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GARDEN SUITES BY-LAW
COMMENTS AND RECOMMENDATIONS

INTRODUCTION

I was retained by FoNTRA to review the draft Garden Suites By-law (GSB). My opinion is based upon 20-years experience operating Chizen & Mills, a house design-build practice in the former City of Toronto, and 18-years of practice as a Registered Professional Planner.

The following remarks on the draft Garden Suite By-law (GSB) are based on a review of work to date, and, independent analysis of the different block-types and their *green space system*; the range of lot sizes involved; and the development potential of both the main building and the Garden Suite (GS) portions of each property.

Creating Garden Suites provides an option for additional housing in neighbourhoods. A GS needs to be designed responsibly in a manner which preserves the *green space system* that exists in these green-blocks, and, is equitable for the adjacent neighbours and the neighbourhood.

Recommendations to revise and/or augment the GSB standards appear as bullet points in blue. Where recommendations may be considered as extending beyond the framework of the GSB, they should be incorporated into a companion information resource, or where appropriate, referred to in the GS Official Plan Amendment sidebar.

CONTEXT

The City’s Garden Suites Proposal Report of June 14, 2021 stated:

“The study and draft regulations focus on two guiding principles: GARDEN + SUITE.

GARDEN

Maintain and where possible enhance the natural environment, urban forest tree canopy and soft landscaped character that is supported by the private yards within Neighbourhoods.

SUITE

Promote the gradual expansion of housing options within Neighbourhoods by enabling livable, lower-scale detached accessory dwelling units on as many properties as possible throughout the city.”

The term ‘Garden Suite’ aptly acknowledges the nature of green blocks, and defines in two words the fundamental characteristics of GS solutions.


The GSB needs to address a broader array of 'blocks', 'lots' and 'main buildings' types than are required for Laneway Suites (LS). Laneway settings are limited by requiring a laneway. Laneways are primarily found in older parts of the city, and are scarcely found elsewhere. A significant difference between the GS and LS contexts - is that the rear of a LS lot abuts a hardscape and the lot is bracketed between garages on each side, whereas, a GS lot is sleeved all around within a green space system.

TWO DISTINCTLY DIFFERENT BLOCK TYPES


These pictures provide an on-the-ground perspective of blocks with and without laneways. The inclusion of a laneway structure in the middle of a block creates a subordinate streetscape that does not otherwise exist.

UPPER PICTURE... Laneways are generally found in the older parts of the city where blocks are often comprised of narrower and shallower lots.

LOWER PICTURES... The absence of a laneway results in a very different ‘garden’ character.



LANEWAY CONTEXT **LANE-LESS CONTEXT**



GREEN BLOCK CONTEXT - side lot line treatment **- rear lot line including mature trees**

MAINTAINING THE NATURAL ENVIRONMENT

Erecting a GS and creating a shared amenity space for 2 to 4 families in what was a private rear yard involves a significant alteration to the existing character of Neighbourhoods, as is indicated by the proposed amendments to the Toronto's Official Plan. Maintaining the natural features of the rear yard area is a challenge. These changes require by-law standards that acknowledge and regulate significant alterations to private property and regulations that will mitigate potential adverse impacts.

A GS is intended for residential blocks where there is no laneway system. These *green-blocks* are the most frequent residential block-form throughout the city. Green-blocks interiors include a *green space system*, extending across the combined matrix of rear yard spaces with forested rear and side perimeters.

A GS involves two significant soft landscape elements, namely –

1. Creating a shared courtyard space, where previously the area was a private rear yard
 - the GSB shall establish a minimum separation between the main building and the GS that is equivalent to the minimum rear yard setback for a lot, namely 7.5m
2. Creating a 'curtilage' of greenery that wraps around the sides and the rear of a GS.
 - the GSB shall state that the side and rear setback areas are to be rendered as soft landscaping with the exception of bicycle and bin storage areas immediately behind the front main wall line of the GS

The GSB needs to provide a 'soft landscaping' definition that is relevant to the unique rear yard landscaping involved, rather than relying on the general by-law's soft landscaping definition which is more focused on identifying what hard features can intrude into soft landscaping –

- the GSB shall include a GS-specific 'soft landscaping' definition, including such wording as – *“areas that supports the growth of vegetation such as grass, trees, shrubs, flowers or other plants and permits water infiltration into the ground”*

The GSB needs to establish a process that brings the protection and improvement of forestry to the forefront of the approval process, rather than referring to forestry considerations as a condition to be resolved after otherwise approving an application.

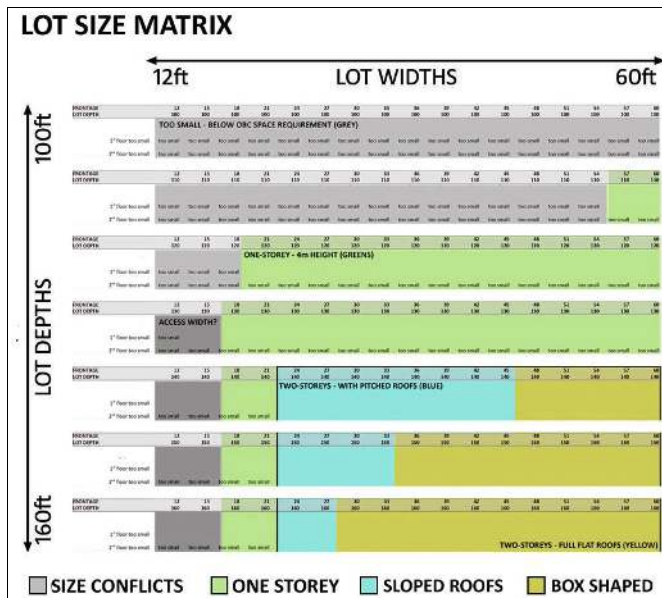
- prior to submitting a building application an arborist's report shall be submitted to City Forestry and an approved tree protection strategy acquired

LOT SIZES

The GS concept is broadly applicable across the city, which involves a diversity of lot sizes. Some lots are too small to accommodate a GS, other lots can accommodate a one-storey or a two-storey subject to angular planes, with larger lots accommodating a full two-storey GS.

→ the GSB shall establish lot width and lot depth standards for each category of GS.

[See Appendix A - Lot Size Matrix and Assumptions]



SIZE CONFLICTS - NO GARDEN SUITE – a GS is not feasible on narrow lots of 6.0m or less, and shallow lots of 36.0m or less, should not be zoned for GS to avoid unrealistic expectations resulting in variance requests

ONE-STOREY WITH FLAT ROOF – maximum height 4.0m, appropriate for smaller lots – greater than 6.0m x 35.5m OBC minimum room size regulations need to be met

TWO-STOREY WITH PITCHED ROOF(S) – a partial 2nd floor can be achieved on lots wider than 8.0m observing angular planes commencing at 4.0m height at setbacks

TWO-STOREY WITH FLAT ROOF – on larger lots, a full two-storey GS can be achieved by building further back from setbacks to remain within the angular planes

SMALL LOTS

Not all lots sizes are either long enough or wide enough to accommodate a GS. Small and/or narrow lots are not able to meet OBC minimum dwelling size requirements, and some lots are not eligible as they cannot meet OBC minimum room size requirements for a 2nd storey.

→ The GSB shall include standards that respect the following lot characteristics –

- *the rear main wall alignment of the main building, consisting of the front yard setback and permitted building length, and consideration of adjacent house lengths*
- *shared courtyard depth, being a distance not less than the minimum rear yard setback for a residential lot as specified in the general by-law, namely 7.5m*
- *rear setback of the GS, as currently proposed in the draft GSB (namely a 1.5m minimum with additional setbacks on specific lot sizes and type of GS)*

- *overall GS footprint limitations, overall exterior dimensions bracketed between a minimum of 4m and a maximum of 10m*
- The minimum required lot depth for a GS should be specified as 36.0m (118')
 - based on –
 - a minimum front setback of 6.0m (20')*
 - a permitted building length of 17.0m (56')*
 - a minimum rear yard setback for any residential lot being 7.5m (25')*
 - a 1.5m setback at the rear of a GS, and*
 - a minimum GS depth of 4.0m (13')* *[6+17+7.5+1.5+4]*
- The minimum required lot width for a GS should be specified as 6m (20')
 - based on –
 - sideyard setbacks of 0.6m (20'),*
 - a minimum GS footprint width of 4m (13')* *[2x0.6+ 4]*
 - of note – it is not uncommon for lots wider than 6.0m to lack the necessary 1.0m wide walkway*

STREET ACCESS

As this walkway is the sole means of egress for a GS, it is of greater concern than a LS walkway where there are two means of egress (to the street and to the laneway).

- the GSB shall include a relevant walkway standards – e.g. lighting requirements and limitations

MAIN BUILDING LENGTH

Existing main buildings are frequently of modest-size, and they are anticipated in the future to undergo additions and/or building replacements. The proposed GS Official Plan Amendment states that a GS is a “*self-contained residential unit subordinate to a primary dwelling*”, therefore –

- the front main wall of a GS should be no closer to the front property line than the sum of the following distances pertain to the lawful development of the main building, namely the sum of the – *front yard setback + main building maximum depth + 7.5m rear yard setback*.
[NB – this provision shall override the draft GSB standards 150.7.60.21 and 150.7.60.31]
- the inclusion of a GS shall not preclude the development potential of the main building on the lot, respecting the permitted building depth of a main building

- where an existing main building exceeds the permitted building depth, the GS should not be positioned closer to the existing main building's rear main wall than 7.5m (25')

SEPARATION DISTANCE / SHARED COURTYARD

The space between the main building and a GS is a shared open space for both buildings –

- the minimum rear yard setback standard that applies to a house on a lot in the general by-law is 7.5m (25'), which should be maintained as the minimum separating distance between the main building and a GS, even though it introduces an additional dwelling

At present, the GS concept has been addressed with a house being the main building. The requirements of the shared courtyard space will depend upon whether the main building is a Detached House (with one or more dwelling units), a Semi-Detached House, a Townhouse (end units only), a Duplex, a Triplex, a Fourplex; or an Apartment Building – all of these are permitted in an R-district.

- all the potential main building types shall be assessed in terms of their specific courtyard space requirements, including overall area, multiple decks and access stairs, bicycle and bins storage-- and appropriate standards are to be included in the GSB

BUILDING FOOTPRINT

The current GSB draft includes a maximum footprint area standard of 60.0m² (645^{SF}), however, it does not include a minimum footprint standard, and overall length and width standards.

The GSB shall include the following standards –

- a minimum dwelling unit standard of 20m² (220^{SF}) *[OBC – including exterior wall]*
- a maximum length and width standard of 8m (26')
- a minimum length and width standard of 4m (13')

ADJACENT PROPERTIES PROTECTION

The GS originates from the ancillary building standards in the general by-law, however, a GS is significantly different from the former uninhabited ancillary building form that provides storage, parking, and the occasional work space.

A GS significantly alters the rear yard area on the lot, and likewise, affects the adjacent neighbours' outdoor amenity areas. The creation of a GS introduces daily dwelling routines including: noise, overview, and lighting intrusions.

Mitigation measures in the GSB shall include –

- respect and reinforce the existing character of the established neighbourhood
- locate the GS beyond the alignment of the adjacent main buildings' rear main walls
- protect and improve the soft landscaping, permeable soil and tree canopy
- where a GS lot has a 'key lot' relationship with abutting properties, the side yard setback shall be not less than the rear yard setback for that lot
- require appropriate privacy fencing and screening extending along the rear and side lot lines extending up to the rear main wall of the main building
- render the setback area around a GS as being primarily soft landscaping
- chimneys, architectural pilasters etc., are not to project more than 0.2m (8") into GS sideyard setbacks [proposed by-law provision 150.7.60.60 (6)]
- exterior decks need to be no higher than 0.3m above grade, and are not to be permitted on second floor levels and roofs [proposed by-law provision 150.7.60.60 (4)]
- decks associated with the main building and the GS are not to intrude into the shared courtyard area, and when they do, they should be offset by an equivalent increase in the shared courtyard area calculation
- bicycle and bin storage areas are to be immediately behind the front main wall line of the GS and are to be screened
- principal windows in living and dining rooms, and stairwells are prohibited on the sides and rear
- dormers are prohibited on the sides and rear

- roof windows and skylights are permitted in the side and rear roof slope
- roof projections for air-conditioners etc., are to be limited to a maximum 1.0m in height, setback 1.0m from the edge of that roof portion, and are to be within angular planes [proposed by-law provision 150.7.60.40]
- a green roof is permitted if it is not accessible from the interior of the GS or by means of an exterior stair, and no offset is to be provided where there is a soft landscaping deficiency at grade
- exterior stairs are not permitted above the first floor level
- enclosed stairs are not permitted to the roof

BELOW GRADE

Protecting and improving the natural features of the rear yard area is of primary importance. The inclusion of a GS will generally require flexibility in the design of its foundations, in order to protect the health of existing mature trees in the rear yard and its vicinity.

- basements are not to be permitted, as they conflict with appropriate forestry efforts, increase the intensity of the GS dwelling, and, they not be in keeping with the character of a GS.

PARKING

Across the city, there are neighbourhoods with limited public transit service –

- the GSB shall require a parking space for a GS in areas with limited public transit service, following the parking standards proposed for Multi-tenant Houses

CONSTRUCTION SEQUENCE

The GSB Permitted Uses section includes a provision to allow Garden Suite construction prior to “the erection of the main walls and completion of the roof of a residential building”. To avoid misinterpretation of the intent of this provision (150.7.20.1), the by-law should be modified to specify that the main wall foundations of the residential building must be constructed prior to construction being permitted of the Garden Suite.

BY-LAW PRODUCTION

The GS is a new dwelling concept. Hence, the GSB needs to be both an 'informative' as well as a statutory instrument. The GS planning process has expressed the intention to be informative, however the present draft GSB is devoid of any connection to such information. The informative value should not be overlooked. A by-law is most often referred to as a reliable source of appropriate development measures to be incorporated into a building solution.

- where information having bearing on the composition of a GS is not incorporated into the GSB, then the GSB shall make reference to such informative resources as – for example: *OBC Tiny House dwelling standards, Fire and Emergence Service requirements, Forestry provisions, and other authorities' documents having bearing on the composition of a GS.*

Additional inquiry is required into –

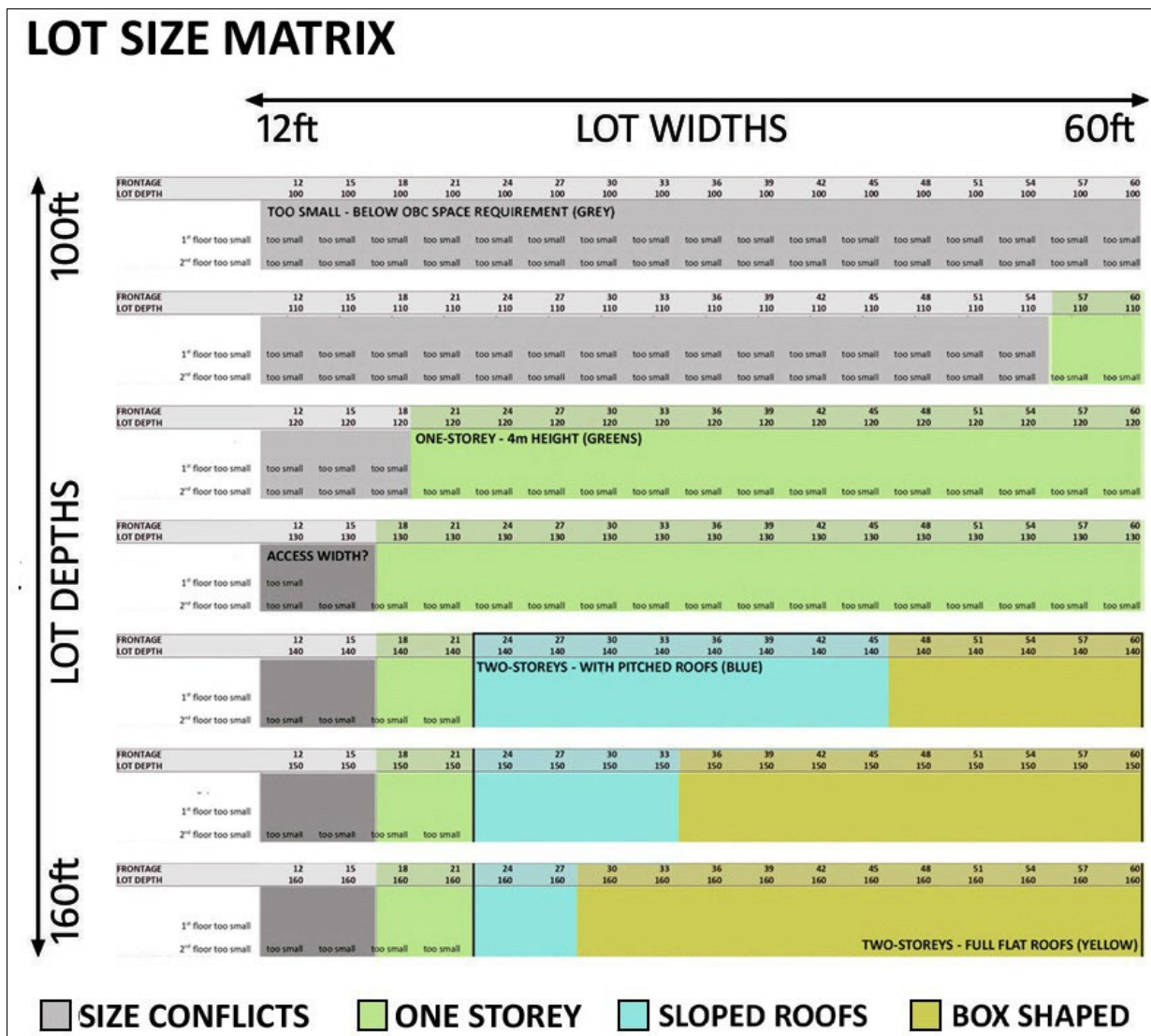
- the diversity of green-blocks conditions that exist across the city, recognising that some lots cannot accommodate any GS, whilst others can accommodate a single-storey GS, and others still, a two-storey GS with a pitched roof, or a full two-storey GS with a flat roof when set further back from angular plane provisions.
- likewise, there are different shared courtyard configurations to be considered that result from incorporating a GS with different main building types: Detached and Semi-Detached houses (having one or more units), and also a Townhouse (end units only), Duplex, Triplex, Fourplex, and, Apartment Building.
- furthermore, the GSB needs to use a single method of measurements – whereas presently in the GSB, the main building includes exterior walls, and the GS excludes consideration of exterior walls. The significance of this anomaly is readily apparent in the GSB requiring comparisons in scale between the main building and the GS building.

Respectfully –



Terry Mills B.ARCH, RPP, MCIP

APPENDIX A – LOT SIZE MATRIX & ASSUMPTIONS



SIZE CONFLICTS - NO GARDEN SUITE – a GS is not feasible on narrow lots of 6.0m or less, and shallow lots of 36.0m or less, should not be zoned for GS to avoid unrealistic expectations resulting in variance requests

ONE-STOREY WITH FLAT ROOF – maximum height 4.0m, appropriate for smaller lots – greater than 6.0m x 35.5m; OBC minimum room size regulations need to be met

TWO-STOREY WITH PITCHED ROOF(S) – a partial second floor can be achieved on lots wider than 8.0m observing angular planes commencing at 4.0m height at setbacks

TWO-STOREY WITH FLAT ROOF – on larger lots, a full two-storey GS can be achieved by building further back from setbacks to remain within the angular planes

LOT SIZE MATRIX ASSUMPTIONS

GARDEN SUITES – LOT MATRIX ASSUMPTIONS

The HEAT MAP - LOT MATRIX identifies different Garden Suite massings reflective of the City's diversity of lots. In total, the Lot Matrix describes Garden Suite solutions for 119 different combinations of lot widths and lot depths.

SITE ASSUMPTIONS

- **Main House Front Setback:** 6.0m [ZB: R and RD default]
- **Main House Depth:** 17m or 55ft [ZB: detached and semis]
- **Open Space Separation:** 7.5m between Main House and Garden Suite [ZB : R and RD default]
- **Dwelling Footprint:** maximum 60m² or 645^{SF} [Planning Study: Draft Standards]
- **Side and Rear Setbacks:** [Planning Study: Draft Standards]
- **Adjacent Main House:** depth assumed at 17m or 55ft building length

UNIT ASSUMPTIONS

- **Minimum Dwelling Size:** 17.5m² or 188^{SF} (including exterior walls = 20.5m² or 220^{SF}) [Ontario Building Code (OBC)]
- **Minimum Dwelling Width:** 3.7m or 12ft [reference: OBC room sizes]
- **Minimum Ceiling Heights:** see – [OBC and ZB compliant]
- **Knee Walls:** higher than 4.7ft are included in gross floor area calculations [ZB]

In general, measurements have been reported in imperial units to suit a broader audience, with significant figures in both metric and imperial. Individual lot outcomes should be determined through detailed calculations on a case-by-case basis, as actual lots have unique considerations. Ontario Building Code Reference: Tiny Houses publication.

APPENDIX B – CROSS-SECTIONS OF DIFFERENT TYPES OF GARDEN SUITES

GARDEN SUITES – MASSING FUNDAMENTALS

All Garden Suites are limited to a maximum ground floor footprint of 60m² or 635^{SF} and are subject to front, side and rear setbacks.

ONE-STOREY GARDEN SUITES

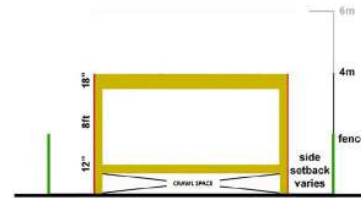
Garden Suites of 1-storey in height are generally intended for modest sized lots, where building height is limited to 4m and angular plane provisions do not apply.

1A) 1-STOREY FLAT ROOF

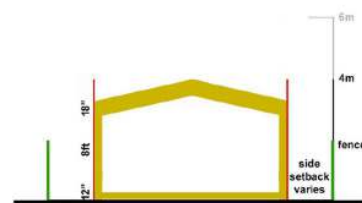
A flat roof may accommodate additional ceiling height within the unit or accommodate a crawl space beneath.

1B) 1-STOREY PITCHED ROOF

A pitched roof may be incorporated provided that the building height conforms to 4m.



1A) 1-STOREY FLAT ROOF



1B) 1-STOREY PITCHED ROOF

GARDEN SUITES – MASSING FUNDAMENTALS

All Garden Suites are limited to a maximum ground floor footprint of 60m² or 645^{SF} and are subject to front, side and rear setbacks.

TWO-STOREY GARDEN SUITES

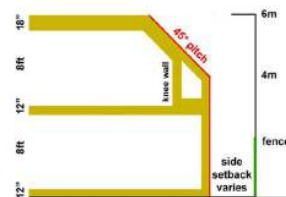
Two-storey Garden Suites have a maximum permitted building height of 6m. Angular planes apply in some cases.

2) 1½-STOREY PITCHED ROOF

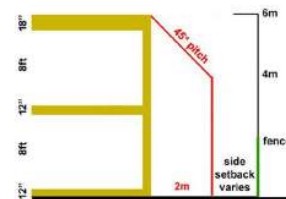
Garden Suites of 1½-storeys in height with pitched roofs are intended for medium sized lots, where the dwelling is positioned close to permitted setback lines. Second floor areas may include knee-wall areas observing the angular planes.

3) 2-STOREY FLAT ROOF

Garden Suites of 2-storeys in height with flat roofs are intended for larger lots, with the second floor area being equivalent to the ground floor footprint area – so long as the building is set back sufficiently to satisfy angular plane requirements.



2) 1½-STOREY PITCHED ROOF

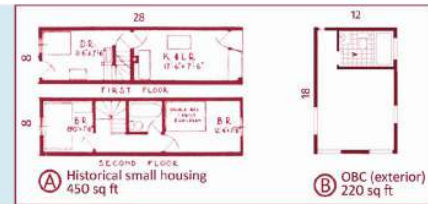


3) 2-STOREY FLAT ROOF

APPENDIX C -- GARDEN SUITES FUNDAMENTALS

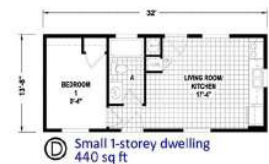
GARDEN SUITES – LAYOUT FUNDAMENTALS

- (A) An historical Toronto example of a tiny two-storey 450^{sq} house on an 8ft wide lot – clearly demonstrating the need for a broader building floor plan.
- (B) The Ontario Building Code minimum dwelling size is 188^{sq}, and including exterior walls it has a gross floor area of approximately 220^{sq}.



The following are examples of prefabricated small home layouts which illustrate the scale and organisation within a one-storey Garden Suite, and raising the question of doors, windows and decks facing the front, rear and side contexts.

- (C) A potential wide body Garden Suite (580^{sq}) on a 29ft x 130ft lot. This solution would suit many (f9.0) lots in R, RD, RS and RT zones.
- (D) This is a narrower 440^{sq} dwelling on a 18ft x 135ft lot would suit many R(f6.0) lots in the former city of Toronto.
- (E) This narrow but longer 560^{sq} dwelling is shown on an 18ft x 145ft lot, which is only 10ft deeper than (D) but offers 25% more floor area.



Two-storey Garden Suite solutions are readily envisioned as small houses, with a main living area floor at grade and dormitory functions on the 2nd Floor.