

Title	Privatizing the fringe: the design of private streets
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Privatizing the fringe: the design of private streets

Abstract

We will consider some of the design characteristics of private roads in Canada, with special attention to those in Nova Scotia. Although Nova Scotia was among the earliest regions of Canada to be urbanized, many parts of the province remain sparsely settled and poorly served by public roads. Some regions, even within the commuter-shed of the largest city, Halifax, have a high proportion of private roads. Rural private roads usually accommodate low density exurban development, often around valued amenities like lakes. Within the city, new condominium developments employ private streets to reduce road dimensions and discourage use by non-residents.

The paper will examine where private roads appear with great frequency and discuss the design characteristics of the new patterns. Based on a detailed investigation of private roads conducted in 2006 on Halifax Regional Municipality and East Hants County in Nova Scotia, we will document the contexts in which developers use private streets, describe the design features that result, and consider the socio-spatial implications they generate. Our interviews, field visits, and spatial analysis revealed different “classes” of private landscapes: from low end rural tracks with mobile homes and cars under repair in the yard, to high end lakefront homes with expensive cars in the driveways, to urban infill projects with high density townhouses on small lots.

While private roads present issues to community planners interested in managing land use and transportation effects, they appeal to local governments and consumers because they serve a range of functions in a cost-effective manner. The popularity of the form may mean that we can expect to see an increasing share of suburban and exurban development on private lanes. Unless planners attend to the design and management questions related to development on private streets we may expect to see greater socio-spatial inequality over time.

Privatizing the fringe: the design of private streets

1. Private vs public streets

While private streets have been quite common in many countries (Lawrence, 1993; Webster and LeGoix, 2005), since the late 19th century the standard in urban and suburban Canada has been development on public streets. Rural lanes in Canada were more commonly built to lower standards, often by land owners needing access to fields or farms. In the contemporary context, as workers look farther a-field for affordable housing and lifestyle amenities, segments of the formerly rural landscape are becoming embedded within the city region. Developers are seeking ways to reduce development costs in a competitive land market. Both these factors increase the role that private streets play in residential development in contemporary Canada.

Over the last several decades, private communities have become increasingly common in many jurisdictions. Kohn (2004), McKenzie (1994, 2005) and Nelson (2005) have documented the overwhelming trends to privatized urban and suburban development in the US. In Canada as well, concerns about the influence of private communities has been triggered by studies of private neighbourhood associations (Loomis, 2006) and gated communities (Grant et al, 2004). As private

communities become a larger proportion of new development, a greater proportion of the streets in our landscape are part of the private realm.

Planners have traditionally taken considerable interest in the quality and character of streets. Urban designers recognize the street as significant parts of the public realm (Duany et al., 2000; Sandalack and Nicolai, 2002), and have created useful design guides to stimulate greater attention to design quality (e.g., Handy et al., 2003; Jacobs, 1993; Jacobs et al., 2002; Southworth and Ben-Joseph, 2003). In the context of grand master-planned projects, designers may apply the highest standards to new private streets. However, most new development in Canada is at a relatively small scale; when private streets are used, the standards prove highly variable (Grant and Curran, forthcoming).

A survey of Canadian municipalities in the summer of 2005 revealed significant variability in the frequency of private road development in Canada: some communities reported no development on private streets while others showed significant amounts (Curran and Grant, 2006). In part definitions and data availability explain the difference: that is, some jurisdictions track “private streets” while others call the same phenomenon “shared driveways” (Grant and Curran, forthcoming). Private roads have long been commonplace in rural areas in Canada. With the widespread growth of ground-oriented condominium development, however, they are increasingly an urban and suburban design form.

To get a better sense of the context in which private streets are developing in Canada, we conducted a detailed case study of the commuting area around Halifax, Nova Scotia, in 2006. We were interested in documenting the contexts in which developers use private streets, describing the design features that result, and considering the socio-spatial implications they generate. Our study included two jurisdictions: Halifax Regional Municipality (HRM) and East Hants District (See Figure 1). HRM is a large amalgamated region that includes the former cities of Halifax and Dartmouth, the former town of Bedford, and the former County of Halifax. It is the regional capital and the focus of commuter trips from a large surrounding area. East Hants includes several small towns, rural agricultural areas, and an increasing fringe of quasi-suburban development for commuters. According to Curran and Grant (2006), East Hants reported that 23.3% of its local streets are private, and 12% of dwelling units in the district are on private roads. The neighbouring community, Halifax Regional Municipality, was not able to provide figures, but private roads have been a political issue in recent years due to servicing problems.



Figure 1: Map showing East Hants and HRM [Source: World sites atlas]

Using a range of methods (visual surveys, interviews, map analysis), we set out to explore the nature of private road development in East Hants and HRM in an attempt to create a snapshot of residential private road development¹. Although East Hants had good GIS data on its private roads, HRM could not provide mapping or other data on private roads. To supplement the municipal data we decided to document a sample of private roads in urban, suburban and rural areas of these jurisdictions through field studies that would evaluate the nature of the contexts in which private streets are used and that could examine their characteristics and patterns. In consultation with planning staff and in the interests of breadth we specifically sought roads that appeared to have different forces driving their development (developer initiated, farmland subdivision, waterfront access, etc.). While the results of the field work are not necessarily representative, they illustrate the range of forms and design characteristics of private streets in the Halifax commuter-shed. This paper reports our key findings on the characteristics of private roads in the region and their socio-spatial implications.

2. The design of private roads

In both East Hants and HRM, public roads are owned by the municipality or the province, and were built to adhere to specified standards. We discovered, though, that the two municipalities define, regulate and permit private roads differently. East Hants recognizes “private roads” as those streets not owned by government but with a minimum 20 foot roadway falling within a 66 foot right of way. Other private “roads” that do not meet these specifications are usually categorized as trails, driveways or right-of-way easements (that is, a lane through a private property whose owner has granted deeded access to others who may have residences or cottages off that lane). In the HRM, for way-finding purposes, the Civic Addressing By-Law C-300 defines private roads as “any street, road or travel way which serves three or more structures or facilities and is not owned by Halifax Regional Municipality or the Province of Nova Scotia” (HRM, 2002). Private roads are common in East Hants and continue to be popular. A few years ago HRM applied a moratorium on new private roads except for condominium developments: estimates indicate there may be 900 private roads in HRM (most in the rural area).

2.1 Connectivity

Table 1 describes the connectivity patterns encountered on private roads in the two areas. Most private roads were single dead ends, often serving 10 or fewer homes (Figure 2). We identified the connectivity patterns of 58 of the private roads in East Hants. Forty-four (44) of these roads were dead ends with one entrance; 10 were dead ends but connected at one point to another private road; only four were connected enough to have two points of entry from public roads. In HRM, we identified the connectivity pattern of 55 of the private roads. Fifty (50) of these roads were dead ends with only one point of entry, two were dead ends, but had private roads off them at some point along their length; three had two possible entrances from public roads. The configuration of those with “No trespassing” signs could not be confirmed. In general, then, the private streets did not facilitate connectivity of the street pattern, serving instead to create isolated residential enclaves.

Table 1: Connectivity of private streets

Pattern	East Hants (n=67)	HRM (n=57)
Single dead-end road	44	50
Two or more dead-ends	10	2
Private linking public roads	4	3
Unconfirmed configuration	9	2

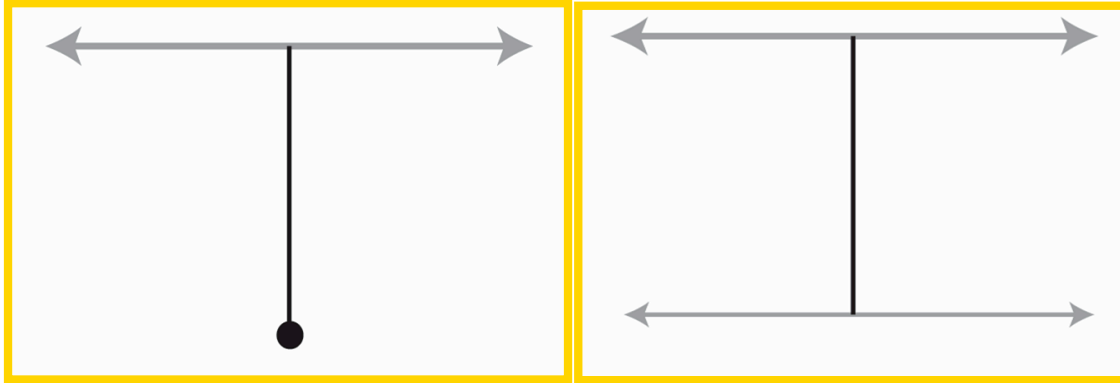


Figure 2: Most private roads are single dead ends (left), but a small number link two public roads (right). [Illustrations L Carson]

2.2 Features

Most of the rural private roads are gravel or dirt, while most of the urban private roads are paved. Many of the rural lanes are poorly structures, with no crowning for drainage and inadequate ditching. Most of the private lanes are narrower than standard public right of ways.

2.3 Signage

Both municipalities follow signage conventions for private and public streets. Public street signs were posted in blue (provincial roads) or green (municipal roads) with white lettering in East Hants, and were green with white lettering in HRM. Both municipalities use standardized street signs on streets they recognize as private. East Hants has white signs with black lettering; in the HRM, the newer private street signs were also white with black lettering, while the older private street signs were green with white lettering (similar to the public street signs) with the word “PRIVATE” marked in smaller lettering underneath the street name. In a few cases in rural areas, local residents appear to have created their own street sign blades or signs to name their roads.

Many private roads feature additional signs that remind visitors that the street is private. This may include “private property” or “private” signs, special entrance features (such as gates or speed bumps), or unusually low speed limit signs. Fifteen roads in East Hants and 10 in rural HRM had “no trespassing” or warning signs indicating that trespassers would be prosecuted, usually toward the terminus of the road. In urban settings, many streets had signs about parking or vehicle access. In East Hants, several rural roads had “no exit” signs (7), “no dumping” signs (6), signs indicating children at play (5), and signs limiting recreational vehicles (3). Two signs advertised crime watch. Because an election campaign was on while we were surveying, many lawns featured political signs. Rural private roads were more likely than urban private streets to boast a range of signs (Figure 3).



Figure 3: Some rural private streets have a panoply of signs. [Photo: L Carson]

2.4 Housing characteristics

The types of homes on private roads differed significantly in the two communities studied (Table 2). In HRM, only one of the private roads in the surveyed area accommodated mobile homes; 17 streets had townhouses or other multi-family condominium units. Most streets had single detached houses. By contrast, of the streets studied in East Hants, 9 had only mobile homes while another 9 had both mobile homes and detached houses. Only one street in East Hants had multi-family units.

Table 2: Streets where housing types could be confirmed

Streets with:	East Hants (n=67)	HRM (n=57)
Mobile homes only	9	1
Mobile and detached homes	9	0
Detached homes only	22	44
Multi-family homes	1	17

Surveyors used a subjective rating to identify the perceived price point of houses on each of the streets examined. Based on house size, materials, age, and upkeep streets were ranked as “low”, “mid”, to “high” cost. In HRM, homes on most of the private streets earned ratings of “mid” to “high”: 16 streets earned a rating of “low” and 14 were given a “high”. In East Hants, the surveyors classified 21 streets as “low” and 12 as “high”. Only a small number of streets were described as including houses at both ends of the cost spectrum: some of those differed according to proximity to water features.

3. Configurations

Some features of private streets seem common throughout the areas studied. For instance, sidewalks are extremely rare on private streets. Most private roads have no lane markings even when they are paved. Urban private streets tend to be relatively straight or geometrically regular, while rural private roads more often follow the terrain and meander. The configurations of private roads differ in the urban, suburban and rural context.

3.1 Urban private streets

Private streets in the older parts of the city are most often found in infill developments (Figure 4). Some odd-shaped pockets may not have sufficient street frontage to redevelop from other uses at medium density, so developers have negotiated shared access through a lane. These homes are often well-designed and medium to high end in cost; they typically have small setbacks from the street and small lots. Some are organized as condominium developments.



Figure 4: Starr Lane in Dartmouth is an infill private lane. [Photo: L Carson]

3.2 Suburban private streets

Private streets located in suburban areas in HRM typically service townhouse condominiums. In Nova Scotia the homes on these streets are mid-range in cost, often appealing to first-time buyers. Lots are small, and setbacks are somewhat less than standard suburban setbacks. In some parts of Canada, like British Columbia where demands for condominiums is high, homes on private suburban streets may be quite costly. In areas where new urbanism communities are popular, like Markham, Ontario, the service lanes behind houses may be private streets.

3.3 Rural private roads

In rural areas in Nova Scotia we find several kinds of private roads. The *exurban development road* is usually paved with good quality engineering standards applied. It usually serves a rural suburb with many units and attractive landscaping. Standard suburban setbacks and widths apply. Home values range from low-mid to middle class. A small subset of these exurban suburbs is gated and high end.

We find small farm subdivisions along *country lanes*. Some of these are old country roads with a few houses; some are more recent developments. Many were originally created so that farmers could create lots for family members. The gravel roads are often in poor condition: with no crowning and ditching (for proper drainage). Some properties have cars being fixed in the yards and homes in varying states of repair. Newer streets may have more expensive homes set well back from the street.

Mobile home parks use *private rural grids* to lay out plots, usually for rental. These narrow gravel lanes service small lots; road quality and landscaping standards vary. In East Hants, these may occur in unzoned areas.

Given Nova Scotia's popularity as a vacation destination, it has many private *cottage country roads*. These may be long roads, often running along lakes, ocean shorelines, or in areas with attractive views (Figure 5). Depending on how the land is platted, they may cut off public access to lakes and ocean. Recent high end developments may include a mix of seasonal and year round homes on fairly large lots. These projects have gravel surfaces. The roads may be wide and are usually crowned and ditched. Older cottage developments typically have poor quality roads that are narrow, uncrowned, and without ditches. Some cottage country roads are gated during the winter.

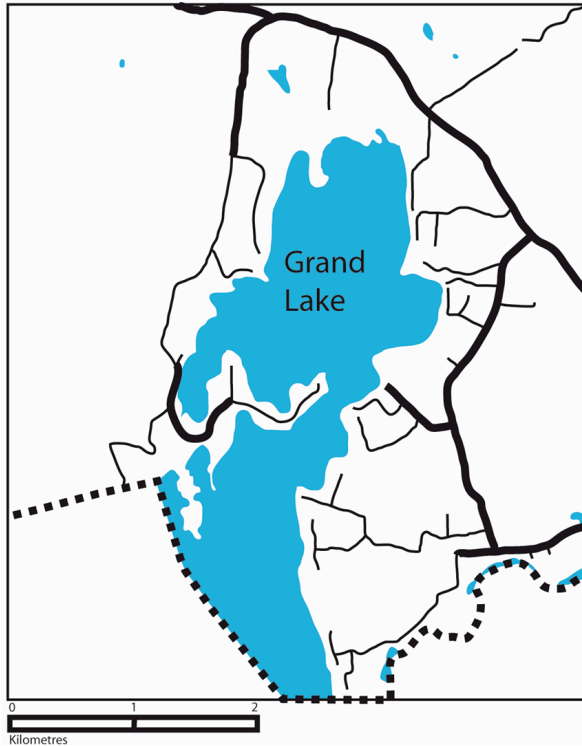


Figure 5: Private streets around lakes limit public access. [Map drawn by L Carson]

4. Socio-spatial implications of private streets

Private streets reflect a level of spatial separation beyond the isolated cul-de-sac. Most of the private streets identified in our field study were not through roads. In many cases residents went to special efforts to discourage traffic or to manage any vehicles that might enter. By building on private streets residents seek to extend the private residential realm to the neighbourhood level, distancing themselves from the public realm.

A substantial amount of development occurs on private roads, especially in rural Nova Scotia. Municipalities are worried about the long term maintenance of these roads. Many of the roads are poorly designed and maintained: constructed and abandoned by developers anxious to sell lots at low cost. Residents facing high costs for road improvements on their private streets may ask municipalities to assume responsibility for the roads so that they can enjoy the same standards of road quality as those living on public roads. Municipalities have generally refused but have increasingly raised the standards for private road construction to try to improve overall quality. Provincial legislation to facilitate the creation of road associations will provide residents and local governments with the necessary mechanisms to ensure more effective management of private roads in future. East Hants has adopted a "Private Roads Maintenance and Improvement By-law" that allows residents to petition to form an association if their private road meets standards set by the municipality (eg, 66 ft right of way); if council approves, local government adds an assessment to property taxes that the municipality collects for the road association. If these mechanisms work, the poor quality of rural private roads may improve; however, disadvantaged residents of some country lanes may lack the fiscal means to accumulate sufficient reserves to bring their roads up to a reasonable standard.

Both municipalities investigated are trying to control private roads. Although local government sees private roads as a feature of rural life, planners in East Hants are working on policies that precluding private roads in designated "growth management areas". To manage some of the effects of private streets, planners hope to restrict them to not more than 1000 ft in length in rural areas. Halifax Regional Municipality's regional plan limits development on private roads. Subdivisions of more than 8 lots will require a development agreement that will allow planners to carefully control the design characteristics and quality of any private streets proposed.

The varying quality and types of private streets found reflect the social stratification and growing reach of our city-regions. While we found private streets in districts with low cost mobile homes through to

high end gated housing, we noted clear evidence of class based residential groupings: in most of the streets a particular price point dominated. In the special-purpose urban and suburban context, private streets meet high design standards and facilitate greater densities and land efficiencies. In cottage country private streets reduce the costs of high amenity land for the middle and upper classes. In rural Nova Scotia, country lanes and mobile home grids accommodate affordable home ownership for the working classes. Private road quality is much more clearly linked to socio-economic status than is the quality of public roads in Canada. In poorer neighbourhoods private roads often have large potholes and show evidence of flooding. Some of the private lanes have poor access for fire services and face problems with people dumping wastes.

While this study of part of the commuting area around Halifax, Nova Scotia, is not definitive, it highlights some of the ways in which private streets are used in contemporary development. To substantiate the argument that private roads reflect growing socio-spatial inequality and segregation we need further research on the land values associated with different kinds of private roads. However, this survey of a sample of streets in Nova Scotia suggests that the proliferation of private roads facilitates the class marking of residential spaces and exacerbates inequalities in the condition of the built environment experienced by people with different incomes.

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Map source

World Sites Atlas. <http://www.sitesatlas.com/Maps/Maps/canns1.gif> [accessed 11 May 2007]

¹ Researchers spent six days in the field, documenting and photographing conditions on private roads in identified sectors of the two districts with windshield surveys. We used three criteria for including a road in our analysis: first, it was not a government road. Second, it had a name, either on the municipal map or posted at the road entrance. Third the street needed more than one building; because we were interested in residential roads, at least one of the buildings had to be residential. As a result, this study reports our investigation of 57 private roads in the HRM, and 67 in East Hants. Because we respected any "No Trespassing" signs we encountered at road entries, we could observe only the entrance conditions for some streets.