underground or parking structures to facilitate shared parking demands; and
 - c) Shared parking standards considering anticipated land use mix.

Table 1. Public Street Classifications and Standards

Street Type	Arterial Roads	Main Street	Collector	Local Roads
Street Names	Victoria Road South, Stone	College	New Street A	All others
	Road East, York Road,	Avenue East	New Street B	
	Watson Parkway South			

Right-of-way width	36m	25.5m	25.5m	18m
Planned setbacks	Varies (Up to 1m in Corridor Mixed Use areas)	Varies (1m to 2m for commercial displays and café seating)	Varies (1m to 2m for commercial displays and café seating; up to 1m in Corridor Mixed Use areas)	Varies
Travel lanes	Victoria Road South, York Road, Stone Road East, Watson Parkway South Lane requirements defined by EA process	2 lanes (up to 4 lanes at peak hours)	2 lanes (up to 4 lanes at peak hours)	2 lanes (plus 1 additional parking lane where appropriate)
Proposed Major Transit Stops	Yes (Victoria Road South and New Street A; Victoria Road South and College Avenue East; Victoria Road South and New Street B; Victoria Road South and Stone Road East; New Street A and Stone Road East)	Yes (College Avenue East and Victoria Road South; College Avenue East and New Street A)	Yes (College Avenue East and New Street A)	None
Parking	None	Yes (both sides)	Yes (both sides at off peak hours)	1 lane on- street where appropriate
Pedestrian amenities	Minimum 1.7m sidewalks; double planting, lighting and furnishing zones separated by pedestrian clearway (vary 3.2m to 4.0m)	Yes	Minimum 2.0m sidewalks; 1.8m planting, lighting and furnishing zone	1.5m-2.0m sidewalks on both sides;
Dedicated Bycling Facilities	Min 1.5m Dedicated bicycle lands.	Min 1.5m Dedicated bicycle lanes	Min 1.5m Dedicated bicycle lanes	None

CHAPTER 5: THE PUBLIC REALM

5.1 Intent

The public realm policies below are provided to shape and regulate two critical and inter-related elements: all publicly owned spaces within the district (including all roads, sidewalks, and parks and open spaces), and the relationship of the total built environment (including all buildings and hard infrastructure) to these important public spaces. Many of the key components of the Vision and supporting Principles for the Innovation District are related to and supported by these public realm policies, including: the creation of a pedestrian-focused and human-scaled environment; and the creation of a landmark quality district with defined gateways and community focal points.

5.2 General Public Realm Policies

General

5.2.1 All public realm policies are subject to the General Urban Design policies of the Official Plan.

Streets

- 5.2.2 Public streets are the backbone of a strong public realm. All streets will be designed to function as attractive and accessible public spaces in their own right. Road design will balance the provisions of a safe, accessible, functional and attract pedestrian-oriented environment with an acceptable level of motor vehicle traffic and (along arterial and collector roads) the movement of goods.
- 5.2.3 Streets shall incorporate a high degree of landscaping within the public right-of-way allowance, inclusive of: landscaped boulevards separating sidewalks from all through traffic including on-street parking lanes. Where landscaped boulevards are not feasible, the design and placement of street trees to sustain a healthy urban tree canopy shall be provided.
- 5.2.4 New tree rooting technologies should be used within heavily urbanized areas such as the District's Corridor Mixed Use areas.
- 5.2.5 Support opportunities to multipurpose landscaping within the public right-of-way as a means to increase the area's tree canopy and stormwater management facilities.
- 5.2.6 The design and placement of street lighting and signage standards will be coordinated to establish a consistent and cohesive identity for the District. Pedestrian scaled lighting should also be incorporated into the design of all lamp standards within the District.

- 5.2.7 Wherever possible, driveway access to parking areas will be shared between adjacent properties in order to maximize landscaping opportunities within medians; and to minimize the potential for pedestrian and vehicular conflict where driveways and sidewalks intersect.
- 5.2.8 In consultation with landowners, the City may seek to establish conveyances, or alternatively the creation of public easements, for the creation of mid-block pedestrian and bicyclist connections interconnecting arterial, collector and local roads, the trail network and active transportation links.
- 5.2.9 The design and placement of local roads shall generally be consistent with Schedule B and Schedule C.

Parks and public open spaces

- 5.2.10 This Secondary Plan identifies two existing public park spaces and the creation of two new public park spaces, each with distinct roles and functions within the community. City staff will secure and develop the new parkland through the development application process, making use of the provisions under the Planning Act to provide these park spaces over time.
- 5.2.11 Final park locations will be determined in accordance with the development process. If alternative park locations are deemed more appropriate then changes to the location can be made without an amendment to this Plan.
- 5.2.12 Park spaces will be made welcoming and inviting for local residents, employees and visitors alike. In all instances, at least one park frontage should be located along either a collector or arterial road. The placement of park spaces with exclusive access from local roads is discouraged.
- 5.2.13 Buildings adjacent to park spaces will be designed to enliven and animate the edges of parks. Consideration shall be given to principal building entrances that front onto park spaces, where appropriate, while surface parking areas are prohibited from flanking park spaces.
- 5.2.14 Subject to additional detailed design, park spaces shall incorporate a suitable balance of hard landscaped, soft landscaped and designated open and playground areas to accommodate a range of active, passive, programmed and aesthetic functions.

Additional Considerations

- 5.2.15 Parks and open spaces will be designed as community and cultural hubs accommodating programmed and non-programmed activities and reflect multigenerational and multi-use needs, providing spaces for both the District's residential and employment populations.
- 5.2.16 Buildings for the purposes of community, cultural or complementary accessory uses may be permitted in a park provided such uses do not interfere with or have negative impacts on the primary functions and character of the park space.

- 5.2.17 Parks and open spaces will support both active and passive activities.
- 5.2.18 The City will increase the urban forest canopy coverage in parks and open space areas, where feasible and appropriate.
- 5.2.19 The City shall encourage linking parks and open spaces with trail network and stormwater management facilities.
- 5.2.20 The City shall encourage and support community engagement opportunities including community gardens, market opportunities, public art, etc.
- 5.2.21 Public art opportunities will serve as a unifying element for the District helping with wayfinding, and learning aspirations. The integration of public art in parks and open spaces shall be encouraged.
- 5.2.22 The City shall encourage an integrated public art approach that tells a multi-purpose thematic story tying together the natural and cultural significance of the District, with its future vision. Seize opportunities presented within the historic Reformatory Complex, trail network, parks and open space designations, and lookout points and vistas as potential public art locations.
- 5.2.23 Lookout points and vistas shall be accessible by multiple transportation modes.

5.3 Special Policies

Corridor Mixed Use Policies

- 5.3.1 Through enforcement of built form policies within this Plan (Section 6.3), buildings within the mixed use areas shall be sufficiently setback to preserve opportunities for the placement of small outdoor café and commercial display spaces. Where deemed appropriate, the City may permit encroachments within the public right-of-way to accommodate these important, place-making functions.
- 5.3.2 Commercial and mixed use buildings will be encouraged to incorporate sheltering elements for the comfort and amenity of pedestrians. To facilitate these building elements, the City may endorse encroachment agreements for the provision of entrance and storefront canopies within the public right-of-way.

Proposed Major Transit Stops

- 5.3.3 Proposed Major Transit Stops shall look and function as important places within the District. Each should be designed to promote a sense of place and provide a high degree of pedestrian amenities, including bicycle parking and/or storage facilities.
- 5.3.4 Additional building setbacks may be required through the plan of subdivision or site plan control for the provision of public benches, sheltered waiting areas, information displays, and landscaping treatments in the public right-of-way.

5.3.5 All pedestrian crossings at Proposed Major Transit Stops and Nodes shall be clearly defined through a combination of distinct visual and tactile elements such as painted pedestrian zones, inset tactile indicator strips, signage, raised crosswalks, differentiated paving or brick materials, or other standards and materials deemed appropriate by the City.

Nodes

- 5.3.6 Nodes represent the confluence of many activities and uses within the District. They are important gathering and meeting places, and the public realm should be designed to reflect their importance.
- 5.3.7 The design of buildings within and immediately adjacent to designated Nodes shall exhibit a high standard of architectural design.
- 5.3.8 The City will encourage and may require a high degree of transparency within the ground floors of all commercial and mixed use buildings within the Nodes.



CHAPTER 6: LAND USE AND BUILT FORM

6.1 Intent

The land use and built form policies below are provided to shape and regulate the general pattern of development including predominate uses within the District and the structuring of these uses within the built form (including building types, massing and height) in the District. The policies below are informed by the Vision and supporting Principles.

6.2 General Land Use Policies

- 6.2.1 The land use designations in the Guelph Innovation District Secondary Plan are depicted in Schedule C. Where land use designations are identical in the Official Plan, then the land use policies and development criteria of the Official Plan apply.
- 6.2.2 New development within the District will offer opportunities for people to live and work, thereby reducing vehicular trip requirements and the District's overall carbon footprint. A balance of live and work opportunities that provide for day and night activities shall be encouraged to ensure a vibrant destination community where people can live, work, play and learn.
- 6.2.3 The District will be developed to support and accommodate emerging innovation businesses and other "green" energy industries that will serve to support the emergence of the District as an innovation centre together with the knowledge-based research centre located within the University of Guelph and with the civic hub and cultural centre of Downtown. Large tracts of undeveloped land, proximity to the University and Downtown, scenic viewsheds and the cultural buildings and landscapes of the historic Reformatory Complex and strategic marketing to attract new businesses will serve to advance this third cluster within the University-Downtown-GID trinity.
- 6.2.4 The District will be comprised of a mix of land uses, housing and building types at a sufficient density to support active transportation and transit. The District will be defined by the public realm including roads, sidewalks, and parks and open spaces as established by the policies and schedules contained within this Secondary Plan. Employment, residential and commercial will be the predominant uses within the District to the West of the Eramosa River, with residential uses concentrated within neighbourhoods north of College Avenue East, west of the Eramosa River.
- 6.2.5 Large, stand-alone retail commercial uses are not permitted within the District. Smalland medium-scale retail commercial uses are to be encouraged within the mixed use designations of the site to create a Main Street type environment.
- 6.2.6 In order to contribute to achieving the City-wide Population and Employment and density targets for 2031, the GID is planned to achieve:
 - a) 8,000 10,000 jobs

- b) 3,000 5,000 people
- 6.2.7 The topography, landscape and natural and cultural heritage features associated with the Eramosa River are unique to the District. Future road alignment, siting and massing, and design of development should enhance scenic views of the Eramosa River valley and cultural heritage landscape features associated with the historic Reformatory Complex, as well as views of Downtown, by:
 - a) Maintaining the modified grid pattern of streets identified in Schedule B and Schedule C and design future streets to respond to the natural open space and topographic conditions found on the site;
 - b) Enhancing the view corridor of the Eramosa River by providing single loaded local roads where feasible on the table lands in the mixed use employment area to allow public access to views of the Eramosa River;
 - c) Maintaining views of the Eramosa River and cultural heritage landscape features from the urban village and other residential areas to the north of College Avenue East: and
 - d) Maintaining view corridors of Church of our Lady Immaculate in Downtown from College Avenue East and prominent nodes in the District.
- 6.2.8 The predominant character of built form within the District will be established by midrise and employment buildings with a limited number of high-rise buildings at strategic locations marking the Nodes and gateways. A range of building types is to be encouraged, including mid- and high-rise residential and mixed use buildings, townhouses, research, design and office complexes, manufacturing and live/work units.
- 6.2.9 A series of nodes will be developed within the District, as identified in Schedule C and according to policies contained within Section 5. Higher densities within the site shall be organized at these nodes and associated proposed major transit stops.
- 6.2.10 Development of neighbourhood blocks within the District shall use parks within and adjacent to the District as key connections and public destinations between neighbourhoods, connected through off-road and on-road trail connections and active transportation links.
- 6.2.11 Stormwater management facilities shall be integrated within development as a component of the publicly accessible open space and park network including the following:
 - a) Fencing around ponds shall be minimized in favour of shallow slope grading adjacent to pooled areas;
 - b) Where feasible integrate stormwater management facilities within connections between parks and natural heritage features; and
 - c) Providing open spaces, public rights-of-way to perimeters of stormwater management ponds.

6.3 General Built Form and Site Development Policies

- 6.3.1 A modified grid of public streets and laneways will establish the overall development structure of the area that aligns with the conceptual alignment of arterial and collector roads defined in Schedule B. Subsequent collector and local roads and public laneways shall be aligned to ensure adherence to the principles of pedestrian connectivity and future legibility and place making within the District. In addition, development shall be planned and designed:
 - a) In consideration of future infill and intensification opportunities within the site;
 - b) To enhance connectivity within the District by incorporating multi-modal transportation systems;
 - c) Using sufficient block sizes in residential and Corridor Mixed Use areas that achieve pedestrian-oriented development by establishing a maximum of 120-170 meters of block length measured along the long axis of a street; and
 - d) To balance the needs of the businesses and residents through the use of public laneways, parking and open space within transitional areas.
- 6.3.2 Heights within the District are to be consistent with the vision, principles and policies of this Plan. Maximum building heights within the District are indicated in Schedule D. Additional height will be located within nodes located at key intersections and at the urban village to provide focal points for the District in accordance with the policies of this Plan. Minimum building heights and maximum number of floors are indicated in Schedule D.
- 6.3.3 The implementing *Zoning By-law* may establish heights lower than the recommended heights in Schedule D to maintain viewsheds of the Eramosa River and the Downtown.
- 6.3.4 Development will be of high quality architecture, landscape, and urban design and will make a significant contribution to the character and identify of the residential and mixed use neighbourhoods contained within the District and showcase the area's unique natural and cultural history and proximity to Downtown and to the University.
- 6.3.5 Definition of street edge is a priority within the District to create a rhythm and spacing of building entrances and appropriately sized storefronts to encourage pedestrian activity. The implementing *Zoning By-law* may establish building frontages along all public streets. Maximum building setbacks from the property line on public streets are included in Section 4, Table 1.
- 6.3.6 Exceptions to setbacks established in Table 1 may be granted, within the implementing Zoning By-law in the case of signature sites and public buildings that incorporate highly visible and accessible landscaped open space within the divergent setback.
- 6.3.7 In addition to other policies of this Plan, blocks, buildings and structures will be organized to define a public realm including, public streets and laneways, driveways and sidewalks that contribute positively to the character and identity of neighbourhoods in the District, including:

- a) Arranging blocks that maximize street frontage with buildings massed and articulated appropriately to minimize the scale of larger buildings and to add visual interest;
- b) Arranging blocks to maximize solar gain along the long axis while minimizing shadowing of adjacent development;
- Providing visual overlook from new development to public spaces and including building entrances, active ground floor frontages and transparent building materials along the edge of public space;
- d) Ensuring main building entrances are directly accessible from a public street, or a publicly-accessible courtyard physically and visually connected to the street;
- e) Minimizing impacts on vehicular, bike and pedestrian traffic on Arterial and Collector streets by providing vehicular access, ramps, servicing and loading access from local streets or laneways whenever possible;
- f) Providing vehicular access from rear laneways or shared common driveways to detached semi-detached and duplex houses, townhouses and live/work units to reduce the number of curb cuts and protect opportunities for soft landscaping and active uses at grade along street edges;
- g) Defining transitional areas between uses in development blocks through provision of landscaped courtyards and other outdoor amenity space;
- h) Visually enhancing surrounding public streets, parks and other public spaces through landscaped open space;
- i) Designing sites, buildings and landscaping to minimize the opportunity for crime, with emphasis on: clear sightlines into building entrances, parking areas, amenity spaces and site servicing areas; locating open spaces adjacent to public roads to improve the safety of parks through passive surveillance; providing low growing plant material along pedestrian walkways; and providing pedestrian-scale lighting in areas of pedestrian activity; and
- j) Providing traffic calming features, including but not limited to, curb extensions, raised surface treatments, chicanes, and textured paving.
- 6.3.8 The District shall be designed to accommodate the needs of persons with disabilities.

 Urban design considerations for a barrier-free environment should include, at minimum, the following:
 - a) Pathways free of obstructions, including street furniture, signs, trees, shop awnings and advertising signs, etc. Obstructions should be placed outside the path of travel wherever possible;
 - Signage that is clear, glare-free, simple, easy to read and understand, and properly lit at night. The colour of signs should contrast with the surrounding surface, and the colour combinations red/green and yellow/blue should not be used to avoid confusing colour-blind persons;
 - c) Provide tactile cues such as guide strips to help a person with sight problems identify travel routes. Guide strips should be laid in a simple and logical manner, and should have a contrasting colour with the surrounding surface. The strips should be flush with the road surface so as not to hinder people with mobility problems; and
 - d) Outdoor accessible parking spaces should be located near accessible building entrances. Indoor accessible parking spaces should be located near accessible elevators, or as close as possible to exits.

- 6.3.9 To ensure an attractive streetscape and maximize opportunities for passive energy efficiency/carbon neutrality architectural controls shall be developed to address detailed building design aspects such as: massing, passive energy efficiency matters, siting, grading, elevation articulation, garage articulation, materials colour, sustainability and quality, and roof design.
- 6.3.10 Garages shall be designed so that they are not the dominant feature in the streetscape. Garages for all ground-related dwelling shall generally be in the rear yard garage accessed by laneway or front driveway. This will allow for:
 - a) Ground floor front porches, windows and front facing rooms to create a more attractive housing and neighbourhood safety through casual surveillance;
 - b) The creation of an attractive streetscapes;
 - c) Adequate space for street trees and front yard landscaping; and
 - d) Additional opportunities for sufficient on-street parking in front of the units.

6.4 Land Use Designations

Adaptive Re-use (GID)

- 6.4.1 Adaptive Re-use areas are identified in Schedule C. These include areas containing provincially significant heritage resources where the conservation, rehabilitation, restoration, maintenance and re-use of historic buildings and landscapes will serve as the focal point of new development. They shall have a mix of compatible uses including institutional, educational, commercial, office, light industrial, residential, live/work and open space and park in a form that respects the existing built heritage form, cultural heritage landscape features, as well as the relationships between cultural heritage resources considered for adaptive re-use and redevelopment.
- 6.4.2 Within the GID, initiatives shall be considered to ensure that new construction, adaptive re-use and development are sympathetic and complementary to existing cultural heritage attributes of the historic context, including street patterns, building setbacks and building mass, height, and materials.
- 6.4.3 The adaptive reuse of built heritage resources shall ensure that the original building fabric and architectural features are retained and that any new additions will complement the existing building.

Corridor Mixed Use (GID)

- 6.4.4 Corridor Mixed Use areas are identified in Schedule C and include areas comprising primarily vacant or under-used lands that are targeted for significant growth within the University of Guelph-Downtown-GID trinity. These areas will consist of a mix of residential, commercial, live/work, institutional, office and educational uses within a highly compact development form that will contribute to the creation of focal points and transition areas. A high quality urban and architectural design and a well-connected, pedestrian-oriented, public realm will define these areas (See Section 5.3 of the Plan).
- 6.4.5 As indicated in policy 6.4.4, Corridor Mixed Use areas are to provide for a variety of uses. The following uses may be permitted:

- a) Multiple unit residential buildings, including apartment and townhouse dwellings;
- b) Retail and service uses, including restaurants and personal service uses;
- c) Live/work uses;
- d) Offices including medically related uses;
- e) Entertainment and commercial recreation uses; community service facilities;
- f) Cultural, educational and institutional uses;
- g) Structured parking;
- h) Hotels; and
- i) Park space, including urban squares.
- 6.4.6 The minimum floor space index (FSI) in the Corridor Mixed Use designation shall be 1.0 and generally be a maximum of 3.0 except within Nodal areas where the maximum FSI shall generally be 4.0 if it can be demonstrated that:
 - a) Buildings incorporate a vertical mix of uses where any one use does not occupy more than 60% of the building; and
 - b) Buildings meet the green design requirements of Section 3.4 and the GID Implementation Strategy.
- 6.4.7 A consistent built form edge shall be established through maximum setbacks established in the implementing *Zoning By-law*. Setbacks will take into consideration stormwater management facilities, required along Victoria Road South and Stone Road East.
- 6.4.8 Frontage along College Avenue East will be of a Main Street character, comprising a compact, mixed use and continuous built form edge containing the following:
 - a) Retail and service uses, including restaurants and personal service uses, entertainment uses or professional offices and community or social services shall generally be required on the ground floors of all buildings at the street edge;
 - b) Building façades facing a public street shall be considered a primary façade. A minimum of one pedestrian entrance shall be provided for any primary façade;
 - c) Buildings on corner lots should be designed to have primary façades on both the front and side street;
 - d) Ground floor heights will generally be a minimum of approximately 4.5 metres floor to floor; windows shall correspond appropriately to the height of ground floors. Generally, a large proportion of the street-facing ground floor wall of new mixed-use building shall be glazed; and
 - e) Building heights shall contribute to a continuous street wall that has a minimum height of 11m as shown in Schedule D.
- 6.4.9 The District will be anchored by a mixed use urban village at the intersection of the eastern extension of College Avenue East and an interior Collector that will offer a wide range of urban amenities and services. A signature site will be located at the intersection of College Avenue East and the proposed north-south Collector. A landmark building of high quality urban design and architectural detail located within the signature site will provide an anchor to the urban village. At grade, pedestrian-oriented, commercial amenities will be provided.

- 6.4.10 In addition to policies 6.3.7 and 6.3.8, the following additional built form policies shall apply to all development located within a Node:
 - a) Buildings with long façades shall be designed with architectural articulation and changes in material to create interesting building forms, compatible development which breaks up the visual impact of the massing. Articulated massing may include: building stepping/façade step-backs, layered massing (horizontal or vertical) and modulation and change in materials and colour.
 - b) The massing and articulation of buildings taller than five storeys shall provide appropriate transitions to areas with lower permitted heights, minimizing impact on the street level as well as shadow impacts. A minimum step-back of 3m-6m shall be implemented at the 5th storey. The floorplates of floors above the fifth storey generally shall be a maximum of 1000 square metres. Figure 3 indicates the general built form that is to be achieved.
 - c) All buildings should be finished with high quality, enduring materials, such as stone, brick and glass.

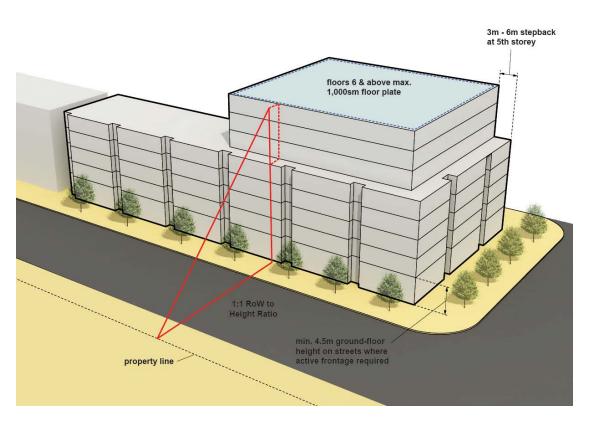


Figure 3. Nodal development

Employment Mixed Use 1 (GID)

- 6.4.11 Employment Mixed Use 1 areas are identified in Schedule C and include areas targeted for significant growth as a key landmark area in the University -Downtown-GID trinity. These areas will include a mix of compatible uses focusing on higher density, innovation and sustainability which include uses such as industrial, commercial, educational, institutional, and, to a lesser extent, residential and entertainment uses that will serve to support the role of the business area as a knowledge-based innovation centre. Uses are to be compatible with surrounding uses in regard to impacts such as noise, odour, loading, dust, and vibration. Low density employment uses such as logistics and warehousing are not permitted.
- 6.4.12 As indicated in policy 6.4.12, Employment Mixed Use 1 areas provide for a range of employment uses as well as residential uses. The following uses may be permitted:
 - a) Manufacturing uses;
 - b) Research and development facilities;
 - c) Live/work uses;
 - d) Office and administrative facilities;
 - e) Cultural, education and institutional uses;
 - f) Hotel and convention facilities;
 - g) Entertainment and commercial recreation uses; and
 - h) Associated accessory retail uses that are an integral component of the primary uses.
- 6.4.13 In addition to the uses in policy 6.4.13, the following complementary or accessory uses may also be permitted: restaurants, financial institutions, medical services, fitness centres, open space and recreation facilities and child care centres.
- 6.4.14 The maximum floor space index (FSI) in the Employment Mixed Use 1 designation shall generally be 0.6.
- 6.4.15 Where land use transitions from Residential and Corridor Mixed Use to Employment Mixed Use areas, business and professional offices, live/work uses and entertainment and commercial recreation uses shall be priorities to ensure a compatible mix of uses.
- 6.4.16 Development in the Employment Mixed Use 1 designation will comprise primarily of a mix of street-related and campus form development.
- 6.4.17 Campus form development in the employment area is appropriate near open space and natural heritage elements (Eramosa River Valley) where a balance of site and building design can integrate landscape, topography, and other special features with site access requirements including roads, driveways, parking, and service and loading areas. Campus form development shall comply with the following:
 - a) Off arterial streets, buildings should be oriented to maximize open space opportunities, providing a scale and pattern of development that supports pedestrian activities at grade between buildings while maximising solar gain;
 - b) Along Victoria Road South, buildings will be oriented towards animating an urban public realm through a balance of built form and open space. Where feasible, mid-

- block pedestrian and bicycle access into the District will be provided along Victoria Road South to enhance pedestrian connectivity at the transitional edge of the GID; and
- c) Where appropriate, building heights and massing should optimize views at-grade to the open space and natural heritage elements.
- 6.4.18 Street edge form employment area design consists of buildings that define street edges through established minimum setbacks and consistent landscape edge treatment and include:
 - a) Minimum setbacks as established in Section 4; and
 - b) Active at-grade uses with street access which could include retail, cafes and restaurants to connect public activity within the building, street and open space.
- 6.4.19 The implementing Zoning Bylaw will establish locations for street edge and campus form development.

Employment Mixed Use 2 (GID)

- 6.4.20 Employment Mixed Use 2 areas are identified in Schedule C and include areas that will accommodate a range of employment-related development. These areas will have a mix of compatible uses which include: industrial, commercial, educational and institutional, and, to a lesser extent, entertainment uses that will serve to support the role of the business area as an important component of the Guelph Agri-Innovation Cluster. Uses will be compatible with surrounding uses in regard to impacts such as noise, odour, loading, dust, and vibration. Low density employment uses such as logistics and warehousing are not permitted.
- 6.4.21 As indicated in policy 6.4.20, Employment Mixed Use 2 areas provide for a range of employment uses. The following uses may be permitted:
 - a) Manufacturing uses:
 - b) Research and development facilities;
 - c) Office and administrative facilities;
 - d) Cultural, education and institutional uses;
 - e) Entertainment and commercial recreation uses; and
 - f) Associated accessory retail uses that are an integral component of the primary uses.
- 6.4.22 In addition to the uses in policy 6.4.22, the following accessory uses may also be permitted where they are secondary to the main employment mixed use on the site: convenience commercial uses; and community facility uses.
- 6.4.23 The maximum floor space index (FSI) in the Employment Mixed Use 2 designation shall generally be 0.60.
- 6.4.24 Within the Employment Mixed Use 2 designation, no residential uses shall be permitted, including live/work units.

Residential

- 6.4.25 Residential areas are identified in Schedule C and include lands containing medium density housing forms such as townhouses and apartments and a limited supply of low-medium housing forms such as single and semi-detached dwellings. The final distribution of these typologies will be determined through the subsequent development process and regulated through the implementing Zoning By-Law.
- 6.4.26 As indicated in policy 6.4.26, Residential areas permit a wide range of housing. The following uses may be permitted:
 - a) Multiple unit residential buildings such as townhouses and apartments;
 - b) Detached, semi-detached and duplex dwellings;
 - c) Convenience commercial uses:
 - d) Live/work units;
 - e) Community services and facilities;
 - f) Home businesses; and
 - g) Park space including urban squares.
- 6.4.27 Residential buildings and live/work units which shall be oriented towards a street with the main entrance to the building/dwelling unit accessible directly from a right-of-way
- 6.4.28 Local roads within residential areas shall be oriented to facilitate maximum solar gain along the long axis of buildings.
- 6.4.29 Development within Residential areas would be subject to a minimum net density of 35 units per hectare and a maximum net density of 100 units per hectare. Height ranges are indicated in Schedule D.

Special Residential Area (GID)

- 6.4.30 The Special Residential Area identified in Schedule C includes lands currently containing low density rural residential uses on private services.
- 6.4.31 The Special Residential Area allows existing residential uses to continue and provides for limited additional low density residential infill development that is compatible with adjacent existing and planned uses.
- 6.4.32 The appropriate density and form of new residential development shall be determined through site specific development applications consistent with the objectives and policies of this Plan.

Open Space and Park

6.4.33 Open Space and Park areas are identified in Schedule C and are subject to the Open Space and Parks policies of the Official Plan.

Neighbourhood Commercial Centre

6.4.34 As identified on Schedule C, a small portion of the District, located at the southeast corner of York Road and Victoria Road South, is designated as Neighbourhood Commercial Centre and is subject to the Neighbourhood Commercial Centre policies found in the Official Plan.

Service Commercial

6.4.35 As identified on Schedule C, a small portion of the District, located at the southwest corner of York Road and Watson Parkway South, is designated as Service Commercial and is subject to the Service Commercial policies of the Official Plan.

Industrial

6.4.36 As identified on Schedule C, portions located on the east side of the District and near the northwest corner of the District are designated as Industrial and are subject to the Industrial policies of the Official Plan.

Major Utility

6.4.37 As identified on Schedule C, a significant portion of the east side of the District is designated as Major Utility and is subject to the Major Utility policies of the Official Plan.

6.5 Special Policies

- 6.5.1 Employment Mixed Use 2 areas adjacent to Stone Road East between the Eramosa River and Watson Parkway South will serve as a transitional use to buffer the residential areas south of Stone Road East and the major utility and industrial areas north of Stone Road East. Within these Employment Mixed Use 2 areas the following shall apply:
 - a) Buildings will be oriented towards Stone Road East with sufficient front setbacks with landscaped open space;
 - b) Heights that provide sufficient screening of industrial uses from residential development south of Stone Road East will be established within the implementing Zoning Bylaw; and
 - c) Parking, loading and access will comply with policies established in this Secondary Plan and the general urban design policies of this Plan.
- 6.5.2 When considering development approval applications and public realm projects, there shall be regard to all applicable provincial and municipal policies, regulations and guidelines to ensure that compatibility will be achieved and maintained with regard to noise, vibration, dust, odour, air quality and illumination so as to achieve the goals of:
 - a) Preventing undue adverse impacts from proposed development on the City's Waste Resource Innovation Centre, a Major Utility and the Cargill plant designated as Industrial; and

- b) Preventing undue adverse impacts on the proposed development from the City's Waste Resource Innovation Centre, a Major Utility and the Cargill plant designated as Industrial.
- 6.5.3 Sensitive land uses may be prohibited in the Zoning Bylaw or limited (through massing and siting, buffering and design mitigation measures) in areas in proximity to the Major Utility and Industrial designations to ensure compatibility. In addition, noise and air emissions reports shall be required and vibration and illumination reports may be required, in support of development approval requests. Such environmental reports are to specify how compatibility will be achieved and maintained between the Waste Resource Innovation Centre and Cargill and the proposed development, and may include measures aimed at minimizing impacts.
- 6.5.4 The City shall consult with the Ministry of the Environment, Cargill and the Waste Resource Innovation Centre during the development approval process and during the design process for public spaces in the vicinity of the Cargill plant and the Waste Innovation Centre property to ensure compatibility.

CHAPTER 7: INTERPRETATION AND IMPLEMENTATION

7.1 Implementation Policies

- 7.1.1 Lands within the GID Secondary Plan area shall be subject to the interpretation and implementation policies of the *Official Plan* and the following specific policies.
- 7.1.2 The implementation of this Secondary Plan will require a variety of tools and many actions on the part of the City, private landowners, institutions and others. This section describes important tools and strategies to be used by the City in addition to the tools and strategies identified in the Official Plan. It also identifies initiatives and partnerships intended to implement key elements of the Plan and, in the process, encourage private development and investment in the GID. Many of the strategies build upon previous initiatives and current investments by the City.
- 7.1.3 Where the policies of this Secondary Plan conflict with those in the Official Plan, the policies of the GID Secondary Plan shall prevail.
- 7.1.4 A *Zoning By-law* will be prepared to implement the policies and schedules of this Secondary Plan.
- 7.1.5 The built form policies of the GID Secondary Plan and in particular those that apply to mid-rise buildings, respond sensitively to the topography and adjacent land uses. Their primary intent is to ensure compatibility among buildings of different types and forms, the minimization and mitigation of adverse shadow and view impacts, and the creation and maintenance of an inviting and comfortable public realm. Nevertheless, the City recognizes the need to be somewhat flexible and allow for well-designed buildings that respond appropriately to the conditions of their site and its surroundings and are consistent with the principles of this Plan. Where "generally" is used to qualify a built form policy found in Section 6.4 of this Plan, it is the intent that the policy requirement shall be met except where an applicant has demonstrated to the City's satisfaction that site-specific conditions warrant considerations of alternatives, and that the proposed alternative built form parameters meet the general intent of the policy. Such exceptions shall not require an amendment to this Secondary Plan.

7.2 Design Review

7.2.1 The City may establish a design review committee, comprised of professionals with expertise in planning and urban design, architecture, engineering, landscape architecture and/or environmental design, or other advisory process, such as an architectural or urban design peer review process at the applicant's expense, to assist in the review of significant development proposals and capital projects in the GID and elsewhere in the City. In reviewing significant GID projects, such a committee or process shall be guided by the policies of the GID Secondary Plan and shall consider

the urban, architectural, engineering, landscape and environmental design aspects of the proposal.

7.3 Phasing

- 7.3.1 Schedule E establishes a phasing plan for the purposes of monitoring and ensuring achievement of various targets set out in this Plan as well as servicing considerations, capital programming and land assembly.
- 7.3.2 The implementing Zoning By-law will establish a required mix of uses to be incorporated within new development to ensure each phase of development contributes to achieving the overall GID residential and employment targets established in Section 4. Demonstrating that the residential and employment targets are met within existing and approved development will be one of the conditions for release of additional lands through subsequent phases of development.

7.4 Height and Density Bonusing

- 7.4.1 Nodal areas located within Corridor Mixed Use designations containing recommended height limitations identified in Schedule D between 25 and 34m, will be permitted an additional two stories, subject to the bonusing policies of the Official Plan.
- 7.4.2 In addition to the community benefits outlined in the Official Plan that the City will consider when authorizing height and density bonusing, the City will also consider benefits from carbon neutrality.

7.5 Special Studies and Future Initiatives

- 7.5.1 The City will prepare and periodically update a GID Implementation Strategy to coordinate and activate the implementation of this Secondary Plan, specifically components of the Plan related to achieving carbon neutral development. The Implementation Strategy will identify carbon neutrality targets and describe a range of mechanisms, tools and initiatives that may be utilized by the City, landowners and developers to achieve identified targets. The GID Implementation Strategy shall generally be reviewed and updated a minimum of every five years.
- 7.5.2 Alternative development standards will be developed where appropriate to meet the objectives and policies of this Plan.
- 7.5.3 Architectural technical guidelines will be prepared by the developer for low rise residential development in the GID.
- 7.5.4 Additional implementation tools the City will utilize to activate implementation of the Secondary Plan, include:
 - a) A Stormwater Management Master Plan that establishes water quality, water quantity and natural environment objectives and stormwater management design requirements for development in the GID;

- b) A Water and Wastewater Master Plan that establishes conceptual design and development standards for development in the GID; and
- c) A District Energy Feasibility Study with Guelph Hydro and landowners to guide implementation and development of a District Energy System in the GID.

7.6 Finance

7.6.1 The implementation of the policies of the GID Secondary Plan will be subject to the capital budget and financial policies and procedures approved by City Council, as well as the availability of funding from other levels of government. Furthermore, some services are provided to the City by other levels of government.

7.7 Partnerships

- 7.7.1 The City will work in partnership with the Province and other key stakeholders towards the effective and efficient development of lands in accordance with the policies of the Secondary Plan, including assessing the following:
 - a) Site/servicing development models for priority areas including the extension of College Avenue East;
 - b) Development of Research and Development Clusters in partnership with the Post-Secondary Institutions;
 - Redevelopment of the Guelph Correctional Facility for institutional, research commercial, light industrial and community related uses, including possible extension of College Avenue East over the Eramosa River to provide pedestrian and transit connections to such development; and
 - d) Coordination of marketing and business development efforts targeting knowledgebased innovation sector businesses and other related users within mixed use employment areas.

7.8 Definitions

7.8.1 In addition to definitions of the Official Plan, the following definitions are applicable in the Guelph Innovation District Secondary Plan:

Available Roof Area means:

Available area is defined as the total roof area minus the area for mechanical equipment, roof top terraces and perimeter access restrictions.

Carbon Neutral means:

For the purpose of the GID, carbon neutrality refers to the indirect and direct carbon emissions emitted from the new buildings that will be developed within the GID boundary. Net zero carbon emissions will be achieved by balancing the annual amount of carbon released (by burning fossil fuels) with the equivalent amount that is sequestered and/or offset from on- or off-site renewable energy.

The carbon emissions associated with transportation, waste, water and food generation/production will be addressed and reduced as a result of the "complete

community" design of the GID. That said, these related emissions will not be included in the carbon neutral definition for the GID.

Compatibility means:

Development or redevelopment which may not necessarily be the same as, or similar to, the existing development, but can co-exist with the surrounding area without unacceptable adverse impact.

District Energy means:

A system that ties together distributed thermal energy generation and users through a local supply loop.

FSI - Floor Space Index means:

The ratio of a building's total floor area to the size of the parcel of land upon which it is built. The terms can also refer to limits imposed on such a ratio.

As a formula: Floor area ratio = (Total covered area on all floors of all buildings on a certain plot)/ (Area of the plot)

Thus, an FSI of 2.0 would indicate that the total floor area of a building is two times the gross area of the plot on which it is constructed, as would be found in a multiple-story building.

Green jobs means:

Any job or self-employment that purposely contributes to a more sustainable world. Green jobs include the provision of services and/or products in, but not limited to, the environment, air, water, soil, waste, bio/life sciences, agriculture, food, bio-products, energy (conservation, efficiency, alternative, renewable), building/construction, transportation, education, and government sectors.

Guelph Agri-Innovation Cluster means:

The Guelph Agri-Innovation Cluster consists of two main subsectors, food and wellness and agri-business, which afford many niche opportunities for value creation that align strongly with the infrastructural strengths of the region. The report "Strategic Plan for the Guelph Agri-Innovation Cluster", dated March 3, 2010, completed by Hickling Arthur Low and Urban Strategies Inc. further defines the Guelph Agri-Innovation Cluster.

Public Realm means:

Public spaces such as public streets and rights of way, urban squares, parks, community trails, and open spaces.

Redevelopment means:

The creation of new units, uses or lots on previously developed land in existing communities, including brownfield and greyfield sites.

In spite of the above definition, for the lands within the Special Policy Area Floodplain of this Plan, redevelopment shall include an addition which is larger than 50% of the total ground floor area of the original or existing building or structure.



SCHEDULE A: NATURAL AND CULTURAL HERITAGE



Guelph Innovation District

HERITAGE SCHEDULE

Secondary Plan Boundary ---

Roads

Pedestrian Foot Bridge Existing Built Form



Cultural Heritage Resources (CHR)

Non-Listed CHR

Municipally Listed CHR

Provincially Listed CHR
Designated CHR (Part IV O.H.A)



Cultural Heritage Landscape



Waterbodies

Eramosa River





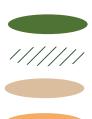
Natural Heritage System*

Significant Natural Area

Natural Area

Ecological Linkages

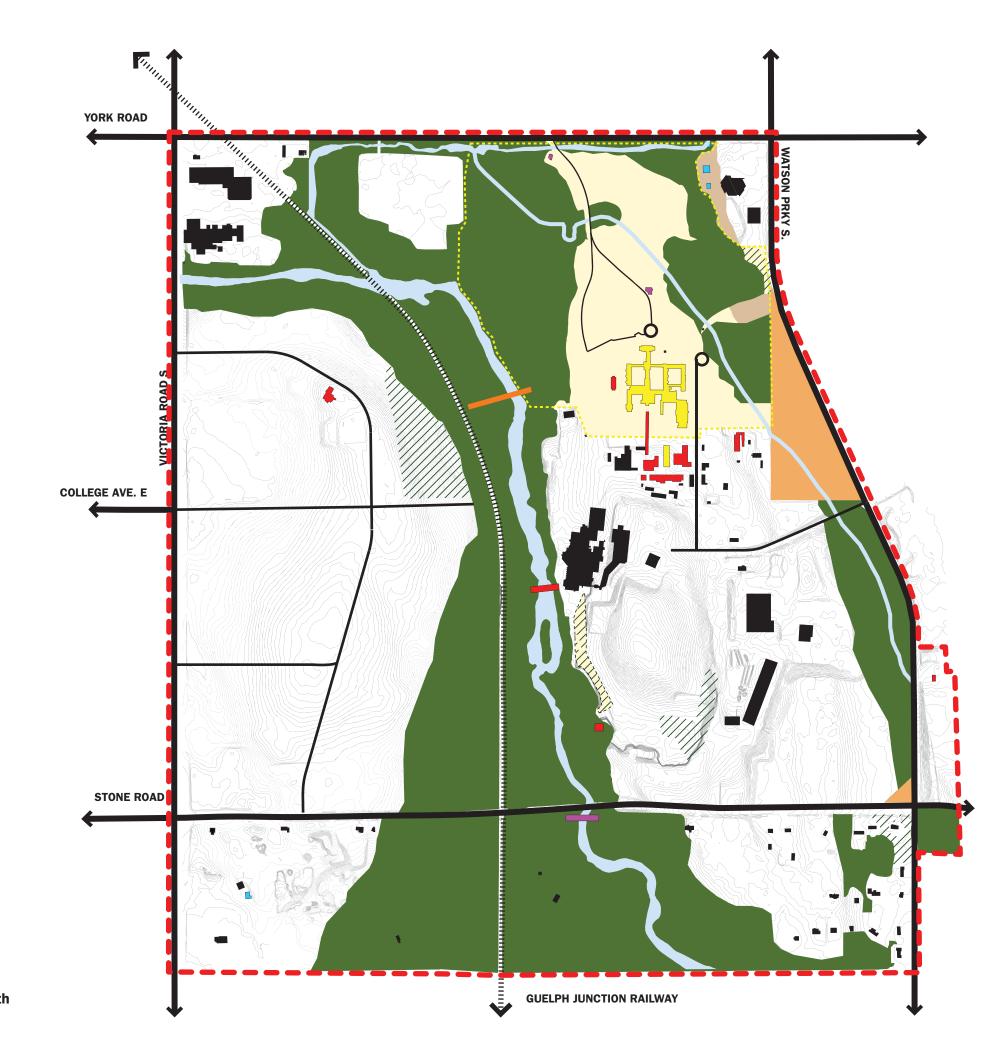
Restoration Areas



*NHS as per council adopted OPA 42, currently under appeal.







SCHEDULE B: MOBILITY



Guelph Innovation District

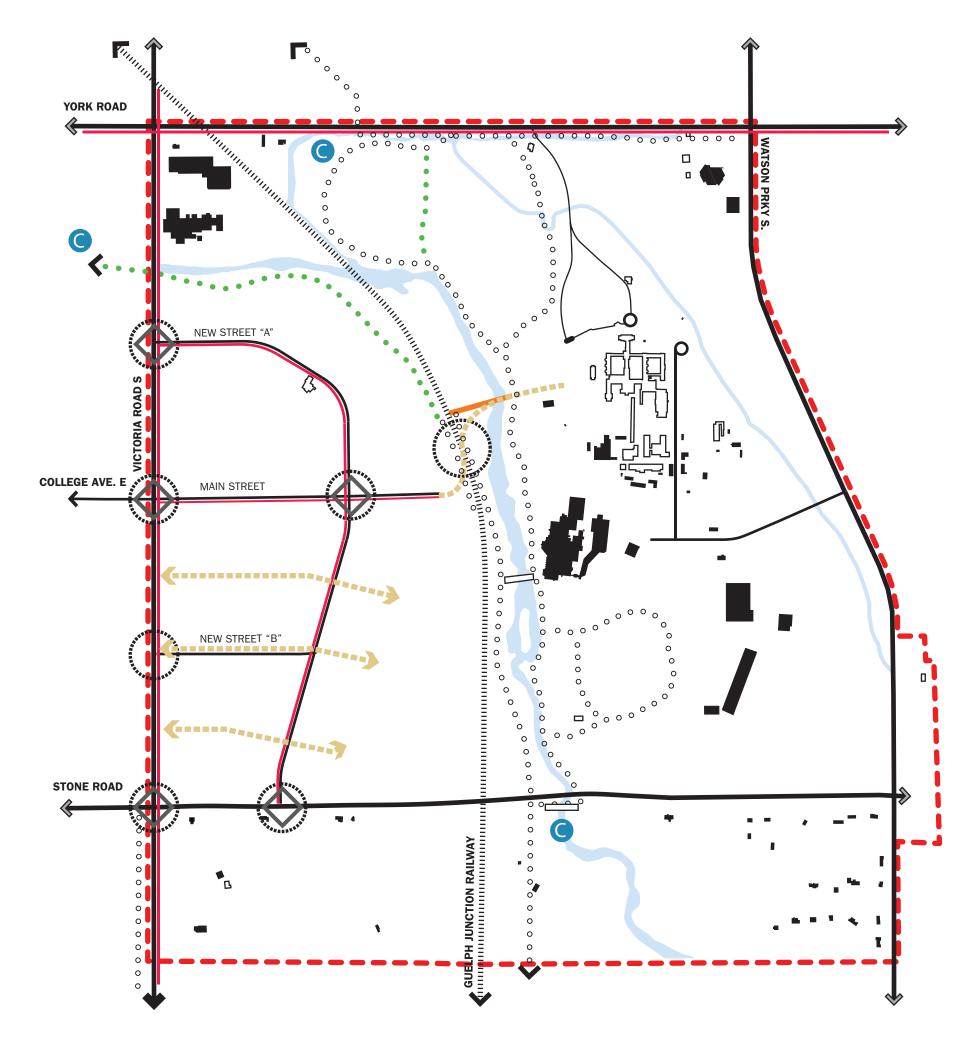
MOBILITY SCHEDULE

Secondary Plan Boundary **Existing Arterial Roads Proposed Collector Roads** Proposed Local Roads Proposed On-Street Bicycle Lanes Existing City Trail Network Proposed City Trail Network Canoe Launch and Node **Pedestrian Crossings** Proposed Major Transit Stops **Existing Rail** Active Transportation Link Node **Existing Built Form** Cultural Heritage Resources

500 Meters

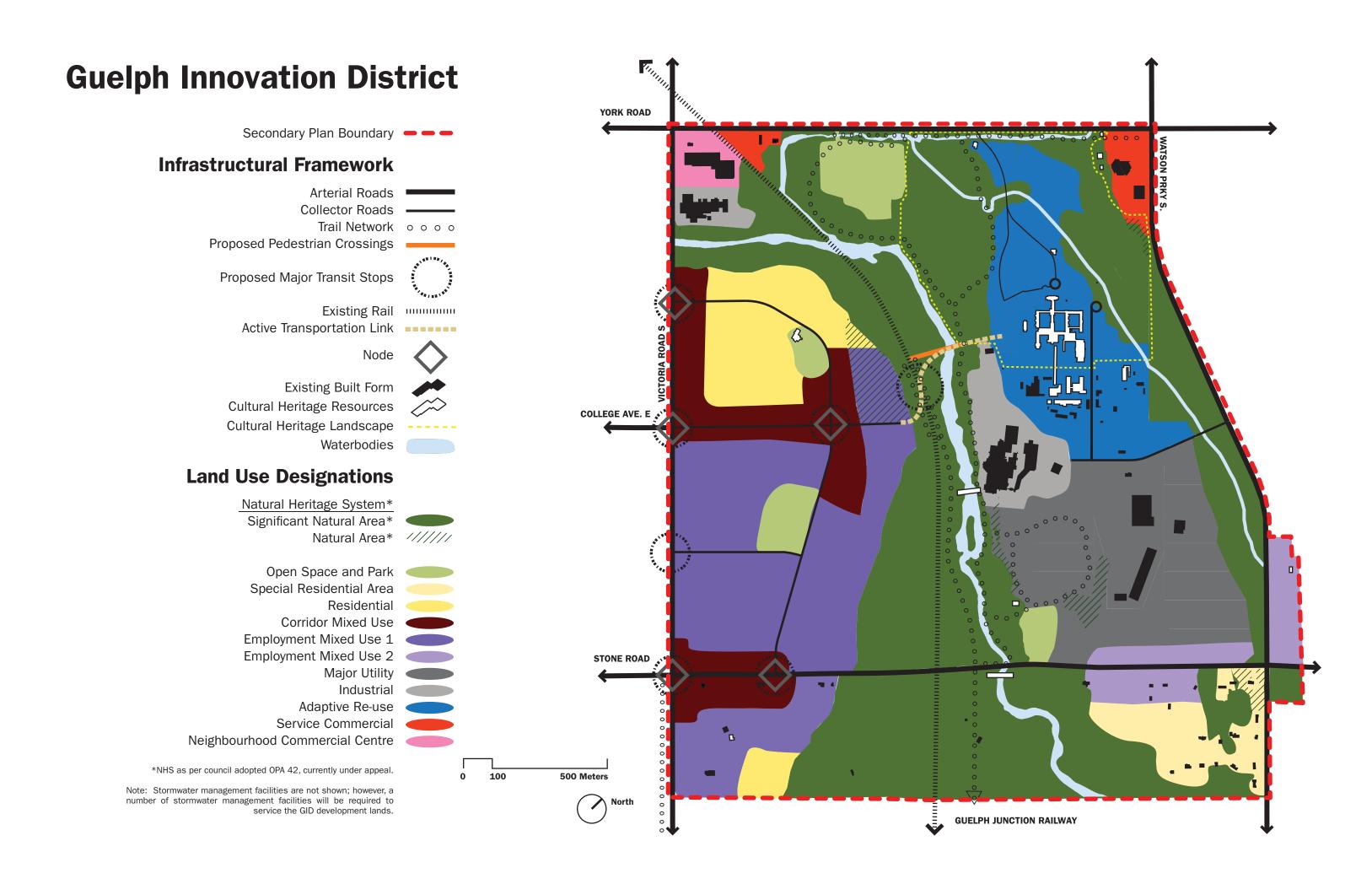
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North



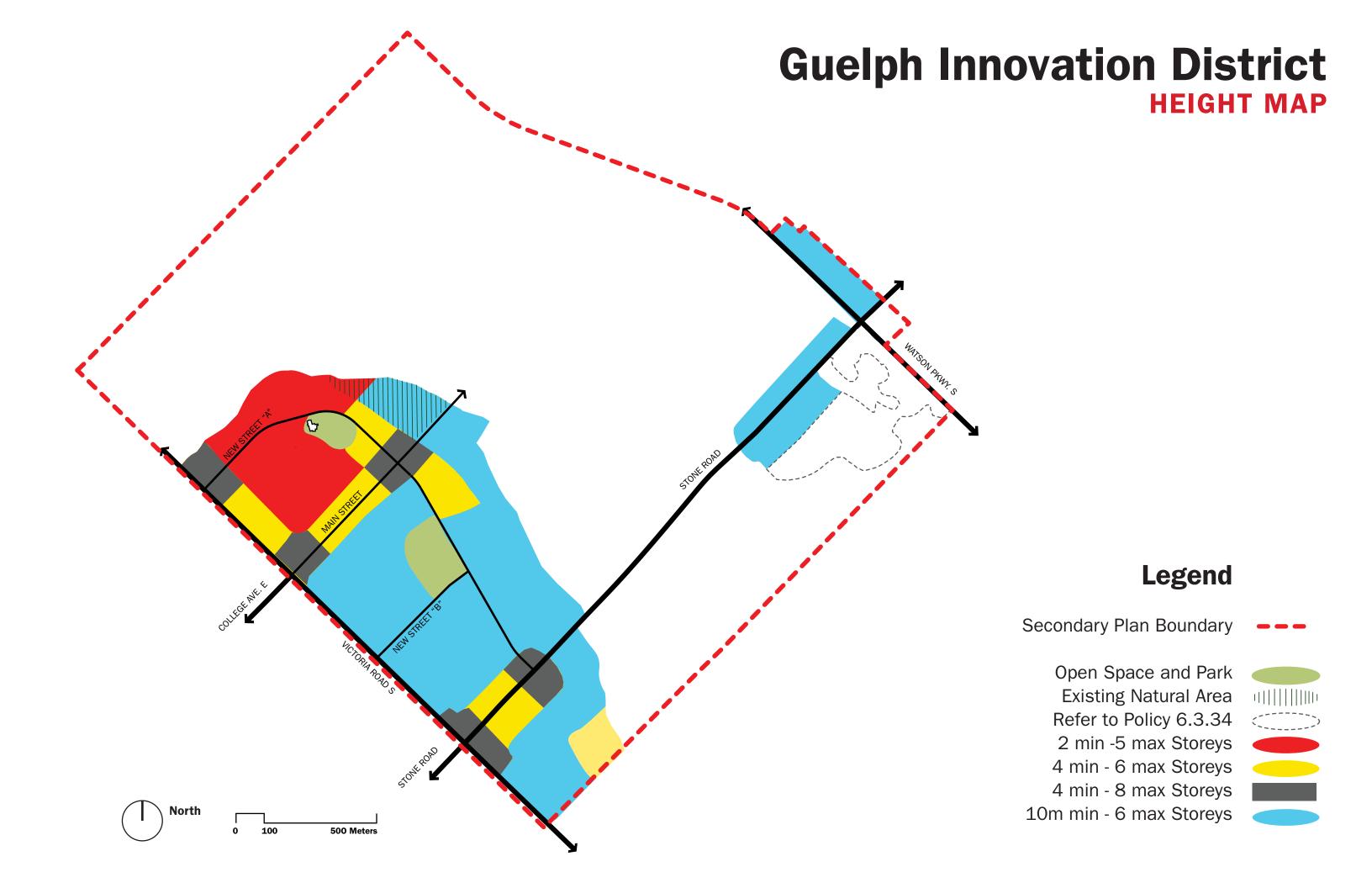
SCHEDULE C: LAND USE





SCHEDULE D: HEIGHT





SCHEDULE E: PHASING



Guelph Innovation District

PHASING PLAN

Secondary Plan Boundary ----

Development Phases

Phase 1
Phase 2
Phase 3
Phase 4
Existing Municipally Serviced Area
Existing Privately Serviced Area

