ION Methodology

Here is a quick breakdown of our modeling method. There are several factors that shape change in neighbourhoods, two of which are evolution as a result of municipal investments, and infill development. Neither is random. Municipal leaders make decisions about investments. Developers systematically analyze market demand and regulations to find good business opportunities. Municipalities can change both regulations and investments to significantly change the way neighbourhoods evolve.

Accurate modeling and projections of upcoming changes in our existing neighbourhoods requires a clear understanding of the dynamics of change, and particularly of infill development choices. So modeling work begins with research and analysis.

Next, it is important to be very clear about what is being modeled. Modeling assumptions set the stage for simulation, by clearly defining what municipal regulations and investments will exist in this future projection. Official Plan proposals for simple regulations, walkability, equity and certain rates of intensification are foundational to this model. Neighbourhoods are generally assumed to retain their existing characteristics of maximum building heights and spacing.

Intensification in Ottawa's Neighbourhoods

Analyzing, understanding and sharing info ABOUT

How neighbourhoods change, evolve and intensify.

ION base model assumptions

- municipal regulations
- municipal investments
- development predictors
- community aspirations and objections

SET TARGETS:
Intensification
Active Transpiration
Neighbourhood completeness
Trees and Landscaping

What is *modeling*?

Modeling is the simulation of what would or could happen under certain defined circumstances. ION is a simulation of what would happen if neighbourhoods stopped changing in the way they are now, and instead were shaped by new regulations to promote evolution, walkability and multi unit infill, without much change to the size or rhythm of buildings along our neighbourhood streets, protecting valued characteristics and space for trees.

Why should we model our neighbourhoods?

Modeling allows us to test ideas and envision our future. Information and collaboration would replace speculation, fear and division. And modeling allows us to plan a path from where we are now, to where we want to be -- a path that is clear and a plan that is robust. When we have a model to help us understand potential infill development, and factors that affect infill numbers, we can make choices to upgrade municipal services to pre-emptively meet the needs of a growing population. Modeling informs work to protect valued characteristics of our neighbourhoods and balance values and goals.

ION Modeling Report

Modeling 25 years of renewal and intensification in *neighbourhood fabric*

Ottawa's neighbourhoods within the greenbelt are divided into study areas. Layers of mapped data are gathered, including numbers and sizes of lots, building heights and setbacks, percentage of tree canopy, age of development… all the data that informs infill development or affects the amounts of infill built.

Infill development options are analyzed systematically by building size. Options are identified with diagrams and notes, showing the orientation and quantities of dwelling units that would be profitable in these different sizes of buildings. Following baseline assumptions, buildings are regulated by their outside form, not the orientation or quantity of units within. Options for dedicated or shared entrances are noted, as well as other features of significance to development and construction.

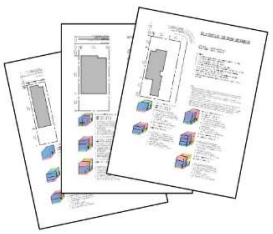
Lots are systematically analyzed by applying baseline assumptions, to determine what size, shape and height of building would be likely, as well as the amount of the lot that would be undeveloped, soft landscaped and available for tree roots. The applicable built for solutions are listed.

Mapping Neighbourhood Fabric by area

... areas with similar features that impact development patterns and neighbourhood acceptance of infill

Development Analysis by Footprint Size

Development Analysis by Lot Size and Orientation



Why is walkability a focus of this modeling?

Rates of infill housing and walkability are interdependent. On-site parking takes a lot of space, so if infill developments have on-site parking, they have fewer infill housing units. But infill without permanent parking isn't viable in areas that are not yet walkable, unless there is transitional parking and a clear transition plan. Large amounts of car-centric infill creates gridlock. Large amounts of walkable infill allows existing residents to benefit from the upgrades that make a neighbourhood *delightfully walkable and complete*.

Will this modeling lead to more change in my neighbourhood?

No, for most areas this modeling will demonstrate that the valued features of your neighbourhood do not need to change. Infill is sized to 'fit-in'.

Yes, for most areas this modeling will demonstrate that healthy infill patterns depend on neighbourhood upgrades, including tree planting, park upgrades and new pathways.

Yes, modeling will demonstrate the potential for new small shops at walking distance to homes.

Yes, your neighbourhood and your streets will become more animated; porches and terraces, people walking and biking.

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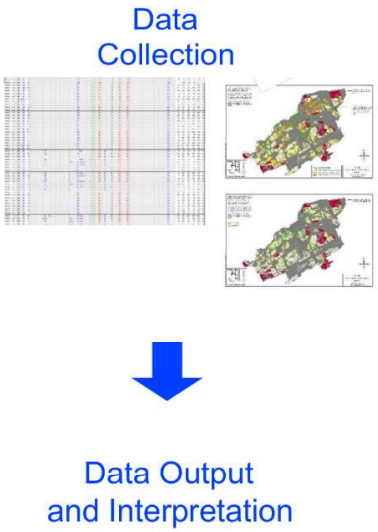
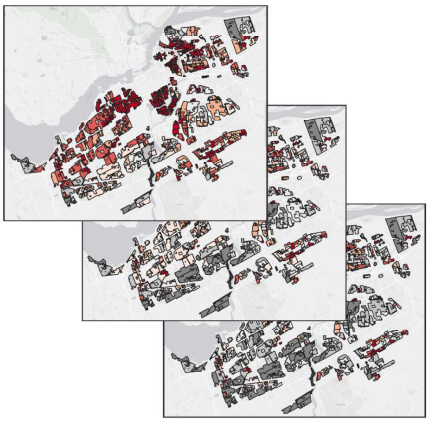
ION Modeling Report

Modeling 25 years of renewal and intensification in *neighbourhood fabric*

Data is compiled by geographic location and tabulated to understand the effect in each area and in the City as a whole: the number of new dwellings, the types of new buildings, the numbers of people living in delightfully walkable and complete communities after 25 years of intervention.



Simulations of multiple scenarios are mapped to show anticipated residential densities, infill densities, population growth, diversity of unit types, changes in household emissions and tree canopy.



Scenarios are scored against City targets, and can be used to plan municipal upgrades.Outcomes can inform policy direction, new zoning, fee structures and other regulations.

What should I do to support renewal in my neighbourhood?

- Talk to your City Councillor about having these ideas added to our Official Plan; modeling of infill and neighbourhood renewal, action plans for transitions to *delightfully walkable and complete communities,* infill that 'fits-in'.

- Join Walkable Ottawa as we advocate and problem solve together. www.walkableottawa.ca

- Ask your Councillor or Neighbourhood Association to help fund this modeling project by purchasing a *Neighbourhood ION Report.*