

Multiplex Design Modelling



What do we mean by “Multiplex housing”?

- Housing with 2, 3, or 4 units in a single building.
- Generally rentals but can also be small scale condominiums.
- Includes both purpose-built and converted buildings.



Thinking Inside the Box: More Units, Same Scale

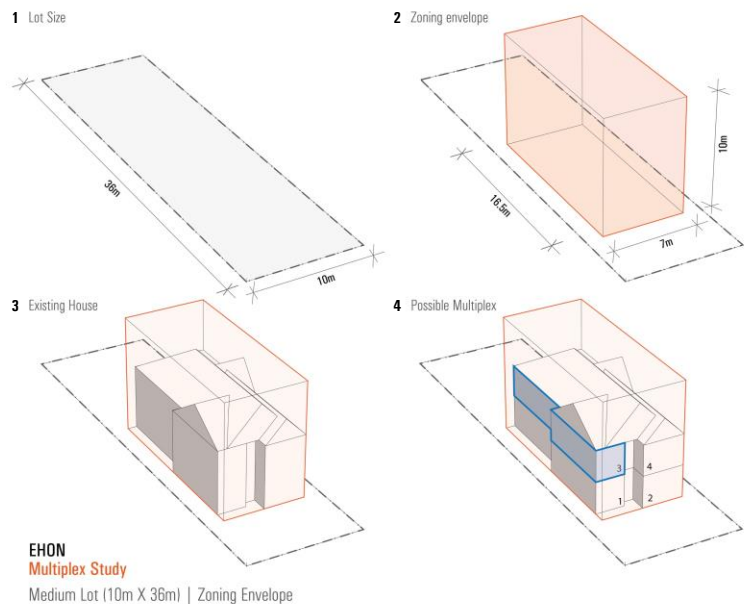
The Multiplex team completed design testing to confirm that existing zoning envelopes could accommodate more units within the same sized house that is already permitted. The following pages show the results of the modelling to show what multiplexes could look like.



Design Studies

The image shows the modelling that was used for each design study. The following bullets describe each image.

1. Lot Size: staff started the modelling by a lot patterns in Toronto and selecting typical lot sizes which represent a wide range of typical neighbourhoods.
2. Zoning Envelope: staff modelled the maximum dimensions that one would be allowed to build based on the current zoning. We call this Zoning Envelope and it is shown in orange.
3. Existing House: to assess whether an existing single-detached house could be converted to a multiplex, the existing house was added to the model.
4. Possible Multiplex: the existing house was divided into multiple units to test design and feasibility.

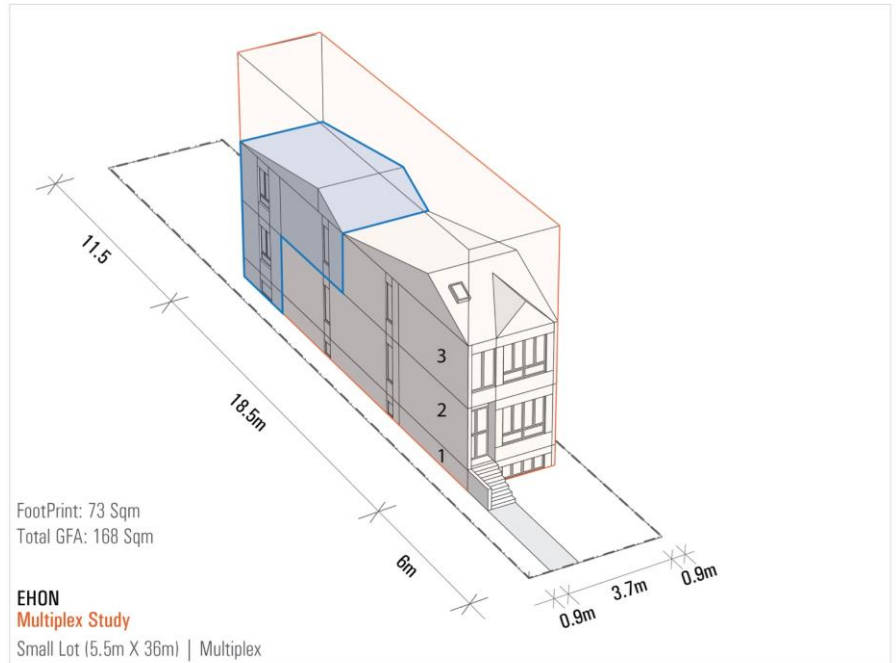


Multiplex Diagrams Explained

The following page presents the results of modelling done on four typical Toronto lot sizes. This annotated diagram is intended to help the user understand all of the information presented.

Existing Home

Addition for Multiplex



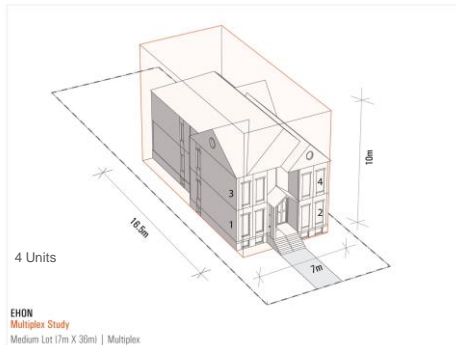
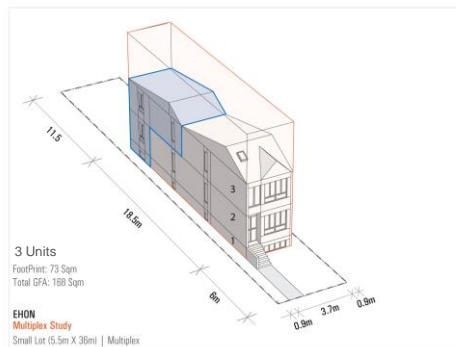
Lot Size Testing

This exercise was repeated for four typical lot sizes to show that multiplexes can be built within the existing zoning envelope.

In all cases, it was possible to build 3 units on each lot size. The larger lots could also support a fourth unit.

Existing Home

Addition for Multiplex



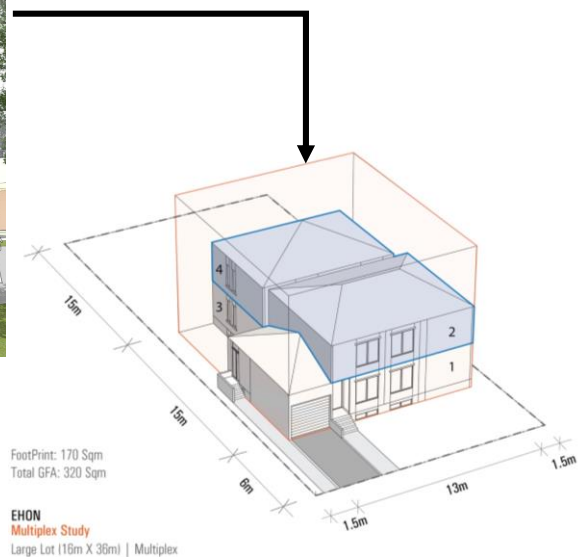


Multiplexes in a Neighbourhood Context

The following pages show what the multiplex models look like within their neighbourhoods from the perspective of a pedestrian across the street.



Bungalow to 3 Unit Multiplex Conversion



Bungalow: Existing Condition



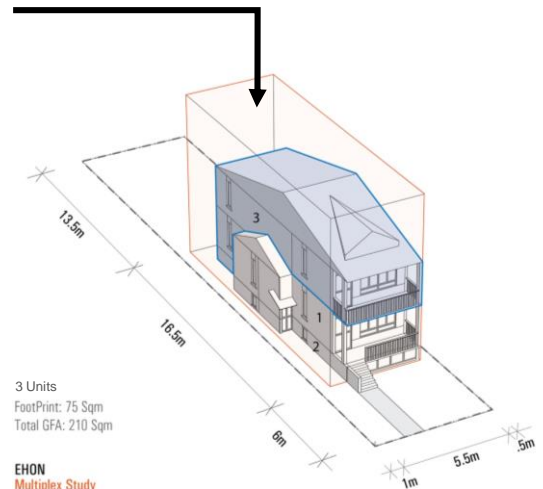
Bungalow: Rear Addition



Bungalow: 2.5 Storey Multiplex Conversion



1.5 Storey Single Detached to 2.5 Storey, 3 Unit Multiplex Conversion



3 Units
FootPrint: 75 Sqm
Total GFA: 210 Sqm

EHON
Multiplex Study
Medium Lot (7m X 36m) | Multiplex

1.5 Storey House: Existing Condition



1.5 Storey House: Rear Addition



1.5 Storey House: 2.5 Storey Multiplex Conversion

