

Not this way: the implications of barricaded streets

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Summary:

Many cities close off access to streets with permanent or temporary barricades. This paper examines the function and character of street barriers in a Canadian city. It suggests that barriers play a useful adaptive role in managing traffic problems, by effectively turning connected streets into cul-de-sacs. It argues that cities need clear policies and processes both for putting barriers into place and for monitoring their continued appropriateness.

Connections and Barriers

Contemporary planning principles advocate street connectivity. For example, new urbanism and smart growth movements have promoted grid or modified grid layouts to disperse traffic and pedestrians over inter-linked streets¹. Despite the growing professional consensus, however, planners recognize that the cul-de-sac remains the popular choice for many home-owners. Private, quiet, and free from traffic, the cul-de-sac creates comfortable and safe residential environments. As planners and traffic engineers consider street patterns, they try to balance the desires of those in residential neighbourhoods (who may hope to limit access to outsiders through disconnected street patterns) with the needs of the wider metropolitan system (whose citizens need access and smooth traffic flow as provided by connected street patterns).

Most Canadian cities have limited access to some public roads. Urban revitalization campaigns have often turned commercial streets into pedestrian malls or precincts. Residential roads may be partly closed to reduce accident risks or to relieve short-cutting problems. When barricades go up, traffic patterns change markedly in the urban environment.

Relatively little has been written about the use of street barriers. In their study of gated communities, Blakely and Snyder include 'barricaded perches': urban neighbourhoods where street barriers close public streets to vehicular traffic². Some cities in the US and UK employ barricades as a strategy for managing crime and imposing a level of social control, especially in public housing projects: authorities close public roads to limit drug-dealing, prostitution, or other

kinds of automobile-related crime³. Our observations of barriers in Canadian cities suggested that they have quite different functions.

As part of a larger study on access-restricted streets, we investigated partial street closures in Halifax Regional Municipality in the fall of 2004.⁴ The constituent local governments (now merged in HRM) erected street barricades over several decades. HRM currently operates under a neighbourhood short-cutting policy adopted in 1996: the Region has not permanently closed any streets under that policy, despite several requests. All of the contemporary barriers have been in place for a decade or more. We wanted to look at the barricades to understand how they function, to examine why they were built, to consider the design strategies used to construct them, and to understand their consequences for pedestrian and vehicular traffic. With the help of HRM staff we identified 17 barricades: because the Region keeps no official record of street barriers, staff relied on personal and professional knowledge to create the list.

The study involved evaluating each barricade and interviewing planning, traffic, and emergency response staff about them. We found that most of the barricades reduced access from arterial or collector roads to residential streets. Apart from a cluster in peninsular Halifax, most were located in suburban areas.

Why closure occurred

Since some of the street closures occurred decades ago, we cannot be certain of all the factors that led to closure. Staff commonly cited traffic hazards as the cause precipitating measures to close intersections. Serious accidents at a junction could stimulate closure: for instance, a child was killed at one intersection where a barrier is now installed.

In some cases new land uses altered traffic patterns leading to local crises. For instance, building a new mall and an arena accounted for the placing of some barriers. Changes to the transportation system also contributed to closures. For example, the installation of new traffic lights, lane widening, and new road construction led to closures by making intersections more risky or encouraging traffic to change routes. Low traffic volume on some roads made it easy for the municipality to close the connection. In one case where a road was failing on a steep grade the municipality chose to barricade the street instead of repairing the road bed. A rural road was closed when the government used it to dump fill excavated from construction elsewhere.

How closure occurred

Street closures usually restrict only vehicular access. Staff members believe that most barricades

resulted from requests from residents for protective measures to be taken. Most of the barriers retain pedestrian connections; we found no evidence that the barricades restricted the access of those outside the neighbourhood from parks or other local amenities within the neighbourhood.

The quality of the barriers differs from street to street. Barricades varied from simple concrete divider blocks placed across the access (Figure 1), through wooden posts with low metal rails, to ornamental brick and wrought iron (Figure 2). In recent years, the Region has replaced some of the unsightly barriers with more attractive ones. In some cases sidewalks are available for pedestrians, while in others people have to walk on the grass around the barriers.

(Figure 1 - image from Bedford - concrete barricade with graffiti)

(Figure 2 - image from Halifax - brick and wrought iron barricade)

The effect of the barricades

We found no evidence to suggest that street barricades in HRM were emplaced to manage crime. The barriers explicitly control traffic. Barriers occur in both high socio-economic and low socio-economic status areas. It appears that the barricades function effectively to reduce the traffic problems that generated them. At the same time, though, they increase the grain size of the urban fabric, sometimes forcing cars to travel further to reach their destinations⁵.

Where barricades reduce the number of or lengthen access routes to a site, they may increase emergency response times. Fire responders expressed their concerns about the potential for delays caused by circuitous routes. In the most extreme case examined (see Figure 3), a street barricade in Bedford increases the distance from the nearest fire station by more than a kilometre.

(Figure 3 - map showing distance from Bedford building to fire station before and after the barricade)

When grid streets have to be retrofit with barricades, the streets generally dead-end without the kind of turning bulb found in a cul-de-sac. On narrow city streets this can present an inconvenience to residents because cars unaware of the barrier have to turn around in private driveways.

Some barrier designs have created problems for cyclists, those with mobility problems, or those pushing strollers. For instance, in one case steep grade changes have been accommodated with steps (Figure 4). While this works well for most pedestrians, it presents a problem to those using wheels, forcing them to travel some distance to an alternative intersection. Some barriers do not

offer proper sidewalks or paths for pedestrians who may wish to make their way from one street to another.

[see Figure 4 -Herring Cove barrier - steps

Suggestions for policy

Planners need not see a request for a barricade as a failure of planning. Conditions change through time as people use space. Street connections that prove appropriate and effective in some circumstances may become problematic as land uses or traffic patterns change. A request for an intersection closure thus presents a signal for planners to re-evaluate how transportation functions in the local street network. Sometimes analysis may indicate that fully connected streets are not the most appropriate option.⁶ Street connectivity is, after all, a means to various ends, not an end in itself. In cases where connectivity generates locally-significant externalities, then other options merit consideration.

Municipalities need policy to guide responses to requests to restrict access. Staff need to remain open to all reasonable options to resolve any problems they identify. The application process should be clear and relatively simple: residents have the right to expect timely decisions. Processes for dealing with requests for barriers should involve adequate consultation not only with local residents and road users, but with emergency response officials who provide services to the affected area.

When a decision is made that access-restriction is appropriate, then staff may consider a range of closure options. Permanent barriers may be appropriate in some situations, but not in others. In areas where emergency crews need to gain rapid entry, movable bollards may provide a suitable choice: they are widely used in European cities. If traffic issues are episodic, lift-arm gates can control access for some periods while being left open at other times. Where traffic calming may reduce problems by slowing cars down or changing their behaviour, then design strategies that narrow roads or otherwise emphasize the residential nature of streets may merit consideration.⁷

Whenever a vehicular barrier is employed, planners need to consider the requirements for pedestrian access for a range of mobility levels and potential users. While barriers have as their principal function controlling the automobile, they should simultaneously encourage other forms of transportation. Because barriers are prominent markers in the landscape, they warrant attractive design. Unsightly barriers convey negative messages about the neighbourhoods they surround: attractive barricades, on the other hand, can help to reinforce neighbourhood identity.

Once barricades are in place they should be re-evaluated periodically. The factors that initiated closure may diminish in importance through time. Residents and emergency providers may identify issues with how barriers function, and could offer alternative strategies for managing them.

Where barricades function to manage crime – as in the US and UK – they represent the worst face of the city of fear. For the most part, though, in Canadian cities street barriers reflect more positive functions. Planners can see barricades as a useful tool in certain places and times for retrofitting streets that no longer function effectively or safely.

Biography:

Jose Canjura is a Master of Planning student in the School of Planning at Dalhousie University. Jill Grant is a Professor of Planning at Dalhousie. They can be reached at jcanjura@dal.ca and jill.grant@dal.ca

Notes:

¹ S. Handy, G.G. Paterson, K. Butler (2004) *Planning for street connectivity: getting from here to there*. American Planning Association, PAS Report 515.

² E. J. Blakely and M.G. Snyder (1997) *Fortress America: gated communities in the United States*. Washington: Brookings Institution Press

³ O. Newman (1995). Defensible space: a new physical planning tool for urban revitalization. *Journal of the American Planning Association*, 61(2):149-55; T. Manzi and B. Smith-Bower. (2003) Gated communities and mixed tenure estates: segregation or social cohesion? *Glasgow conference: Gated communities: building social division or safer communities?* Available online: <http://www.bristol.ac.uk/sps/cnrpapersword/gated/manzi.pdf> Accessed 18 May 2004.

⁴ The study is part of a larger study on 'Gated communities in Canada: the planning response', supported by the Social Sciences and Humanities Research Council of Canada (P.I. Jill Grant). The data reported here came from the senior planning project completed by Jose Canjura: the full report, 'Not this way! Exploring the implications of access restrictions in public streets', is available at http://theoryandpractice.planning.dal.ca/pdf/gated_communities/jcanjura_thesis.pdf .

⁵ Because the study did not involve interviews with local residents, we could not determine whether restricted vehicular access might encourage residents to walk to nearby destinations. This would be an interesting question for further study.

⁶ The grid is not without its problems. See J. Grant (2001) The dark side of the grid: power and urban design. *Planning Perspectives* 16:219-41

⁷ For strategies on street reclaiming see D. Engwicht (1999) *Street reclaiming: creating livable streets and vibrant communities*. Gabriola Island BC, New Society Publishers.