



# City of Oshawa

## Integrated Columbus Part II Planning Act and Municipal Class Environmental Assessment Act Alternative Solutions Report

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## *Executive Summary*

### *Purpose*

The City of Oshawa initiated an Integrated Planning Act and Municipal Class Environmental Assessment Act Study (the Study) for the Columbus community in June 2017. The Study Area is generally bounded by Howden Road to the north, the Oshawa-Whitby boundary to the west, Winchester Road to the south and the east branch of the Oshawa creek to the east (See Map 1).

The results of the Study are intended to provide a framework to guide growth and development in the Columbus Part II Planning Area, as well as providing direction related to other lands in the Study Area. The Study will take into consideration that the community of Columbus is a unique area of Oshawa with a significant heritage component focused at the existing intersection of Columbus Road and Simcoe Street North. The Study will also consider land use, scale of development, servicing and transportation infrastructure, and the protection and enhancement of environmental and natural features.

The purpose of this Alternative Solutions Report is to describe the proposed land use and road plan alternatives and to summarize the technical analyses of the alternatives completed to date. This report will form the basis for the further review and evaluation of the alternatives

**The Alternative Solutions Report is intended to form one input to the discussion by the City, residents, landowners, agencies and other stakeholders, which will lead to the establishment of a planning framework for the Columbus Part II Planning Area, and other lands in the Study Area. A key part of this planning framework will be not only the Part II Plan, but also the Municipal Class Environmental Assessment Study.**

### *Study Process*

The Study Process will be undertaken in four stages, and as illustrated in Figure 1, the work will be integrated with the Columbus Subwatershed Study (C.S.W.S.).

### *Report Format*

This report is organized as follows:

- Section 1 Introduction;
- Section 2 Planning Policy and Background Considerations;
- Section 3 Land Use and Road Plan Alternatives;
- Section 4 Alternatives: Initial Technical Evaluation; and,
- Section 5 Summary and Conclusions.

## ***Planning Policy Framework***

The Provincial Policy Statement 2014 (P.P.S.), A Place to Grow: Growth Plan for the Greater Golden Horseshoe 2019 (Growth Plan), the Greenbelt Plan 2017, and the Durham Region Official Plan (D.R.O.P.) provide broad policy direction with respect to the City of Oshawa, including the Study Area. However, for the detailed planning required at the Study Area level, the City of Oshawa Official Plan establishes the key policy directions. The Part II Plan and related Official Plan Amendment must be consistent with the directions in the P.P.S., and conform with the Growth Plan, Greenbelt Plan and the D.R.O.P., as well as the City of Oshawa Official Plan.

The P.P.S provides directions related to the creation of efficient land use and development patterns which support sustainability with the intent of creating strong, livable, healthy and resilient communities, protecting the environment and public health and safety and facilitating economic growth. The Growth Plan builds on the policies in the P.P.S. providing more specific direction related to growth management (e.g. density targets, infrastructure), as well as the protection of the environment including natural systems, prime agricultural areas and cultural heritage resources.

The Greenbelt Plan is applicable to a broad band of permanently protected land, including lands in the Study Area, and is designed to protect agriculture as the predominant land use and to protect natural heritage and water resource systems.

The D.R.O.P. and the City's Official Plan both reflect the directions in the P.P.S., Growth Plan and Greenbelt Plan. In addition, both the D.R.O.P. and the City's Official Plan provide more detailed and specific direction applicable to the Study Area. There are also specific directions in the D.R.O.P. of relevance to, or directly related to, Columbus.

The City's Official Plan includes a requirement for a Part II Plan for the Columbus Part II Planning Area and provides specific direction with respect to that Plan, as well as with respect to other areas in the Study Area.

## ***Study Area: Planning Background Considerations***

A series of background reports have been prepared, which together with the results of the Vision Workshop, a land use survey and the C.S.W.S. Phase 1 Report, form the basis for the development of a vision and land use and road plan alternatives, and ultimately the Part II Plan for Columbus. The background studies focus on the Study Area, but where appropriate extend beyond it.

The applicable reports, which are found under separate cover, include:

- Public Information Centre Number 1 Visioning Session Summary;

- Stage 1 Archaeological Assessment, A.S.I., April 24, 2019;
- Cultural Heritage Resource Assessment Study, A.S.I., April 2019;
- Phase 1 Transportation Report, H.D.R., May 2, 2019;
- Background Review Water and Wastewater, Wood, April 29, 2019;
- Demographic, Housing and Economic Analysis, Watson & Associates Economists Ltd., February 28, 2019;
- Retail Background Report – Phase 1, Three Sixty Collective, April 15, 2019; and,
- Sustainable Development Report, Brook McIlroy, April 29, 2019.

As noted, a C.S.W.S. Phase 1 Report has also been prepared which provides an overview of existing watershed and subwatershed conditions, as well as an overview of the natural environment. Phase 2 of the Subwatershed Study Report will include an implementation strategy and environmental monitoring program.

The background studies and review provide the necessary basis for the establishment of a vision and land use and road plan alternatives for Columbus including the Transportation Problem and Opportunity Statement; water and wastewater servicing status; economic, demographic and housing trends; and best practices and principles for sustainable neighbourhood development.

## **Alternatives**

The land use and road plan alternatives build on the foundation of Provincial, Regional and City policy. They also reflect the results of the background analysis and the direction established in the Proposed Vision, Principles and Objectives. Given this base, the alternatives reflect certain common elements:

- **Natural Heritage System**  
All the alternatives assume the protection and enhancement of the Natural Heritage System identified through the C.S.W.S.
- **Columbus Special Policy Area - Existing Community**  
In conformity with the City's Official Plan Policy 2.14.3.1 the existing community is recognized as a Special Policy Area. The intent of this designation is that:  
  
"Future growth shall occur in a manner that is sensitive to the community's historical context and cultural heritage, considering land use compatibility, scale of development, and urban design." It is intended that the policies for this area will establish strong direction which will, as a priority, ensure that any new development is limited and designed to reflect the character of the existing community.

- **Existing Road System**

All the alternatives maintain the existing road system as the basis for a future transportation system.

- **Community Structure**

The existing community in the Special Policy Area will form the centre of Columbus as it does today. However, new development will take the form of the creation of a series of new “hamlet” neighbourhoods, each with its own community facilities to serve as a focal point. The entire community will be linked together by a connected, multi-modal transportation system which supports choice of movement for cars, transit, pedestrians, and cyclists within Columbus and to other areas of the City and the Region.

The three alternatives are found on Maps 3,4 and 5. Each provides a different land use and road configuration. With respect to the road network:

- Alternative 1 provides a system with minimal connectivity;
- Alternative 2 identifies a system with a Simcoe Street By-pass; and,
- Alternative 3 reflects a system based on the recommendations of the City of Oshawa Transportation Master Plan (T.M.P.).

The proposed land use and road plans provide variations in the Community Structure described above with differences relating to the extent and configuration of the different land use designations. In all cases, the proposed land use designations include the same permitted uses, density and height all of which conform to the directions in the City’s Official Plan. The projected population and employment for each Alternative is found in Table 4. The people and jobs per hectare range from Alternative 1 having the highest density (51 -73) to Alternative 3 with the lowest (48-69).

The results of the preliminary technical assessment indicate that:

- **Transportation** – It is recommended that Alternative 2 has been identified as preferred from a transportation perspective to be carried forward to a broader evaluation of the land use and road plan alternatives.
- **Water and Wastewater Services** - The servicing concepts for the three alternatives are not significantly different from each other with the exception of extra sewage pumping stations in Alternatives 2 and 3; and follow the area topography and the proposed road network. As a result, the opinions of probable cost for water and wastewater servicing for Alternatives 2 and 3 are very similar. However, the wastewater servicing concept for Alternative 1 is associated with the least cost, whereas the water servicing concept for Alternative 2 is associated with the least cost.

- Natural Environment Considerations – A range of factors were examined including terrestrial and aquatic natural heritage, fluvial geomorphology, surface water and hydrogeology. Generally, Alternatives 1 and 2 were preferred over Alternative 3 primarily because of the more limited watercourse crossings.
- Fiscal Impact – Watson & Associates Economists Ltd. (Watson) have carried out a fiscal impact analysis of the proposed alternatives. They have concluded that property taxes at 2019 rates would sufficiently fund the annual program/service cost demands and maintenance of incremental infrastructure for each Alternative. However, current rates would be deficient to fund the long-term lifecycle capital obligations of the incremental assets. Based on this analysis, Watson has concluded that Alternative 1 will provide the least fiscal impact to the City followed by Alternative 2 and then Alternative 3.

The preliminary assessment provides input as part of the on-going broader evaluation of the alternatives.

## 1. Introduction

### 1.1 Background

The City of Oshawa initiated an Integrated Planning Act and Municipal Class Environmental Assessment Act Study (the Study) for the Columbus community in June 2017<sup>1</sup>. The Study Area is generally bounded by Howden Road to the north, the Oshawa-Whitby boundary to the west, Winchester Road to the south and the east branch of the Oshawa creek to the east (See Map 1).

The Study is focused on the Columbus Part II Planning Area as identified on Schedule “E” to the Oshawa Official Plan (See Map 2). The Columbus Planning Area expansion was added to the City’s Part II Planning Areas in 2016 through Amendment 179 to the Oshawa Official Plan. A portion of the Columbus lands was subject to a Deferral and its inclusion as a proposed expansion area was addressed at an L.P.A.T. hearing on April 17, 2019. The Tribunal, in a decision dated October 21, 2019, approved the inclusion of the deferred portion of the Columbus expansion area in the urban area.

Development within the Columbus Part II Planning Area will impact matters such as the environment, land use, transportation and servicing infrastructure not only within the Columbus Planning Area itself, but also in the surrounding area. Accordingly, the Study Area includes lands beyond the designated Part II Plan Area, specifically:

- Proposed Living Area subject to Policy 14.13.7 of the Regional Official Plan (See Map 3 – Lands identified as D3);
- Parts of the Provincial Greenbelt Plan Area which correspond to lands forming part of the east and west branches of the Oshawa Creek (See Map 3);
- The South Columbus Industrial Area which is generally bounded by Highway 407 East to the south, the Oshawa-Whitby boundary to the west, a future Type “C” arterial road to the north and the Major Urban Area boundary to the east (See Map 3); and,
- The Columbus Whitebelt Area (i.e. lands between the boundary of the Greenbelt Plan and the boundary of the City’s urban area) currently designated as “Prime Agricultural” and “Open Space and Recreation” in the Oshawa Official Plan and located to the northwest and southeast of the Columbus Part II Planning Area (See Map 3).

The results of the Study are intended to provide a framework to guide growth and development in the Columbus Part II Planning Area, as well as providing direction

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<sup>1</sup> City of Oshawa Council considered Report DS-17-25 on June 26, 2017 and adopted recommendations which initiated the Study.



related to other lands in the Study Area. The Study will take into consideration that the community of Columbus is a unique area of Oshawa with a significant heritage component focused at the existing intersection of Columbus Road and Simcoe Street North. The Study will also consider land use, scale of development, servicing and transportation infrastructure, and the protection and enhancement of environmental and natural features.

Specific objectives of the Study are to:

- Facilitate the future development of the Columbus Part II Plan Area;
- Achieve minimum population and job density targets identified in Provincial policies;
- Ensure that development conforms to the Durham Region and Oshawa Official Plans;
- Emphasize sustainable development and the protection and enhancement of environmental and natural features;
- Protect lands along the Highway 407 East corridor for future employment uses;
- Advance development that is compliant with the requirements of the Municipal Class Environmental Assessment process; and,
- Ensure development occurs in a manner that is sensitive to the historic Columbus community.

The Oshawa Official Plan also requires the Columbus Subwatershed Study (C.S.W.S.) to be completed prior to the approval of the Part II Plan. The C.S.W.S. Phase 1 Characterization Report was circulated for review in May 2017. Comments were provided from the City and the Central Lake Ontario Conservation Authority in the summer and fall of 2017. Consultation and additional field reconnaissance were completed in 2018. The updated Phase 1 Characterization Report was circulated for review in February 2019. The Phase 2 report is anticipated to be prepared in 2020 upon receipt of the Preferred Alternative which will be established as part of the Part II Plan process. The timeline for the balance of the C.S.W.S. work (i.e. implementation and monitoring) is anticipated to be completed in approximately two months after the Recommended Plans are established as part of the Part II Plan process.

The purpose of this Alternative Solutions Report is to describe the proposed land use and road plan alternatives and to summarize the technical analyses of the alternatives completed to date. This report will form the basis for the further review and evaluation of the alternatives

**The Alternative Solutions Report is intended to form one input to the discussion by the City, residents, landowners, agencies and other stakeholders, which will lead to the establishment of a planning framework for the Columbus Part II Planning Area, and other lands in the Study Area. A key part of this planning framework will be not only the Part II Plan, but also the Municipal Class Environmental Assessment Study.**

## **1.2 Study Process**

The Study Process will be undertaken in four stages, and as illustrated in Figure 1, the work will be integrated with the Columbus Subwatershed Study (C.S.W.S.).

## **1.3 Report Format**

This report is organized as follows:

- Section 1 Introduction;
- Section 2 Planning Policy and Background Considerations;
- Section 3 Land Use and Road Plan Alternatives;
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- Section 5 Summary and Conclusions

## 2. Planning Policy and Background Considerations

Stage 1 of the Study included a range of background studies, the results of which are summarized in the Integrated Columbus Part II Planning Act and Municipal Class Environmental Assessment Act Study Planning Background Considerations Report, May 2019. The major key conclusions of the background review which formed the context for the development of the land use and road plan alternatives are summarized below.

### 2.1 Planning Policy Context

The Provincial Policy Statement 2014 (P.P.S.), A Place to Grow: Growth Plan for the Greater Golden Horseshoe 2019 (Growth Plan), the Greenbelt Plan 2017, and the Durham Region Official Plan (D.R.O.P.) provide broad policy direction with respect to the City of Oshawa, including the Study Area. However, for the detailed planning required at the Study Area level, the City of Oshawa Official Plan establishes the key policy directions. The Part II Plan and related Official Plan Amendment must be consistent with the directions in the P.P.S., and conform with the Growth Plan, Greenbelt Plan and the D.R.O.P., as well as the City of Oshawa Official Plan.

The P.P.S. provides directions related to the creation of efficient land use and development patterns which support sustainability with the intent of creating strong, livable, healthy and resilient communities, protecting the environment and public health and safety and facilitating economic growth. The Growth Plan builds on the policies in the P.P.S. providing more specific direction related to growth management (e.g. density targets, infrastructure), as well as the protection of the environment including natural systems, prime agricultural areas and cultural heritage resources.

The Greenbelt Plan is applicable to a broad band of permanently protected land, including lands in the Study Area, and is designed to protect agriculture as the predominant land use and to protect natural heritage and water resource systems.

The D.R.O.P. and the City's Official Plan both reflect the directions in the P.P.S., Growth Plan and Greenbelt Plan. In addition, both the D.R.O.P. and the City's Official Plan provide more detailed and specific direction applicable to the Study Area. Key themes in the P.P.S., Growth Plan, the Greenbelt Plan, D.R.O.P. and the City's Official Plan which are relevant to the Study Area include:

- A strong focus on the creation of efficient and resilient development and land use patterns in particular, a focus on intensification in the built-up area, and, in greenfield areas, a focus on compact form, a mix of uses and increased densities while recognizing that the level of intensification/density should be based on local conditions;

- The creation of healthy, active and complete communities through a focus on strong and sustainable urban design, and the provision of community facilities that support a high quality of life;
- Recognition of the link between the management of growth and the provision of infrastructure and the need to integrate servicing and land use considerations at all stages of the planning process;
- Ensuring that development is phased, includes a mix of uses, and is at a density which appropriate for, and efficiently uses existing and planned infrastructure and which avoids unjustified and/or uneconomical expansions;
- Providing for an appropriate range of housing types and densities to meet projected requirements including affordable housing;
- Planning for an appropriate mix and range of employment to meet long term needs, including planning for, protecting and preserving employment areas;
- Establishment of a transportation system which offers a balance of transportation choices and places a priority on transit, cycling and walking;
- Protection, maintenance, restoration and, where possible, improvement of the natural heritage system and protection of the quantity and quality of surface and groundwater resources;
- Protection of prime agricultural areas;
- Conservation of significant built heritage resources and cultural heritage landscapes, as well as the protection of archaeological resources;
- Establishing a culture of conservation and addressing climate change through mitigation and adaptation; and,
- Directing development away from areas of natural or human-made hazards.

Specific directions in the D.R.O.P. of relevance to, or directly related to, Columbus include:

- Recognition of the need to mitigate the impacts of Regional Roads in urban areas including provision for initiation of a streetscape improvement program along Regional roads in Urban Areas and consideration of establishment of by-passes after a By-Pass Study; and,

- Direction that where urban development is designated in areas presently characterized by agricultural activities, an orderly withdrawal of agricultural activities shall be secured.

The City's Official Plan includes a requirement for a Part II Plan for the Columbus Planning Area as follows:

"A Part II Plan shall be prepared for the Columbus Planning Area in accordance with Policy 8.1.5 and any other relevant policies of this Plan, including Policies 2.14.3.1 and 2.6.4.5. The boundary between the Columbus Part II Plan area and the South Columbus Industrial Area east and west of Simcoe Street North is conceptually defined by a future Type "C" arterial road and may shift depending on the final alignment of the road." (See Maps 2 and 3)

The policy goes on to discuss the requirement that policy language shall be included in the Part II Plan to "ensure that landowners have entered into the appropriate cost sharing agreements". It should also be noted that Schedule E – Part II Plan Areas identifies the Columbus Planning Area (See Map 2).

The referenced policies in Policy 8.2.2 are:

- Policy 8.1.5 which directs that Part II Plan areas shall be developed to generally 75% of an area designated Residential prior to development in adjacent Part II Plans.
- Policy 2.14.3.1 applies to the Columbus Special Development Area and recognizes that "the community of Columbus is a unique area in the City of Oshawa, particularly the historic four corners at the main intersection of Columbus Road and Simcoe Street North and the approaches along Simcoe Street North and Columbus Road leading to the main intersection. Future growth shall occur in a manner that is sensitive to the community's historical context and cultural heritage, considering land use compatibility, scale of development, and urban design. These matters shall be considered during the preparation of a Part II Plan for the Columbus Planning Area in accordance with Policy 8.2.2 of this Plan."
- Policy 2.14.3.2 which also applies to the Columbus Special Development Area then directs that pending preparation of the Part II Plan, development within the Special Development Area identified on Schedule "A" "shall be guided by the Development Plan for the Hamlet of Columbus" subject to certain exceptions and additional directions (See Map 4 Development Plan for the Hamlet of Columbus).

- Policy 2.6.4.5 is a site specific policy which permits the lands known municipally as 3522 Simcoe Street North for a golf course and related activities.

It should also be noted that Policy 2.4.5.19 limits the uses permitted in the lands designated Industrial fronting on Simcoe Street North north of Highway 407 East to ensure that they are compatible with and sensitive to the heritage character of Columbus and the gateway location.

Other policies which should be noted relate to transportation as follows:

- Section 3.2, Roads System relates to the road system as designated on Schedule B – Road Network North Half (See Map 5). This identifies Simcoe Street North, Ritson Road, Thornton Road and Columbus Road as Type “B” Arterial Roads, while a network of Future Type ‘C’ Arterial Roads is also identified. The policies provide direction with respect to the design of the road system including Table 5: Classification of Roads. In particular, Policy 3.2.19 provides that the City supports a balanced approach to Level of Service (LOS) measures...and may be prepared to use a variety of techniques depending on the function of the road....”. Further, Policy 3.2.20 relates to a requirement for corridor plans, in concert with Municipal Class Environmental Assessments for major road works or significant plans, “to provide a vision for the design of arterial road corridors within the City over time”. Policy 3.2.25 also notes that lands in the Greenbelt are subject to the relevant provisions of the Greenbelt Plan.
- Section 3.3 Public Transit states that the City “shall encourage increased public transit usage and transit-supportive design of developments.” Schedule B-1, Transit Priority Network (See Map 6) identifies Simcoe Street North and Columbus Road, west of Simcoe Street North as “Regional Transit Spines”. A Future Commuter Station is also identified south of Highway 407 East at the interchange with Simcoe Street North which is also identified as a Transportation Hub.
- Section 3.4 Walking and Cycling System outlines that the City will work with the Region to develop a walking and cycling system and identifies specific design and development strategies for such a system.
- Section 3.6 Transportation Demand Management provides direction with respect to promotion of alternative modes of transportation.

## **2.2 Planning Background Considerations**

A series of background reports have been prepared, which together with the results of the Vision Workshop, a land use survey and the C.S.W.S. Phase 1 Report, formed the basis for the development of a vision and land use and road plan alternatives, and

ultimately the Part II Plan for Columbus. The background studies focus on the Study Area, but where appropriate extend beyond it.

The applicable reports, which are found under separate cover, include:

- Public Information Centre Number 1 Visioning Session Summary;
- Stage 1 Archaeological Assessment, A.S.I., April 24, 2019;
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- Sustainable Development Report, Brook McIlroy, April 29, 2019.

As noted, a C.S.W.S. Phase 1 Report has also been prepared which provides an overview of existing watershed and subwatershed conditions, as well as an overview of the natural environment. Phase 2 of the Subwatershed Study Report will include an implementation strategy and environmental monitoring program.

The following outlines the major key background considerations which have the potential to affect the form of development in the Study Area.

- **Existing Land Use** - The majority of the lands in the Study Area are used for agriculture. There are also a number of rural residential lots, as well as other uses in the rural area. The community of Columbus is focused on the intersection of Simcoe Road North and Columbus Road. The community is primarily composed of single detached dwellings, however there are a few institutional and commercial uses primarily fronting on Simcoe Street North.
- **Physiography and Topography** - The topography is more regular compared to the hummocky terrain of the Oak Ridges Moraine with these lands generally sloping southward at an average slope of two percent. Local variations in the slope also occur along the tributary valleys, which sharply cut into the lands of the South Slope and direct drainage southward to the topographic low point of the Study Area. This is situated near the southwestern corner of the Study Area.
- **Natural Heritage** –The components of the Natural Heritage System include significant woodlands, wetlands, and wildlife habitat network, as well as hazard lands. The components of the Natural Heritage System are primarily focused along the stream corridors in the Study Area.
- **Hydrogeology** –Groundwater table mapping indicates that shallow groundwater flow through the subsurface of the Study Area, as well as groundwater that

moves through the deeper aquifer systems, generally mimics ground surface topography, with flow predominately moving in a south to southwesterly direction. In addition, the potential locations of Highly Vulnerable Aquifers, High Volume Recharge Areas and Ecologically Significant Groundwater Recharge Areas are identified.

- **Fisheries, Aquatic and Headwater Assessment** -This assessment characterized the existing aquatic features and identifies key habitats that would result in a constraint to development. It concluded that the Raglan West Branch and the East Oshawa Creek are coldwater systems supporting populations of salmonids. The Raglan tributaries exhibit groundwater discharge and cold to cool stream temperatures, habitat characteristics that are representative of coldwater fish habitat. The Grandy Pond, however, forms a distinct barrier to fish that could possibly migrate to the Raglan tributaries. The pond also has a thermal impact of the reaches of the Raglan Main Branch downstream of the dam. Guidance is provided with respect to minimum vegetation protection zones.
- **Surface Water Assessment** –Updated existing conditions flood hazard mapping has been prepared. This mapping results in slightly greater flood hazard extents when compared to background Central Lake Ontario Conservation Authority mapping. Flood hazard mapping is generally confined to the valley corridor system.
- **Archaeological Assessment** - The Stage 1 Archaeological Assessment concluded that approximately 64% or 1002 hectares of the Study Area exhibits potential for the presence of Indigenous and/or Euro-Canadian archaeological resources. It is recommended that unless entirely confined to areas that have already been assessed and cleared of any further archaeological concern, any future developments be preceded by a Stage 2 Archaeological Assessment. Two sites are recommended for Stage 3 Assessments.
- **Cultural Heritage** - The Cultural Heritage Resource Assessment determined that there are:
  - Three properties designated under Part IV of the Ontario Heritage Act;
  - 29 Class A or Class B cultural heritage resources based on the Heritage Oshawa Inventory of City of Oshawa Heritage Properties; and,
  - 30 potential cultural heritage resources identified during the field review.

The identified potential resources may be candidates for conservation and integration into future land uses in the Study Area, and should be subject to



cultural heritage impact assessments as part of subsequent development planning applications.

- **Transportation** - The Phase 1 Transportation Report based on the background analysis proposes a Problem and Opportunity Statement which will form the basis for the transportation infrastructure needs to be addressed as part of Phase 2 of the Municipal Class Environmental Assessment Process as follows:

*Columbus is a small, tight knit community in north Oshawa. Because of its distance to the core of the City, travel in the area is dominated by the personal automobile. As a result, there are existing concerns about high traffic volumes and speeding through the community.*

*The development of Columbus through the Study presents an opportunity to address these concerns while also improving the Study Area transportation network for all travel modes – including pedestrians, cyclists, transit and vehicles. The Study will seek to address these opportunities by building upon the recommendations of the Durham T.M.P. and the City of Oshawa Integrated T.M.P. to identify a transportation network that supports anticipated growth and is safe, accessible and comfortable for users of all ages and abilities.*

- **Transportation** - Specific problems and opportunities identified through the detailed analysis and consultation activities are detailed in Table 1 and will be addressed in Phase 2.

**Table 1 Key Transportation Issues**

<b>Problem</b>	<b>Opportunity</b>
Existing and future background traffic conditions experience critical movements at select intersections.	Evaluate future traffic conditions and improve intersection operations to accommodate demand.
Safety and operational concerns at various intersections and in the study area.	Evaluate intersection- related and segment-related countermeasures and treatments, such as speed and traffic calming measures which may include community safety zones, speed limits and neighbourhood traffic management programs. Consider alternative solutions which divert traffic away from locations with high average collision rates.
Transit service is not frequent and is not provided on Sundays.	Evaluate transit ridership and potential to expand/ improve service and provide connections to future multimodal node at

Problem	Opportunity
	Highway 407 East and Simcoe St. N.
Lack of continuous pedestrian and cyclist facilities for all users.	<p>Provide continuous sidewalks on both sides of Simcoe St. North, Columbus Rd. and other arterial roads.</p> <p>Consider cycling facilities along Simcoe St. North to connect to the Greenbelt Cycling Route along Raglan Rd.</p> <p>Evaluate the proposed Active Transportation (A.T.) network and provide recommendations for other connections to existing Greenbelt trails.</p> <p>Develop a well-connected pedestrian and cyclist network on proposed collector networks throughout the Part II Plan area.</p>

- **Water and Wastewater Servicing** - The Region of Durham is the owner of the Wastewater Collection and Treatment System and Water Supply and Transmission System. The Columbus Part II Plan Area is within planned service areas, however, all sewer and water projects are subject to Class Environmental Assessments and project dates are a forecast and subject to Durham Region Council approval on an annual basis.
- **Demographics and Housing** - Oshawa is anticipated to experience steady urban residential and non-residential growth in the next 25 years. Columbus will play a role in accommodating this new development. Columbus is expected to attract a broad range of demographic groups who will be accommodated in a range of ground oriented housing forms, and to a lesser extent other housing forms. Relative to other areas of the City, the population is anticipated to be slightly younger and slightly more affluent. Employment uses will be primarily focused on retail, mixed-use commercial and institutional employment sectors. However, a portion of the City’s multi-tenant office space is anticipated to be accommodated in Columbus.
- **Retail** - A trade area based on a ten minute drive was established for the retail commercial inventory (see Figure 2). The key conclusions of the review are:

  - The existing retail in the trade area is primarily local serving;

- The 1.3 million square feet of retail commercial at the proposed Windfields Planned Commercial Centre – Main has not yet been built, making it difficult to determine the retail potential for the Study Area; and,
  - Brooklin (Whitby) may offer a good indication of the amount and type of retailing that could be accommodated in the Study Area.
- **Sustainable Development** - Sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainability principles are identified related to the following categories which include consideration of the climate change implications:
    - Mobility and connectivity
      - Walkable, Vibrant Streets;
      - Well Connected Street Networks;
      - Access to Transit; and,
      - Active Transportation Networks.
    - Built Environment
      - Compact Development;
      - Mixed Land Uses and Mixed Use Development;
      - Green Buildings; and
      - Low Impact Development.
    - Natural Systems
      - Preserve Existing Significant Natural Systems;
      - Flood Protection and Avoidance; and,
      - Natural Hazards.
    - Community Integration
      - Diverse Housing Supply;
      - Accessibility; and,
      - Community Engagement.

## 2.3 Conclusions

The City and Region have designated for development significant areas of the Study Area subject to the preparation of a Part II Plan and other technical work including the C.S.W.S. The Provincial, Regional and City planning policy framework provides strong direction with respect to the form of development (e.g. creation of efficient land use and development patterns, creation of healthy, active and complete communities) and the protection of the natural environment (e.g. protection, maintenance, restoration and, where possible, improvement of the natural heritage system and protection of the quantity and quality of surface and groundwater resources). At the same time, the policy framework provides the latitude to recognize that any development must reflect

the fact Columbus is a unique area of Oshawa with a significant heritage component focused at the existing intersection of Columbus Road and Simcoe Street North.

The background studies and review provide the necessary basis for the establishment of a vision and land use and road plan alternatives for Columbus which respects its unique character, including the Phase 1 Archaeological Assessment, Cultural Heritage Resource Assessment, Transportation Problem and Opportunity Statement; water and wastewater servicing status; economic, demographic and housing trends; and best practices and principles for sustainable neighbourhood development including consideration of climate change implications.

### 3. Land Use and Road Plan Alternatives

#### 3.1 Context

The land use and road plan alternatives build on the foundation of Provincial, Regional and City policy. They also reflect the results of the background analysis and the direction established in the Proposed Vision, Principles and Objectives (See Table 2). Given this base, the alternatives reflect certain common elements:

- **Natural Heritage System**

All the alternatives assume the protection and enhancement of the Natural Heritage System identified through the C.S.W.S.

- **Columbus Special Policy Area- Existing Community**

In conformity with the City's Official Plan Policy 2.14.3.1 the existing community is recognized as a Special Policy Area. The intent of this designation is that:

“Future growth shall occur in a manner that is sensitive to the community's historical context and cultural heritage, considering land use compatibility, scale of development, and urban design.” It is intended that the policies for this area will establish strong direction which will, as a priority, ensure that any new development is limited and designed to reflect the character of the existing community.

- **Existing Road System**

All the alternatives maintain the existing road system as the basis for a future transportation system.

- **Community Structure**

The existing community in the Special Policy Area will form the centre of Columbus as it does today. However, new development will take the form of the creation of a series of new “hamlet” neighbourhoods, each with its own community facilities to serve as a focal point. The entire community will be linked together by a connected, multi-modal transportation system which supports choice of movement for cars, transit, pedestrians, and cyclists within Columbus and to other areas of the City and the Region.

**Table 2  
Proposed Vision and Principles**

**Vision**

Columbus will be a vibrant, healthy and complete urban community that is focused on the historic four corners at the intersection of Columbus Road and Simcoe Street North and the approaches to the intersection. Future growth will be sensitive to the Community’s historical context and cultural heritage, considering land use compatibility, scale of development, and urban design. The Natural Heritage System and a system of parks, open spaces and trails will provide the framework for the balanced, sustainable development of the community including interconnected neighbourhoods.

**Principles and Objectives**

**1. Vibrant and Complete Community**

Create a vibrant, complete community composed of neighbourhoods which reflect the historical context, are pedestrian oriented and human-scaled, and integrated with the natural environment and surrounding rural area.

**Objectives:**

- Promote the development of inspiring, meaningful and memorable places and neighbourhoods that reinforce the history and cultural heritage of Columbus, including new public spaces for gathering and recreation.
- Create a compact, walkable, accessible community composed of neighbourhoods which are connected internally and externally with the surrounding rural area and the rest of the City.
- Focus higher density, mixed use development along the Simcoe Street North and establish a detailed streetscape plan to reinforce the area as a “main street” for Columbus and a gateway to the community.
- Provide opportunities for commercial amenities and community services, including schools and parks and recreation facilities within walking distance for residents.
- Identify and conserve cultural heritage resources.
- Ensure that transitions between new development and the surrounding rural area and future industrial uses are carefully and appropriately addressed.

**2. Healthy and Sustainable**

Design the community for healthy, active living. Provide a mix of land uses including a diversity of housing choices at appropriate densities with appropriate municipal services to ensure long-term sustainable development which is fiscally responsible.

**Table 2**  
**Proposed Vision and Principles**

**Objectives:**

- Provide for a diversity of housing types and, in particular, opportunities for affordable housing.
- Provide for a mix of land uses appropriate to the character of the community.
- Ensure development and infrastructure design is fiscally responsible.
- Establish urban design, land use and engineering policies that address the interaction between the site, building and mobility infrastructure design and grading.

**3. Connected with Mobility Choice**

Establish a multi-modal mobility network that provides choice and connects neighbourhoods to each other, the surrounding rural area and the rest of the City. Create a network of parks, open spaces and trails to provide opportunities for active and passive recreation, as well as active transportation choices.

**Objectives:**

- Establish a modified grid road system that allows for traffic movement and dispersion for all modes of travel.
- Establish road and mobility design and urban design policies and standards which create a walkable community and complete streets.
- Provide facilities within the public and private realm which encourage cycling, including off-road cycling facilities.
- Design to support transit service on Simcoe Street North and Columbus Road West, and ultimately throughout the community.
- Manage parking in a manner that supports transportation and urban design objectives.
- Establish a network of parks, open spaces and trails including locations of such facilities adjacent to the Natural Heritage System where appropriate.
- Balance views and access from development to the Natural Heritage System with protection of its function.

**4. Balanced and Livable**

A valued and livable community which reflects the right balance between protecting the environment and fostering a healthy, equitable and complete community.

**Objectives:**

- Ensure the Natural Heritage System is protected while creating a complete and diverse community.

<b>Table 2 Proposed Vision and Principles</b>	
<ul style="list-style-type: none"> <li>• Design development to reflect healthy, accessible and sustainable neighbourhood design principles.</li> <li>• Accommodate a share of the City’s greenfield growth to 2041 appropriate to the character of the community.</li> </ul>	
<p><b>5. Green and Resilient</b> Protect, maintain, restore, and where possible, improve water resources and the Natural Heritage System. Support resiliency and environmental sustainability through measures such as energy efficiency, water conservation and green infrastructure.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Integrate innovative stormwater management, water conservation and reuse, and other green infrastructure practices.</li> <li>• Promote energy efficient design.</li> <li>• Design to protect natural heritage features and water resources and for natural hazard protection and avoidance.</li> </ul>	

### 3.2 Land Use and Road Plan Alternatives

The three Alternatives are found on Maps 3, 4 and 5. Each provides a different land use and road configuration. With respect to the road network:

- Alternative 1 provides a system with minimal connectivity;
- Alternative 2 identifies a system with a Simcoe Street By-pass; and,
- Alternative 3 reflects a system based on the recommendations of the City of Oshawa Transportation Master Plan (T.M.P.).

The proposed land use and road plans provide variations in the Community Structure described above with differences relating to the extent and configuration of the different land use designations. In all cases, the proposed land use designations include the same permitted uses, density and height which conform to the directions in the City’s Official Plan as set out in Table 3. The projected population and employment for the Part II Plan Area for each Alternative is found in Table 4.

<b>Table 3 Land Use Designations</b>			
<b>Designation</b>	<b>Main Permitted Uses</b>	<b>Density</b>	<b>Policy Direction</b>
Low Density Residential	Single Detached Semi-Detached Duplex	26-35 units per net hectare(u.p.n.h.)	Development designed in keeping with the residential heritage character of existing community including
Medium Density Residential I	Single Detached Semi-Detached	35-60 u.p.n.h.	



<b>Table 3 Land Use Designations</b>			
<b>Designation</b>	<b>Main Permitted Uses</b>	<b>Density</b>	<b>Policy Direction</b>
	Duplex Street and Back- to-Back Townhouses		features such as: <ul style="list-style-type: none"> <li>• Materials;</li> <li>• Roof design; and,</li> <li>• Relationship to street.</li> </ul>
Medium Density Residential II	Townhouses Low Rise Apartments	60-85 u.p.n.h.	
High Density Residential I	Low Rise and Medium Rise Apartments	85-150 u.p.n.h.	Location on Simcoe Street North with a significant separation distance from the Columbus Special Policy Area.
Mixed Use	Townhouses Low Rise Apartments Mixed commercial- residential development Institutional uses Office uses	60-85 u.p.n.h.	Mixed commercial-residential development may include vertical or horizontal development. The location of commercial uses will be carefully evaluated to confirm market demand, and a design and location which will ensure the pedestrian and vehicular traffic critical for long term retail success.
Prime Agriculture	Agricultural uses Agricultural- related uses Secondary agricultural uses	Not applicable (N.A.)	The intent of this designation is to preserve quality farmland.
Employment	Employment uses	N.A.	Uses whose nature and/or business needs may require access to the 407 East, separation from sensitive uses or proximity to similar uses including manufacturing, warehousing and storage and offices.
Community Park	Major recreation and sports facilities	8 - 12 hectares	Community parks are intended to provide a range of indoor and

<b>Table 3 Land Use Designations</b>			
<b>Designation</b>	<b>Main Permitted Uses</b>	<b>Density</b>	<b>Policy Direction</b>
			outdoor recreational opportunities. They are primarily intended to accommodate active sports and recreational activities, but may include areas of passive recreation. Three alternative locations are provided for consideration.
Elementary and Secondary Schools	Schools and accessory or related uses such as day care centres	Size in accordance with School Board requirements	Schools should be designed to be compatible with any surrounding residential uses.
Park	Neighbourhood oriented recreation and sports facilities including playgrounds, sports fields, tennis and ball courts.	1.8 – 4 hectares except for tot lots, parkettes and other small parks	Neighbourhood Parks are intended to serve the immediate park and recreational needs of the neighbourhood planning area through the provision of active and passive recreational opportunities.
Community Hub	A public or non-profit use including a school, recreation centre, early learning centre, library, seniors centre, community health centre, place of worship or other public space.	N.A.	A Community Hub is a central access point for a range of social and/or health services along with cultural, recreational, and green spaces. It is a gathering place for the community to live, build and grow together.

Integrated Columbus Part II Planning Act and  
Municipal Class Environmental Assessment Act Study Alternative Solutions Report

**Table 4**  
**Part II Plan Area Population and Employment**

Alter- native	Gross Area (Ha)	Units (Res)		Population		Jobs		Pop + Jobs (Total)		Pop + Jobs / Ha.	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1	445.47	8,183	11,862	22,307	32,103	570	570	22,609	32,405	51	73
2	445.48	7,961	11,550	21,823	31,435	562	562	22,117	31,729	50	71
3	445.47	7,767	11,448	20,938	30,539	566	566	21,236	30,837	48	69

## 4. Alternatives: Initial Technical Evaluation

### 4.1 Initial Evaluation

The technical evaluation of the alternatives has been initiated and is reported on in the following:




- Integrated Columbus Part II Planning Act and Municipal Class Environmental Assessment Act Study Phase 2 Transportation Report, HDR, November 13, 2019;
- Servicing Concepts for Water and Wastewater - Integrated Columbus Part II Planning Act and Municipal Class Environmental Assessment Act Study, Wood, 11/18/2019;
- Columbus Subwatershed Study – Part II Plan Review, Alternatives Review Memorandum, Stantec Consulting Ltd., November 13, 2019; and,
- Integrated Columbus Part II Planning Act and Municipal Class Environmental Assessment Act Study – Stage 2 Fiscal Impact Analysis, Report for Discussion Purposes, Watson & Associates Economists Ltd., November 13, 2019.










A summary of the key conclusions of the technical evaluation is provided in the following sections.

### 4.2 Transportation

Table 5 summarizes the transportation evaluation of the land use and road alternatives which builds largely upon the assessment of preliminary transportation alternatives. The indicators are rated comparatively between the three alternatives on a 3-point scale from least supportive (○), to neutral (◐), to most supportive (●).

**Table 5: Transportation Evaluation of Alternatives**

Criteria	Alternative 1	Alternative 2	Alternative 3
Transportation	 Based on preliminary transportation network analysis (Alternative 2-a), this options scores 8/16.	 Based on preliminary transportation network analysis (Alternative 3-a), this option scores 14/16.	 Based on preliminary transportation network analysis (Alternative 4), this option scores 10/16.

Criteria	Alternative 1	Alternative 2	Alternative 3
Natural Environment	 Minimizes number of new crossings of N.H.S. No new crossings of Protected Greenbelt.	 Minimizes number of new crossings of N.H.S. One new crossing of Protected Greenbelt.	 Major impacts to N.H.S. and Protected Greenbelt.
Socio-Economic Environment	 Minimizes potential impacts to cultural and archaeological heritage resources and M.T.O. compensation lands.	 Minimizes noise impacts and tailpipe emissions impacts on existing communities.	 High potential impact to cultural and archaeological resources, does not mitigate impacts to existing communities.
Capital Costs	 \$197M	 \$229M	 \$320M
<b>Recommendation</b>	<b>Less Preferred Transportation Option</b>	<b>Preferred Transportation Option</b>	<b>Less Preferred Transportation Option</b>

The analysis relies largely on the findings of the preliminary transportation analysis, with the addition of a screenline traffic analysis considering the full build-out of the Part II Plan area. This analysis determined that traffic conditions and infrastructure requirements are similar across each of the three alternatives, including a four lane widening of Simcoe Street North or the Simcoe Street Bypass.

Based on the transportation analysis presented, Alternative 2 has been identified as preferred from a transportation perspective to be carried forward to a broader evaluation of the land use and road plan alternatives.

A high level functional design exercise was carried out on Alternative 2 to confirm design feasibility of the arterial road network and to identify potential challenges. Based on this work, a number of matters are identified including:

- Simcoe Street Bypass South Intersection

A conceptual design for a continuous Simcoe Street By-pass, rather than a roundabout at the south end of the proposed Bypass, has been undertaken which appears feasible.

- **Simcoe Street North Role and Function**

With the conceptual alignment of the Simcoe Street Bypass, it is recommended that Simcoe Street North through Columbus be downgraded to a Type C Arterial Road.

- **Brooklin Bypass Provincial E.A. Study**

The analysis has not yet considered the proposed Type 'A' arterial connecting Howden Road and Brawley Road which is subject to the outcome of the Brooklin Bypass Provincial Class E.A. Study.

- **Proposed Roundabout at Ritson Road and Columbus Road**

The City of Oshawa in 2011 completed a Municipal Class E.A. Study for Ritson Road North at Columbus Road East intersection improvements. The study recommended a roundabout solution and this improvement will be incorporated into the final transportation analysis and design in the next phase of the study.

#### **4.3 Water and Wastewater Servicing**

The servicing assessment indicates that the Columbus Part II Planning Area lands can be serviced with water and wastewater infrastructure corresponding to the three different land use and road alternatives. Water and Wastewater Services - The servicing concepts for the three alternatives are not significantly different from each other with the exception of extra sewage pumping stations in Alternatives 2 and 3; and follow the area topography and the proposed road network. As a result, the opinions of probable cost for water and wastewater servicing for Alternatives 2 and 3 are very similar. However, the wastewater servicing concept for Alternative 1 is associated with the least cost, whereas the water servicing concept for Alternative 2 is associated with the least cost. Detailed servicing concepts will be prepared for the preferred land use and road alternative and the cost estimates revisited at that time.

#### **4.4 Natural Environment**

Stantec Consulting Ltd. (Stantec), the firm preparing the C.S.W.S. carried out a preliminary review of the alternatives as they relate to natural environmental considerations. Key initial conclusions are as follows:

- **Terrestrial Natural Heritage** – All three alternatives are able to meet the watershed target of 30% natural cover established by the Oshawa Creek Subwatershed Study, with the least direct loss and fragment affects associated with Alternative 1, moderate direct loss and fragment affects associated with Alternative 2, and the most direct loss and fragment affects associated with Alternative 3. Recommendations are provided to protect and enhance the

Targeted Natural Heritage System (T.N.H.S.); maintain and enhance features and linkages outside the T.N.H.S., and address fragmentation of the T.N.H.S. and the Greenbelt that will be created by new roads.

- **Fluvial Geomorphology** –Crossings can have a significant impact on valley and stream corridors. Therefore, it is important to recognize and account for natural hazards in association with watercourse crossings. A qualitative crossing assessment was completed to compare general characteristics of all crossings in each of the alternatives. The assessment included a review of the number and types of crossings provided for each alternative as well as the crossing orientation in relation to the watercourse. It was found that Alternative 1 and Alternative 2 had the least number of crossings and were similar with regards to types and orientation of crossings. From a geomorphological perspective, it was determined that both Alternative 1 and Alternative 2 would be appropriate. A more detailed assessment of Alternative 2 identified three crossings as sensitive. However, given the small size of the streams, any impacts to crossing structures or watercourse form and function can be mitigated with a crossing size that is, at minimum, three times the bankfull channel width.
- **Aquatic Natural Heritage** – Terrestrial habitat associated with riparian corridor, fluvial geomorphological form and functions, and aquatic habitat are closely tied together when determining the effects of frequency, location and orientation of watercourse crossings in a watershed. Crossing effects are determined by the likelihood of changes in physical habitat attributes which are determined by fluvial geomorphological processes, so the analysis of crossing location and infrastructure design utilizing fluvial considerations will generally address the typical considerations for aquatic habitat. With respect to the alternatives and effects on aquatic habitat, Alternatives 1 and 2 are very similar, while Alternative 3 is not preferred given the number and orientation of the crossings proposed. The main difference between Alternatives 1 and 2 with respect to main watercourse crossings is the proposed crossing of the Raglan Main Branch, however there may be an opportunity for barrier mitigation during construction of the Main Branch crossing.
- **Surface Water** - Similar to the other assessments, Alternative 1 or 2 are considered preferable from a surface water perspective. Alternative 3 is less preferred largely due to the number of proposed watercourse crossings.
- **Hydrogeology** – Each Alternative is expected to present a similar magnitude of impact in terms of projected annual infiltration volume deficits between the pre- and post-development conditions.

#### **4.5 Fiscal Impact**

Watson & Associates Economists Ltd. (Watson) have carried out a fiscal impact analysis of the proposed alternatives. They have concluded that property taxes at 2019 rates would sufficiently fund the annual program/service cost demands and maintenance of incremental infrastructure for each Alternative. However, current rates would be deficient to fund the long-term lifecycle capital obligations of the incremental assets.

Based on this analysis, Watson has concluded that Alternative 1 will provide the least fiscal impact to the City Based on this analysis, followed by Alternative 2 and then Alternative 3.



## 5. Summary and Conclusions

The land use and road plan alternatives build on the foundation of Provincial, Regional and City policy. They also reflect the results of the background analysis and the direction established in the Proposed Vision, Principles and Objectives. Given this base, the alternatives reflect certain common elements:

- **Natural Heritage System**

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- **Columbus Special Policy Area – Existing Community**

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- **Community Structure**

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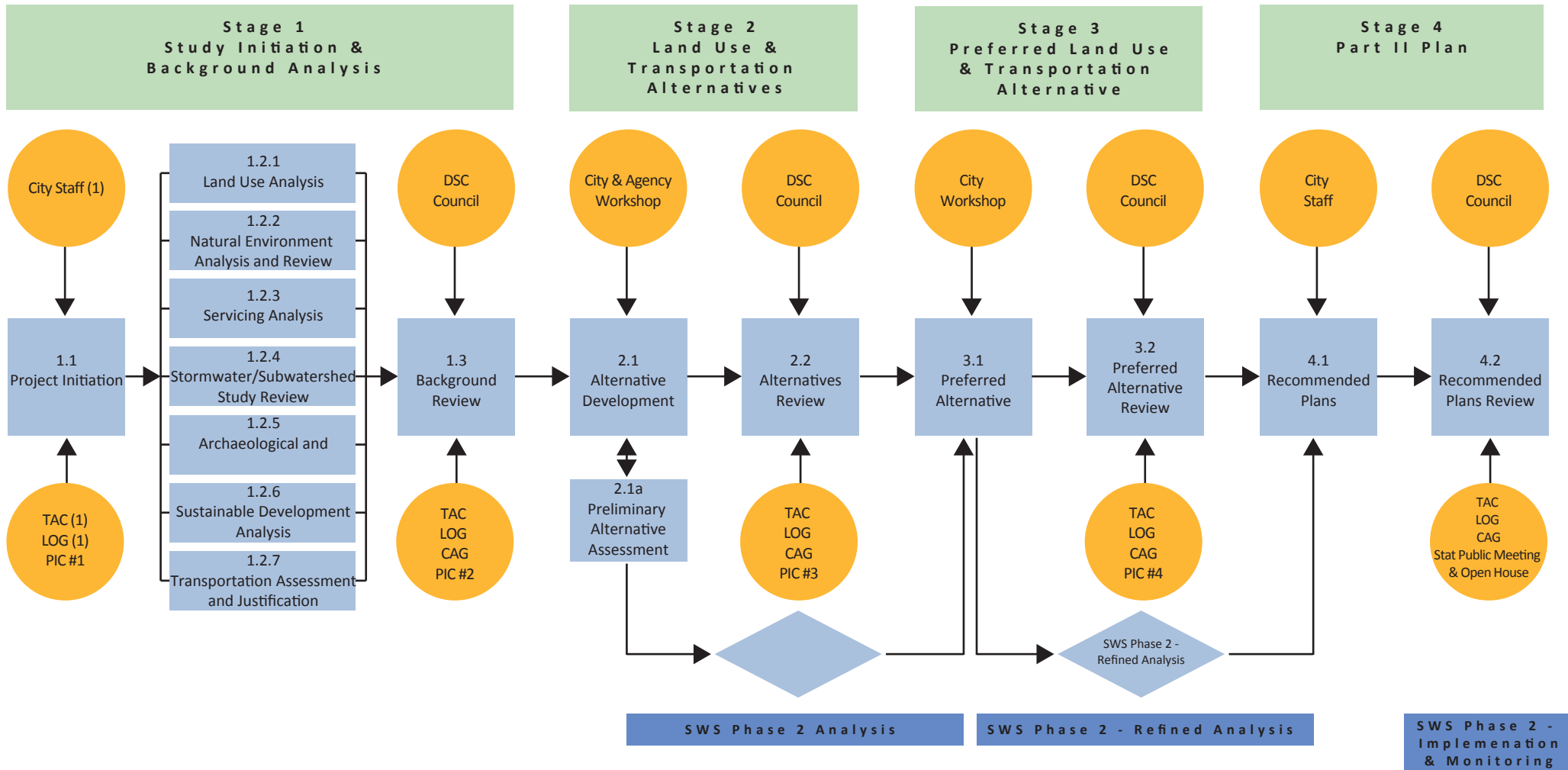
The proposed land use and road plans provide variations in the Community Structure described above with differences relating to the extent and configuration of the different land use designations. In all cases, the proposed land use designations include the same permitted uses, density and height which conform to the directions in the City's Official Plan. The projected population and employment for each Alternative is found in Table 4. The people and jobs per hectare range from Alternative 1 having the highest density (51 -73) to Alternative 3 with the lowest (48-69).

The results of the preliminary technical assessment indicate that:

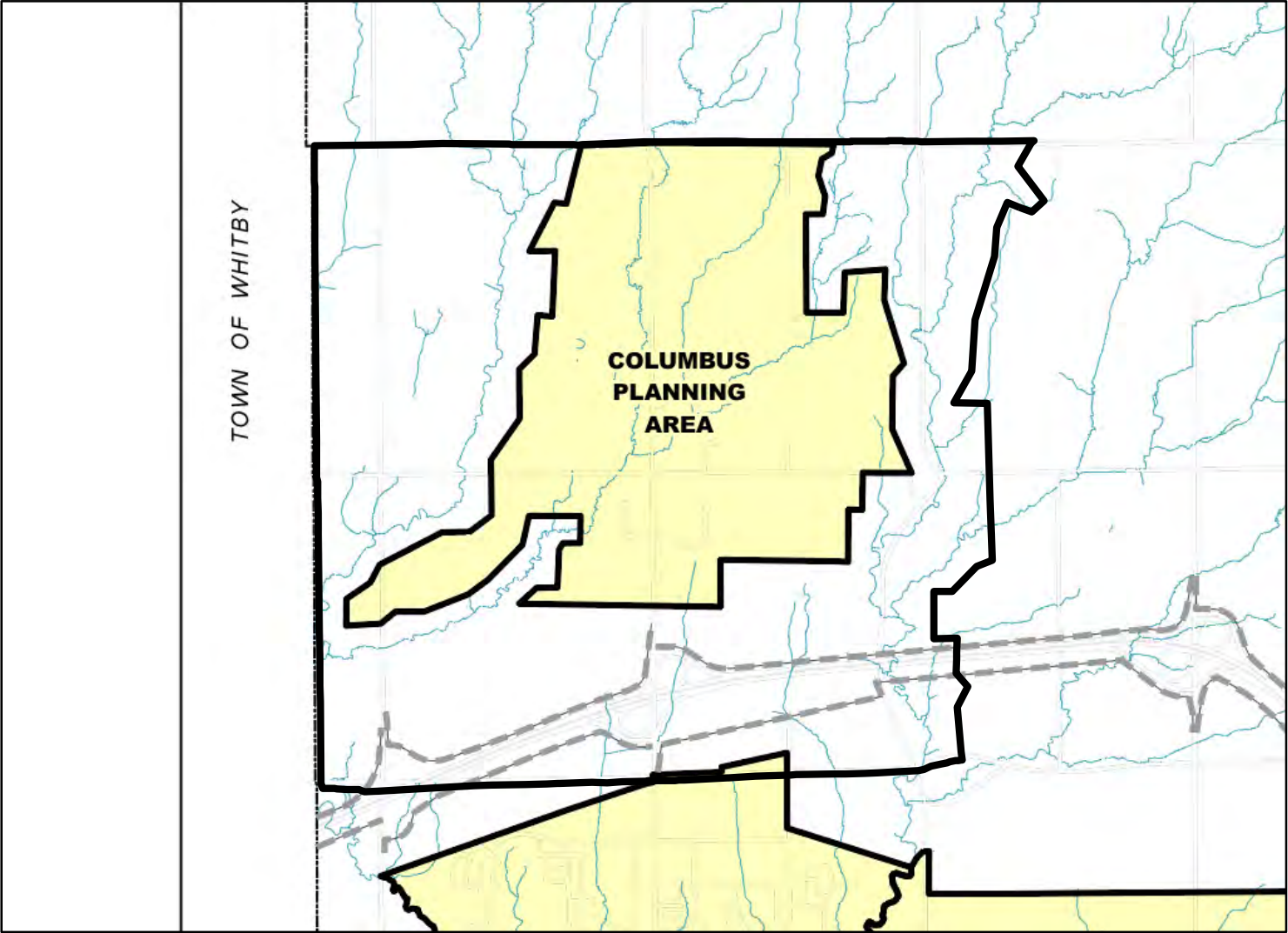
- Transportation – It is recommended that Alternative 2 has been identified as preferred from a transportation perspective to be carried forward to a broader evaluation of the land use and road plan alternatives.
- Water and Wastewater Services - Water and Wastewater Services - The servicing concepts for the three alternatives are not significantly different from each other with the exception of extra sewage pumping stations in Alternatives 2 and 3; and follow the area topography and the proposed road network. As a result, the opinions of probable cost for water and wastewater servicing for Alternatives 2 and 3 are very similar. However, the wastewater servicing concept for Alternative 1 is associated with the least cost, whereas the water servicing concept for Alternative 2 is associated with the least cost.
- Natural Environment Considerations – A range of factors were examined including terrestrial and aquatic natural heritage, fluvial geomorphology, surface water and hydrogeology. Generally, Alternatives 1 and 2 were preferred over Alternative 3 primarily because of the more limited watercourse crossings.
- Fiscal Impact – Watson & Associates Economists Ltd. (Watson) have carried out a fiscal impact analysis of the proposed alternatives. They have concluded that property taxes at 2019 rates would sufficiently fund the annual program/service cost demands and maintenance of incremental infrastructure for each Alternative. However, current rates would be deficient to fund the long-term lifecycle capital obligations of the incremental assets. Based on this analysis, Watson has concluded that Alternative 1 will provide the least fiscal impact to the City followed by Alternative 2 and then Alternative 3.

The preliminary assessment provides input as part of the on-going broader evaluation of the alternatives.





**Figure 1**








**Figure 2**  
Excerpt from:  
City of Oshawa Official Plan  
Schedule E - Part II Plan Areas

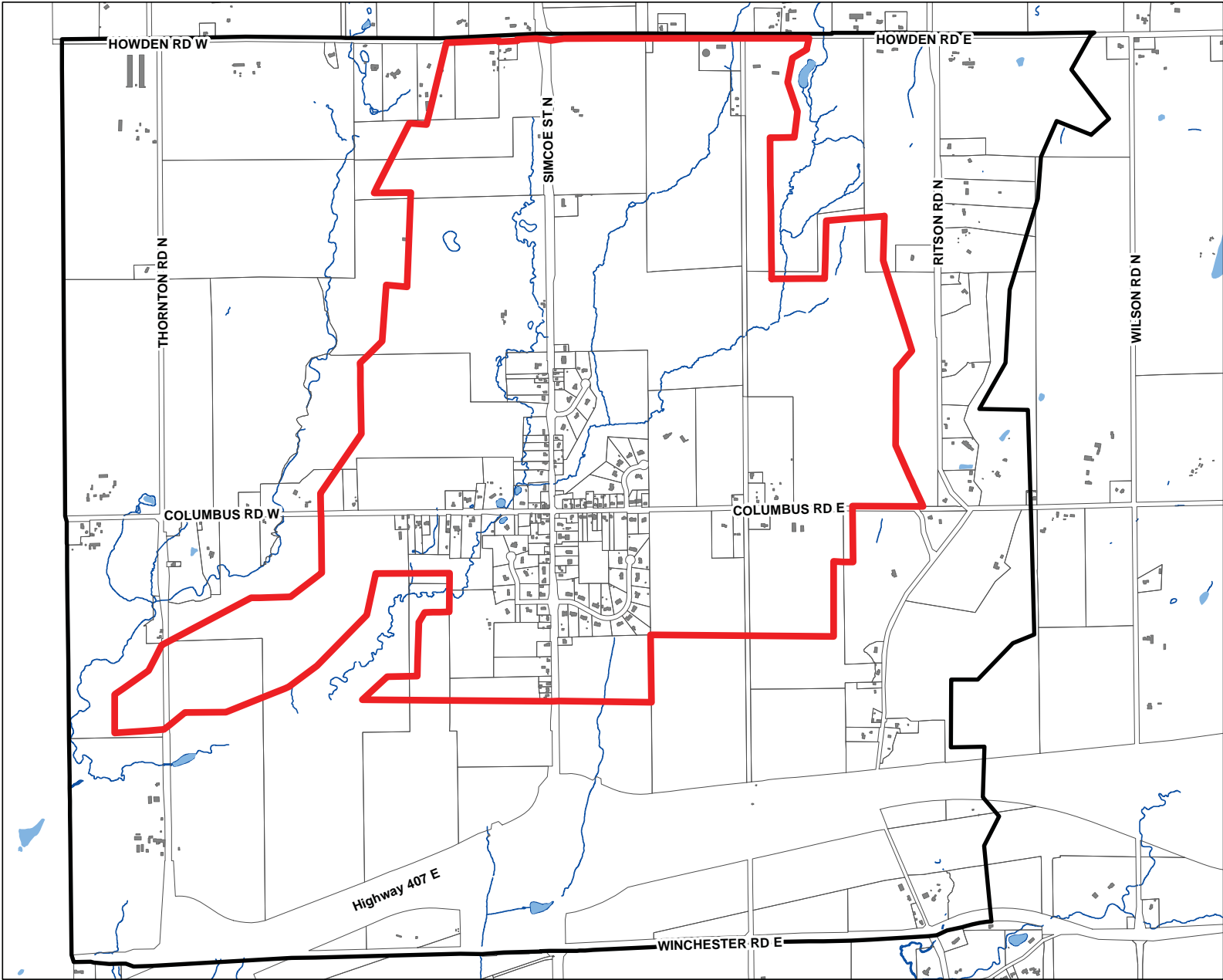


**Legend**

-  Columbus Study Area Boundary
-  Part II Planning Area Boundary
-  Part II Planning Area
-  Limits of Approved Highway 407 Corridor

### City of Oshawa Columbus Community Study Area

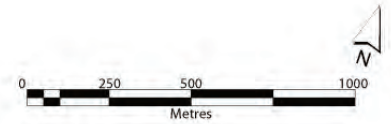
-  Columbus Study Area Boundary
-  Columbus Part II Plan Area
-  Building Footprints
-  Water Bodies
-  Watercourses



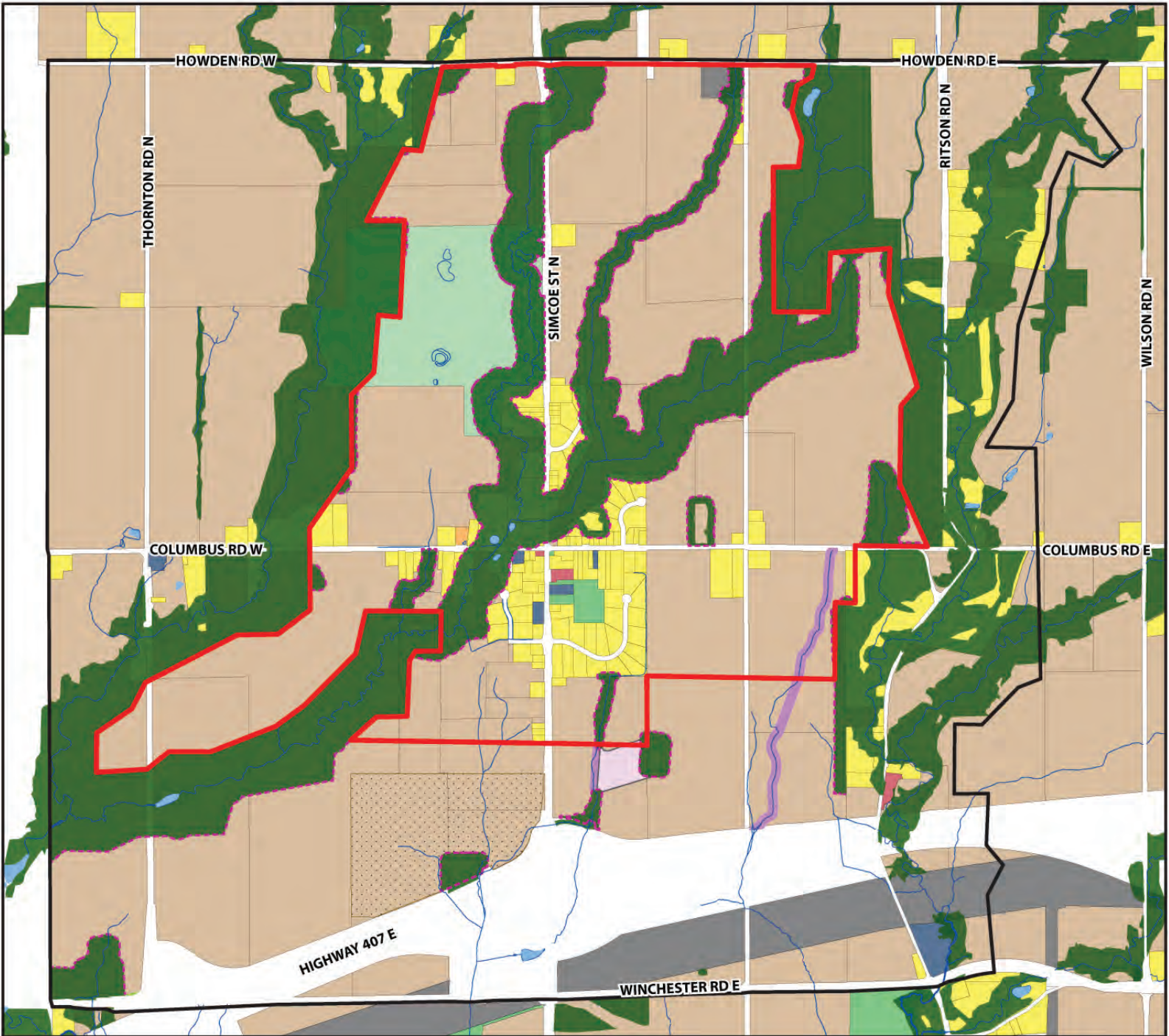
October 2019

### City of Oshawa EXISTING LAND USE AND PROPOSED TARGETED NATURAL HERITAGE SYSTEM

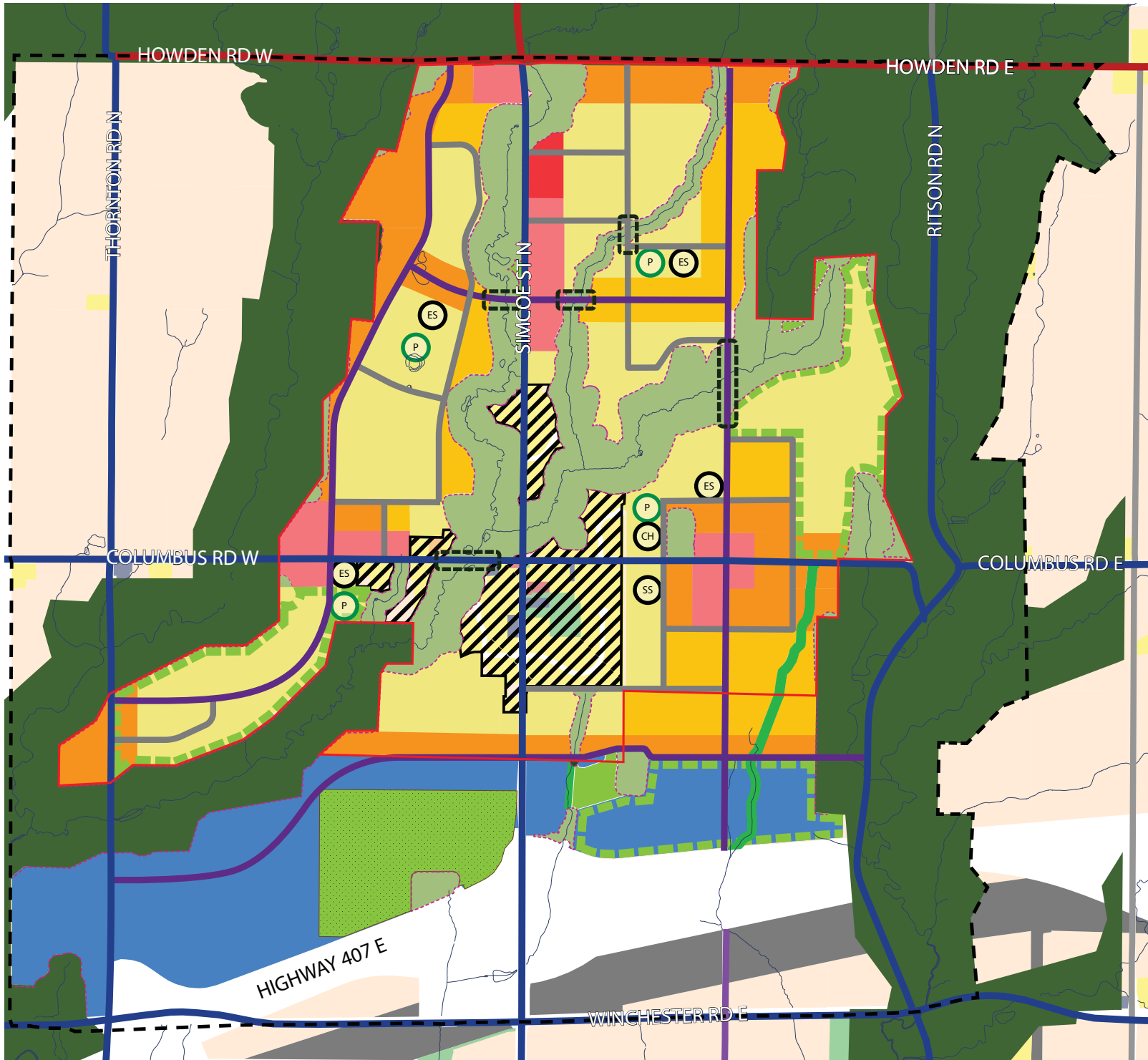
- Columbus Study Area Boundary
- Columbus Part II Plan Area
- Water Bodies
- Watercourse/Drainage Feature (CSWS)
- Existing Land Use**
  - Farm
  - Residential
  - Residential/Commercial
  - Commercial
  - Institution, Community, Government
  - Park, Open Space, Recreation
  - Utility, Transportation, Communication
- Natural Heritage System**
  - Existing Natural Heritage System
  - Vegetation Protection Zone (Phase I)
  - Proposed Linkage Area
  - Proposed Enhancement Area
  - MTO SAR Compensation Lands



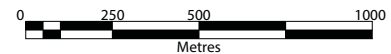
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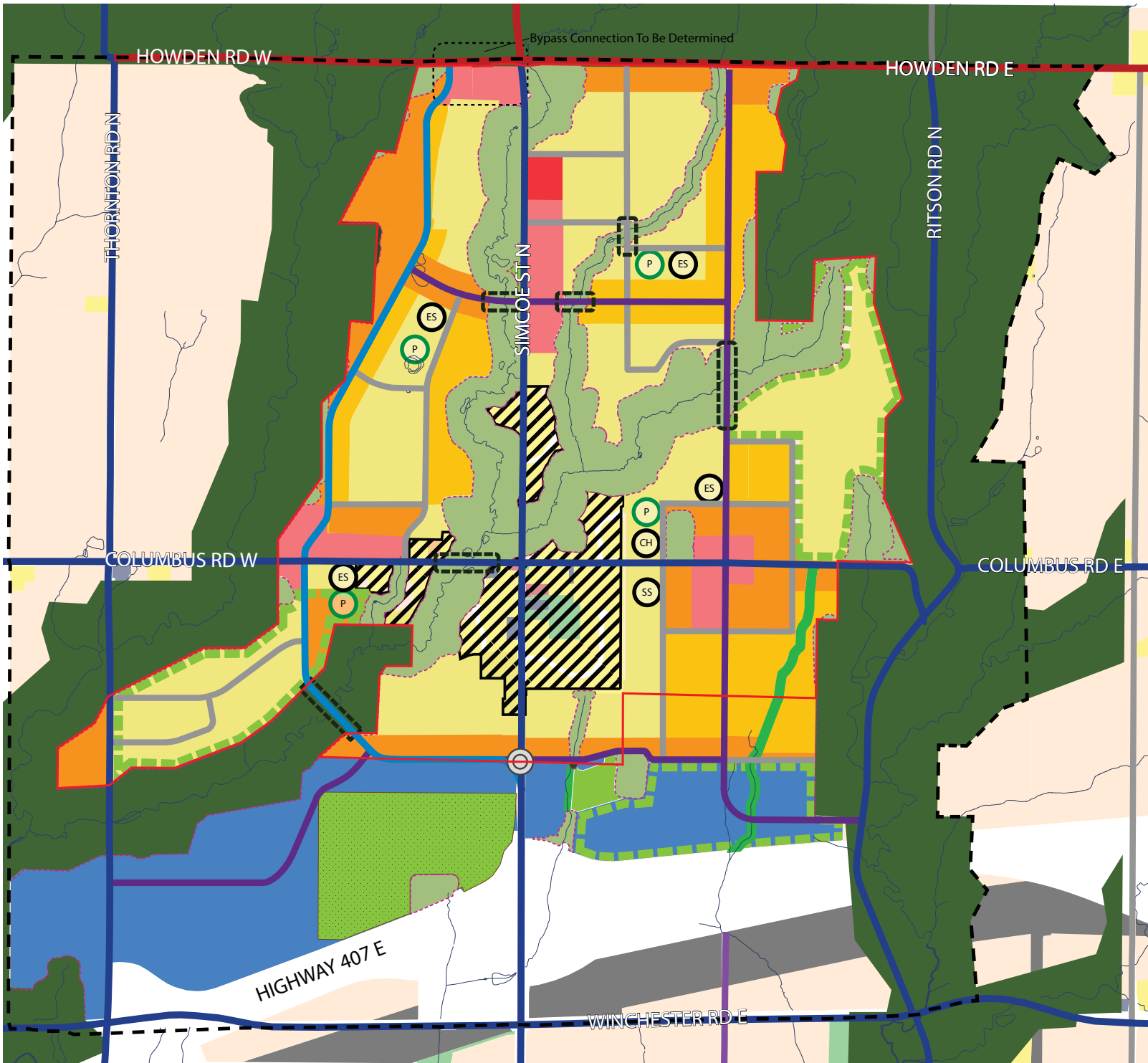
# Alternative 1



- Columbus Study Area Boundary
- Columbus Part II Plan Area
- Water Bodies
- Watercourse/Drainage Feature (C.S.W.S.)
- Land Use**
- Columbus Special Policy Area
- Low Density Residential
- Medium Density Residential I
- Medium Density Residential II
- High Density Residential I
- Mixed Use
- Prime Agricultural
- Employment
- Community Park Location Option
- Elementary School
- Secondary School
- Park
- Community Hub
- Road Network**
- Existing Type A Arterial Road
- Existing Type B Arterial Road
- Existing Type C Arterial Road
- Proposed Type C Arterial Road
- Proposed Collector Road
- NHS Crossing
- Natural Heritage System**
- Greenbelt Plan Protected Countryside
- C.S.W.S. Natural Heritage System
- Vegetation Protection Zone (Phase 1)
- Proposed Linkage Area
- Proposed Enhancement Area
- MTO SAR Compensation Lands



Alternative 2



--- Columbus Study Area Boundary

▭ Columbus Part II Plan Area

■ Water Bodies

— Watercourse/Drainage Feature (C.S.W.S.)

Land Use

▨ Columbus Special Policy Area

■ Low Density Residential

■ Medium Density Residential I

■ Medium Density Residential II

■ High Density Residential I

■ Mixed Use

■ Prime Agricultural

■ Employment

--- Community Park Location Option

○ ES Elementary School

○ SS Secondary School

○ P Park

○ CH Community Hub

Road Network

— Existing Type A Arterial Road

— Existing Type B Arterial Road

— Existing Type C Arterial Road

— Proposed Type B Arterial Road

— Proposed Type C Arterial Road

— Proposed Collector Road

--- NHS Crossing

○ Potential Roundabout

Natural Heritage System

■ Greenbelt Plan Protected Countryside

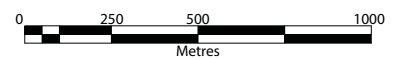
■ C.S.W.S. Natural Heritage System

--- Vegetation Protection Zone (Phase 1)

■ Proposed Linkage Area

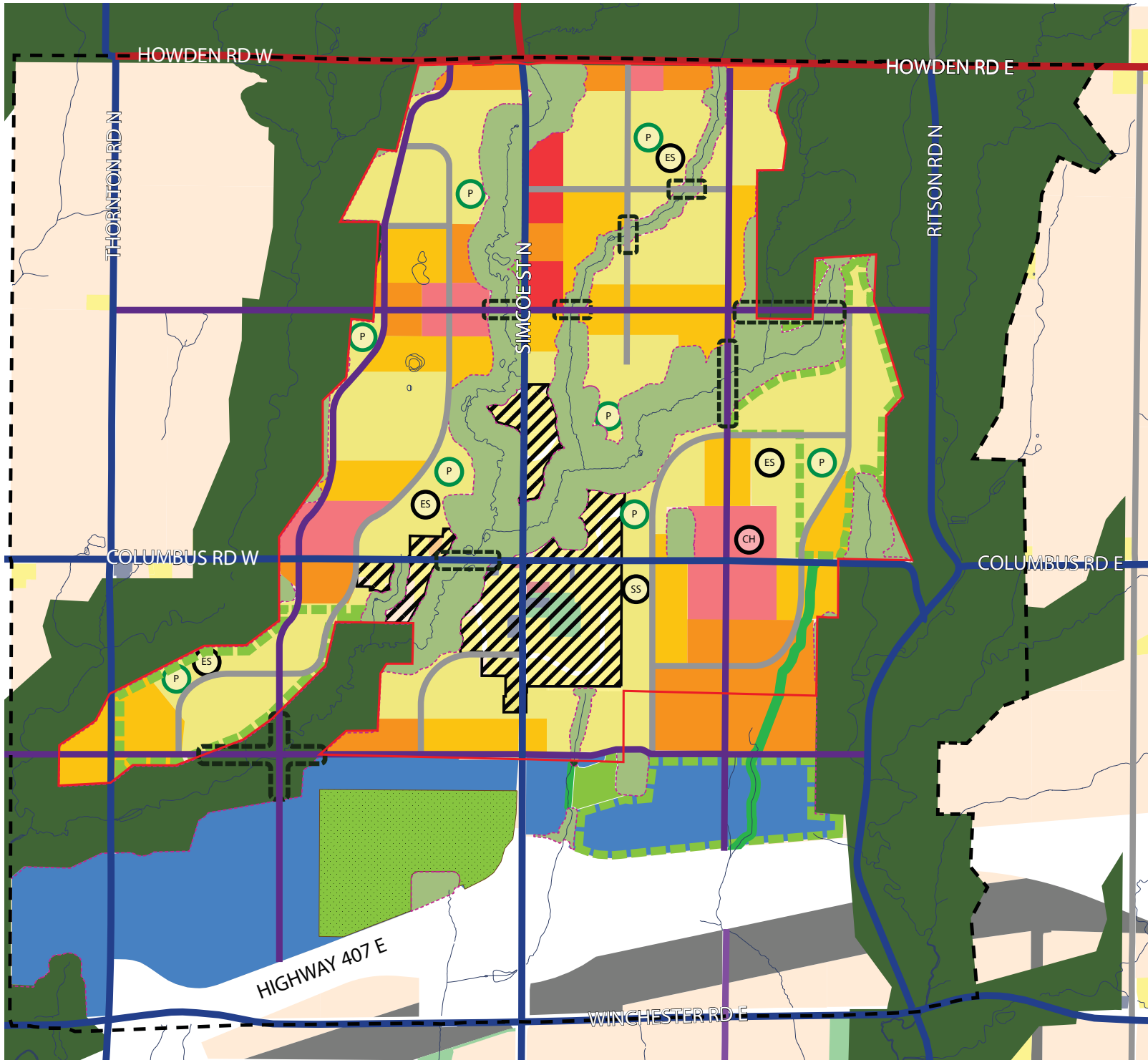
■ Proposed Enhancement Area

■ MTO SAR Compensation Lands





City of Oshawa  
Integrated Columbus Part II Planning Act  
& Municipal Class EA Study  
**Alternative 3**



- Columbus Study Area Boundary
- Columbus Part II Plan Area
- Water Bodies
- Watercourse/Drainage Feature (C.S.W.S.)
- Land Use**
- Columbus Special Policy Area
- Low Density Residential
- Medium Density Residential I
- Medium Density Residential II
- High Density Residential I
- Mixed Use
- Prime Agricultural
- Employment
- Community Park Location Option
- Elementary School
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- Community Hub
- Road Network**
- Existing Type A Arterial Road
- Existing Type B Arterial Road
- Existing Type C Arterial Road
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