



Newcastle North Village Secondary Plan

Land Use Alternatives Summary Report

June 2022



Clarington

SvN

BT ENGINEERING
BTE

AECOM

URBANISM
by DESIGN
citybuilding & placemaking

footprint

Acknowledgements

Land Acknowledgement

The Municipality of Clarington is situated within the traditional and treaty territory of the Mississaugas and Chippewas of the Anishinabeg known today as the Williams Treaties First Nations.

Our work on these lands acknowledges their resilience and their longstanding contributions to the area now known as the Municipality of Clarington.

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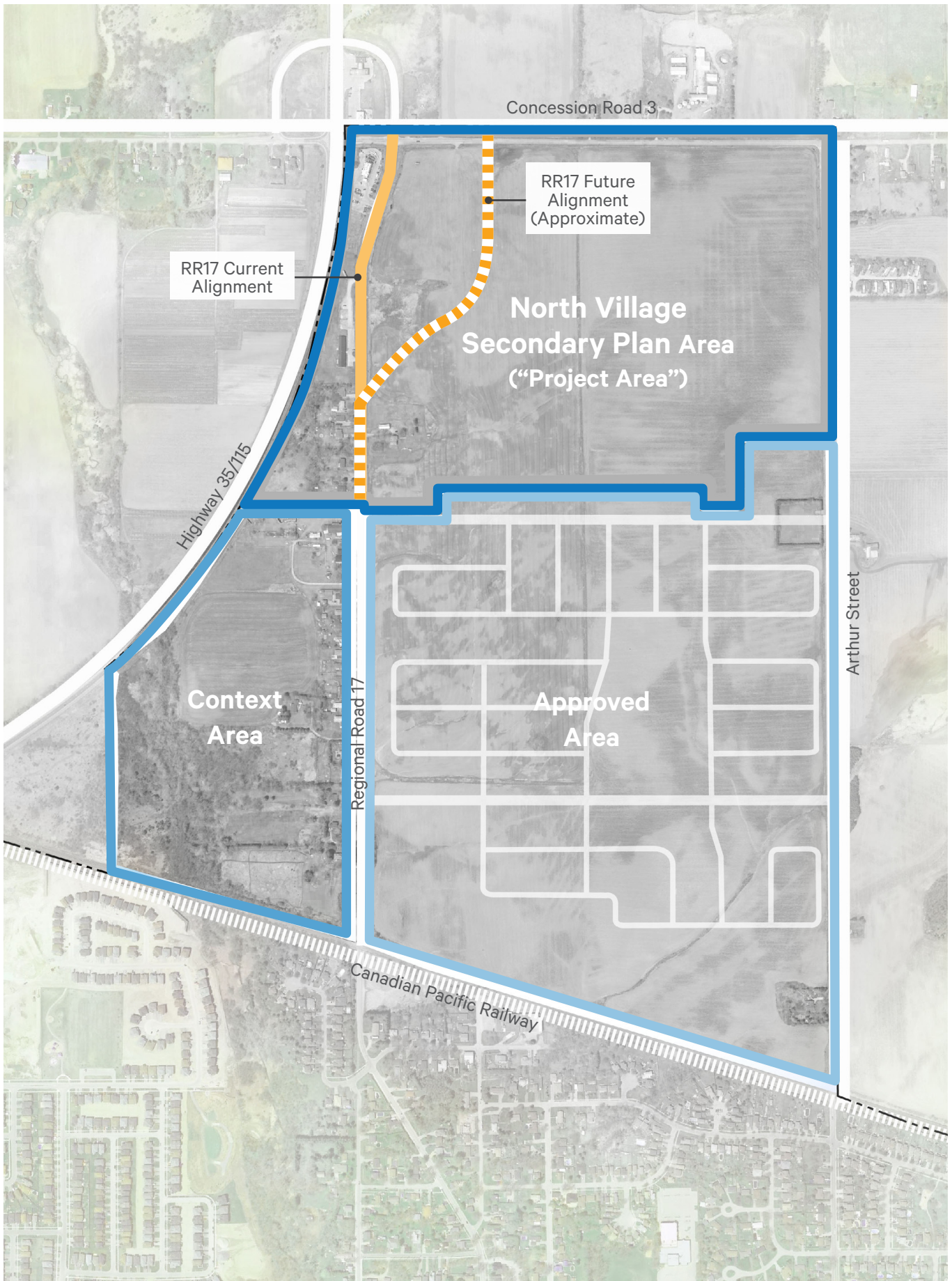
Community Members

We appreciate all of the members of the community who took the time to ask questions and provide feedback on the materials presented at the Public Information Centres.

To learn more about the project, visit clarington.net/northvillage

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2.0 Vision and Guiding Principles

North Village is a vibrant neighbourhood that is open to all, at all stages of their life. Walkable and welcoming, it reflects the rich spirit of the Newcastle Community.

The following principles form the core tenets of the North Village Secondary Plan. Together with the vision, these principles will guide decision-making as the Secondary Plan is prepared and implemented.



A LIVEABLE NEIGHBOURHOOD

- Provide a mix of housing options that are available to a wide range of ages, abilities, incomes, and household sizes.
- Provide an appropriate mix of uses, amenities, and services at the heart of the neighbourhood to encourage active, sociable lives and support a sense of well-being and connection.
- Provide a range of community facilities and co-locate these facilities where possible.



A CONNECTED NEIGHBOURHOOD

- Prioritize pedestrian mobility and comfort by designing a neighbourhood that is well connected internally and provides safe and walkable links to surrounding neighbourhoods.
- Design the movement network to safely and comfortably accommodate all modes of travel (pedestrians, cyclists, transit vehicles, loading and private vehicles).



A BEAUTIFUL & INVITING NEIGHBOURHOOD

- Design a variety of open spaces linked by a beautiful and functional public realm.
- Encourage a high standard of design.
- Utilize the existing topography to optimize views of the surrounding areas.



A RESILIENT NEIGHBOURHOOD

- Minimize contribution to climate change by incorporating green design principles related to energy, water, and waste at the building and neighbourhood scale.
- Where economically feasible, utilize materials from sustainable sources for construction and infrastructure projects, account for positive and negative life-cycle impacts of materials when assessing their contribution.
- Integrate indigenous and pollinator-friendly species into the development.
- Support resilience and future adaptability by designing homes and buildings to accommodate different uses and densities with diverse unit configurations.



A UNIQUE NEWCASTLE NEIGHBOURHOOD

- Foster a unique identity by celebrating the rural heritage of the area.
- Engage the Newcastle community in planning the future of North Village.



3.0 Baseline Parameters

The baseline parameters were developed to create a set of minimum requirements that all of the alternatives must meet. They are rooted in the Clarington Official Plan and the Priority Green Standard. The categories include:

1 DENSITY



- Internal neighbourhood: Minimum density 13 units per net hectare (upnh), heights 1-3 storeys, detached, semis, limited townhouses
- Edge of neighbourhood: Minimum density 19 upnh, heights 1-3 storeys, detached, semis, townhouses, limited apartments
- Locate more intensive development adjacent to arterials
- Must contribute to achievement of overall greenfield density target of 50 people jobs/ha (Growth Plan 2020 target)

2 HOUSING



- Variety of housing types for all ages including young singles and older adults
- Mixed use development encouraged in the Neighbourhood Centre
- A minimum of 1.5 ha of land to be conveyed to the Municipality for affordable housing
- Provide for additional dwelling units (ADUs) to create rental options

3 INTERNAL STREET NETWORK



- Preference given to grid street system recognizing topographic and environmental constraints
- Short to medium block lengths
- Cul-de-sacs are not permitted
- ROWs to include space for boulevards, street trees
- Minimize reverse lot frontages
- No private lanes in low density

4 REGIONAL ROAD 17



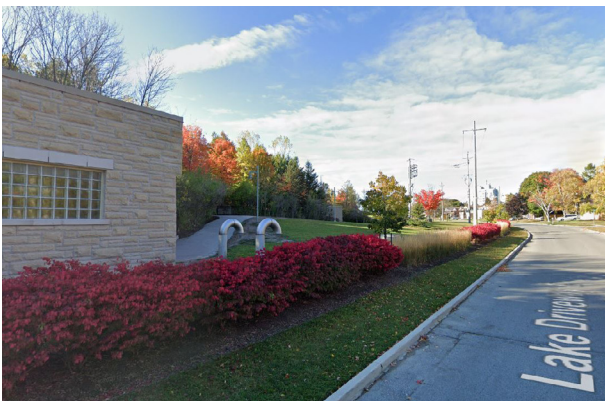
- Intersection spacing: 525 m for major intersections, some mid-block T-intersections permitted (for discussion)
- Cross section design will include a multi-use path (MUP)
- Provide connection to northwest corner of neighbourhood
- Maintain access for uses on existing RR17

5 CONC 3 / ARTHUR STREET



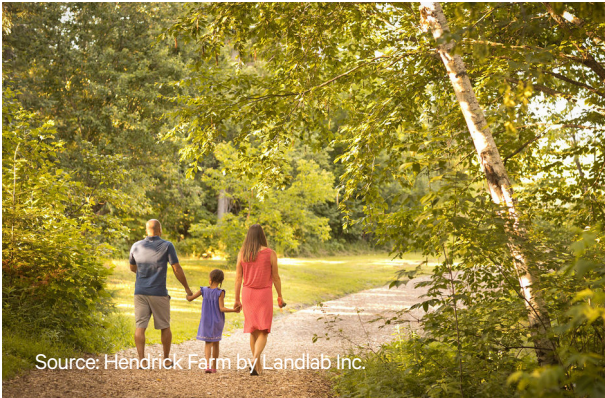
- Intersection spacing: 300 m for major intersections, some mid-block T-intersections permitted
- Driveways are not permitted on Type C arterials
- Conc 3 will continue to accommodate agricultural vehicles

6 WATER RESERVOIR



- Location has been finalized – Regional EA is complete and design in ongoing
- Driveway access off Arthur Street
- Reservoir to be framed by the rear of residential lots
- Site security to ensure safety of water supply

7 PARKLAND



- The Municipality's overall per capita parkland standard is 1.8 hectares per 1,000 persons
- Opportunity to provide surplus parkland to address deficiency of 2.92 ha in Approved Area
- Locate parkland adjacent to school

8 SCHOOL



- Elementary School: 6 acres (2.5 ha)
- Located adjacent to park/other community facilities
- Located on Collector Road
- Located >90 m [300 ft] from roads with a speed limit greater than 65 km/hr

9 ACTIVE TRANSPORTATION



- Connect to bike lanes/sidewalks in Approved Area
- Bike lanes and pedestrian paths connect to amenities
- Multi-use path on arterial roads
- Sidewalks on both sides of local roads where warranted
- Design and construct streets in accordance with the complete streets principles outlined in the OP

10 ADJACENT AREAS WITHIN BOUNDARY



- Provide connections to plan for Approved Area
- Consider future connections to Context Area

11 SUSTAINABILITY



- Promote the integration of active transportation
- Implement Clarington Priority Green secondary plan objectives
- Promotes the efficient use of land

12 NEIGHBOURHOOD CENTRE



- 2-4 storeys
- Primarily mixed use development
- Target max. floor area of 300 m² for commercial units
- Overall max. floor area of 4,608 m² of commercial space
- Potential commercial uses include: café, restaurant, experience-based services
- Public square

4.0 Alternative Land Use Plans

4.1 Assumptions

Three land use alternatives are included to illustrate possible outcomes for the design and layout of North Village. Although all of the alternatives are based on the vision and principles and must achieve the baseline parameters, they all have different distributions of housing types, uses, and public space. They also have slightly different road network configurations.

In order to analyze the performance of each alternative, and to provide a high-level estimate of the potential future population and jobs, the consultant team applied several basic assumptions for the unit mix, densities, and persons per unit that are the same for each alternative. These assumptions were based on data from other secondary plans in Clarington and the GTA. These unit mixes are conceptual and subject to change as the project moves forward. Known land areas and job counts for planned uses also informed the assumptions that were applied to all three land use alternatives.

RESIDENTIAL LAND USE CATEGORIES

Category	Unit Mix	Density Range	Persons Per Unit based on Clarington DC Study, 2020
Low Density	60% single detached 20% semi-detached 20% street townhouses	Min: 13 Upper: 25	3.02
Low Density Plus (*)	50% detached & semi detached 40% townhouses 10% triplex/fourplex	Min: 19 Upper: 40	2.85
Medium Density	60% townhouses 20% triplex/fourplex 20% apartment	Min: 40 Upper: 120	2.33
Mixed Use (Neighbourhood Centre)	100% mixed use buildings & apartments	Min: 40 Upper: 120	1.42

(*) The Low density plus category is not intended to be a designation on the ultimate Secondary Plan land use schedule. It is used in the Alternatives to demonstrate variation in the low density built form and provide a transition from areas of lower intensity to areas of higher intensity.

OTHER LAND USES

- Water Reservoir: 2.36 ha
- School: minimum 2.5 ha (subject to School Board)
- Highway Commercial (existing McDonald's): 0.76 ha
- Mixed Use (Neighbourhood Centre): Assume 35,000 sf (3,251 sm) GFA feasible in a main street format, other lands to be developed as residential or complementary institutional/public uses

GROSS TO NET CONVERSION

- 75% efficiency to account for local roads and minor parcels to be dedicated (community mailbox, for example)
- Area of arterial & collector roads, road widenings, school & parks calculated and subtracted first

JOBS

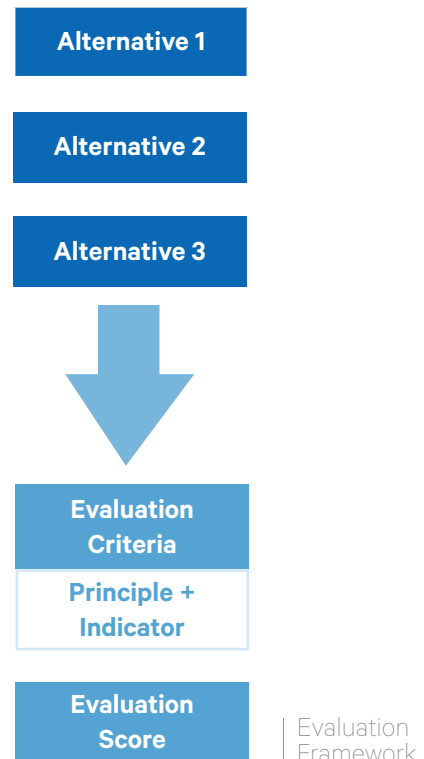
- Mixed Use Commercial: 35 square metres/job (source: Durham Region Intensification Study)
- Elementary School: 600 students, 30 jobs (source: Kawartha Pine Ridge DSB, via email)
- Highway Commercial (McDonalds): assume 10 full-time equivalents (FTE)
- Not applying a factor for people who are self-employed or have a home-based business

4.2 Land Use Alternatives

We received feedback from the public at the second Public Information Centre that informed the land use alternatives. For example, we received roughly an equal number of responses from people who wanted one or two large parks, versus people who wanted a larger number of small parks. We were able to develop scenarios that show both configurations.

We also heard that people value the “village” feel of Newcastle, and that it is important that North Village residents are able to meet their needs locally. Testing out different configurations for the Neighbourhood Centre was important, as well as ensuring that it is in a location that lots of people can easily walk to.

PIC #2 participants also told us that more housing options of all types are needed in Newcastle. We wanted to explore a range of scenarios for density and dwelling types. The three alternatives were thus developed and shared with the Steering Committee for feedback.

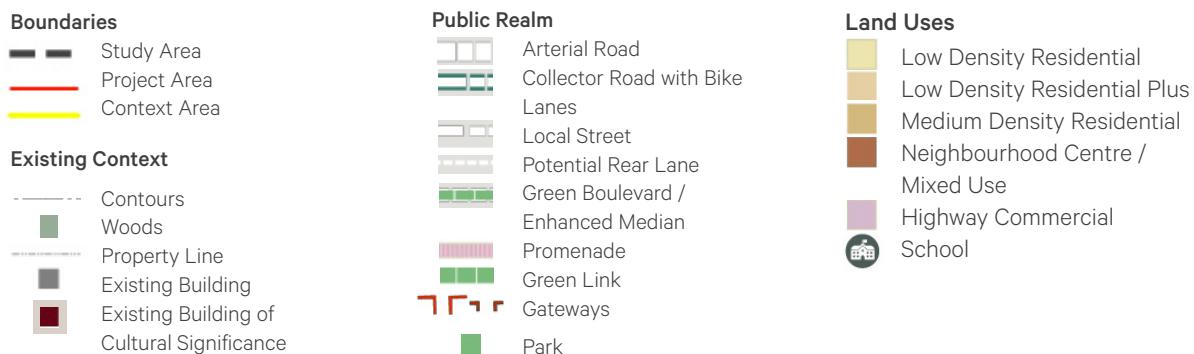
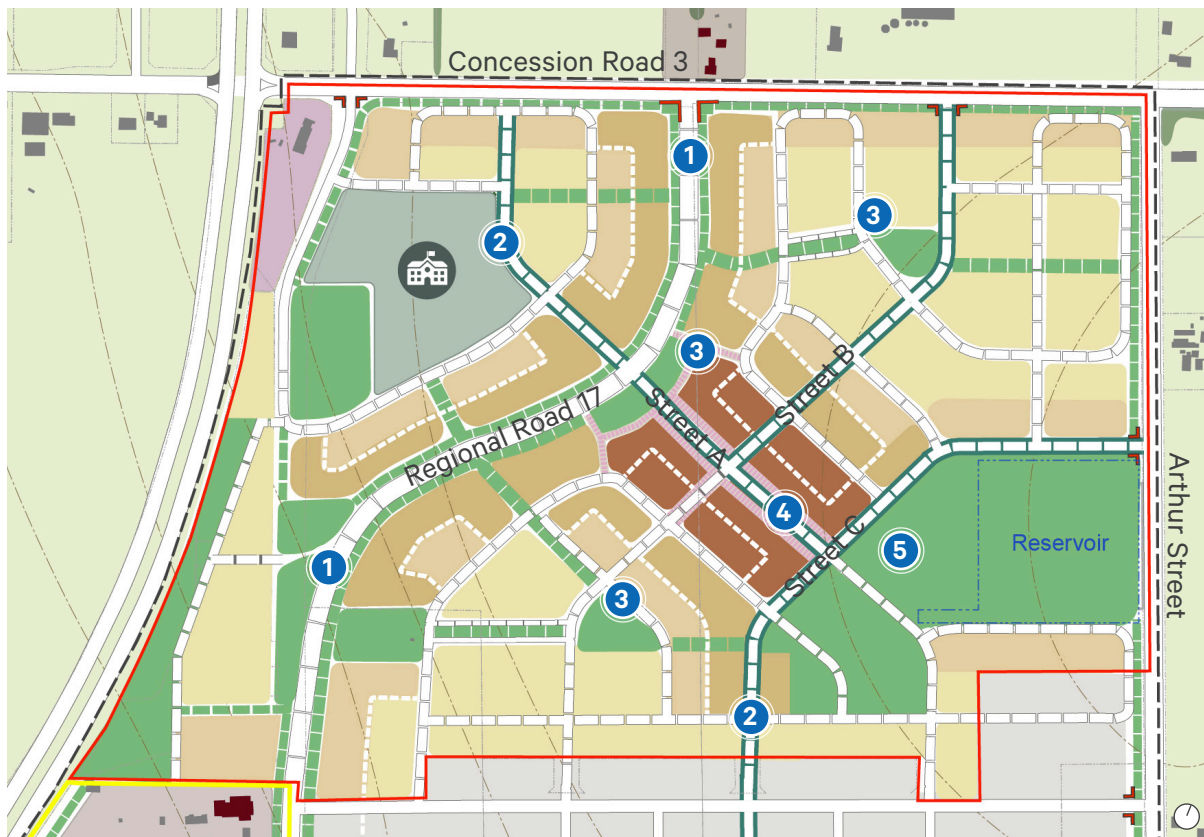


4.3 Land Use Alternative 1

GREEN CORRIDORS + COMMUNITY COURTYARDS

Alternative 1 is defined by key green corridors through the neighbourhood, including RR17 and Street A, which create a welcoming and comfortable environment for all road users. These link to destinations that integrate the neighbourhood with the approved area to the south. The plan is also defined by a distributed network of smaller open spaces

that function as a local gathering space, or courtyard, framed by surrounding development. Measured over the entirety of the Project Area, this alternative would result in a density range of 40-120 units per hectare, and approximately 54-132 residents and 121 jobs per net hectare (Appendix A).



KEY DESIGN FEATURES



1 Engage RR17 and surrounding boundary roads

Building frontages along RR17 address and engage the street while preserving privacy and beautifying the street through landscaping.



2 Main roads as green corridors

High-quality landscaping and plantings create a comfortable and safe street for pedestrians, cyclists, and vehicles.



3 Distribute and link smaller parks to create “community courtyards”

Small interconnected parks are distributed throughout the plan area to create community gathering spaces, reminiscent of courtyards, within approx. 200m of every household.



4 Small-scale, central, commercial main street and “heart”

A commercial main street is designed to create new spaces for local businesses and a destination and heart for community life.



5 Design central park as community destination and anchor to the main street

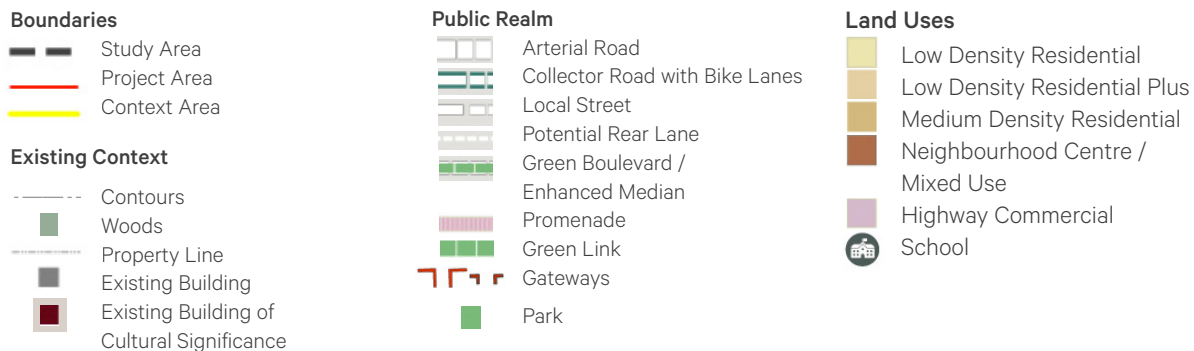
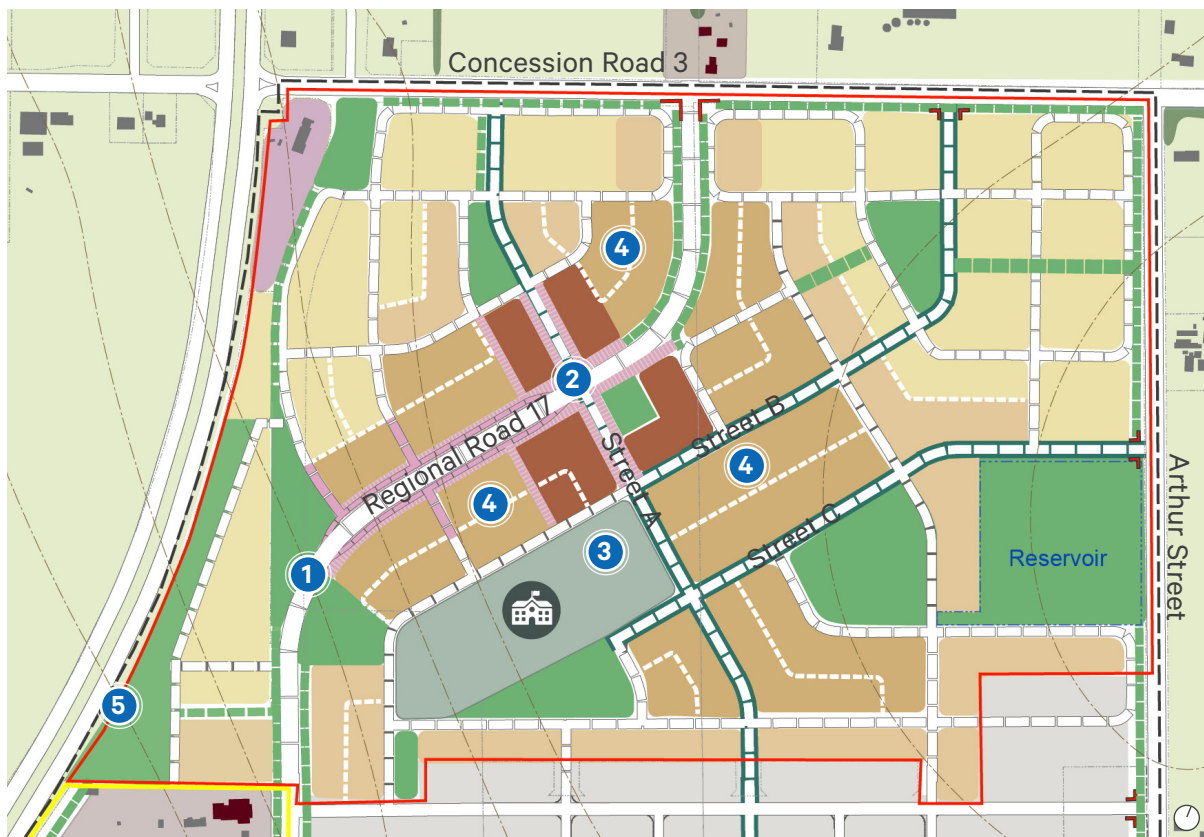
High-quality landscaping and plantings create a comfortable and safe street for pedestrians, cyclists, and vehicles.

4.4 Land Use Alternative 2

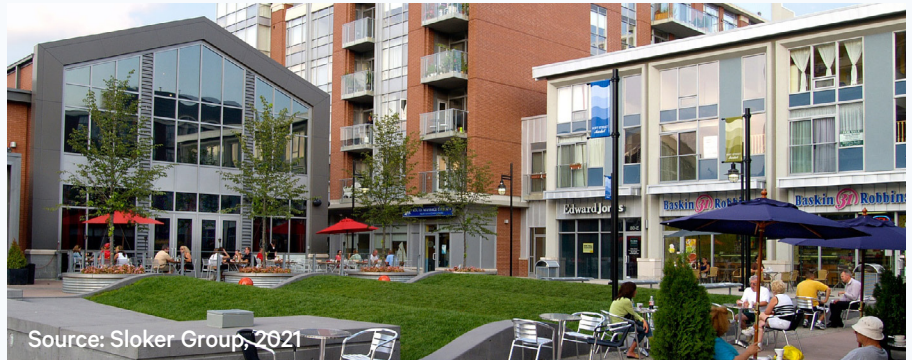
FOUR CORNERS + GREEN CORRIDORS

Land Use Alternative 2 uses a central hub and green corridors as its organizing elements and locations of greater activity and density. Importantly, RR17 is animated by creating a pedestrian-focused area around the four corners of the neighbourhood centre, which helps to animate and urbanize the street.

Measured over the entirety of the Project Area, this alternative would result in a density range of 40-120 units per hectare, and approximately 59-148 residents and 121 jobs per net hectare (Appendix A).



KEY DESIGN FEATURES



1 Animate and enliven RR17

Along RR17 a pedestrian friendly promenade is planned that will create more activity and engagement along the street. This is complemented by buildings and homes that will be oriented to face the street.

2 Create a prominent “four corners” neighbourhood centre

The neighbourhood centre is placed along the intersection of RR17 and the main roads into the plan area, which afford maximum visibility and access for businesses located there. This in turn becomes a unique defining feature of the neighbourhood.



3 Locate school as key civic feature

The school is centrally located along the main road (Street A) so that it is a highly visible landmark and source of civic pride. Its proximity to the neighbourhood centre and medium density housing makes it more convenient to access.

4 Maximizes density around the neighbourhood centre and school

Locating a greater density of housing and a range of building types around the neighbourhood centre and school supports those uses and provides convenient access.

5 Highway buffer zone

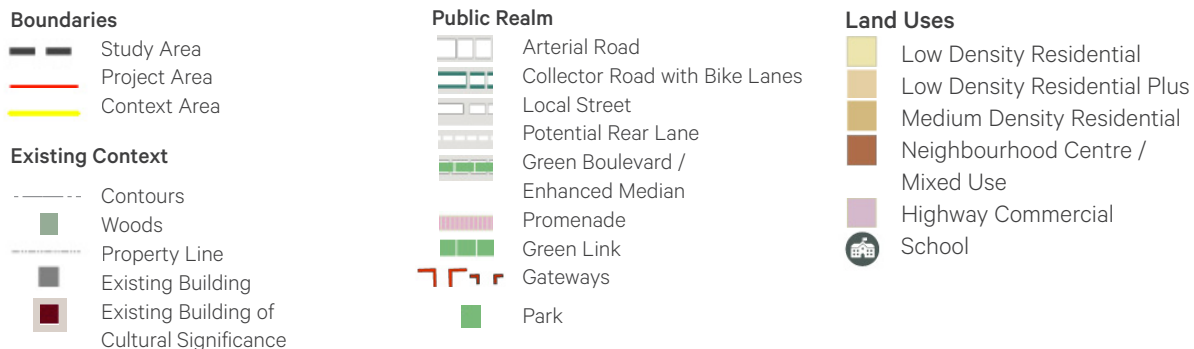
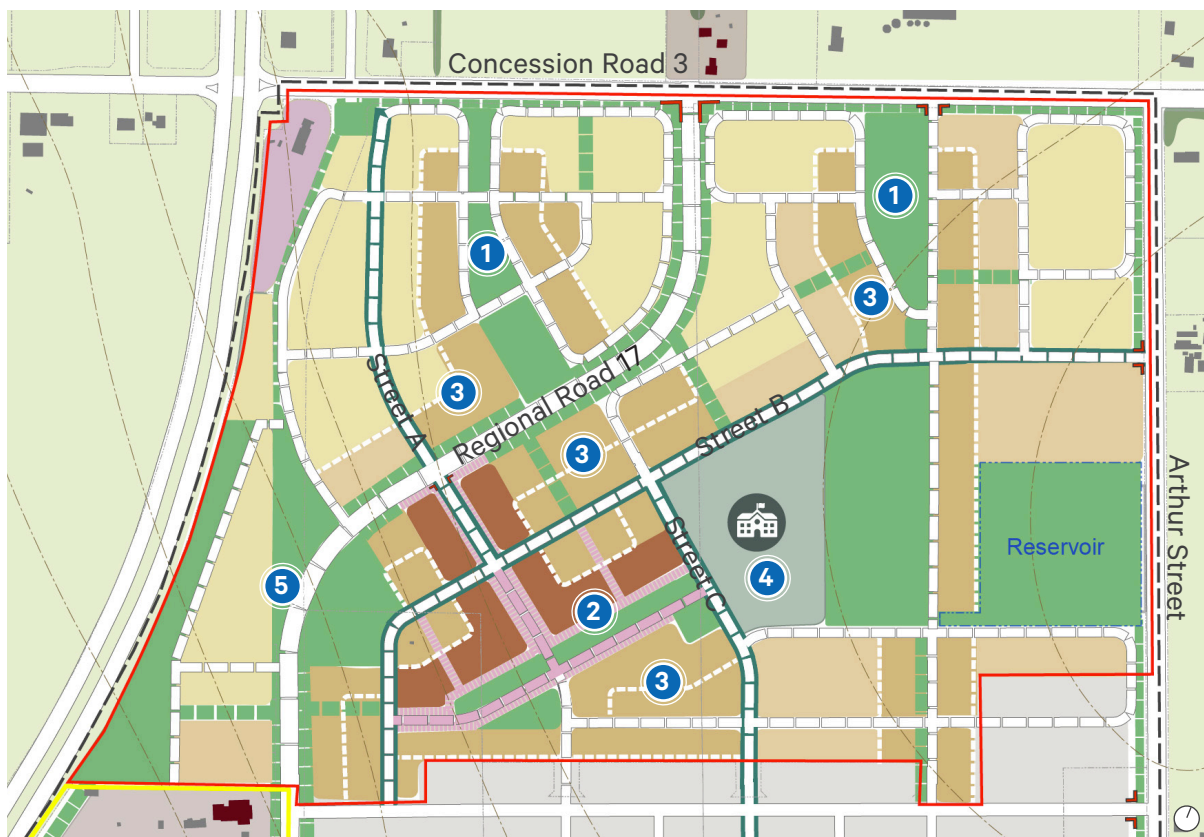
A linear green space that incorporates a trail connection is planned as a buffer to the highway for future residential uses.

4.5 Land Use Alternative 3

NEIGHBOURHOOD CENTRE + PROMENADE

Land Use Alternative 3 provides a central hub of activity and density, organized around the neighbourhood centre and a linear promenade and park that are the focal point for community life. These are complemented by several distinct nodes for activity and interconnected linear parks, or “green fingers”.

Measured over the entirety of the Project Area, this alternative would result in a density range of 40-120 units per hectare. It would also result in approximately 61-157 residents and 121 jobs per net hectare (Appendix A).



KEY DESIGN FEATURES



Source: Centre for Architecture, 2021



Source: Leyland Alliance, 2016

1 Elongate parks to create “green fingers” and maximize access

Longer and slightly narrower parks are placed to maximize the number of households that have access and frontage to them.

2 Integrate the neighbourhood centre and park to create a unique promenade for the community

The neighbourhood centre is set beside a linear park and designed as a promenade and focal point for the community. The commercial and recreational uses are complementary and allow for a variety of activities to co-mingle.



Source: Google Streetview, 2018



Source: Perkins&Will, 2022



Source: Google Streetview, 2018

3 Maximize density around open spaces and neighbourhood centre

In general, the greatest density within the project area is organized around important destinations and amenities, like the neighbourhood centre and parks, to ease access.

4 Make the school a focal point of the community with a prominent location

Siting the school as the end of the promenade creates a unique view and landmark in the community and emphasizes its civic importance.

5 Engage RR17 and surrounding boundary roads

Buildings are oriented to front onto RR17 and surrounding boundary roads, in addition to local roads, to help animate and enliven these spaces and provide a welcoming impression of the community.

5.0 Evaluation of Alternatives

This evaluation framework prepared to assesses the performance of each alternative relative to one another. It is based around objectives that build upon the Guiding Principles and indicators that provide a qualitative or quantitative measure for identifying the level to which the objective is achieved by the alternative.

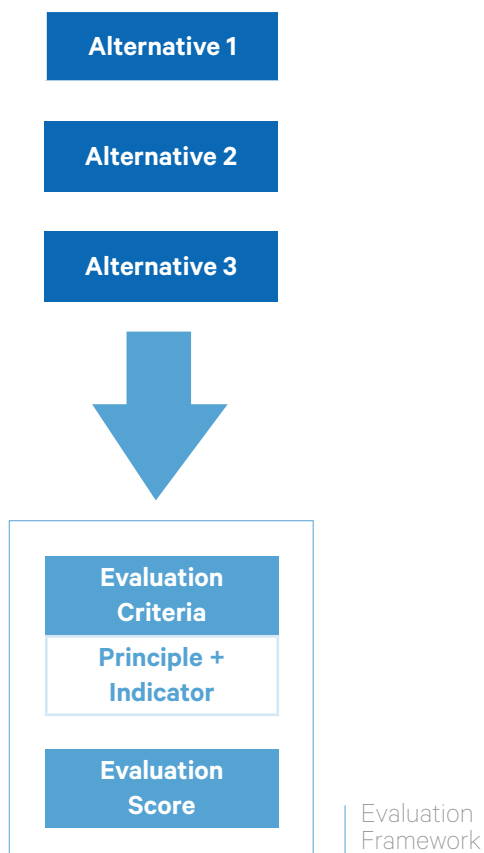
The alternative that best achieves the objective is assigned a score of 3, the second best performing alternative is assigned a score of 2, and the least well performing alternative is assigned a score of 1 for that objective. Where all three alternatives perform equally, a score of 0 is assigned to all three.

The scores for each objective are totaled by Guiding Principle, and then across all five principles to produce a total score. Neither for the individual objective score nor the aggregate Guiding Principle scores are weighted.

Based on the evaluation which is detailed on the following pages, Alternative 3 distinguished itself with the highest score. Alternative 3 scored highest on the following guiding principles: Liveable Neighbourhood, Beautiful and Inviting Neighbourhood, and Resilient Neighbourhood. Alternative 1 scored an equal number of points on the indicators related to a Unique Newcastle Neighbourhood, while Alternative 2 scored the highest on the indicators related to a Connected Neighbourhood.

TOTAL SCORES

	Alternative 1	Alternative 2	Alternative 3
Total Score Across All Four Principles	29	26	34



The Emerging Plan will not simply be selecting the one alternative with the higher score, but rather will draw the best from each alternative to develop an Emerging Plan. The following pages provide a summary evaluation that will help guide which elements should be drawn from each alternative to inform the Emerging Plan. The detailed evaluation is appended to this report (Appendix B) and includes detailed rationale for the individual objective scores.



GUIDING PRINCIPLE 1: A LIVEABLE NEIGHBOURHOOD

#	Objective	Indicator	Alternative 1	Alternative 2	Alternative 3
1	Meet Minimum residential densities	Meets or exceeds minimum residential densities (17 upnh) and allows for a broad density range that will enable flexibility as the Plan is implemented	Estimated: Min: 22 upnh Upper: 55 upnh	Estimated: Min: 24 upnh Upper: 61 upnh	Estimated: Min: 25 upnh Upper: 65 upnh
			1	2	3
2	Provide a variety of housing types	Meets or exceeds a minimum threshold of 70% low density to 30% medium density (net developable area) while also distributing medium density forms throughout the plan	68% low density, 32% medium density or mixed use Medium density distributed along RR17 and neighbourhood centre	62% low density, 38% medium density or mixed use Medium density concentrated around neighbourhood centre, and at core of neighbourhood along collectors	56% low density, 44% medium density or mixed use Medium density distributed in a radial pattern framing open spaces
			2	1	3
3	Complete community	Potential jobs within the Neighbourhood Centre	Estimated # of jobs: 121	Estimated # of jobs: 121	Estimated # of jobs: 121
			0	0	0
4	Mitigate potential conflicts with agricultural operations	Provides buffering in the form of window streets, trails, and/or green space along the perimeter of the plan area where facing agricultural uses	Predominantly a window street condition with some side yards Vegetated buffer/ boulevard	Predominantly a window street condition with some side yards Vegetated buffer/ boulevard	Predominantly a window street condition with some side yards, and additional green spaces Vegetated buffer/ boulevard
			1	1	2
Subtotal			4	4	8



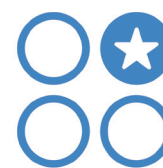
GUIDING PRINCIPLE 2: A CONNECTED NEIGHBOURHOOD

#	Objective	Indicator	Alternative 1	Alternative 2	Alternative 3
5	Walkability	Percentage of residential dwellings within 400 metres to a minimum of three amenities	Min: 20% Upper: 22%	Min: 24% Upper: 28%	Min: 18% Upper: 18%
			2	3	1
6		Meets an average maximum block length of 250m or less	125 m	124 m	136 m
			2	3	1
7	Maximize the number of pedestrian connections to arterial roads	Number of through-streets and/or non motorized right-of-ways (trails) intersecting or terminating at arterial roads, providing permeability into the plan area	20	22	20
			1	2	1
8	Provide a variety of route options	Meets or exceeds a minimum intersection density of 0.5 intersections / hectare	1.32 intersections / ha	1.25 intersections / ha	1.46 intersections / ha
			2	1	3
9	Provide a connected cycling network	Percentage of residential dwellings within 200 metres of cycling routes that connect to the network	100%	100%	100%
			0	0	0
Subtotal			7	9	6



GUIDING PRINCIPLE 3: A BEAUTIFUL AND INVITING NEIGHBOURHOOD

#	Objective	Indicator	Alternative 1	Alternative 2	Alternative 3
10	Maintain views and vistas of visible landmarks, including Natural Heritage System features	Number of visual /spatial connections to surrounding agricultural areas	17	19	15
			2	3	1
11	Building frontages oriented to the street	Meets or exceeds a standard of 70% of arterial roads being addressed with building frontages (as opposed to back lotting or side lotting)	85%	82%	86%
			2	1	3
12	Distribute parks throughout the Plan Area for accessibility to residents	Meets or exceeds a standard of 80% of dwellings within 200 metres of a park	99%	100%	100%
			0	0	0
13	Provide an adequate amount of parkland and open space	Meets or exceeds a parkland dedication standard of 1 ha. Of parkland per 300 units	Estimated parkland: Min.: 2.67ha/ 300units Upper: 1.06ha/ 300units	Estimated parkland: Min.: 2.32ha/ 300units Upper: 0.90ha/ 300units	Estimated parkland: Min.: 2.92ha/ 300units Upper: 1.10ha/ 300units
			2	1	3
Subtotal			6	5	7



GUIDING PRINCIPLE 4: A UNIQUE NEWCASTLE NEIGHBOURHOOD

#	Objective	Indicator	Alternative 1	Alternative 2	Alternative 3
14	Neighbourhood Centres are “gathering places” and shall incorporate public squares. Public squares will have the right of public access and will be designed as a high quality and interactive urban environment	Meets or exceeds a standard of 40% of residential dwellings within 200 m walking distance of the Neighbourhood Centre	49%	50%	59%
			1	1	2
15	Visual connections to destinations and amenities	Number of visual/spatial connections from boundary roads to neighbourhood destinations	14	9	8
			3	1	2
Subtotal			4	2	4



GUIDING PRINCIPLE 5: A RESILIENT NEIGHBOURHOOD

#	Objective	Indicator	Alternative 1	Alternative 2	Alternative 3
16	Promote the integration of transit and active transportation modes	Meets or exceeds a standard of 40% of People and Jobs within 200 metres of transit stops	Min: 71%, Upper: 69%	Min: 64%, Upper: 64%	Min: 69%, Upper: 68%
			3	1	2
17	Use of green infrastructure, lot level controls, and Low Impact Development techniques	Percentage of open spaces that overlay with natural low points and drainage areas (i.e. favourable candidate sites for LIDs)	10%	9%	11%
			2	1	3
18	Promote ecological diversity and limit the urban heat island effect through tree plantings	Proportion of post development tree cover based on estimated # of street trees / hectare and % of canopy	% canopy (streets) = 20% estimated # trees in parks = 273	% canopy (streets) = 22% estimated # trees in parks = 261	% canopy (streets) = 19% estimated # trees in parks = 325
			1	2	3
19	Maximize passive solar energy opportunities	Percentage of street length aligned within 25 degrees of geographic east-west to maximize solar gains	19%	19%	17%
			2	2	1
Subtotal			8	6	9
Total			29	26	34

6.0 Next Steps

The Land Use Alternatives and RR17 Evaluation will be presented at the Public Information Centre on Wednesday, June 8th to get feedback from the public. The technical assessment and evaluation of the alternatives combined with the comments received from the Steering Committee and the public will inform the development of a draft Emerging Land Use Plan that will integrate the best features of the three Alternatives.

The Emerging Land Use Plan will be used as the basis for developing the ultimate land use schedule to the Secondary Plan, as well as the demonstration plan in Phase 3 of the project.

The Emerging Land Use Plan will also be informed by the conclusions of the technical studies being undertaken as part of the Environmental Assessment process for RR17.

The Phase 2 Summary Report will conclude this phase of work, and will be made available on the project-specific webpage on the Municipality of Clarington's website: clarington.net/northvillage.



Appendix A

Land Budgets





LAND USE ALTERNATIVE 1

Land Use	Area (sqm)	Area (ha)	Efficiency	Net Dev Area (ha)	Density Range (units/ha)		Residential				Commercial		Community / Institutional	
					Min	Upper	Units		Residents		GFA (sqm)	Jobs	Area (sqm)	Jobs
							Lower	Upper	Lower	Upper				
Arterial/Collector Roads	67,277	6.73	N/A	N/A										
Road Widening	13,439	1.34	N/A	N/A										
Parks	50,510	5.05	N/A	N/A										
Water Reservoir	23,668	2.37	N/A	N/A										
Elementary School	27,205	2.72	N/A	N/A										30
Low-Density Residential	145,626	14.56	75%	10.92	13	25	142	273	429	825				
Low-Density Residential +	92,182	9.22	75%	6.91	19	40	131	277	374	788				
Medium Density Residential	70,634	7.06	75%	5.30	40	120	212	636	496	1,487				
Highway Commercial	10,428	1.04	N/A	1.04								10		
Mixed Use	27,376	2.74	75%	2.05	40	120	82	246	117	351	3,251	81		
Totals	528,345	52.83		26.2			567	1,432	1,416	3,452	3,251	91		30
DENSITY (units/people per net ha)							22	55	54	132				

LAND USE ALTERNATIVE 2

Land Use	Area (sqm)	Area (ha)	Efficiency	Net Dev Area (ha)	Density Range (units/ha)		Residential				Commercial		Community / Institutional	
					Min	Upper	Units		Residents		GFA (sqm)	Jobs	Area (sqm)	Jobs
							Lower	Upper	Lower	Upper				
Arterial/Collector Roads	66,018	6.60	N/A	N/A										
Road Widening	13,439	1.34	N/A	N/A										
Parks	48,255	4.83	N/A	N/A										
Water Reservoir	23,668	2.37	N/A	N/A										
Elementary School	25,882	2.59	N/A	N/A										30
Low-Density Residential	104,337	10.43	75%	7.83	13	25	102	196	307	591				
Low-Density Residential +	117,700	11.77	75%	8.83	19	40	168	353	478	1007				
Medium Density Residential	99,452	9.95	75%	7.46	40	120	298	895	698	2094				
Highway Commercial	10,428	1.04	N/A	1.04								10		
Mixed Use	19,166	1.92	75%	1.44	40	120	57	172	82	246	3,251	81		
Totals	528,345			26.6			625	1,616	1,565	3,937	3,251	91		30
DENSITY (units/people per net ha)							24	61	59	148				

LAND USE ALTERNATIVE 3

Land Use	Area (sqm)	Area (ha)	Efficiency	Net Dev Area (ha)	Density Range (units/ha)		Residential				Commercial		Community / Institutional	
					Min	Upper	Units		Residents		GFA (sqm)	Jobs	Area (sqm)	Jobs
							Lower	Upper	Lower	Upper				
Arterial/Collector Roads	72,928	7.29	N/A	N/A										
Road Widening	13,439	1.34	N/A	N/A										
Parks	60,126	6.01	N/A	N/A										
Water Reservoir	23,668	2.37	N/A	N/A										
Elementary School	26,723	2.67	N/A	N/A										30
Low-Density Residential	106,349	10.63	75%	7.98	13	25	104	199	313	602				
Low-Density Residential +	82,555	8.26	75%	6.19	19	40	118	248	335	706				
Medium Density Residential	113,970	11.40	75%	8.55	40	120	342	1,026	800	2,400				
Highway Commercial	10,428	1.04	N/A	1.04										
Mixed Use	18,159	1.82	75%	1.36	40	120	54	163	78	233	3,251	81		
Totals	528,345			25.1			618	1,666	1,526	3,941	3,251	91		30
DENSITY (units/people per net ha)							25	66	61	157				



Clarington

SvN

BT ENGINEERING
BTE

AECOM

URBANism
by **DESIGN**
citybuilding & placemaking

footprint