# **DENSIFYING DARTMOUTH?**

Emerging Land Use Patterns in Suburban Development

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#### **<u>1. INTRODUCTION</u>**

Over the past few decades, the suburbs have become a frequent topic of debate and mockery, yet they are where Canadians overwhelmingly choose to live. The conventional post-war model of single-detached homes, large lots, and cul-de-sacs remains the dominant form of suburban development, but shifting demographics are affecting the housing market in many ways. Older generations are increasingly choosing to downsize from their family homes and move into condominiums, but many still prefer a suburban life to an urban one. There has been a renewed focus on downtown development in recent years, but the suburbs are still booming. This settlement pattern represents a host of problems: suburban sprawl, auto-dependency, and increasingly expensive infrastructure that municipalities can no longer afford.

Current planning theory suggests that increased housing density is the best way to achieve sustainability initiatives and mitigate the negative aspects of sprawling urban growth. For those who enjoy a suburban life, density is often viewed negatively. Many associate it with tall buildings, overcrowding, reduced privacy, and increased traffic. While higher density often means more apartment buildings, research shows that housing densities can be greatly increased by reducing lot sizes and re-inventing the way single-detached neighbourhoods are designed (CMHC, 2013b; Skaburskis, 2006). New Urbanist, or neo-traditional, forms of development have proven to be one successful model to accommodate higher housing densities, but only a handful of these communities exist in Canada (Grant and Bohdanow, 2008).

Research on New Urbanism and Canadian densification patterns is plentiful, but much of the published literature is focused on the country's largest urban centres, particularly Toronto. While this research is extremely useful, it does not necessarily apply to trends in small and mid-sized cities. This report<sup>1</sup> focuses primarily on the suburban land use patterns in Halifax Regional Municipality in the hopes of contributing to research on smaller municipalities.

<sup>&</sup>lt;sup>1</sup> This Working Paper is part of the ongoing Trends in the Suburbs Project, led by Dr. Jill Grant at Dalhousie University. Visit <u>http://theoryandpractice.planning.dal.ca/html/suburbs\_project/</u><u>suburbs\_index.html</u> for more information on the project. This research was funded by the Social Sciences and Humanities Research Council and through a grant to Roger Keil, York University.

#### **<u>1.1 Trends in the Greater Toronto Area</u>**

The Greater Toronto Area (GTA) is Canada's largest municipal region and often acts as a barometer for planning initiatives in the rest of the country. Much of the current research on suburban density is focused on metropolitan Toronto. As such, it is helpful to understand the GTA's planning context and current development trends to provide perspective on trends in the rest of the country. The GTA currently boasts a population of 6.5 million people and a growth rate of 9% (City of Toronto, 2012). Though condominium development in downtown Toronto has been booming in recent years, most new development continues to occur outside the city in the vast commutershed. Toronto, like many cities, has struggled to determine the best path

forward amidst such strong growth.

Ontario's *Places to Grow Act* (2005) is comprehensive legislation that sets the course for development throughout the province, while its subsidiary document, *The Growth Plan for the Greater Golden Horseshoe* (2006), provides a framework for the major population centres in Southern Ontario, particularly the GTA. The policy encourages more compact development



Figure 1: Ontario's Greater Golden Horseshoe (Ontario Ministry of Infrastructure, 2006)

located within the greenbelt that surrounds the GTA (Figure 1). To curb sprawl and

preserve agricultural land, the *Growth Plan* envisions "complete communities" (p. 10) that are concentrated around central nodes. Housing costs close to the city are high, but demand for suburban housing within the greenbelt and close to employment centres remains at a premium.

Some municipalities within the GTA have turned to New Urbanist-style greenfield development to fulfill the demand for affordable housing on dwindling land supplies. Markham, a suburban city in the Region of York, in particular is frequently cited as one of the most successful models of compact suburban development (CMHC, 2013a; Gordon and Vipond, 2005; Taylor and Van Nostrand, 2008). Since the 1990s, residential development in Markham has trended towards single-detached homes built on lots much smaller than in conventional suburban neighbourhoods, as well as an increased supply of attached housing types and apartments. The city remains a popular choice for residents, and has a growth rate higher than that of the GTA as a whole. The result has been a significant increase in housing density and an ever-increasing demand for more units.

#### **1.2 Halifax Regional Municipality**

Though the GTA provides numerous examples of "density done right," trends in the nation's largest metropolis are not easily applied to all Canadian municipalities. Halifax Regional Municipality (HRM), with a population of 400,000 and a 4% growth rate, has its own unique set of planning challenges. In 1996, the former city of Halifax amalgamated with the city of Dartmouth, the towns of Bedford and Sackville, as well as numerous villages in the rural hinterlands of Halifax County. The result is a municipality roughly the same size as Prince Edward Island with various competing interests and divergent growth patterns (Figures 2-3).

The former city of Dartmouth, located across the harbour from Halifax, has a long history but saw its



Figure 2: 1950s settlement pattern with Dartmouth highlighted (HRM, 2003)



Figure 3: 2000s settlement pattern with Dartmouth highlighted (HRM, 2003)

greatest population growth rate after the Angus L. Macdonald bridge connected it to the Halifax Peninsula in 1955. Dartmouth's downtown core, coupled with areas located within the Circumferential Highway (Highway 111), are considered part of the Regional Centre, while areas outside the highway are classified as suburban. Census Dissemination Area data retrieved from Statistics Canada show that the highest housing and population density levels (Figures 4-5) are concentrated in areas with the highest proportion of apartment buildings: the downtown core and the Highfield-Pinecrest area to the north. Gross densities are much lower in outlying areas, particularly outside the highway system.

Like many municipalities, Halifax's downtown has seen a recent resurgence in condominium and infill development. However, most residents still choose to locate in the suburbs. HRM has acknowledged the environmental impacts and higher servicing costs associated with unchecked suburban growth. The municipality's 2006 Regional Plan, currently under review, attempts to alleviate the problems associated with a dispersed growth pattern by instituting growth targets. Under the plan, 50% of new growth is to take place within HRM's suburban areas, with 25% of new growth occurring in the core and 25% in rural regions over the 25-year life of the plan.



Figure 4: Dartmouth Housing Density by Dissemination Area (Statistics Canada, 2011; HRM Geodatabase, 2012)



Figure 5: Dartmouth Population Density by Dissemination Area (Statistics Canada, 2011; HRM Geodatabase, 2012)

The plan sets up a hierarchy of urban, suburban, and rural growth centres, and associates certain types of development with each (Figure 6). Urban Settlement centres, which include both urban and suburban neighbourhoods, are envisioned as "mixed-use transit-oriented communities [that] accommodate a mix of housing types, office, retail and institutional uses in addition to parks, trails, community gardens and safe public open spaces" (HRM, 2013, p. 45). The municipality hopes to achieve these goals by zoning new development areas as Comprehensive Development Districts (CDD). Under a CDD designation, developers must produce a master plan for new communities and enter into a development agreement that governs the location of different land uses, housing types, and building forms within the development area. Higher-density housing is expected to cluster around a transit node and taper off into lower-density forms of housing. Though Secondary Planning Strategies for CDDs promote a mixture of uses and increased housing density, these plans often speak in terms of maximum density and height limits, rather than minimum density. Each CDD is required to provide no less than 10% open space to create livable neighbourhoods and diminish the perceived effect of higher densities.

Despite increased municipal control over development patterns, it became evident during the plan's 5-year review that growth targets are not being met (Figure 7). Few concrete answers have been offered to explain the gap between theory and practice, but it is clear that planning goals are not vet achieving the desired outcomes. As with all planning issues, there are numerous factors to consider. It may be that





current development was approved before the plan took effect, and as such there is a lag between policy and practice. Additionally, there may be geographical constraints to where and how development occurs; downtown Halifax is located on a peninsula, and greater HRM is strewn with bedrock outcrops, steep hills, and large lakes, all of which act as natural barriers to development. Finally, the cost of development remains inexpensive in HRM, particularly



when compared to the GTA. Cheap land, coupled with short commute times, removes the impetus to increase densities and build closer to the core.

This report does not attempt to explain why suburban development in HRM continues to outpace targets. Rather, it explores how the suburbs have developed in Dartmouth over the past 60 years to determine if there are signs of densification in new development areas.

#### 2. METHOD

Attempting to define and measure population and dwelling unit densities often results in debates and qualifications. Researchers agree that density is calculated by dividing the number of people (population) or housing units into a given area (acres, hectares, square kilometres, etc.), but there is little consensus on the best method to produce meaningful and comparable results (Campoli and MacLean, 2002; Churchman, 1999; Forsyth, 2003, Taylor and Van Nostrand, 2008). Though numerous measures exist to calculate density at various scales, from individual parcels to metropolitan regions, net and gross neighbourhood density are the most commonly used for research.

Calculating net density is a straightforward process in which the number of units is divided into the amount of land devoted to residential uses. This process is widely used when comparing similar geographic regions, whether at the neighbourhood or municipal level, because it establishes firm parameters for what is being compared. However, in omitting surrounding land uses such as open spaces, streets, and commercial uses, net density does not provide the context needed to accurately represent neighbourhood density.

Gross density divides the number of units into all developable land, including open spaces, commercial and institutional areas, as well as land consumed by right-ofways. Gross density provides a clearer picture of how dense an area is because it accounts for all developable land; however, calculations can vary wildly based on boundary definitions. The inclusion of large open spaces located on the fringe, for example, will produce lower densities than if they were excluded. When commercial uses are included as well, neighbourhood boundaries become increasingly blurred. As the examples from Boston in Figures 8-10 demonstrate, gross housing density varies widely depending on what boundaries are used. Though the built form remains the same in each example, the inclusion of park space on the fringe of residential development reduces the neighbourhood density, while examining a single block within the neighbourhood nearly doubles the number of units per acre (Campoli and MacLean, 2002). Understanding gross density based on Census data is particularly challenging, since Dissemination Areas (DA) are based on population levels in a given area and do not necessarily conform to meaningful neighbourhood boundaries. This may result in a DA being confined to a single large apartment building, or expanded to include large greenfield and industrial areas, both of which would produce distorted results.

Data from HRM Geographic Information Systems and Services Group and the Nova Scotia Civic Address Database were used to produce more precise maps at the land parcel level. Study areas were defined based on community master plan boundaries. For older developments where such plans do not exist or could not be found, boundaries align with major arterial and collector routes to provide cohesive neighbourhood districts that developed during the same time period. Both net and gross density figures are provided per acre and hectare for the area shown in each map. In some cases, maps include large open spaces that lie outside the development area. These spaces are meant to provide geographic context and are not included in calculations. Such cases are noted for each neighbourhood.

Dartmouth was chosen as a study area because of its long development history, well-defined core, and consistent suburban growth over several decades. It is largely a suburban residential community, although it is home to a regional employment centre located in Burnside Industrial Park north of Highway 111, as well as smaller commercial nodes in the downtown and along major traffic corridors. Study areas included in this report were chosen primarily based on the era in which they developed. This method



Figure 8: 30 units/acre (Campoli and MacLean, 2002)



Figure 9: 37 units/acre (Campoli and MacLean, 2002)



Figure 10: 70 units/acre (Campoli and MacLean, 2002)

allowed neighbourhood comparison across a time period of approximately 60 years. While studying other suburban

areas such as Clayton Park and Bedford may yield different results, this report offers some initial insight into land use patterns in suburban HRM.

# **3. CASE STUDIES**

#### 3.1 Albro Lake

# Net Density: 9 units/acre (22 units/hectare) Gross Density: 5.6 units/acre (14 units/hectare)

The Albro Lake neighbourhood, north of downtown Dartmouth, is a prime example of early postwar suburban development. The road network follows a strict grid with multiple entry and exit points. The older (southern) part of the neighbourhood developed in the early 1950s and growth spread north until its completion in the mid-1960s. Land use is primarily residential, with a few neighbourhood businesses located along arterial routes, and with small open spaces at the neighbourhood's fringe. The large open space around Albro Lake is a public park,



Figure 11: Albro Lake by land use

and was not included in calculations. Most dwelling

units in the neighbourhood are modest single-detached houses (Figure 13), although a few larger houses have been converted to over-under apartment units. Small apartment buildings in the 4-10 unit range are confined to arterial and collector routes away from single-detached homes.

The older part of the neighbourhood is quite compact, with lots under 5000 square feet and frontages less than 40 feet wide, which is reflective of the post-war era

in which home ownership increased as a result of relatively cheap land and government programs. During this period, lot sizes grew in response to the middle class's desire to raise a family amidst open space. Most lots developed in the 1960s fall in the 5000-8000 square foot range, with 60 foot frontages becoming the norm. Lots located around Little Albro Lake are significantly larger and range up to 11000 square feet with property lines that extend to the water's edge. Multiple unit buildings vary in size, and detailed data on number of units was not readily available. For the purpose of this report, 2-unit housing flats were included with larger apartment buildings, and an average of four units per building was assumed.



Figure 12: Albro Lake by lot size



Figure 13: 1950s post-war housing

<u>3.2 Highland Acres</u> Net Density: 7.7 units/acre (19 units/hectare) Gross Density: 3.5 units/ acre (8.5 units/hectare)

Highland Acres was developed by the Nova Scotia Department of Housing in the Forest Hills area outside the former city of Dartmouth in the early 1970s. During this era, suburban land use began to shift away from the contiguous growth pattern of the pre-war years. Gridded street systems gave way to cul-de-sacs, and new neighbourhoods were branded with distinct names. Highland Acres is easily definable as its own neighbourhood due to limited



Figure 14: Highland Acres by land use

access points, its own elementary school, and a trail

system that weaves through the generous open spaces surrounding the development. The curvilinear street pattern is accentuated by cul-de-sacs that act as traffic calming measures and limit shortcutting through the neighbourhood. The neighbourhood primarily features single-detached houses, although it incorporates pockets of semi-detached units and townhouses (Figure 16) along collector routes. Highland Acres also features a multi-unit seniors' complex at the eastern fringe, as well as several small apartment buildings that were added in later years along the arterial route to the south. A commercial area developed around the neighbourhood and features local commercial needs such as a grocery store, a hardware store, and restaurants.

There is an identifiable increase in lot sizes over the post-war Albro Lake neighbourhood. Most lots average in the 5000-8000 square foot range, although the serpentine street pattern allows for much larger lots at the end of cul-de-sacs and at points where streets curve. This suggests that the curvilinear pattern was not simply adopted as a traffic calming measure, but also to facilitate larger properties. By this era, 60 foot lot frontages had become the norm, with some properties reaching 80 feet. Lots for semi-detached units and townhouses are significantly smaller, with most townhouses sitting on lots smaller than 2500 square feet with 20 foot frontages, which allows for limited parking in the front of the units and small back yards. Despite the presence of higher intensity housing types, density levels in **Highland Acres are** significantly lower than in early post-war neighbourhoods.



Figure 15: Highland Acres by lot size



Figure 16: Townhouses in Highland Acres

3.3 Keystone-Montebello Net Density: 6.2 units/acre (15.3 units/hectare) Gross Density: 4 units/acre (9.8 units/hectare)

The Montebello neighbourhood, located to the southwest of the major collector road, developed in the mid-to-late 1980s, while Keystone Village to the north developed throughout the 1990s. A new neighbourhood, Unia Estates, is currently under development in the northeast of the study area. Keystone-Montebello is located at the fringe of Dartmouth's built-up area and is bordered to the north by a vast open space.

The area is served by



Figure 17: Keystone-Montebello by land use

two collector roads, but is far from any arterial

route. Two major local streets form a ring through the neighbourhood, with minor streets and cul-de-sacs forming the interior street network. Single-detached homes are the dominant land use, while semi-detached units and two multi-unit apartment buildings are clustered at the intersection of the collector streets. This marks a change from older developments where housing types were interspersed throughout the neighbourhood. Keystone-Montebello's only commercial services – a pizza restaurant and a dog groomer— are located at the same intersection. The study area features large pockets of open space, both in the center of the neighbourhood and near the local school. The neighbourhood's distance from any major commercial or employment district and absence of sidewalks on most streets suggests the area was developed with the assumption that residents would have access to cars.

Semi-detached lots in this development remain under 5000 square feet, but single-detached lots, particularly those in Keystone Village, are much larger on average than lots in older neighbourhoods. Most lots feature frontages greater than 55 feet with houses significantly set back from the street (Figure 19). Newer lots currently being developed in Unia Estates are noticeably smaller than the rest of the study area. However, the development is not large enough to suggest that a shift to smaller lots is becoming a general trend in Dartmouth.



Figure 18: Keystone-Montebello by lot size



Figure 19: Large lots and deep setbacks are common in Keystone-Montebello

<u>Ridge</u> Net Density: 8.2 units/acre (20.2 units/hectare) Gross Density: 5.8 units/ acre (14.3 units/hectare)

3.4 Lancaster-Willow

The Lancaster Ridge neighbourhood was developed throughout the 1990s as one of the Nova Scotia Department of Housing's final development projects, while Willow Ridge to the east is nearing completion by a private developer. It is debatable if this study area qualifies as suburban. The municipality would not consider it a suburb since it is located within the boundaries of the Regional Centre. However, it was included because it was developed as part of a master-



Figure 20: Lancaster-Willow Ridge by land use

planning process on a former greenfield site and shares many characteristics with suburban neighbourhoods located outside the Regional Centre.

The Lancaster-Willow Ridge area is located at the interchange of two provincial highways and is accessible by two main entry roads. The internal street network includes cul-de-sacs and follows a curvilinear pattern similar to many modern suburbs; however, many streets align parallel to each other and intersect more frequently than in other neighbourhoods. The neighbourhood is completely residential and does not include any multi-unit apartment buildings, although 25% of units are attached forms of housing. Townhouses are located primarily at the end of cul-de-sacs, while semi-detached units are interspersed throughout the study area. Small open spaces devoted to playgrounds are mainly located at the end of cul-de-sacs.

Lancaster-Willow Ridge is the one of the most compact modern suburbs included in the study. Lots in this community are significantly smaller than in contemporary developments. Most lots are smaller than 8000 square feet, with some singledetached units sitting on lots smaller than 5000 square feet with 30 foot frontages (Figure 22). This may be because affordable housing was part of the Department of Housing's mandate, and smaller lots were seen as one way to make the community more accessible at different price points. Another potential reason for smaller lot development is that the highway system on the community's fringe forms a barrier to future expansion. As this neighbourhood is

one of the few remaining developable areas within the Regional Centre, land and development costs are higher in the new Willow Ridge phase. Smaller lots allow for a greater number of units to be built in a limited space, which helps developers recover more of the costs associated with development. Though the development is surrounded by large parcels of green space, these open spaces were not included in density





Figure 21: Lancaster-Willow Ridge by lot size



Figure 22: Small lot development in Lancaster-Willow Ridge

# 3.5 Portland Hills Net Density: 7.2 units/acre (17.7 units/hectare) Gross Density: 4.4 units/ acre (10.9 units/hectare)

Portland Hills is a large master-planned community that developed throughout the first decade of the 2000s at the edge of the former city of Dartmouth. A single collector route weaves through the area and connects it to the neighbouring developments of Portland Estates and Russell Lake West, A series of looped streets and culde-sacs link the collector to the rest of the development area while public paths wind through a beltway of open space and separate the



Figure 23: Portland Hills by land use

development into three main pods of housing. Most

of Portland Hills' cul-de-sacs are reserved for single-detached housing, however developments of this era increasingly began to employ cul-de-sacs as a method to segregate townhouses from single-detached units. This study area contains a high proportion of multi-unit buildings compared with older developments. Apartment and condominium buildings are incorporated with other housing types rather than clustered with the commercial uses and transit facilities located along the arterial route to the north. However, they are frequently segregated behind lower-density forms of housing to minimize their visual impact.

Individual lots in Portland Hills show a remarkable increase in size compared with older developments. Several factors may be responsible for this phenomenon. The development is characterized by large single-detached houses that frequently sell for higher prices than the Dartmouth average, which denotes greater affluence than in other areas. It may be that in such an upscale neighbourhood, market forces demand larger lots to accommodate larger homes. Geography undoubtedly plays a part as well; the hills from which the neighbourhood gets its name, along with Morris Lake to the west, render much of the land unsuitable for construction and act as a natural barrier to development (Figure 25) since the hilly terrain is inhospitable to a compact street pattern. Curving streets help mitigate the geographical constraints, but also make small lots harder to achieve. Much like in the Albro Lake neighbourhood, the largest lots are found along the lakefront, although equally large lots are frequently located at the end of cul-de-sacs. Interestingly, frontages show no signs of



Figure 24: Portland Hills by lot size



500 Meters

detached houses with townhouses

increasing; 60 foot wide lots remain the norm for single-

ranging from 20-30 feet wide. The visual impact of multi-unit buildings and larger houses may give the

Figure 25: Hilly terrain in Portland Hills

impression that Portland Hills is a compact neighbourhood. However, its large, deep lots result in a lower density than older developments.

125

250

3.6 Russell Lake West Net Density: 12.8 units/ acre (31.6 units/hectare) Gross Density: 7 units/ acre (17.3 units/hectare)

Russell Lake West is the newest suburban neighbourhood in Dartmouth, and at the time of this report is still under development. It is among the first developments in HRM to be subject to Regional Planning policies, and as such is part of a dedicated Secondary Planning district. Though other neighbourhoods feature small commercial pockets, Russell Lake West is among the few that incorporate large-scale



Figure 26: Russell Lake West by land use

commercial development in the master plan

(Figure 28). A power-center style commercial cluster is located next to the Circumferential Highway interchange. Aside from big-box grocery and hardware stores, a strip mall caters to local services such as cafes, restaurants, and medical clinics.

Russell Lake West is the only study area where most housing (74%) is located in multi-unit buildings. Policy encourages most multi-unit buildings to be clustered at the edge of the development along the major collector route near the highway interchange and commercial center to act as transit-oriented development. Many of these multi-unit developments cater to an aging demographic, with more than 250 units devoted to a senior care facility. Lower intensity housing is separated from the collector road by a wide expanse of open space. The internal street network is much less elaborate than in larger neighbourhoods; townhouses are located exclusively on cul-de-sacs, while

single-detached units are located along local streets that employ small roundabouts and sharp curves as traffic calming measures.

Lot sizes in Russell Lake West are noticeably smaller than in nearby Portland Hills, but remain significantly larger than early post-war neighbourhoods. Street frontages are also smaller in this development; most single-detached properties range between 45 feet and 55 feet wide, while townhouses average 20-30 foot wide lots. Smaller lots and a large number of multi-unit buildings give Russell Lake West the



highest net density of all study areas. Since the development is not yet complete, calculating gross density is more complicated than with established neighbourhoods. For the purpose of this report, gross density calculations include areas slated for future development since they will eventually be part of the neighbourhood. While the figure cited here will no doubt increase as construction continues, the provision of large areas of commercial and open space will still keep the neighbourhood's gross density significantly lower than its net density.



Figure 28: Multi-unit buildings and a large commercial component are defining

### Summary

Study Area	% Attached Units	% Multi-Units	Net Housing Density	Gross Housing Density
Albro Lake (estimated) (1950-1965)	0	24	9 units/acre (22 units/ hectare)	5.6 units/acre (14 units/ hectare)
Highland Acres (1970-1976)	17	16	7.7 units/acre (19 units/ hectare)	3.5 units/acre (8.5 units/ hectare)
Keystone- Montebello (1985-present)	17	9	6.2 units/acre (15.3 units/ hectare)	4 units/acre (9.8 units/ hectare)
Lancaster- Willow Ridge (1991-present)	26	0	8.2 units/acre (20.2 units/ hectare)	5.8 units/acre (14.3 units/ hectare)
Portland Hills (2000-2010)	13	42	7.2 units/acre (17.7 units/ hectare)	4.4 units/acre (10.9 units/ hectare)
Russell Lake West (2005-present)	9	74	12.8 units/acre (31.6 units/ hectare)	7 units/acre (9.8 units/ hectare)

# 4. CONCLUSION

Suburban growth during the 20th and 21st Centuries has become a defining feature of the modern urban landscape. Suburbs exist in every North American municipality, and must inevitably enter the discussion of how to plan for the future of our cities. While large, sprawling cities such as Toronto are under enormous pressure to develop compact, affordable neighbourhoods close to the core, that concern is less pronounced in smaller cities such as HRM. The cost of land and housing is much more affordable in HRM than in the GTA, and commuting times are shorter than the national

average. As long as the market demands conventional suburban housing, municipal planning objectives may continue to fall short of their targets.

In examining land use patterns in HRM, several trends have emerged over the past six decades. Dartmouth's early post-war suburbs evolved in an era of modest but rising incomes. They are compact and walkable, and conform to the traditional grid system. However, as the middle class grew, so too did car ownership, and suburban land use rapidly changed to accommodate the automobile. By the 1970s, it was no longer necessary to build compact neighbourhoods within walking distance to daily services. Limited access points and curvilinear streets accentuated by cul-de-sacs became the dominant street pattern, both to calm traffic and allow for larger, more private, lots.

Though most suburban neighbourhoods incorporate some mixture in housing types, more intensive forms of housing have become increasingly segregated from single-detached units. In study areas developed earlier, semi-detached and townhouse units were interspersed with single-detached units. Cul-de-sacs used to be reserved for the largest, most affluent properties in a neighbourhood because they afforded the greatest privacy. This is still true in some areas, but such streets separate lower-priced housing from large, single-detached homes. Multi-unit buildings are rapidly becoming a fixture in new suburbs, but they remain undesirable to single-detached homeowners. As such, they are either confined to the busiest streets at the fringe of the development area, or they are tucked away behind more expensive, lower-intensity housing and surrounded by greenery to minimize their visual impact.

In many of the study areas, commercial uses are either non-existent, or they developed separately from residential uses. There are signs that this trend is changing, however. New developments such as Russell Lake West incorporate large commercial components as part of their master plan. The large number of drugstores and medical clinics that have located in that neighbourhood speak to the suburbs' changing demographics and market demands. While these commercial developments reduce the need to drive long distances to serve daily needs, they are likely not major employment centres for local residents. Higher paying jobs continue to locate in large business parks or the downtown core, and frequently require employees to leave their neighbourhood for work.

Perhaps the largest trend is the one that runs counter to planning theory. Though research based on Toronto case studies would have us believe that small lots and higher densities are becoming the norm in the suburbs, that is not yet the case in Dartmouth. A recent report by the Canada Mortgage and Housing Corporation (2013a) shows that the Cornell neighbourhood in Markham has a gross density of 19.6 units per hectare, but even the densest Dartmouth study areas do not reach a gross density of 15 units per hectare. Lot sizes have increased dramatically since the 1950s, with the average size of a single-detached lot growing by nearly 2000 square feet, with some lakefront lots reaching 31000 square feet. Though new neighbourhoods such as Russell Lake West show a much higher net density due to a large number of multi-unit buildings, gross density remains relatively low due to vast amounts of open space and power-centre style commercial development with large parking lots.

There are no firm answers as to why suburban densities remain so low compared to national trends, but it is clear that suburbs in smaller municipalities do not necessarily conform to trends witnessed in larger cities. HRM has committed itself to mitigating sprawl by setting growth targets and emphasizing growth centres. While the mixture of land uses in new developments like Russell Lake West comply with this municipal policy, including density caps in Comprehensive Development Districts prevents new areas from reaching density levels seen in other parts of the country. HRM policy reflects a desire to create densified, mixed-use neighbourhoods, but consumer demands and relatively cheap land have not yet resulted in the development practices witnessed elsewhere. While suburban trends are changing in Dartmouth, economic conditions will continue to play a major role in development practice. It is unlikely that HRM will face the same economic pressures experienced in Canada's larger cities in the near future, and suburban development practices will likely continue to operate under the radar of national trends as a result.

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