

# Transit Equity Planning in the Greater Toronto and Hamilton Area

*Major Portfolio*

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## LIST OF ACRONYMS

|       |  |
|-------|--|
| BES   | Bachelor in Environmental Studies                        |
| CITY  | The City Institute at York University                    |
| FFC   | Fair Fare Coalition                                      |
| GTHA  | Greater Toronto and Hamilton Area                        |
| GPGGH | Growth Plan for the Greater Golden Horseshoe             |
| GTSWG | Greater Toronto Suburban Working Group                   |
| MCRI  | Major Collaborative Research Initiative                  |
| MES   | Masters in Environmental Studies                         |
| P3    | Public-private partnerships                              |
| PIA   | Toronto Pearson International Airport                    |
| POS   | Plan of Study  |
| OPPI  | Ontario Professional Planners Institute                  |
| TBM   | The Big Move – Regional Transportation Plan for the GTHA |
| TTC   | Toronto Transit Commission                               |
| UPX   | Union-Pearson Express rail line                          |
| WWII  | World War II   |

## ABSTRACT

This portfolio consists of four sections written as partial fulfillment of the requirements for the Masters in Environmental Studies (MES) degree. Section 1 consists of my research and written contributions towards a report co-written with Sean Hertel and Roger Keil entitled *Switching Tracks: Towards Transit Equity in the Greater Toronto and Hamilton Area* (Hertel et al, 2015). My contribution comprises Parts 3-7, where a definition of transit equity is advanced, how inequity impacts different publics is highlighted, and some solutions used to address transit inequities are explored. The contents of Section 1 sets the stage for each subsequent section.

Section 2 is a long abstract and presentation prepared for an academic conference, co-written and presented with Sean Hertel, intended to situate and connect the work conducted in Section 1 within an academic milieu. The presentation in Section 2 closes with questions posed for further research on how to identify symptoms of transit equity and how to situate transit equity objectives within the planning profession. A proposed methodology towards future research was proposed as a launching point for the research project contribution in Section 3. Finally, Section 2 is intended to help continue the dialogue on transit equity sparked by the Greater Toronto Suburban Working Group (GTSWG), co-chaired by Roger Keil and Sean Hertel, presented by The City Institute of York University (CITY) and hosted by Metrolinx, bringing together academics, planners, community activists, representatives from the development industry and non-profit service sector.

Section 3 consists of a research project conducted as a contribution towards a report co-written with Sean Hertel and Roger Keil entitled *Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area* (Hertel et al, 2016). I used a case study approach anchored by the literature review conducted in Section 1 to explore five specific neighbourhoods in the Greater Toronto and Hamilton Area (GTHA) to illustrate how transit inequity manifests in various ways at the neighbourhood scale.

Section 4 of the portfolio is an article co-written with Sean Hertel to engage with the planning profession, published in the Ontario Planning Journal. Section 4 presents a synopsis of the work on transit equity in Section 1, Section 2, and Section 3. The article establishes the imperative for planners to be active participants in achieving transit equity. The article advances a working definition of transit equity as it applies to transit planning, why equity in transit planning is important for achieving provincial planning objectives, and how transit equity objectives are situated within the planning regime in Ontario.



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I got 'er done. Now I think I have earned my Writer's Tears.

## FORWARD

The four sections of this portfolio are the culmination of my Masters in Environmental Studies (MES) degree. The sections present my research in articulating goals to improve social equity outcomes as an objective of transit planning, and present a route forward in incorporating equity objectives in transit operations and infrastructure investments decisions. If inequity in transit today is the result of planning, political and socioeconomic decisions made and actions taken in the past, then inequity is not an accident. And, the opportunity exists to take a different route. That is where my hope for the future lies, and why this undertaking is so important.

Section 1 is my written contribution to a report on transit equity published by CITY. The report was the first of two produced under a grant funded by Metrolinx to build a body of academic background research in support of the review of the Greater Toronto and Hamilton Area (GTHA) regional transportation plan, The Big Move (TBM). The first report, entitled *Switching Tracks: Towards Transit Equity in the Greater Toronto and Hamilton Area* (Hertel et al, 2015), was co-written by Sean Hertel and Roger Keil. The work in Section 1 of this portfolio consists of Chapters 3-7 of *Switching Tracks*. Section 1 sets the stage for each subsequent section of this portfolio by defining what transit equity is, articulating how different subsets of the population – publics – experience inequity in transit infrastructure in different ways, and introducing solutions used to address transit inequities. This section helps to fulfil my MES Plan of Study (POS) Objective 2 by building a basic understanding of the nature of the different social, economic and political forces that impact transit infrastructure, and to gain an appreciation of how they interact to shape its planning, provision and operation. Section 1 also contributes to my POS Objective 3 by a developing an understanding of how transit infrastructure planning and operations are embedded within social justice issues.

Section 2 is a long academic abstract and presentation intended to situate the work conducted in Section 1 within an academic environment. The abstract, based on *Switching Tracks* and expanded upon by on through a roundtable discussion organized by CITY and hosted by Metrolinx, was a submission to an academic conference on suburban infrastructure. The

conference was hosted by the University of Waterloo and co-organized by CITY's Major Collaborative Research Initiative (MCRI)<sup>1</sup> project entitled *Global Suburbanisms: Governance, Land, and Infrastructure in the 21st Century*, led by principal investigator Roger Keil. The two-day conference included a presentation based on the abstract (see Appendix B: Presentations – *Global Suburban Infrastructure Conference*). I wrote the working draft of the abstract, then collaborated with Sean Hertel to finalize the abstract for intended audience. I co-presented at the conference with Sean Hertel. Together, the abstract and presentation situate the working definition of transit equity within the context of socially-just planning, social justice, and environmental justice. Section 2 helped bridge the dialogue on transit equity sparked by the Greater Toronto Suburban Working Group (GTSWG), co-chaired by Roger Keil and Sean Hertel (See *Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area*, Tab 3) hosted by Metrolinx and organized by CITY following the release of *Switching tracks*. The abstract in Section 2 and the presentation at the conference posed questions for further research on how to identify symptoms of transit equity and how to incorporate transit equity objectives within the planning profession. Finally, a proposed methodology towards future research was proposed, which served as a launching point for Section 3. Section 2, along with participation at the conference contributed to fulfilling my POS Objective 2 by building a working knowledge of both the hard and soft sides of infrastructure, and connecting global themes, including urbanization and globalization, that are implicated in the shape and substance of suburban infrastructure. Section 2 aides in meeting my POS Objective 3 by demonstrating an ability to synthesize knowledge of transit equity with user and stakeholder concerns and feedback and present them for public discussion.

Section 3 is entitled "*You can't get there from here*": *Neighbourhood narratives of transit inequity*. It is a research project and written contribution towards a report co-written with Sean Hertel and Roger Keil entitled *Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area* (Hertel et al, 2016). The report was the second produced under the research project funded by Metrolinx. It draws upon the literature review conducted

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<sup>1</sup> For more information on MCRI visit the project homepage at: [http://city.apps01.yorku.ca/?page\\_id=222](http://city.apps01.yorku.ca/?page_id=222).

in Section 1 and uses a case study approach to illustrate how transit inequity manifests in multifarious ways at the neighbourhood scale in the GTHA. This section contributes to fulfilling my POS Objective 1 by developing the skills to conduct field work under the supervision and guidance of a registered professional planner, and how to synthesize the lived experiences of urban residents into planning recommendations that are relevant to the planning profession. Section 3 contributes towards my POS Objective 2 by developing an understanding of how transit infrastructure impacts on the lived experiences of transit users through the site visits, interviewing users, and in incorporating the broader societal impacts of transit equity concerns voiced by community support agency representatives to expand my knowledge of both the hard and soft sides of transit infrastructure. This section contributes to my POS Objective 3 by reflecting on how concepts of transit equity as articulated in academic literature are manifested through hardships experienced by riders that are systematically reproduced through planning and policy decisions that create or perpetuate inequity both visible and invisible.

Section 4 is an article directed towards the planning profession published in the Ontario Planning Journal entitled *Public transit and the public good: Why and how planners can deliver more equity* (Collens and Hertel, 2016). I wrote the working draft of the article, then collaborated with Sean Hertel to craft the article was in a language appropriate for the publication and the intended target audience. It presents a working definition of transit equity as it applies to transit planning, why it is important, and how it fits within the planning regime in Ontario. The article connects the literature review in Section 1 and case study research on transit equity in Section 3. This section meets the requirement of my POS Objective 1 by demonstrating a knowledge of the regulatory framework shape the planning profession, the ability to conduct field work through site visits and interviews to better understand planning issues, how to synthesize the lived experiences of urban residents into planning recommendations, and building the skills to communicate effectively within the planning profession. Section 4 also contributes to my POS Objective 2 and POS Objective 3 by demonstrating an ability to articulate societal impacts of transit equity concerns regarding transit infrastructure.

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# INTRODUCTION

I was 10 years old when the Scarborough RT line in Toronto opened. I decided I had to ride it so I skipped school, made my way to the nearest GO Train station from my suburban Brampton home, and began my adventure. On that trip I bought my first compact disc, Chicago Transit Authority. At the time I did not realize the significance of that specific album. My critical awareness skills may have not yet begun developing. But from that trip my life became entwined with public transit. I have always had a passion for transportation networks. I read them as I would a book, to try to understand the connectivity of a city. I viewed a city's transportation network like its circulatory system; its good functioning being essential to a city's vibrancy and vitality. What I had yet to grasp, as a middle-class youth, was that there was more than speed, connectivity and flow to good transit. Transit infrastructure was not a thing to build and ride, but a key to unlock opportunities.

I intuitively understood the power of transit by using it to exercise my right to access the city. The transit system was my key to the city. But my definition of the city was larger than many at the time. My Toronto included Bramalea, a planned suburban community that began construction in 1959, northwest of Toronto Pearson International Airport (PIA) in what is the City of Brampton today. That idea was a horror to those who thought the city ended north of Bloor Street (and a few who still do). I studied the system in the GTHA and I had no concerns about getting where I wanted to go. Of course, that was fine as long as everything worked as planned – as I imagined it always did. But it did not always do so. One day when I was 14 I found myself standing at a bus loop on a Sunday night waiting an hour for a bus that, ultimately, did not come. The loop was in an isolated industrial area on Highway 50 on the boundary between the City of Brampton and the City of Etobicoke (one of the former municipalities merged into the current City of Toronto). I do not know why there was no bus in a pre-cellphone era (itself a barrier to transit equity with an unevenness in the ability of some to access technology), I only knew I had a two-hour walk ahead of me. There were no sidewalks for much of the way.

At the stop, and during long walk afterwards, I began to wrestle with the notion that infrastructure is only as useful as its ability to meet the needs of users, and of the inequity of the broader transportation network that gave drivers in private automobiles a privileged spot in the hierarchy of transportation and left me on a gravel shoulder.

Transit equity fixes an important gaze on a critical aspect of social infrastructure that cannot be taken for granted and has a vital role to play in improving the lives of residents through improved accessibility. The sections of this portfolio represent an effort to define transit equity, highlight how transit equity affects different publics, and express strategies to ensure transit equity is reflected in planning decisions. An important is to facilitate an ongoing dialogue between planners, decision makers, community and social activists, academics and researchers, and the broader public on why and how to include transit equity as an objective in planning.

## HOW TO DEFINE TRANSIT EQUITY

The need to include social equity in transit planning has been recognized as an important objective in academic circles and in public discourse. Susan Fainstein's (2010) work on social equity planning espoused the requirement to ensure a fair distribution of community benefits based on need. Mark Garrett and Brian Taylor (1999) recognized a growing pattern of inequity in transit infrastructure investments in the United States. They argued that political and economic considerations were responsible for transit investment decisions that brought higher-order transit into higher-income, low-ridership areas in outer suburbs that triggered operation budget shortfalls. The gaps in the operations budgets were filled by starving lower-income, inner city neighbourhoods of service. Garrett and Taylor question the equity of transit infrastructure and operation decisions in the U.S. by asking

“[s]hould public transit policy strive for greater geographic *mobility*, regardless of the available alternative modes of transportation, or would it be preferable to improve *accessibility* for those with few private alternatives? [emphasis original]” (Garrett and Taylor, 1999, p. 24).



Accessibility represents the freedom of an individual to fully engage with the city and take advantage of the opportunities it offers. Without access to efficient, affordable, accessible and effective transportation, a person is disadvantaged in the range of employment, education, recreation and socialization options.

Karel Martens explicitly situates transportation as a key site for intervention on an equity basis. Accessibility is critical to assessing the social benefits of transportation because transportation is only useful to an individual when it can be used to meet personal needs (Martens, 2012, p 1040). It contrasts with another objective of transportation infrastructure, namely mobility, defined as the ability to travel between destinations. Mobility only speaks to the throughput capabilities and reach of the transportation network, such as the ability to travel quickly to a given destination. No value is placed on ensuring destinations have utility in meeting individual needs. Joe Grengs supports Martens by arguing

“while mobility-based metrics leave uncertainty about whether social groups experience disadvantage relative to others, accessibility metrics are clear: more is better than less,” (Grengs, 2015, p 18).

For the sake of a working definition of transit equity, Martens’ definition of the transportation good providing personal accessibility is a useful contribution. However, it is important to be mindful that the ability to access transportation infrastructure is not equally shared.

There is evidence to suggest private vehicles are a constraint to accessibility for a significant portion of the population, both old and young. For children and youth, those under a statutory age by which an individual may obtain a licence (16 years of age in the GTHA) are barred from driving. They may have access to private vehicle transportation as passenger, but their accessibility is limited by the ability to secure a ride. For youth and young adults, the trend in North America and Europe points to a decline in numbers pursuing driving licences (Marzoughi, 2011; Kuhnimhof et al, 2012; Sivak & Schoettle, 2011; 2012).

Recent immigrants are another public that face a disadvantaged landscape of accessibility, constrained by language barriers, low income, and juggling the demands of



*Figure 1. Dixie Road, looking south from Springtown Trail, Brampton, Ontario. Areas like north Brampton are home to large new and recent immigrant populations who face an under-developed transit infrastructure. Source: Michael Collens.*

multigenerational households (Litman, 2003; Murdie and Texiera, 2000). New immigrants are increasingly choosing their first point of settlement in suburban areas and are more likely to rely on public transit (Heisz & Schellenberg, 2004). It is a mismatch of poor access and higher need.

Older residents are subject to reduced transportation accessibility as a consequence of declining health, diminished physical capacity, the use of medication that restrict the ability to drive and a reduced ability to afford a vehicle once out of the workforce. Karen Lucas has established that older residents experience a diminished ability to access healthcare as a consequence of a decline in their ability to access private vehicles due to health, age and income (Lucas, 2006). Importantly, gender is intersectional with age in the inequity of

transportation, with Lucas pointing out that women statistically live longer than men, and thus may experience age-related inequity in accessibility for a longer time (Lucas, 2006, p. 803).

Gender is but one different public identities that are fluid, dynamic and intersectional. As Caren Levy argues,

“[g]iven the intersection of social relations, the social position of transport users reflects multiple identities of gender, class, ethnicity, religion, sexuality, age and mental/physical ability, which account for difference and inequality but which are also dynamic and open to change,” (Levy, 2013, p. 49).

The inequality Levy points to is masked by a bias in transportation planning that assumes travel patterns supporting heteronormative division of labour with the importance on serving the accessibility needs of men travelling for employment. The emphasis is to formal employment favouring private automobile travel in a Western context. In essence, the needs of different publics are rendered invisible. Urban designs that are automobile dependant and serve the needs of one public may increase social exclusion of disadvantaged communities by creating a landscape of uneven accessibility (Litman, 2003, p. 8).

The lack of transit accessibility – particularly affordability – is implicated in a worsening in the health outcomes of urban residents. Income is another form of inequity that restricts the ability of individuals to access affordable food, healthcare, education, employment and social supports (Sengupta et al, 2013). Private automobile travel is not an option for many different publics – children and youth, persons with physical and mental disabilities, persons of low income, older residents. Gender adds a dynamic to the inaccessibility of transportation infrastructure for each of these publics, as design biases disadvantage women who also tend to serve as primary caregivers for both children and elderly parents.

The technical side of planning is vital to understanding how transportation infrastructure operates, and how new solutions come to fruition. But transit equity opens the door to broader questions towards understanding how to build and operate transportation. New technologies like ride-sharing, as epitomized by Uber, are promoted as the foundation of revolutionizing urban transportation and facilitate improved urban mobility.

But what of the social consequences? What about individuals who bear virtually all the capital costs of the atomized transportation model Uber represents, but lack wage certainty by being considered a contractor? What about individuals who live in neighbourhoods that are deemed undesirable, unattractive or dangerous and cannot attract ride-sharing services? What happens to riders subjected to racial, gendered, age or sociospatial discrimination and are denied rides? Or, of the contractor? What about the public transportation system that lacks fare revenue and ridership levels to justify an investment in the equitable distribution of its operation? How does the emphasis on technology to serve transportation needs impact individuals who cannot access the technology through age, literacy, or affordability? The emphasis on mobility over accessibility masks an unevenness in the ability of different publics to take advantage of options presented by new technologies.

Ride-sharing is just one of the “solutions” presented to address the transportation needs of urban residents. Proponents of autonomous vehicles as an urban transit solution, including Tesla (Musk, 2016), promise ‘door-to-door’ transportation but fail to recognize the spatial limitations of personal-scale transit in an urban context. As Garrett Walker argues,

“a bus with 40 people on it today is blown apart into, what, little driverless vans with an average of two each, a 20-fold increase in the number of vehicles? It doesn’t matter if they’re electric or driverless. Where will they all fit in the urban street?” (Walker, 2016)

An important factor in the promotion of ride-share and autonomous vehicle technology is the shift of some of the costs of transit onto individual vehicle owners, while pricing of the services and the ability to participate are controlled by large corporations. Ride-sharing is one example of how the urban landscape is splintering into premium networked spaces for elites and marginalized spaces for those on the fringes (Graham and Marvin, 2001). These new options contribute to an already uneven accessibility landscape as portions of the transportation network are unbundled from the Fordist infrastructure paradigm that valued its equitable distribution and repackaged for the benefit of elite users.

Investments in transit infrastructure do not guarantee an improvement in transit equity. A transit equity lens is helpful to ensure that systematic inequities are not propagated and reinforced, and to address social marginalization of disadvantaged groups and geographies. It is

a symptom of broader themes of spatial inequity that shape the urban landscape in class, race, gender, age, economic and political lines. In light of the social need evident in the GTHA (see Section 3), and the fragmentation of infrastructure that reinforces transit inequity, there is a need to ensure issues of equity are placed at the forefront of transit infrastructure planning with a clear definition and measureable objectives. In order to make a meaningful contribution towards reducing social inequity, transit equity planning must be situated within the spatial and social context of the urban region.

## TRANSIT EQUITY AND GOVERNANCE

There is a spatial element of governance, where the urban agglomeration needs to be governed at scale appropriate for the socioeconomic extent of the infrastructure, espoused by New Urbanists like Peter Calthorpe and William Fulton (2001). The scale of governance is ideally in sync with the scale of the region to be governed. Certainly, in the Toronto context, the former Metropolitan governance structure has been credited with leveraging the governance capacity of the older City of Toronto to successfully address infrastructure planning and construction, and the provision of services in the outer suburbs in advance of growth while retaining local decision-making authority (Sewell, 2009, p.23).

A central issue is that governance and government, while related, are not synonymous. Michael Ekers, Pierre Hamel and Roger Keil (2012) argue that there are three interconnected conceptualizations that are useful within the context of governance. The first form is conventionally conceived as the formal state government institution. A second form is represented by satisfying the demands capital accumulation. The third form is a form of private authoritarianism which stems from the devolution or abdication of state power to private actors. Jean-Paul Addie points out that creation of Metrolinx as part of a package of land use planning and regional governance reforms is a top down effort to recreate a regional spatial imaginary for the GTHA (Addie, 2013, p. 205). Metrolinx reflects a diffusion of governance. It is an arm-length agency of the Province responsible for transportation planning decisions with an appointed board of directors. It is not explicitly detached from the formal state, but it lacks the

legislative requirement for direct representation, and affords a limited ability for public input in the decision-making process compared to municipal councils.

Another element in the regional governance structure implemented by the Province calls for an intensification of the built environment following Smart Growth principles to support transit infrastructure – both new and extent – under the Growth Plan for the Greater Golden Horseshoe (GPGGH). The Smart Growth approach embedded in provincial policies has a number of limitations that are problematic (Filion, 2003).

This can take the form of public-private partnerships (P3) where the public maintains some input, privatized concessions, or even private control of public space as with gated communities. A P3 is an example of the rise of private actors in governance which changes the relationship between the public and government. Indeed, P3s have been increasing in popularity as a means to deliver and operate new public infrastructure, especially in light of government retrenchment of the 1990s and the dominance of neoliberal governing ideologies that emphasize market-driven solutions today. The public maintains some input and control, but must negotiate with private actors on funding and financing, route selection and technology, ownership and operations. Proponents of P3s argue that these arrangements serve as a way to reduce political interference, promote competitive bidding processes to lower costs, reduce government exposure to project cost overruns, leverage private sector expertise and efficiencies to achieve lower life-cycle costs through technical innovation, and reduce government exposure to debt (Siemiatycki, 2006). P3s however, are not guaranteed to achieve greater efficiencies, lower costs, and reduce risk. They also can reduce public input and oversight by binding governments through privacy covenants in contractual agreements and from prioritizing projects based on social need as opposed to commercial attractiveness (Siemiatycki, 2009).

Governance, income polarity and employment security, and spatial form intersect in complex and layered ways. Transportation infrastructure planning has to be considered within the context of governance, social, economic and spatial structures within which it is to operate.

Transit planning decisions must be made with an awareness that the costs and benefits, the on-ramp and the by-pass, are not inherently shared or distributed equitably.

Public transportation is an inherently public act. At its simplest definition public transportation “consists of regularly scheduled trips, open to all paying passengers, with the capacity to carry multiple passengers whose trips may have different origins, destinations, and purposes” (Walker, 2012, p. 13). It is a public act to share a vehicle. The reality is that for most of the world, public transportation operations run at a loss and capital expenditures are not covered at all. This requires a second sense of the public, where together we share in the costs. Indeed, Alan Walks (2008) suggests shared urban experiences is related to public support to the provision of social infrastructure. Public transit systems require a commitment to public investment and ongoing support.

# GREATER TORONTO AND HAMILTON AREA

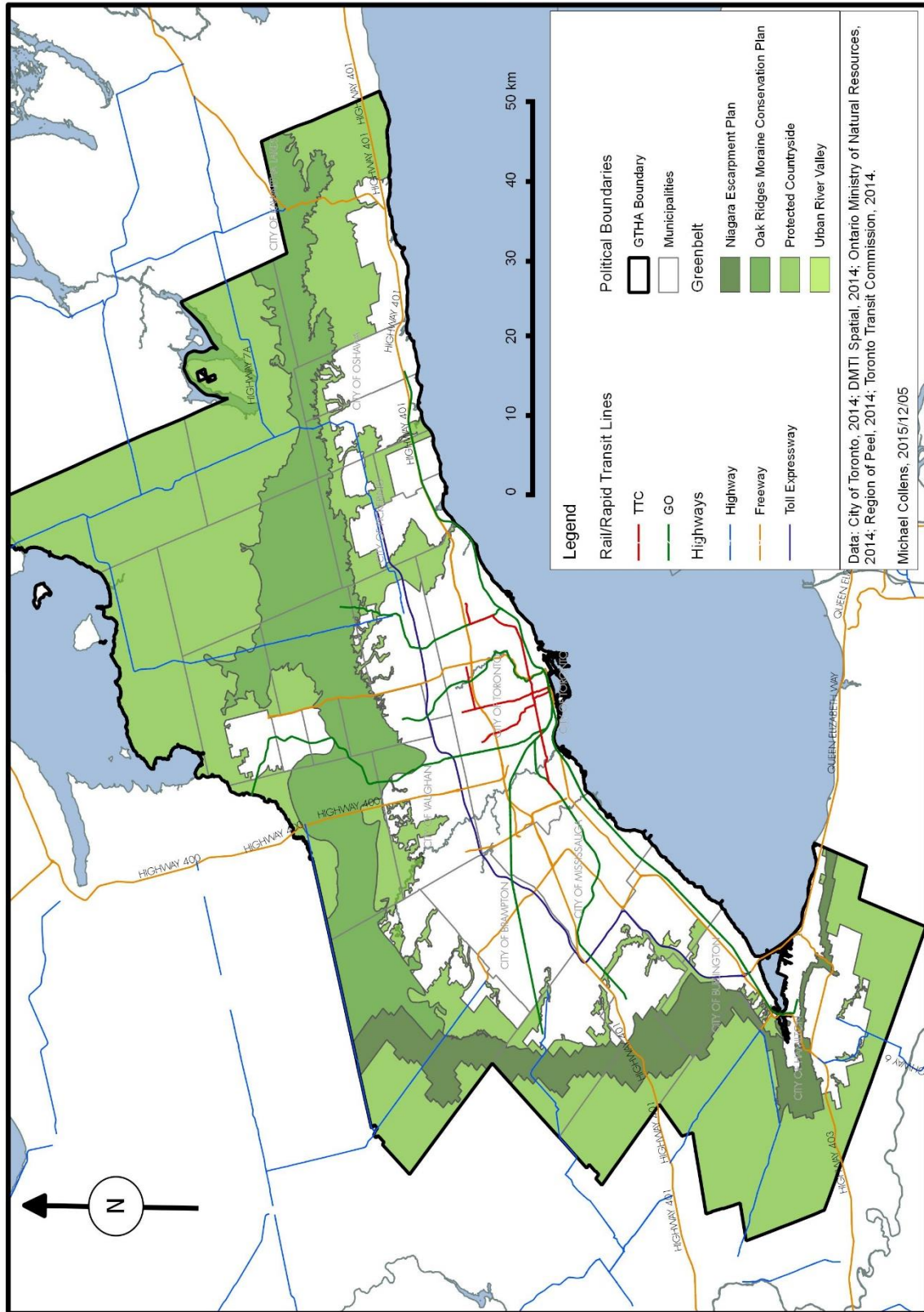


Figure 2. Map of the political boundaries of the Greater Toronto and Hamilton Area.



## TRANSIT EQUITY IN THE GTHA

How public transportation can be implemented in an effective and equitable way is a complex and contested task. Germane to that is an understanding of the social, economic, political and physical structures of the existing urban footprint. The GTHA (see Figure 2) is the locus of my research on the spatial form of transit equity.

Between 1954 and 1985, the GTHA benefitted from a centralized planning and governance structure at a scale suitable for the urban region at the time. The GTHA, and Metropolitan Toronto more specifically, had stable funding from the provincial government and was flush with revenue from a growing tax base and land development charges. The combination of upper level support, relative political autonomy to control planning for the majority of the urban region, and growing revenues enabled Metropolitan Toronto to make coherent investments in sustainable transportation, all while ensuring neighbourhood scale development (Filion and McSpurren, 2007).

The built form of the urban region represents a physical manifestation of the dominant social, economic and political forces at play. John Sewell (2009) has argued that the suburbanization of Toronto following World War II (WWII) produced a homogenous and culturally-sterile form of development that has sapped the GTHA of its urbanity and community spirit. He considered the suburbs to be such a direct threat to the old city that he argued the battle for urban values was “apparently lost” when it was amalgamated with its inner suburban neighbours in the former Metropolitan Toronto to form the current City of Toronto (Sewell, 2009, p. 229). According to Sewell, the old City of Toronto (representative of the older, pre-WWII urban world) was a bastion of urbanization with some power to control its destiny. The amalgamated city shifted the balance of power in favour of the suburbs and subjugated the old city to suburban banality. There is evidence that the difference in spatial form between the old City of Toronto and its suburban counterparts in Metropolitan Toronto is implicated in a bifurcation in the support for neoliberal ideology, rising in the latter (Walks, 2008, p. 279). Sewell unabashedly cleaves to Jane Jacobs’ *The Death and Life of Great American Cities* (1992/1961), which has become a talisman for those who argue that the era of rational-

comprehensive Modernist planning created a sterile and degraded landscape. She argued that the “suburbanized messes we create in this way become despised by their own inhabitants tomorrow” (Jacobs, 1992/1961, p. 445).

The post-WWII suburbs have long been a contested landscape. There is a considerable body of work that has problematized the simplistic view of the suburbs to reveal the complexity and dynamism in social, economic and political spheres in an effort to better understand suburban function, form and socioeconomic structure. Larry Bourne (1996) asserts that it is debatable whether the old myths of the suburbs as a monocultural middle-class landscape were applicable in the past, but they are not applicable now.

Planning, as a practice and a profession, has a vital role to play in shaping infrastructure. Planners bridge the connection between the technical parameters of building and operating physical infrastructure, the social, economic and political dynamics that define the form of the infrastructure, and the governance structures responsible for both its function and its social accountability.

## THE POST-SUBURBAN PRESENT

GTHA suburbs are home to the largest share of the region’s population and the areas experiencing the fastest growth. The Ontario Ministry of Finance (2014) projects the GTHA to grow by over 2.9-million people by 2041, rising from 6.5 million in 2013 to 9.4-million. The City of Toronto, which itself includes large inner-suburban neighbourhoods as a result of government restructuring in the 1990s, is forecasted to grow from 2.7 million in 2013 to 3.6 million by 2041. Using 2013 population numbers, more than 50% of the GTHA population resides in outer suburban municipalities. In contrast to the common notion that population growth is occurring in the central city, as suggested by the downtown condominium boom and provincial policies that mandate a portion of the projected growth to be accommodated in existing areas, 2.1 million of the 2.9 million overall growth is forecasted for the GTHA suburbs. The GTHA is an increasingly suburban region.

However, they are also areas that tend to have experience a complex mismatch in infrastructure investment, where some investments lead and others lag, exacerbating region-wide bottlenecks and system failures (Filion and Keil, 2016).

Furthermore, there is evidence that suburban areas are increasingly home to the most disadvantaged residents of the region (Hulchanski, 2010; Hulchanski et al, 2013). In light of the crisis posed by the mismatch of infrastructure, the suburbs offer a unique opportunity where transit investment, land-use planning, and social policies can together create a more equitable region. The difficulty lies in understanding what the suburbs are. The archetypal North American suburb as simple, homogenous and economically dependent places is a myth that has been propagated by outdated and uncritical urban theory models, despite a vast body of research that indicate otherwise (Bourne, 1996, pp. 167-168). There have always been competing logics behind suburbanization, such as the relocation of industry out of the core, the escape from the perceived ills of urban living, and the longing for a romanticized pastoral past. Bourne identified distinct but interconnected processes that have propelled suburbanization, but they shift in influence over time and are shaped by local-scale factors that make the processes difficult to tease out into a formulaic pattern (Bourne, 1996, p. 180). These suburbanization processes have resulted in a more diverse and dynamic landscape that has not been accounted for in conventional planning nor has it been fully reflected in the public consciousness that can still witness urban residents be dismissive of their suburban neighbours as uncouth and unsophisticated.

Jill Grant supports Bourne's analysis by arguing that the suburbs today are not homogenous, monolithic entities as they are often portrayed, but increasingly "emulating patterns of cosmopolitan city centres" (Grant, 2013, p. 391). Ann Forsyth (2013) further emphasized that suburbs are complex spaces, often with a myriad of land-uses, a multicultural composition and divergent economic prospects. She supports the notion that suburbanization will not only continue apace in North America, but it will reshape cities around the world that are beginning to enter into a phase of rapid urbanization. In the GTHA it is clear that suburbanization will continue apace in the outlying areas of the existing urban envelope.

The suburban relationship to the downtown core is also a point of contention. Some suburban locales are increasingly tied to global connective circuits and bypassing their city centres (see Young, Wood, & Keil [eds.], 2011; Keil [ed.], 2013). Suburb-to-suburb commuting patterns are emerging, and the old methodology of a hub-and-spoke transit design is not effective in a polycentric urban landscape that is becoming increasingly suburban. It is a dynamic process that includes in its logic the reshaping of the older, inner suburbs as well, which can be witnessed through the changing settlement patterns of new immigrants into these areas, and results in an uneven urban landscape where the need for supporting infrastructure was never envisioned. Transportation infrastructure becomes a point of contestation to promote differing visions of suburban life (Cidell, 2012). Joel Garreau (1992) illustrates that we are witnessing, at least in the North American context, a shift away from the Fordist definition of a sleepy bedroom suburb to a more detached form of suburbanism that has developed its own economic and cultural base that are increasingly tied to global circuits. In fact, the old binary of suburbs and centre may hinder navigating the politics of the urban region. Douglas Young and Roger Keil (2014) argue that “a series of new socio-spatial and socio-political problematiques have begun to develop which lead to the need for governance at a set of new scales that explode those of the previous centre-suburb bipolarity” (Young & Keil, 2014, p. 1597).

At the regional scale, the GTHA suburbs can be argued as being the most vibrant and complex: “the suburbs of Canada’s largest urban regions are the most culturally diverse communities in the country, their traffic congestion is among the country’s worst, and their workplaces are growing the fastest” (Young & Keil, 2010, p. 94). The post-WWII suburbs are becoming increasingly fragmented spaces, with bonds of differing strength to the older core of the region, but also with significant variation in the strength to, and affinity towards, other suburbs. Some suburban communities are becoming areas of privilege, while others are increasingly sites of rising poverty. There is a fracture in the socioeconomic cohesiveness of the GTHA, with sharp income polarization and an uneven distribution of opportunities and costs that are shaped by accessibility. Some neighbourhoods benefit from prioritized access to infrastructure, like transit, while others are bypassed. This is all superimposed on a backdrop of

inner and outer suburbs that were primarily designed for car use. The dominance of planning for private transportation has made mobility itself an asset that can lead to an inequitable distribution of social goods. The ability to move on one's own power is insufficient for social equity in a world shaped by motorized transportation where access is uneven (Martens, 2012).

The transportation network can reinforce the polarization of have and have-nots. Neighbourhoods that have been left behind and are disconnected from the preferred nodes like downtown and the airport have been termed "in-between" cities. They are nebulous in that they defy fixed boundaries and are more the product of an urban imaginary (Young & Keil, 2011, p. 3). The processes of suburbanization are producing an uneven landscape where there are preferred sites of capital that are booming, such as around the airport, while others are bearing the brunt of government retrenchment and capital flight, like nearby Mount Dennis bypassed by the UPX line whisking privileged users between the airport and downtown.

It is not just residents that are getting pulled out by the centrifugal forces of urbanization. Some employment is also decentralizing. The GTHA is home to the third-highest concentration of industrial space in North America, higher than Montreal, Vancouver, Ottawa, Calgary, Edmonton, Kitchener-Waterloo and London combined (Boudreau et al., 2009, p. 163). This is creating a vast landscape of low-density industrial sprawl that is spreading to the outer parts of the region as industrial employers move out of the central city to the outer suburbs, and out of the GTHA altogether in some cases to access global supply-chain infrastructure. This is not a simple problem of land use not matching infrastructure but a wider problem related to an accelerating pace of globalization which is changing the nature of logistics and is having a profound impact on the use of space locally and causing anxiety as 'idyllic' suburbs wrestle with the demands of global supply chains (Cidell, 2011). Pamela Blais' (2015) analysis of employment in the GTHA using 2011 data identified three 'employment megazones' in the outer suburbs, consisting of 543,000 jobs. Along with employment in Downtown Toronto, home to 465,000 jobs, the four sites witnessed a 10% rise in the number of jobs since 2001, while interstitial areas outside of these zones experienced a 6% decline. From a transit equity standpoint, the three suburban megazones are poorly served by public transit. With employment increasingly

concentrated in areas with poor transit connectivity, access to employment opportunities by lower-income residents is increasingly restricted by poor accessibility.

The process of suburbanization is also becoming decoupled from the spatial imaginary of being located on the fringe. In an intriguing analysis, Jamie Peck, Elliot Siemiatycki, and Elvin Wyly have further expanded on the definition of suburbanization through their study of the downtown Vancouver condominium boom by asserting that

“Vancouver has remetabolized, rather than transcended, the process of suburbanization; paraded as the antithesis of suburbia, Vancouverism effectively coexists with, indeed extends and redefines, systemic suburbanization” (Peck, Siemiatycki, & Wyly, 2014, p. 411).

Suburbanization is not tied to a spatially distinct geography that can be conceived of being outside of the core. It is a sociological and economic process. Suburbanization of the old city is packaged as a lifestyle for consumption expressing certain values, while continuing government support to the land development industry that has played an influential role in suburbanization since WWII. While suburbanization can be identified spatially within an urban region, it need not be located in a traditionally-defined suburban area on the fringe of the urban region. They identify the processes that have resulted in Vancouver’s reshaped, New Urbanist downtown core as an “involution” of suburban values into a form of “vertical suburbanism”. The downtown is no longer the dominant central business district of the region, but just one node in a polycentric and fragmented urban landscape (Peck, Siemiatycki, & Wyly, 2014, p. 389). Downtown Vancouver is being remoulded into a suburban Edge City, one of a few in the Vancouver urban region, using its architecture, ‘mountain’ skyline and waterfront access as distinguishing features to market itself within global capital systems.

This matters because the mindset associated with a suburban lifestyle is implicated with fostering a more conservative and individualistic political proclivity. The old duality of suburbs and city centre may hinder understanding the politics of the urban region. Roger Keil argues that we are in a “post-suburban” world and poses the question of “how do we live in a post-suburban future now that we have made it?” (Keil, 2013, p. 201). Downtown Toronto is exhibiting a similar kind of transformation as Vancouver as witnessed by the explosive growth

in condominium development. The rise in the population of downtown, the concentration of some types of employment in the core and diffusion of others in the outer suburbs are giving rise to polycentric travel patterns that are limiting the ability of a hub-and-spoke commuter network to meet travel demands. A regional perspective is needed to consider transit equity.

## REGIONAL INEQUALITY

“For better or worse, the suburban nation that Canadians built after 1950 is largely a planned community” (Hodge & Gordon, 2014, p. 134). If planning can be blamed for the failures of creating a ‘despised’ landscape, as asserted by Jacobs, then planners can be credited with having some power, and some responsibility for working towards reducing social inequities in the region.

The suburbs are heterogeneous in form and function, exhibiting intense income polarity. David Hulchanski’s (2010) work at mapping income polarization in the City of Toronto has articulated a powerful counter-narrative to the view of the suburbs as middle-class, stable and homogenous. There is evidence of a shrinking middle-class coupled with an increasing socioeconomic polarization between neighbourhoods. The effects of polarization are not restricted to the inner suburbs of the GTHA. In the Regional Municipality of Peel the number of census tracts reporting an average individual income equal to or exceeding 20% below the Toronto Census Metropolitan Area, comprising most of the GTHA, excluding Hamilton in the west and Oshawa in the east, has risen from 2% in 1980 to 45% in 2011 (Hulchanski et al, 2013). Peel is the upper tier municipality comprising the two largest outer suburban local municipalities in the GTHA: the cities of Mississauga and Brampton. Not surprisingly considering the rise in the amount of individual poverty, the rate of growth in number of individuals classified as part of the working poor is higher in the outer suburbs of the GTHA (Stapleton et al., 2012).

Social inequity is an important entry point into exploring transit inequity in the GTHA. Notably, the high income neighbourhoods benefit from close proximity to the existing subway and streetcar lines (Martin Prosperity Institute, 2011). There have been changes in new

immigrant settlement patterns. New immigrant households are increasingly priced out of housing in neighbourhoods near the central core with good proximity to social support networks and into inner suburban areas lacking services, employment opportunities and transit options (Murdie and Texeira, 2000). Settlement patterns of more recent waves of immigrants favour larger homes that can support multiple generations. An established network of religious and cultural organizations, import and export trade and employment opportunities in new immigrants' mother tongue in the outer suburbs are also attractions. There is a growing disparity between the income potential across generations that is putting younger residents at an economic disadvantage as they lack the income to get established as independent households (Moos, 2014). There is a rise in employment inequality which is creating an uneven playing field of those with permanent, full-time jobs, and those forced to piece together temporary, part-time, and contract-based jobs to make ends meet (Lewchuk et al, 2013). These jobs often demand workers accommodate flexible shifts on weekends and evenings on short-notice when transit availability is limited. Gentrification in the downtown core, where there is a concentration of higher-order transit lines, is contributing to the displacement of lower-income households as affordable options are demolished in favour of condominiums (Lehrer & Wieditz, 2009). The displacement process results in a worsening of transit accessibility for lower-income residents.

The existing transportation infrastructure is under strain because it was not meant to accommodate increasingly diffuse residents' and commercial travel patterns when the bulk of the transportation infrastructure in the GTHA was built between 1963<sup>2</sup> and 1997<sup>3</sup>. The vast

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<sup>2</sup> 1963 is marked by the opening of the TTC University subway extension – the first expansion of the network following the opening of the Yonge line between Union Station and Eglinton Avenue, and setting the stage for the Bloor-Danforth line. It also witnessed the restructuring and expansion of the suburban bus network in a grid pattern to improve transit service to the outer suburbs. That year was also the beginning of the widening of Highway 401 from 4 to 12 lanes between Etobicoke and Scarborough as beginning of a large expansion in the GTHA expressway system.

<sup>3</sup> 1997 reflects the nearly full extent of the TTC subway and streetcar and GTHA expressway networks. It marks the opening of TTC route 510 Spadina streetcar route – only the Sheppard line opened afterwards – and 407ETR between Highway 401 on the Milton/Mississauga/Brampton boundary and Markham began operation. It is noteworthy that there have been more expressway expansions – Hwy. 404 north to East Gwillimbury, Hwy. 407 east to Whitby and west to Burlington, Hwy. 410 north the Caledon, and new Hwy. 412 - a connector route between 407 and 401 along the Whitby/Ajax/Pickering boundary).



expansion of the urban highway network over that period ultimately laid the groundwork supporting the decentralization of employment and residential areas, while exacerbating urban congestion through induced demand (Cervero, 2003). Nor did it envision the rise of two-income households that increase peak-time trips or just-in-time labour that is increasingly recruited for short-term jobs, irregular shifts and part-time hours (personal interview with a leader in the non-profit sector). It is compounded by a greater reliance on trucks to move goods through the region from points on the fringe or beyond, using a just-in-time delivery model that is dependent on smooth traffic flow for efficiency and thus competes for investment and preferred access, yet intimately bound in supporting the gentrifying downtown lifestyle (Keil and Young, 2008).

The recession of the early 1990s served as a catalyst for the election of a neoliberal provincial government that began a strategy of public service cutbacks that saw the elimination of direct operation subsidies and a sharp decline in capital subsidies that have paralyzed transit planning for a decade. An activist provincial government, albeit neoliberal in inclination, returned to transit planning along with a large funding commitment in 2008 with the release of The Big Move (TBM), the regional transportation plan for the GTHA. The lack of transit investment has occurred at a time when the GTHA has experienced growing disparities in income and employment opportunities across the region.

## TRANSIT INEQUITY

Transit investments have not kept up with urban growth in the GTHA and planning decisions have been slow to reflect the changing accessibility needs of the region. There is a mismatch between where new housing is being built and where transit investments are being made (Burchfield and Kramer, 2015). There is a discrepancy between where the employment areas are located and transit (Blais, 2015). Finally, there is an inconsistency between the expanding urban footprint and the location of proposed transit investments. Considering the complexity of the suburban landscape in a post-suburban world, it is not surprising that the planning, provision and support for public transportation, along with many other forms of civic

infrastructures, is also complex. Transportation infrastructure in Toronto is becoming polarized with privileged projects, locales and residents being prioritized and others suffering from disinvestment and fragmented service.

The paralysis in making infrastructure investments, the reframing of transit as a tool for economic development, and outmoded planning practices that favour certain types of transit users (i.e. the 9-5 downtown commuter) and urban developments (i.e. greenfield housing on the fringe of the urban envelope) have each played a role in reinforcing social inequity.

The lack of explicit transit equity objectives can be illustrated with the Union-Pearson Express (UPX), a rail service connecting downtown Toronto with the airport. UPX is a new express heavy rail service to the airport at a premium fare. UPX was built and is operated by Metrolinx. The project is an example of unbundling existing transit infrastructure re-bundling it into a premium service for elite users (Graham and Marvin, 2001). However, its effect is to reduce track time for the existing commuter line along the corridor, decreasing travel options and negatively impacting travel times. It also imposes a higher fare for riders along the corridor who need to travel at times when the commuter train cannot run.

The complex social, economic and political environment of the post-suburban region means that investment is being targeted in ways that favour certain users and locales, while bypasses others. The increasingly fragmented governance modes, buffeted by the relative decline in state power to capital and private interests amplifies this effect. Yet, in an interconnected region that is increasingly tied to global networks, it becomes practically impossible to isolate traffic for the benefit on one over another. This feeds concerns about social justice. As the region is becoming more polarized economically, and governance is more fragmented with competing actors, it becomes paramount to ground public transportation planning in a political framework that acknowledges the inherent unevenness of the distribution of benefits (Young & Keil, 2010). Income distribution in the GHTA is becoming polarized. Increasing polarization, tied to external forces including neoliberalism and globalization, is causing the social fabric of the city to fray (Walks, 2010), putting the sustainability of the city at risk.

Transportation plans can only achieve their goals within the context of the existing social and economic spatial relationships of the GTHA in order to make a tangible improvement in network connectivity, access and travel times. Transit plans must also consider the question of who benefits from the investments made to ensure that prime network spaces do not dominate in attracting investment while simultaneously worsening the efficiency of the overall transportation system.

The irony of this polarized infrastructure landscape is that, with respect to the provision of public transit in suburbs, the GTHA has a long and rich history of providing successful and innovative service. When the Toronto Transit Commission (TTC) restructured its suburban routes in 1963 from a downtown centred, hub-and-spoke system to one following a simplified grid pattern, ridership levels grew significantly over the next 25 years. The network model is a powerful tool to building ridership in decentralized and lower-density areas (Walker, 2012, pp. 149-150). The model employed by Metropolitan Toronto was underwritten through a substantial increase in public funding at both the Provincial and regional (Metropolitan Toronto) level that was predictable and sustained over that period as well. This is particularly important in a North American context that saw precipitous declines in ridership in most municipalities over this time frame through disinvestment in transit.

Equality of access was the watchword of the Fordist era, as demonstrated by the expansion of both expressways and transit to cover the urban region, but equality of access is not sufficient for producing improved equity where there are systematic barriers that prevent different publics from accessing the network. A new set of tools and strategies are essential to articulating transit equity objectives in transit planning and operations. Furthermore, it is vital to frame transit equity as part of a project to link improved equity with economic and political goals in order to gain popular support for making infrastructure investments that serve to improve equity (Hertel et al, 2016, Tab 3). Transit infrastructure decisions must reflect an awareness of, and include objectives to ensure that, those who have the greatest social need benefit from the investment. Building transit for the sake of building something will not necessarily achieve the aims of reduced congestion and improved economic activity and it may actually worsen the existing social and spatial problems in the GTHA (Hertel et al, 2015).

## ORGANIZATION OF THE PORTFOLIO

Section 1 of this portfolio opens with surveying the literature related to transit equity in order to define and articulate it. Drawing on examples from North America, South America, Australia and Europe that demonstrate top-down action through government and bottom-up engagement by community activists, it demonstrates how transit equity principles have been incorporated into transit projects. The selection of examples are intended to demonstrate different strategies that can be employed to support transit equity objectives. Section 2 draws on the work in Section 1 to present the findings in an academic setting, contributing towards the active conversation concerning transit equity already underway in academic circles and help foster multidisciplinary connections. The feedback from academics, community activists and non-profit service providers, planning professionals, and representatives from the development industry was an important contribution towards articulating a common language around transit equity (see Appendix A: Links to Full Reports; Appendix C: News Releases; and Appendix D: List of Media Coverage). Also, questions for further research on how to identify and reveal inequity in transit at the neighbourhood scale were posed, and a proposed methodology towards seeking answers was mooted. Section 3 builds on the foundation laid in Section 1 and Section 2 by examining transit inequity at the neighbourhood scale with the consideration that urban and suburban neighbourhoods are complex and variegated, and thus inequity is experienced in different ways. Using a case study approach, a link between the theoretical grounding of the literature and the lived experiences of residents. The vital contribution of stories of how individuals experience transit inequity brought into focus how transit inequity results in isolation, loss of employment and education opportunities, increased living costs. The stories also demonstrated how poor accessibility frayed social relationships, reinforcing social isolation. These stories opened the conversation on the need to include transit equity in planning in order to explicitly include a broad range of voices not always heard during transit planning debates and not visible in conventional transit plans. Section 4 presents a synopsis of the work on transit equity in Section 1, Section 2, and Section 3 specifically targeted to the

planning profession. The intention is to establish the imperative for planners to be active participants in achieving transit equity using the reports on transit equity, of which Section 1 and Section 3 contribute, as the foundation (see Appendix A: Links to Full Reports).

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# SECTION 1

## SWITCHING TRACKS: TOWARDS TRANSIT EQUITY IN THE GREATER TORONTO AND HAMILTON AREA

Sections 3-7

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### INTRODUCTION

The central research question in the POS underlining this portfolio is how to incorporate social equity objectives into transit planning. This section is concerned with how to define and articulate transit equity and explore ways to achieve a more equitable transportation system. The first step consists of a literature review concerning the definition transit equity, the identification of different ‘publics’ that are vulnerable to inequity as a consequence of an uneven distribution and accessibility landscape of transit infrastructure, and a survey of solutions used to incorporate transit equity into the planning and operation of public transit. The work presented here is essential in setting the foundation which anchors each section of this portfolio that follows below. Equally important, it creates a common language for engaging with academic, professional, political constituencies, transit users and the broader public. Section 3 – case studies on transit equity at the neighbourhood scale – relies on the definition of transit equity established in this section to inform the methodological approach used.

Section 1 is my contribution to a report on transit equity published by CITY entitled *Switching Tracks: Towards Transit Equity in the Greater Toronto and Hamilton Area*, co-written with Sean Hertel and Roger Keil (Hertel et al, 2015; see Appendix A: Links to Full Reports). The work in Section 1 of this portfolio consists of Chapters 3-7 of *Switching Tracks*. *Switching Tracks* was funded by a grant awarded from Metrolinx to advance academic research supporting the mandated review of TBM.

Since the GTHA is a central theme in this research portfolio, the requirements and criteria emanating from the Ontario planning regime form the starting point of how transit equity is defined and what criteria are used to assess it. There is a hierarchical political structure in Ontario, where the province sets policy, defines the planning and development priorities for municipalities, controls funding, approves infrastructure investments, serves as a quasi-judicial appellate court for municipal development and planning decisions, and maintains the power over the political structure of municipalities. Provincial directives, policies and regulations are effectively the *lingua franca* that enables the Province and its municipalities to communicate. Municipalities are statutorily obligated to follow provincial laws, statues and regulations, and therefore are conditioned to applying provincial criteria. Metrolinx, created by an act of provincial legislature in 2006, represents an explicit effort to enforce regional control over transportation planning in the GTHA (Addie, 2013, pp. 206-207). Ontario set the parameters for regional planning through a set of policies and legislative actions that include the GPGGH, which specifies land use development objectives which Metrolinx’ transportation plans are required to support, and the GTHA Greenbelt, intended to curtail sprawl. Since municipal planning decisions are ultimately subject to provincial approval, a consistency across local boundaries can be achieved in a way practically impossible otherwise.

There is a recognition in policy and planning circles in Ontario, as evident through provincial statutes and regulations, that improving social equity, in broad strokes, is a desired objective. The impetus for the inclusion of social equity objectives in transit planning stem from the GPGGH and TBM. The GPGGH calls for social equity to be one of the three pillars underpinning a high quality of life in the GTHA (Ontario. Ministry of Municipal Affairs and Housing, 2013, p.9). TBM acknowledges the role of transportation in improving social equity by calling for projects to be designed to meet social needs:

Table 1. Number of municipalities in Ontario.  
(Ontario. Ministry of Municipal Affairs and Housing, 2016)

| <b>Municipalities</b> |            |
|-----------------------|------------|
| Upper Tier            | 30         |
| Lower Tier            | 241        |
| Single Tier           | 173        |
| <b>Total</b>          | <b>444</b> |



“Projects should be subject to a fair, clear and rigorous Benefits Case Analysis process where financial, economic, environmental and *social needs and impacts* [emphasis added] are taken into account to ensure that the most optimal investment decisions are made,” (Greater Toronto Transportation Authority, 2008, p.75).

TBM recognizes spatial inequity of the exiting transit infrastructure by mapping areas of social need home to residents who are particularly disadvantaged by a lack of transportation options (see Figure 3).

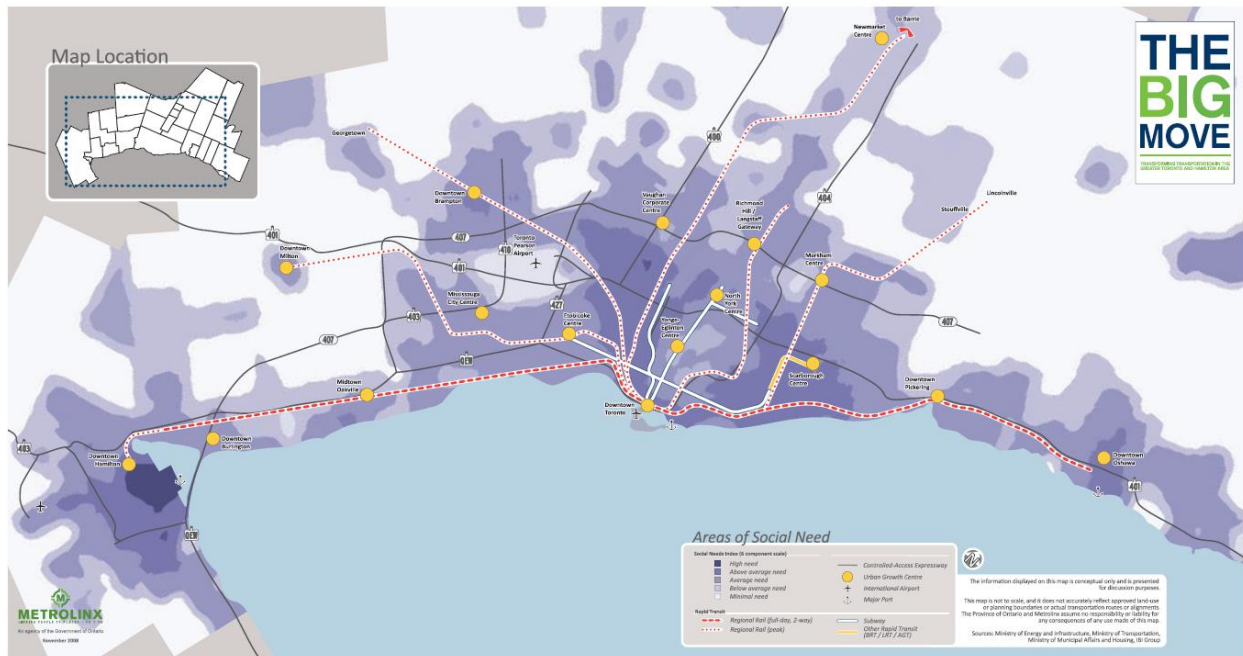


Figure 3. Map of the Areas of Social Need from TBM.

Source: Greater Toronto Transportation Authority [Metrolinx], 2008, p. 104. ©Queen’s Printer for Ontario.

While the province has expressed a requirement to address social needs there is no definition of social need. There are no criteria articulated to translate the requirement to address social needs from policy into planning, funding and operational tools. In fact, there is no data being collected to either establish a baseline or measure progress on improving social equity (ARUP et al, 2013). A consistent methodology on how to achieve greater social equity is not reflected in the transit investment decisions being made under TBM. Without a clear direction on what social equity indicators to include, how to measure them and how to incorporate them into the evaluation of a transit infrastructure project, improved social equity

will not happen. This section contributes towards addressing that gap in the Ontario policy landscape by surveying the literature in order to articulate a working definition of transit equity as

“the fair and responsive delivery of transit infrastructure and services to meet people’s needs, especially vulnerable populations including low income residents, users in underserved parts of the GTHA including newly-developed areas, visible ethnic and cultural groups, the elderly, and persons with mental and physical disabilities,” (Hertel et al, 2016, p. 9).

Then, this section presents examples of how transit equity has been incorporated, or fought for inclusion, into transit projects. The range of examples reflect top-down action through government and bottom-up engagement by community activists. The examples demonstrate how transit equity is a symptom of a contested landscape of infrastructure where competing interests struggle to control infrastructure investments to serve their objectives, often with unpredictable and far-reaching ramifications (Filion and Keil, 2016). The selection of examples are intended to demonstrate a variety of different strategies may be employed to support transit equity objectives. It follows from an important recognition that there are different publics who experience transit inequity in different ways. The examples also show how transit equity, while a socially important objective, is not always supported in the context of competing government and development objectives, particularly in an environment where public investment is constrained by the need to serve a competitive city agenda, and requires an engaged community to claim their right to an equitable transit system.

## REPORT CONTRIBUTION

*This text comprises sections 3-7 of Switching Tracks: Towards Transit Equity in the Greater Toronto and Hamilton Area. There are differences in formatting, but the text is unaltered. The content herein is reproduced with permission of the authors. For the link to the full report, see Appendix A: Links to Full Reports.*

### *3.0 Transit Equity, Justice*

The concept of transit justice has attracted considerable attention at national and international scales with considerable debate within North America and abroad, that those suffering economically or who are from a socially disadvantaged community have less access to transit opportunities in comparison with the wider range of transit options available to those residents who are better off (Agyeman et al, 2003, p.289).

The modern civil rights movement has its root in public transportation, beginning in 1955 with African-American bus boycotts arising from Rosa Parks' refusal to sit at the back of a bus in Montgomery, Alabama. Many regional transportation systems are regional in name only with many comprising of 'separate and unequal' urban and suburban transit systems built along lines of social disparity (Bullard and Wright, 2010, p.63). An effective regional transportation system is important in connecting people with jobs, serving a rapidly aging population, and reducing traffic congestion. Public transit has positive effects on the environment and is an essential ingredient in moving low-income families from poverty and dependency to self-sufficiency. Transportation investments, if used properly, can invigorate and revitalize disadvantaged urban areas (Bullard and Wright, 2010, p.66).

Following the work on justice by Iris Marion Young (2000) and David Harvey (1997), justice cannot be restricted to redistribution and has to be gauged against the diverse needs of those that have been deprived. There is an affirmative aspect involved. In our context, generally, a person's spatial location in a transit system is differentiated by income, ethnicity, ability, access/proximity to available work and family-status. This often implies a predictable

status in law, educational possibility, occupation, access to resources, political power and prestige (Young, 2000, p.95). But what is more, we will need to discuss whether we are talking about justice for individuals, households, communities (social), neighbourhoods (spatial) or any other measure or scale along which inequalities are produced and resources are distributed. In any transit related conversation, justice invariably needs to be seen in the context how urban and regional space is produced and access to resources is influenced by that process (Soja 2010).

If justice is the general objective, equity and equality are more operative categories we may use to think through how to address transit inequalities in a practical manner. It is important to distinguish equity from equality, in the context of public transit. As Fainstein (2010) notes, equity refers to public policies that help those who are not already better off. Equity does not require that each person be treated the same, only appropriately. This implies fairness, which is a more broadly accepted concept than equality. It has the power of gaining wider political support as demands for greater access to public transit have more currency than transportation connections that benefit those who already enjoy access (Fainstein, 2010, p.36).

Transit equity, therefore, is viewed as the outcome of removing structural obstacles from the fair distribution of goods and services by the regional transportation system. Transit equity is an intuitively meaningful concept and forms the basis of socially conscious transit planning (Marcuse et al. 2009, p.93).

In their seminal work on transit and social equity in the United States, Garrett and Taylor (1999) identified a number of the themes connected to transit injustice. Income polarization, and the changing nature of employment and the

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*“The allocation of transit services between rich and poor, whites and people of color, suburbanites and inner-city residents, is not happenstance, but is directly connected to social and economic polarization,”*  
(Garrett and Taylor, 1999, p.7).

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decentralization of workplaces have not been reflected in government operating and capital subsidies. Funding decisions are skewed to benefit “choice” or non-captive riders through commuter rail and express bus services to outer

suburbs. Planning decisions are made that ignore existing socio-spatial inequities in older neighbourhoods. Choice riders are more sensitive to transit costs since they have greater access to alternatives so fares are disproportionately subsidized in their favour to attract them to underused services. Lower income residents have less political clout to advocate for a readjustment of funding or for a realignment of infrastructure investment priorities for their benefit. Together, these themes reinforce transit injustice.

### 3.1 Defining the Term: Equity

At an even more practical level, in policy debates, equity has a more instrumental meaning. The existence of different publics, and the resulting multiplicity of values and priorities projected onto public transit, frustrates the definition of what transit equity is, could be, and should be. Conceptually and in actuality, equity manifests differently and to different degrees across the physical and public expanse of the GTHA. In defining equity, as related to public transit in the normative, we refer to Litman (2014):

“Equity (also called justice and fairness) refers to the distribution of impacts (benefits and costs) and whether that distribution is considered fair and appropriate.

Transportation planning decisions can have significant and diverse equity impacts...”

(p.3)

Litman presents (see Figure 2) a multi-spectrum approach to assessing transit equity that distinguishes between three different types of equity, identifies different impacts, sets out different measurements and ways to categorize the public. This begins to acknowledge the complexities and interconnectedness of factors influencing, and influenced by, public investments in transit.

Within this wide array of transit-using publics, metrics and desired outcomes there are many different ways to define and assess transit equity, and for an investigation into some of the decisions and decision-making processes that promote or hinder its achievement. While the GTHA and The Big Move are the primary subjects of this review, we will identify and compare national and international precedents with the Toronto experience, and point to potential ways forward.

Table 2. Equity Evaluation Variables.  
(From Litman 2014, p. 2)

| Types of Equity   | Impacts  | Measurement   | Categories of People   |
|---|--|---|--|
| <p><b>Horizontal</b><br/>Equal treatment of equals</p> <p><b>Vertical With-Respect-To Income And Social Class</b><br/>Transport affordability<br/>Housing affordability<br/>Impacts on low-income communities<br/>Fare structures and discounts<br/>Industry employment<br/>Service quality in lower-income communities</p> <p><b>Vertical With-Respect-To Need And Ability</b><br/>Universal design<br/>Special mobility services<br/>Disabled parking<br/>Service quality for non-drivers</p> | <p><b>Public Facilities and Services</b><br/>Facility planning and design<br/>Public funding and subsidies<br/>Road space allocation<br/>Public involvement</p> <p><b>User Costs and Benefits</b><br/>Mobility and accessibility<br/>Taxes, fees and fares</p> <p><b>Service Quality</b><br/>Quality of various modes<br/>Congestion<br/>Universal design</p> <p><b>External Impacts</b><br/>Congestion<br/>Crash risk<br/>Pollution<br/>Barrier effect<br/>Hazardous material and waste<br/>Aesthetic impacts<br/>Community cohesion</p> <p><b>Economic Impacts</b><br/>Economic opportunities<br/>Employment and business activity</p> <p><b>Regulation and Enforcement</b><br/>Traffic regulation<br/>Regulations and enforcement<br/>Regulation of special risks</p> | <p><b>Per capita</b><br/>Per adult<br/>Per commuter or peak-period travel<br/>Per household</p> <p><b>Per Unit of Travel</b><br/>Per vehicle-mile/km<br/>Per passenger-mile/km<br/>Per trip<br/>Per commute or peak-period trip</p> <p><b>Per dollar</b><br/>Per dollar user fees<br/>Per dollar of subsidy<br/>Cost recovery</p> | <p><b>Demographics</b><br/>Age and lifecycle stage<br/>Household type<br/>Race and ethnic group</p> <p><b>Income class</b><br/>Quintiles<br/>Poverty line<br/>Lower-income areas</p> <p><b>Ability</b><br/>People with disabilities<br/>Licensed drivers</p> <p><b>Geographic location</b><br/>Jurisdictions<br/>Neighborhood and street<br/>Urban/suburban/rural</p> <p><b>Mode and Vehicle Type</b><br/>Pedestrians<br/>People with disabilities<br/>Cyclists &amp; motorcyclists<br/>Motorists<br/>Public transit</p> <p><b>Industry</b><br/>Freight<br/>Public transport<br/>Auto and fuel industries</p> <p><b>Trip Type</b><br/>Emergency<br/>Commutes<br/>Commercial/freight<br/>Recreational/tourist</p> |

## 4.0 Unequal Distributions of Access

A person's location relative to the transit system is generally determined by financial resources, ethnicity, ability to work, proximity to available work, and their political influence (Young, 2000). In effect, transit access and the lack thereof often compounds social and economic situations. An equitable transportation system is important for connecting people with jobs, serving a rapidly aging population, reducing traffic congestion and as a pathway for low-income families to go from poverty and dependency to self-sufficiency. Without equity as a determinant of the regional transit system, such a system may be "regional" in name only (Bullard and Wright, 2009).

The problems of transportation inequity are becoming more visible throughout the world because of the work of community activists, researchers and civic leaders. This body of work highlights the importance of understanding how transit inequality is tied to social inequity, and how they are distributed on the ground. Broader socio-economic factors, such as the changing nature of employment and location of workplaces, planning policies that encourage separation of land uses, immigration trends that see new immigrants landing in outer suburban neighbourhoods, and the displacement of vulnerable persons by the loss of affordable housing in inner cities through gentrification, interact in complex ways to reshape the accessibility of the existing transit network. Knowing where the gaps are for the most vulnerable helps to identify where to locate new infrastructure to reduce transit inequity.

### 4.1 Social Consequences

Researchers and civic leaders in Melbourne and Hobart, Australia are working to identify spatial gaps in the existing transportation network, tie them to social inequity, and develop strategies to address them (Currie, 2010). This work helps to understand that transit injustice has a spatial element, and provides a way to make it visible.

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## **STAKING OUT LA'S STREETS FOR TRANSIT JUSTICE**

*The LA Bus Riders Union is a coalition of community activists and labour groups to challenge an uneven distribution of transit investments from the bottom-up. Rail projects were noted to serve a disproportionate level of white riders in the LA region and consume a disproportionate amount of both the capital and operations budgets. Bus riders, on the other hand, are 90% visible minority, with an average income of \$14,000. They are more likely to have a disability than the general population. Operations funding gaps were filled by cutting bus service and raising fares, which produced a double hit on low income and minority riders. The cuts meant they received less service than before rail projects opened, in comparison to riders benefitting from the new transit investments. Low income riders were also more likely to have multiple jobs at off-peak travel times where cuts were disproportionately targeted. More affluent riders were also in a better position to absorb fare increases that have a relatively lower impact on their disposable income. The solutions they campaign for include:*

- 1. Creating auto-free / pedestrian only / bus only corridors and centres;*
- 2. Creating bicycle and pedestrian connectors to transit stops;*
- 3. Improving night and weekend service;*
- 4. Improving express service – especially for suburb-to-suburb travel;*
- 5. Consider the spatial element of affordable housing on high pollution corridors through planning policies and how they connect to transit investments;*
- 6. Reverse service cuts;*
- 7. Foster safety through respecting bus riders and not criminalizing visible minority riders.*

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Researchers in the United Kingdom are investigating how the design of transportation networks – both the capital and operational aspects – can contribute to the social exclusion of low-income persons who work outside the traditional 9-5 model, younger and older persons who have mobility needs not always tied to employment, and persons with disabilities who have specific needs relating to accessing the network. Transit networks that emphasize the needs of the traditional 9-5 worker may inadvertently disadvantage these other publics. Understanding the nature of how and when these different publics use transit and what their specific needs are help to ensure that transit policies and plans do not produce an inequitable result. Researchers are also looking at the social consequences of road pricing on low-income persons and persons with a disability where it has been implemented as a means to address congestion and pollution (Lucas, 2006).



Community activists in Los Angeles, California are actively working to counter inequities in transportation policies that are disproportionately harming visible minorities and low-income residents (Bus Riders Union, 2012). They use a range of tools like civil protests, court challenges, political activism and community awareness campaigns to mobilize popular support for more equitable policies. The Los Angeles experience shows the importance of considering the needs of different types of riders in order to plan and deliver a socially-just transit product.

## 4.2 Changing Geographies

Researchers around the world are engaged with examining social, economic, and demographic changes that are having a profound impact on worsening transit equity in suburban areas (Young and Keil, 2010; Phelps and Wood, 2011; Cidell, 2012; Addie, 2013). Others are connecting the older, radial based transit systems as being

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*“In the case of Toronto, the existing transportation situation has become a bottleneck for the continued globalization of the region, because global and local circuits of mobility are not well coordinated and various scales of decision making do not visibly interact for the regional good,”*  
*(Keil and Young, 2008, p. 729)*

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out of step with the needs of today, where living in close proximity to a station may not lead to a useful destination for employment or other needs, based on travel patterns that are becoming increasingly decentralized (Thompson and Matoff, 2003). Research is also evolving to measure transit inequality in order to map it spatially (Currie, 2010; Martin Prosperity Institute, 2010). Important work is also being done to examine the emerging spatial impacts of inter-generational inequity (Moos, 2014).

Residents are increasingly making suburb-to-suburb trips, and making multiple daily trips to sustain part-time and piecemeal employment to make ends meet. Income opportunities are increasingly shaped by access to higher education, itself an uneven process, and reproducing inequities across generations. Youth are moving to central neighbourhoods to find employment in emerging service and creative industries, but are also more affected by the shift to piecemeal, temporary and contracted out work. Youth are also more likely to rely on public transit and eschew driving (Marzoughi, 2008; Sivak and Schoettle, 2011, 2012; Kuhnimhof et al.,

2012). New immigrants are increasingly locating to suburban areas and living in shared accommodation situations to get established and find work. They are also more likely to use public transit than immigrants have in the past (Heisz and Schellenberg, 2004). The convenience of a transit station nearby that only serves to funnel riders to the central business district does not meet all of these different mobility needs.

Finally, there is a growing interest in understanding how complex global forces are producing a local hierarchical structure that privileges some and disconnects other through a splintering of urban realm, both socially and spatially (Graham, 2000; Graham and Marvin, 2001). We can see the social impacts of this in Toronto in the polarization of income levels with the decline of the middle class (Hulchanski, 2010). Another indication is the rise of temporary, short-term, part-time employment which forces some workers to make multiple work-related transit trips. The trips made by these workers in evening hours and on weekends are disadvantaged by a system that is designed for a 9-5, Monday-to-Friday work schedule (Florida et al, 2014).

#### 4.3 Moving Beyond an Economic Calculus

We are no longer in a world where planning decisions are based on a simple notion of equal access. Equal does not necessarily mean equitable. Building transit is, on the surface, a positive element for a number of social, economic and environmental reasons. But doing so without considering some important implications (e.g. who stands to benefit?) can reinforce structural inequities according to neighbourhood, class and income. We are in a sustained era when government investments have to be justified on a business case – hindering the ability of transit investments to identify, align with, and support social needs.

Governments are under pressure to ensure transit investment decisions are made on the basis of demography and economic attractiveness. These criteria amount to a strategy of “picking winners” as already successful areas of the city tend to be served first in the building and maintaining of public transit: the well-to-do residential areas (like Toronto’s Yonge Street corridor), employment centres (like the downtown) and transportation hubs like the airport (which will soon be serviced by a special rail line). Such “path dependencies” are further

reinforced by the movement of governments towards public-private partnerships in the delivery of transit capital and service improvements. Under this model, economic or “value for money” considerations take precedence over social factors or the “public good” (Siemiatycki, 2011).

#### 4.4 Governance, and the Creation of Peripheries

Less attractive areas have historically been neglected in the distribution of transit investment and upkeep. The “in-between city” described by Young and Keil (2014) as neither suburb nor downtown – largely equivalent to the post-war suburbs with their mix of single family homes and tower neighbourhoods – is especially vulnerable to, and made further vulnerable by, long-term biases in transportation and other infrastructure investments. These are places that are already disadvantaged through a lack of employment opportunities, substandard housing, underfunded educational institutions, limited food retail and nutrition choices and overall disinvestment. Prime spaces are supported through investment, but the capillaries of the system that are essential for transit equity – bringing transit to the door – are left to waste away. The biggest problem with the emphasis on picking winners is that, in an interconnected region, transportation flow is constrained by pinch-points where the premium networks intersect with less valued urban space (Keil and Young, 2008).

Because of the permanence of building infrastructure, it is important to ask upfront about how investment and inequity are linked. We need to bring in many voices to understand the myriad of ways in which inequity is produced and how it can be addressed. A central issue is that governance and government, while related, are not synonymous. Ekers, Hamel and Keil (2012) have argued within the context of suburban governance that formal government is just one of three interconnected governing forces. The demands of satisfying capital accumulation is a second form of governance. The third form is private authoritarianism which stems from the devolution or abdication of state power to private actors. This can take the form of public-private partnerships where the public maintains some input, privatized concessions like Highway 407, or even private control of urban space as with gated communities. As privatization of transportation services has increased in the region on a wide spectrum - from

taxi services such as Uber to the delivery of suburban bus services through business models such as VIVA - the impact of such a shift on transit equity will surely have to be monitored closely in the years to come.

In an interconnected region that is increasingly tied to global networks, it becomes practically impossible to isolate modes for the benefit of one over another. In an automobile context, this feeds concerns about social justice. As the region is becoming more polarized economically,

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*“Many of the problems associated with poor transport and accessibility are beyond the capacity of local authorities to resolve as they relate directly to the broader social and economic climate,”*

*(Lucas, Grosvenor and Simpson, 2001, p. 41)*

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and governance is more fragmented with competing actors, it becomes paramount to ground public transportation planning in a political framework that acknowledges the inherent unevenness of the distribution of benefits (Young & Keil, 2010). As Hulchanski has illustrated, income distribution in the City of Toronto is becoming polarized. The increasing polarization, tied to external forces including neoliberalism and globalization, is causing the social fabric of the city to fray, putting the sustainability of the city at risk (Walks, 2010).

Public-private partnerships (P3s) between the public and private sector have been increasing in popularity as means to deliver new public infrastructure. Yet, P3s play a role in increasing the fragmentation on governance. Proponents of P3s argue that these arrangements serve as a way to reduce political interference, promote competitive bidding processes to lower costs, reduce government exposure to project cost overruns, leverage private sector expertise and efficiencies to achieve lower life-cycle costs through technical innovation, and reduce government exposure to debt (Siemiatycki, 2006). P3s however, are not guaranteed to result in greater efficiencies, lowered costs, and reduced risk. Contractual agreements can preclude governments from increasing public participation in projects and from prioritizing social need. (Siemiatycki, 2009). Transit inequity could further be reinforced by the fact that P3s, inherently, are positioned by governments to be attractive to private investment. As Siemiatycki points out, private sector partners have “selected the most profitable projects with the lowest risks,

reinforcing existing landscapes of uneven geography, timing, and project types” (Siemiatycki, 2011, p. 1720).

While governance fragmentation is taking place, there is a restructuring of the role of public transit as a tool to promote regional economic competitiveness in a neoliberal environment which competes to attract global capital (Addie, 2013). The residents in the “in-between city” are not the beneficiaries, and see such projects as an extension of an elite class trying to entrench their position of power and contribute to the growing social inequities (McFarlane & Rutherford, 2008). The policy conundrum in promoting public transit is that for people living in areas lacking in public infrastructure, policies that are geared towards privatized modes of travel (e.g. cars) are more politically popular (Walks, 2008; 2014).

The economic argument for enhanced workforce mobility and goods transportation is often made without considering the location of the workers and the consumers. Building infrastructure without considering the impact on different residents has the potential for long term negative impacts on large parts of the region. Outdated views of urban-regional transportation dynamics and more or less willful disregard of less vocal and powerful groups in the transportation debate may lead to decisions on network build-out, network design and modal choice that exacerbate inequality. In an environment of inter- and intraregional competitiveness, oriented to market or use-value considerations, “transit as a public service for all” may be less successful without a clear expression of improved equity as an outcome.

### *5.0 The Faces of Transit Inequity*

The concept of transit inequity grew out of the Environmental Justice movement that emerged in the United States in the 1980s, which itself was anchored on the foundation laid by the Civil Rights Movement (Agyeman et al., 2003).

There was an awareness of structural and systematic biases in the economy that have produced an unfair distribution of environmental costs and economic benefits. In essence, those who pay the price do not always share in the benefits. There is an inherently spatial element to this process that can be traced to certain groups – publics – who were

systematically burdened with those negative environmental costs. Community leaders in the Environmental Justice movement in the United States saw that an unfair sharing of costs and benefits produces injustice where certain publics – such as persons of a visible minority, women or low-income persons – were bearing a disproportionate share of the costs that can be traced to specific geographic areas. In his study of transit equity in São Paulo, Brazil, De Vasconcellos (2005) found that the lowest income residents bore the highest transportation costs proportionate to their income, experienced the highest degree of “externalities” (e.g. exposure to pollution and rates of injury or death related to mobility), and had the longest travel times compared to the wealthiest residents. Yet, transportation policies were skewed to promoting car use that worsened these conditions of inequity.

### 5.1 The Paradox of Transit Improvements

Building transit can play an important role in addressing social inequity but it is also important to understand that investing in transit infrastructure may trigger forces that can produce injustice. While building transit is good, it is not necessarily good for all. Somewhat paradoxically, transit improvements (e.g. mixed-traffic to dedicated lanes) can have the effect of displacing those residents most in need of the service in the first place. For reasons such as convenience and choice in travel, proximity to work and the benefit of reduced travel times, those with financial means and social status are able to relocate into neighbourhoods to access amenities like transit. Once in the neighbourhood, they reshape it for their needs. It has the effect of displacing existing residents where their neighbourhoods are no longer affordable or provide for their needs.

Gentrification is a process that can counteract the equalizing forces of transit investments in lower income neighbourhoods. Private transit-oriented development along new or improved transit lines “threatens less profitable land uses – lower-rent apartments, cheap shops, functional industrial spaces” (Kipfer 2012, N.P.), which displaces lower income residents to neighbourhoods with less transit service and fewer amenities. As Marcuse (2013) argues,

“[i]f the concern is with social justice and the housing of those most in need, gentrification is by definition unjust”. He could easily be talking about social justice and transit investment.

It is out of the activist legacy of environmental justice that political movements like the Los Angeles Bus Riders’ Union found traction. Community activists in Los Angeles saw first-hand how low income residents and visible minorities were far more likely to rely on the local bus

network for travel, but investments in transit were being directed to more affluent, white neighbourhoods. When budgetary pressures triggered cuts in service, a disproportionate number of the cuts were targeted to the bus network used by low income and visible minority groups. This is one of the ways by which transit injustice is produced through space, with an uneven distribution of benefits and costs.

The practice in Los Angeles was different from earlier efforts at transit activism in Toronto, such as the successful Streetcars for Toronto Committee in the 1970s. They were concerned about service quality (cutbacks) and spatial access (loss of service), but the notion of disparity between the different types of users was not a top consideration. They were primarily looking at equal access, not equitable access. Today, transit activism in Toronto continues through the work of community-, rider- and labour-based groups including the Fair Fare Coalition, TTC Riders and the Greater Toronto Workers Assembly. In sum, the positions of these groups call for public awareness and action by governments to:

1. Introduce more and better service to all city neighbourhoods;
2. Make transit fully accessible to persons with disabilities; and

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*Decisions on [public works] investments therefore demand the most deliberate efforts to improve rationality—to help assure one, that the distribution of the benefits and the costs among the city’s publics is consciously intended and democratically warranted, two, that levels and priorities of investments are so staged as to induce the desired repercussions in the private markets, and three, that public resources are used for those projects and programs promising the highest social payoffs,”*  
*(Webber, 1963, p. 233)*

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3. Make fares more affordable up to and including providing transit for free as proposed by the Greater Toronto Workers Assembly, viewing transit as “an essential right, like public education, libraries, water, doctors and hospitals” (Greater Toronto Workers Assembly, 2014).

There are invisible barriers reinforcing transit injustice that are not always apparent. Access to quality public transit is an essential vehicle to facilitate the rights of men, women and children in everyday life of the city. As Levy (2013) argues, transportation reflects the right to participate in a city and allows residents to take advantage of the opportunities the city offers. But she contends from her review of transit options in the global south that transit planning rarely considers the needs of a diverse array users, who have different needs that are formed through age, gender and social relations. Being blind to users does not mean that the needs of users are reflected equally. The needs of men in the workforce take precedence, whom usually have access to a private vehicle. Women, elderly, children and persons with disabilities each have travel needs that are shaped and defined in the context of broader social, economic, political and environmental factors. By not providing for their needs, the lack of transit options has the effect of denying their right to the city.

We also need to consider that space can also shape the person, and that has the impact of further splintering the notion of the public. There is an indication of an emerging political bias in inner suburban areas that can produce more conservative political views shaped by the expectations of private space (Walks, 2008). This sentiment is echoed by Sewell (2014) who argues that suburban residents of Toronto do not find a connection between public space and the public good, because they live a lifestyle that does not engage them in a shared sense of community beyond their own private space. Suburban residents are likely to see themselves as living in a different kind of place than a city, as a way to differentiate themselves and their experiences in the face of forces shaping their everyday lives, including global communication, capital, trade and social flows (Cidell, 2011). There is an emerging field of interest about the changing connectivity patterns at national and global scales, which are affecting equity in mobility at the local scale (Cidell and Prytherch, 2015).



Toronto is not immune from economic, political and social forces that produce transit injustice around the world. In an international comparative study of access to public transit in the Toronto and Frankfurt regions, Christian Mettke (2014: 187-190) has found that the “diversifying processes of post-suburbanization and ‘post-suburban realities’ in the GTA collide with the inertia of the public transit system.” He summarizes the situation in Toronto in these terms: First, there is a system-wide lack of access for transit users with physical disabilities, an important measure of transit access overall; second, there exists significant “by-passing” issues in the Toronto network, predominantly affecting the (inner) suburbs; third, the lack of fare integration hurts people commuting from outside the TTC system; fourth, the timing of connections remains a problem in the system overall putting those in the ‘transit deserts’ at a disadvantage; fifth, safety is generally not an issue in the Toronto public transit system; sixth, the decision-making process over future network improvements is characterized by a democratic deficit that has plagued the entire region and cemented existing inequities in service.

We are seeing stark spatial patterns emerging where there are clear winners and losers, as illustrated through David Hulchanski’s seminal work (2010) on “Toronto’s Three Cities”. There are numerous issues at play, such as the changing nature of work. From a transit equity viewpoint, we can identify patterns spatially where certain groups lack good access to transit (Martin Prosperity Institute, 2011). Lower-income residents, new immigrants and visible minorities are increasingly living in areas without access to good transit. Seniors and children, and women as primary caregivers to both groups, have particular issues that make them more vulnerable to transit inequities. Changing demographics and societal preferences are affecting the affordability and desirability of areas with good transit access.

We are living in a splintering urban world, where there are clear bifurcations between upper and lower incomes. The process of splintering works at a global scale but has a direct impact on everyday life. This is apparent in the changes in social structure, where there is a clear polarization in income levels and a sharp rise in precarious work. With transit justice as a goal, not only do strategies have to be considered that reflect the disparities in the urban

region, but transit investments need to be made with strategies to mitigate the production of injustice.

## *6.0 How Do We Shift from “Picking Winners” to Creating Equity?*

Equity in transit comes from an understanding of the uneven way by which different publics have access, and of the forces that produce such distributions. One approach is to prioritize transit investments to counteract poor access to transit, lack of affordable housing, and poor access to employment. By looking at the existing transit network in relation to socio-economic indicators of inequality, plans and policies can be produced to address the inequalities (Currie, 2010; Martin Prosperity Institute, 2011; Golub and Martens, 2014).

Building new transit infrastructure does not produce a more just transportation network. Once transit plans have been made that address a spatial form of transit injustice, authorities need to provide the policy tools, bylaws and regulations to support it. The gentrification affect is one such example that requires a proactive, top-down approach by government. In Denver, Colorado, where the region is in the midst of building a large, regional transit network, civic leaders are working on ways to protect existing low-income housing along new transit lines. They have implemented planning tools to protect existing affordable housing,

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### ***GATE CRASH NOW! CITIZEN-LED TRANSIT ACTIVISM***

*Planka.nu is a citizen-led, disruptive approach to promoting transit equity. Reacting to the high cost of public transit fares in Stockholm, Sweden and how increases disproportionately affect youth, the Syndicalist Youth League (a left-leaning youth activist organization) called for a fare-free transit system to address income inequality and climate change. They banded together with other youth and Green Party organizers to form Planka.nu – roughly translated as “gate crash now” – as a membership-based collective to ‘go on strike’ by evading fares. In exchange for a modest membership fee, members are protected by a form of group insurance to cover fines for fare evasion. The group also engages in more conventional political activism and public awareness, and Planka.nu has supported a global network of activists working for fare-free transit, including a group in Toronto.*

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and ensuring land redevelopment does not price existing low-income residents out of newly-accessible neighbourhoods. They are also looking at ways to incorporate affordable housing in new developments (Pendall, et al, 2012). This top-down approach illustrates the importance of government actors being proactive in a way that considers the wider social impact of building transit. Essentially, planning policies that are crafted with the acknowledgement that infrastructure projects have a tendency to produce winners and losers are able to include ways to address or mitigate inequities.

## 7.0 Strategies, Tools and Tactics to Bring About Transit Equity

### 7.1 Inclusively Meeting Public Needs

Levy (2013) has framed transit equity as the ability serve the needs of multiple publics who have different needs and abilities to access transit. But that also extends to the planning side. She calls for a

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*“Being mobile is not just about geographical space but also, and probably above all, about social space.”*  
(Cattan, 2008, p. 86 [in Levy, 2013, p. 61]).

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more inclusive, participatory planning process that builds a type of constructive engagement that acknowledges and strives to mitigate the uneven power relationships. There is an important role for bottom-up community actors who are disadvantaged to mobilize together and form a common front. We can bring attention to the Los Angeles Bus Riders Union or the Planka.nu organized fare evasion group in Stockholm, Sweden.

Kaufmann (2000), in a study of public transit usage in French and Swiss cities, concluded that the availability of a high quality public transit network is necessary but not sufficient to encouraging higher public transit usage. Public transit investments made without considering the travel patterns and preferences of the potential users will prove to be ineffective at raising the modal share of transit. This is particularly evident in suburb-to-suburb travel that does not benefit from more traditional radial connections to the core. The actual needs of riders – and potential riders – must be a central factor in planning and building transit. That information must come from the riders themselves. The implication, therefore, is that transit investments in isolation do not inherently improve urban mobility.

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## **TRANSIT EQUITY BY DESIGN**

*Bogotá is the capital of Columbia, with a population of 6.5 million. It covers approximately 1,700 km<sup>2</sup>. It is located in the Columbian Andes, on a largely flat plateau. Most of the poorest residents live on the outer edge of the urban region. There were 10 attempts between 1947 and 1997 to build a heavy rail (subway) line that, for a number of reasons that include capital costs, competing political visions for lines and opposition from the existing private transit operators, never materialized.*

*TransMilenio is a bus rapid transit system in Bogotá, Columbia that was introduced in 1997 as a response to poor existing transit options and the inability to build a long-promised subway. It is noteworthy for its high ridership level, cost-effective construction, flexible operation and success at improving transportation options and travel times for low income residents on the outskirts of the city. The first phase opened in 2002. It provide 41km of exclusive rights-of-way with permanent stations. Operations are covered through farebox revenue.*

*TransMilenio uses 60' articulated buses on the trunk routes, and 40' buses on feeder routes. Ridership in January 2006 was 1,050,000 per day, and forecasted to rise to 1,400,000 upon completion of Phase II. Phase I and II include 82km of dedicated busways. Up to 41,000 passengers per hour per direction (pphpd) ride the busiest part of the network at peak times. Service runs from 5am to 1am. Headways are 2 minute per line at peak, max 10 minutes off-peak. Service is blended with local, express (serving 50% of stations) and 'super' express (20% of stations). Average speed of 21km/h local, 32km/h express. The lines use exclusive rights-of-way in road medians. Construction included improvements to walking and cycling facilities. Stations are spaced on average 500m. The boarding standard is much higher than typically considered acceptable in North America, with 110 standing, 48 seated in a 60' bus. With a North American boarding standard, the system should be able to handle 28,000 pphpd. Fare payment is handled by an electronic fare card used upon entry into stations.*

*Most aspects of TransMilenio were built and are operated through a myriad of private contractors, including vehicle acquisition, maintenance and operation, fare collection and fare card technology, and maintaining stations and roadways. TransMilenio is responsible for overseeing the contractors and, as directed by the city government, implementing transit policies. A separate branch under the city is responsible for overseeing the construction and maintenance of the physical infrastructure. The city government oversees the two branches, sets transportation policy and regulations including fares, coordinates projects and plans for future expansion.*

*TransMilenio has a high satisfaction rate (76%) and it has succeeded in connecting its low-income population to the city centre. The success of the BRT system is partly related to engaging in an objective, mode-agnostic planning strategy:*

*“The major lesson from Bogotá appears to be that decision-makers need to be encouraged to make public transit planning decisions based on an objective comparison of the different modal alternatives” (Cain et al, p.41).*

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## 7.2 Opportunities to Support More Equitable Mobility

An important way to improve mobility is to provide options to reduce travel and spread out the peak demand. Cervero (1988) found that mixed-use developments improves mobility in three ways: 1) It reduces private vehicular travel, by spreading out peak travel demand; 2) It provides greater opportunities for carpooling and car sharing, and; 3) It allows for taking care of errands, which are responsible for the car being indispensable for suburban travel (pp. 432-433). Spreading out peak travel happens by allowing for mixed use functions that are not tied to the same peak travel patterns. Retail, hospitality, entertainment, office, school and residential each have different peak travel times. The combination results in a lower peak than a single use development.

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*Stone and Mees (2010) investigated the decline in public transit ridership rates in Australia since 1950. They point out that public transit usage rates have dropped faster than the decline in overall urban density and there is ample opportunity to increase ridership in the short term. In order to do so, there must be a recognition that capital investment needs to be supported by operation funding. Building a rail or bus line that provides low frequency service or is not well integrated with the neighbourhood feeder routes will not be an effective solution.*

*Planners must also be aware of and provide solutions which address the increasing prevalence of suburb-to-suburb trips that are not met today. One way to meet that need is for operators and planners to shift away from providing specific trips for targeted riders and adopt a network approach which provides a service mesh across the service area that facilitates flexible travel pattern. In order for the approach to work four components must be in place:*

- 1. The route structure should be simple and direct*
  - 2. Service levels must be stable through the service day*
  - 3. Transferring between vehicles must be easy and convenient*
  - 4. Fare systems must accommodate free transfers*
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## **INCOME-BASED TRANSIT FARE PRICING**

*Gearing the cost of transit to riders' ability to pay, especially for residents in the lowest income brackets, is widely considered as an option to improve transit equity. This approach is not widely implemented by transit authorities, however, due to implementation challenges such as determining who qualifies and establishing a separate payment system. But there are some precedents in North America.*

*The City of San Francisco in 2005 launched the MUNI Lifeline Fast Pass program, providing reduced fares for qualified low-income residents. For example, being eligible would be a one-person household earning \$22,980 or less, or a four-person household earning \$47,100 or less (2014 dollars). The reduced-cost pass applies to MUNI busses and trains operating within the city, but not BART (Bay Area Rapid Transit) subways.*

*Sound Transit, serving the tri-county area of Seattle, introduced on March 1, 2015 a discounted fare of \$1.50 for adult riders with incomes at or below 200% of federal poverty level. For example, a four-person household earning \$47,700 or less would qualify under the program. The program is being financed through a 25-cent fare increase for all other riders.*

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### 7.3 Planning and Building Transit with Equity as a Central Goal

The TransMilenio bus rapid transit system in Bogotá, Columbia has proven to be a very successful model to address transit inequity. The system was designed from the outset to address inequity and bring transit into neighbourhoods poorly served by the existing transportation network. Frequent, all day service, express options and an integrated feeder network have succeeded in connecting Bogotá's low-income neighbourhoods to the city centre and improving the mobility options those residents living within them.

### 7.4 Understanding the scale of the problem

There have always been competing dynamics behind suburbanization, such as the relocation of industry out of the core, the escape from the perceived ills of urban living, and the longing for a romanticized pastoral past. These resulted in a more diverse and dynamic landscape than had commonly been accounted for (Harris 2010, 2014; Keil 2013). Harris (2015) speaks of three competing suburban stereotypes: "the desire to enjoy quiet privacy in a low-

density residential environment near the urban fringe. Second, they assume that most suburbs have actually conformed to this ideal. Third, academics and planners alike agree on a stereotypical judgment: suburbs are to be deplored” (p. 30).

Considering the complexity of the suburban

landscape in a post-suburban world, it is not

surprising that the planning, provision and support for public transportation, along with many other forms of civic infrastructures, is also complex. As Keil and Young (2008) have demonstrated, transportation infrastructure in Toronto is becoming polarized with privileged projects, locales and residents being prioritized and others experiencing the brunt of under-investment, disinvestment and fragmented service.

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*“TransMilenio and the associated non-motorized transportation improvements have proven to be successful in reducing social exclusion by raising the level of access between the city’s centrally located employment centers and its deprived, peripheral areas”*  
*(Cain et al, 2007, p. 38)*

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## SECTION 2

### GLOBAL SUBURBAN INFRASTRUCTURE CONFERENCE

Presented: June 16, 2015

Global Suburban Infrastructure Conference

Organized by: Major Collaborative Research Initiative (MCRI) on Global Suburbanisms: Governance, Land, and Infrastructure in the 21st Century, The City Institute at York University (CITY), and the School of Planning and the Faculty of the Environment of the University of Waterloo.

University of Waterloo  
Waterloo, Ontario, Canada  
June 14-16, 2015

## INTRODUCTION

The purpose of the literature review conducted in Section 1 was to define and articulate transit equity as it fits in the broader sense of social equity. It presented examples of how transit equity was incorporated in policies that shape planning projects and decisions. It also demonstrated how transit equity opens a space in contested landscape often controlled by elite users, where disadvantaged users fight to establish their right to transit equity objectives, and create a space to work towards achieving equity from the bottom up (see Planka.nu, n.d.; Bus Riders Union, 2012). The main report, of which the literature review was a contribution (see *Switching Tracks: Towards Transit Equity in the Greater Toronto and Hamilton Area*), began with exploring transit equity from an academic standpoint and closed by posing questions to encourage readers to think about and explore ways to achieve a more equitable transportation system.

Following the release of *Switching Tracks* a roundtable discussion of the report was convened by GTSWG, co-chaired by Roger Keil and Sean Hertel, organized by CITY and hosted

by Metrolinx (See *Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area*, Tab 3). The conversation spurred by the roundtable opened a space for dialogue between community activists and non-profit service providers, planning professionals, representatives from the development industry, and academics. The report also received a positive reception in the news media (see Appendix C: News Releases and Appendix D: List of Media Coverage for coverage of the full report in the media).

This section is a long academic abstract to position *Switching Tracks*, including the work conducted in Section 1, along with the community engagement embodied by the GTSWG roundtable. Section 2 also represents an effort to bring that dialogue directly into the academic community to help contribute to the active discussion already underway.

The abstract was a submission to an academic conference on suburban infrastructure hosted by the University of Waterloo and co-organized by the MCRI<sup>4</sup> project on *Global Suburbanisms* at CITY. The two-day conference included a presentation based on the abstract (see Appendix B: Presentations – *Global Suburban Infrastructure Conference*). Together, the abstract and presentation situate the working definition of transit equity within the context of socially-just planning, social justice, and environmental justice. The abstract poses the questions for further research on how to identify symptoms of transit equity and how to incorporate transit equity objectives within the planning realm identified during the research of *Switching Tracks*. A proposed methodology towards the future research was proposed, which served as a launching point for Section 3.

The economic and political landscape in the GTHA has been buffeted by the roll out of neoliberal government policies and the retrenchment of neoliberal governance (Boudreau et al, 2009). The rise of the “competitive city” where urban regions are cast as entities in competition for a new, mobile middle class through, among other tools, infrastructure investments (Kipfer and Keil, 2002), and the shifting onus of social supports on to the individual for being overcome systemic disadvantages (Leslie and Hunt, 2013). As a result of shifting regional scale political alliances there is a paralysis in making infrastructure investments (Addie, 2013). The changing

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<sup>4</sup> For more information on MCRI visit the project homepage at: [http://city.apps01.yorku.ca/?page\\_id=222](http://city.apps01.yorku.ca/?page_id=222).

landscape has strained the political institutions of the GTHA to the point where an “anarchic governance model” (Keil and Young, 2008, p. 729) with a lack of regional-scale coordination in the planning of transportation infrastructure that is able to manage the competing demands placed on transportation infrastructure.

Transit planning practices that favour certain types of transit users, i.e. elite users that serve the needs of the competitive city, may exacerbate the socioeconomic polarized landscape in the GTHA by leaving disadvantaged communities without equitable access to transit (Martin Prosperity Institute, 2011). A transit equity lens is helpful to ensure that systematic inequities are not propagated and reinforced, and to address social marginalization of disadvantaged groups and geographies. Transit equity is a subset of broader themes of spatial inequity that shape the urban landscape in class, race, gender, economic and political lines. The need to include social equity in transit planning has been recognized as an important objective in academic circles and in public discourse (Garrett and Taylor, 1999; Lucas et al, 2001; Lucas, 2006; Martens, 2012; C. Levy, 2013; Golub and Martens, 2014; Litman, 2003; 2014). The mobility of an individual represents the ability of an individual to move. However, transit mobility does not address needs beyond motion. Accessibility is a distinct, but related, concept that represents the freedom to fully engage with the city and take advantage of the opportunities it offers. A person is disadvantaged in the range of employment, education, recreation and socialization options available to them by the lack of accessibility. (Martens, 2012, pp. 1040-1041). Furthermore, the barriers raised against the ability of an individual to access transit, either explicitly or implicitly, inadvertently or overtly, varies based on age, gender, race, class, physical facilities, and income. From a planning standpoint, social equity is about ensuring a fair distribution of community benefits based on need (Fainstein, 2000).

There has been notable academic research in identifying, exploring and critiquing how economic restructuring, globalization and neoliberalization have impacted social equity in the GTHA (Walks, 2001; Walks, 2010; Hulchanski, 2010; Leslie and Hunt, 2013), spatial reconstruction (Hackworth and Smith, 2001; Slater, 2004; Hackworth, 2008; Lehrer and Wieditz, 2009), planning (Kipfer and Keil, 2000, 2002), governance (Boudreau et al, 2009; Ekers et al,

2012; Addie and Keil, 2015) and the purpose of infrastructure (Desfor et al, 2006; McFarlane and Rutherford, 2008; Enright, 2013; Filion and Keil, 2016).

In light of the social need evident in the sociospatial research in the GTHA, and the literature that link those sociospatial factors in reinforcing transit inequity, there is a need to ensure issues of equity are placed at the forefront of infrastructure planning. The Province of Ontario is asserting its power to impose a regional vision for transportation in the GTHA with the potential to overcome the paralysis of transit planning by the creation of Metrolinx and TBM (Addie, 2013). Transit equity is tentatively reflected in the new Ontario context. Social needs are to be explicitly addressed in the planning of transit investments. Yet there are no criteria articulated in Ontario to translate the expressed objective to address social equity from policy into planning and operational tools.

However, there is considerable work being done to specifically include equity objectives in assessing transit investment decisions in academia (Martens, 2012; Golub and Martens, 2014; Litman, 2003; 2014; Grengs, 2015). Section 1 acknowledges the importance of this critical work, but it also recognizes the immense complexity of operationalizing transit equity in the context of a dynamic, variegated region with diverse publics. This section closes with a call for further research on how inequity in transit infrastructure affects different publics, how to articulate transit equity objectives, and how to incorporate those objectives into transit planning and operations. This section sets the stage for Section 3 by linking the academic research on transit equity with a methodology to document inequity at a neighbourhood scale.

## LONG ABSTRACT

*The content herein is reproduced with permission of the authors. The presentation slides linked to the long abstract can be viewed in Appendix B: Presentations – Global Suburban Infrastructure Conference.*

### **SWITCHING TRACKS: TOWARDS EQUITY IN PUBLIC TRANSIT INFRASTRUCTURE PRIORITIES IN THE GREATER TORONTO AND HAMILTON AREA**

By: Sean Hertel and Michael Collens

We propose that equity, being the fair and appropriate distribution of costs and benefits, should be specifically identified as a core determinant and goal of public transit infrastructure investment decisions in the Greater Toronto and Hamilton Area (GTHA). In doing so, we reflect on processes influencing the existing, planned and under-construction network of public transit in the GTHA through the lens of social justice and municipal governance literatures in combination with a scan of international public transit case studies.

While the GTHA is a large, fast-growing and generally prosperous region we make the claim that the benefits of public transit investments are not equally distributed and are problematic. Not unlike large metropolitan regions in around the world, the GTHA has structural inequities created over decades, if not more than a century, of decisions being made and not made: where growth occurs; the type and density of development; where transit and other infrastructures are constructed, and; where public and private capital is invested and extracted. While the region, as a whole, stands to benefit from public transit infrastructure investments, those benefits are unequally distributed within the region.

Further frustrating the equitable distribution of transit benefits across the region is that population and employment growth remains strong in the GTHA suburbs, while transit

infrastructure and services there are not keeping pace in comparison to improvements within the City of Toronto. The GTHA suburbs are also becoming an increasingly polarized sociospatial landscape, which brings more urgency to the need for addressing and correcting growth-mobility infrastructure imbalances.

The planning, funding, and building of regional transit in the GTHA is perhaps as complex and layered as the region itself; through the interplay of Provincial and municipal transit systems, corresponding political structures, real and imagined centre-periphery and urban-suburban schisms, and different (often with divergent interests) constituencies or publics. Overlaying the more locally-scaled municipal systems, regional transit in the GTHA is led by the Province of Ontario's transit agency Metrolinx, and directed by the 25-year, \$50-billion plan The Big Move (TBM) (Greater Toronto Transportation Authority, 2008).

With 1,200 km of rapid transit planned under TBM, in combination with the addition of 2.5 million people and 1.5 million jobs (Ontario Ministry of Finance, 2014) to the region by 2031, this period is the single greatest – and perhaps last – opportunity to complete the regional transit network required for the GTHA, and to do so in an equitable manner. It is an opportunity to counteract the structural inequities that have been created by, and have persisted throughout, past growth-infrastructure cycles and “the inertia of the public transit system” (Mettke, 2014, in Filion and Keil, 2015). This includes the deliberate re-calibrating of public investment decision-making criteria to align with social need, and to re-balance obvious gaps in investment between the centre and periphery (Martin Prosperity Institute, 2011).

The literature indicates sociospatial inequality is increasing in the GTHA (Hulchanski, 2010). If we are to make headway at reversing it then we need to begin with defining what equity is, and how it can be measured. Transit investments, by their very nature, have consequences beyond capital (rolling stock, terminals) and the operations (routes, headways) they support. They also build cities, enable communities, and empower individuals to participate in society's opportunities more fully. Correspondingly, we refer to “transit equity” – also called “transit justice” about which there is a large literature, and “fairness” – as the fair

distribution of the benefits and costs in a manner that is responsive to the social and economic needs of the most number of residents, and especially those most vulnerable.

We begin with exploring the fact that there are winners and losers. Deciding transit infrastructure priorities – lines, technologies, station locations, service frequencies, budgets – preordains those who stand to win and lose from those decisions. Our international review of jurisdictions and literatures points to historical and politically-reinforced transit path dependencies in Toronto and other major metropolitan centres: investments in lines and stations – almost always rail – tend to favour the influential power elites of the region, and thereby reinforce pre-existing socio-spatial inequities. In short, transit investments have tended to benefit areas that are already doing well, while not changing the prospects for areas that are not.

There are multi-scalar processes that manifest spatially in the suburbs that are essential to the metabolism of the urban region, and to connect the region to global circuits. However, these processes serve to fragment and segregate suburban areas both from each other and the central core. Importantly, the fragmentation is happening in governance as well, with the rise of the private sector and the retreat of senior governments. Social inequity has a physical form that can be identified geographically. Taking a nuanced view of suburbs, such as considering the “in-between” spaces bypassed by prime circuit flows (Young and Keil, 2011; 2014), helps to dispel the North American stereotype of a monolithic, middle-class landscape (Bourne, 1996).

Further compounding the win-lose nature of transit investments is gentrification, which redirects economic and social benefits of transit infrastructure back in favour of those with the means to locate near the best services. Most often, white and more affluent residents are the beneficiaries. This stratification of transit benefits further marginalizes disadvantaged groups, who are most often non-white, and, as our research shows, increasingly “women of colour.” More broadly, transit inequity is correlated with, and compounded by: class; location (centre versus suburb); ethnicity and racialization; age, and (dis)ability.

How do we shift from “picking winners” to creating equity? Interventions, whether top-down or bottom-up or combinations thereof, are required to more equitably distribute the

public benefits of public transit investments – including, but not limited to, improved access to employment opportunities and services. Our review reveals that both government- (e.g. Bogotá, TransMilenio) and citizen-led interventions (e.g. Los Angeles, Bus Riders Union) have begun to bring about some degree of transit equity, or at the very least laid claims to it in an emerging public debate around it.

Strategies to address the “equity issue” are generally focused on the network (where the lines go), access (service), and price (affordability). Tools or levers deployed through various strategies include either, or a combination of, legal action, political action, state intervention, technical innovation, and economic incentives. These can give rise to a number of tactics including, for example, reduced or fare-free structures, the democratization of line and service planning, and the mandated consideration of social equity as a factor in determining new or expanded services. So often in the GTHA context transit infrastructure public debates are dominated by weighing technology options, and we tend not to consider such infrastructure as a service for the betterment of socioeconomic conditions. As Filion and Keil (2016) argue, “infrastructures are, therefore, not an end in themselves. They are enablers, providing conditions making other activities possible,” (p.2). A transit equity lens is helpful to ensure that systematic inequities are not propagated and reinforced and to address social marginalization of disadvantaged groups and geographies.

We close by thinking about and taking action towards equity and transit justice. We need to begin to identify ways of thinking about transit justice and to ask important, and sometimes uncomfortable, questions that will help shape the conversation among community leaders and activists, government and governance actors, and academics.



## SECTION 3

### “YOU CAN’T GET THERE FROM HERE”: NEIGHBOURHOOD NARRATIVES OF TRANSIT INEQUITY

Published: February 2, 2016  
The City Institute at York University (CITY)  
Toronto, Ontario, Canada

#### INTRODUCTION

The literature review conducted in Section 1 advanced a definition of transit equity, following from Todd Litman (2014), and articulated as

“the fair and responsive delivery of transit infrastructure and services to meet people’s needs, especially vulnerable populations including low income residents, users in underserved parts of the GTHA including newly-developed areas, visible ethnic and cultural groups, the elderly, and persons with mental and physical disabilities,” (Hertel et al, 2016, p. 9).

The lack of explicit transit equity objectives in TBM can be witnessed at the neighbourhood scale, making the neighbourhood a useful point for interrogation on the impacts of inequitable transit infrastructure. This section draws upon the literature review conducted in Section 1 and uses a case study approach to illustrate how transit inequity manifests in diverse ways at the neighbourhood scale in the GTHA. This section is a contribution towards the report co-written with Sean Hertel and Roger Keil entitled *Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area* (Hertel et al, 2016). The report was the second produced under the project funded by Metrolinx.

Transit equity is directly related to the accessibility transit infrastructure provides to users (Martens, 2012; Litman, 2003; 2014; Grengs, 2015). There are three points of intervention that affect the equitability of transit: the network, the service and the price (Hertel et al, 2016, p. 4). Each of the three points shape the lived experience of the rider. The first point, the network, reflects to the hard infrastructure of transit. The location of transit lines, stations,



Figure 4. St. Clair Avenue West, Toronto, Ontario.

*In a multimodal streetscape accessibility is more than simply the ease of using a particular mode, but includes how users are able to flow between them to fulfil their needs. Source: Michael Collens.*

vehicle stops and other amenities that support the line and the user experience are intimately tied to the accessibility of transit. The accessibility and ease by which users can make multimodal connections between the transit infrastructure and the ultimate origins and destinations of users are vitally important in achieving transit equity by facilitating end-to-end travel. These connections, such as pedestrian walkways, bicycling routes and bicycle storage, feeder transit lines to stations on higher-order lines, even elevators and seating, each fulfil a need in support of the accessibility of transit for different publics. Multimodal connections are essential in overcoming the limitations of door-to-door transit service (Walker, 2016), and support improved personal accessibility through a multimodal perspective that includes active transportation in tandem with transit network (Litman, 2014).

The second point, the service, brings the operations of transit under scrutiny to support transit equity objectives. The frequency of service, the hours of operation (span of service), the quality of the ride such as having a seat or having access to an air conditioned vehicle, and the availability of assistance if needed all influence the equitability of transit for different publics. The ability to travel when needed to locations required are fundamental to supporting accessibility (Walker, 2012, p. 20). The inability to travel on demand, with supports available on demand if required, imposes barriers to accessibility that result in uneven and inequitable transit landscape.

The third point, the price, relates not only the cost of transit, but to how users pay. Transit equity facilitates accessibility for users with limited ability to pay, but also ensures that fare products are priced fairly. An unlimited-use pass that require large upfront purchase may put low income users at a disadvantage by pricing the pass out of reach. By not being able to afford a transit pass, which typically represents a discount to paying per trip, low income riders are forced to pay higher per-trip costs. In essence, the higher fares borne by low income riders represents a perverse subsidy to cover the discount granted to higher-income riders. The price aspect of transit equity is the subject of a separate case study included in *Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area*, tab 5 (see Appendix A: Links to Full Reports).

This section expands on the work in Section 1 and Section 2 by using a transit equity lens to probe neighbourhood scale inequity with the consideration that urban and suburban neighbourhoods exhibit complex and variegated sociospatial conditions and built form. They are home to diverse and intermingled publics, thus inequity is lived in different ways. There is an inherent complication in implementing and operationalizing transit equity in the context of diverse publics with complex needs. This section also brings individual stories of transit inequity into the conversation on the need to include transit equity in planning to help cast a light on the disparate needs of disadvantaged users in their own words.

Using the themes identified in the academic literature as an entry point into exploring transit inequity, there are a number of sociospatial dynamics in the GTHA highlighted by

sociologists, geographers and other researchers that suggest inequities in transit infrastructure including:

- Rising income inequality, poverty and spatial polarization (Hulchanski, 2010; Hulchanski et al, 2013);
- Changing new immigrant settlement patterns and social integration that have shifted towards suburban neighbourhoods that are at a disadvantage by a lack of supporting infrastructure (Murdie and Texeira, 2000; (Heisz & Schellenberg, 2004);
- Growing disparities in the settlement patterns between generations (Moos, 2014);
- A mismatch between housing demand and existing transit infrastructure (Burda, 2013);
- Rising employment inequality with the decline of permanent middle-class employment paying a living wage (Lewchuk et al, 2013);
- A mismatch between employment nodes and higher order transit (Blais, 2015);
- A mismatch between new and planned urban growth and higher order transit investments either proposed or under construction (Burchfield and Kramer, 2015).

A site case study approach was initiated to investigate transit inequity at the neighbourhood level and to provide a link between the theoretical grounding of the literature and the regional scale socioeconomic data pointing to vulnerable publics with the lived experiences of residents. The complexity of choosing sites in a diverse and dynamic conurbation such as the GTHA was a daunting task. The decision was made to explicitly seek out diverse neighbourhood sites to ensure that the themes relating to transit inequity identified through the literature review, such as government and governance, land use pattern, and demographic variations reflected the experiences of different publics.

An important consideration was the inclusion of neighbourhoods in the outer suburbs of the GTHA. Growth and development pressures have long since crossed the boundary from the City of Toronto into its outer suburban municipalities, to the point where the outer municipalities account for over 50% of the regional population (Ontario. Ministry of Finance, 2014). Employment has been migrating outward as well, with the area around PIA growing to represent the second largest employment district in the region (Blais, 2015). However, population growth, employment and land development are not the only characteristics of the urban region that have migrated outward from the central core. The City of Toronto has received a considerable amount of attention regarding social inequity and income polarization

(Hulchanski, 2010; Martin Prosperity Institute, 2011; Young et al, 2011; Pembina Institute, 2013; Toronto Foundation, 2013). Newer research indicated that broader themes of social inequity identified in the City of Toronto have also been found to permeate the outer suburban municipalities. The Regional Municipality of Peel, the upper tier municipality encompassing the Cities of Brampton and Mississauga and home to over 1.3 million residents in 2011 (Regional Municipality of Peel, 2014b), has seen a pronounced rise in income polarization with the number of census tracts reporting below-average individual income expanding from 2% in 1980 to 45% in 2010 (Hulchanski et al, 2013). This disrupts the notion of the suburbs as an idyllic and egalitarian middle-class landscape if it ever truly existed as such (Bourne, 1996).

However, the changing nature of the suburbs, as demonstrated by the increasing relocation of employers towards the outer ends of the GTHA, the sharp rise in poverty, and the changing settlement pattern of new immigrants who increasingly choose suburban locales as their point of initial landing over inner city neighbourhoods, are factors that illustrate how transit planning needs to adapt and reflect changing socioeconomic landscape in suburban areas. Furthermore, transit planners need to be cognizant of the rise of outbound commutes from the urban centre to the outer suburbs and the increasing importance of suburb-to-suburb trips. The Mississauga Transitway that skirts along the Applewood neighbourhood reflects the hub-and spoke transit design model to bring commuters from the outer suburbs to the core by running through a hydro transmission corridor and expressway right-of-way, rather than serving the accessibility needs of local residents on the south side of the line, and employment district along the north. Indeed, there is poor accessibility between the Transitway stations and the adjoining neighbourhoods. New commercial edifices in the employment areas PIA still seem to reflect the dominance of automobile-centred transportation (see Figure 5).



*Figure 5. Sobeys Corporate Office, Mississauga, Ontario  
This office tower, located on Tahoe Boulevard in the Airport Corporate Centre employment district near PIA, is adjacent to the recently opened Miway (Mississauga Transit) Etobicoke Creek Transitway Station. Source: Michael Collens.*

The criterion of choosing sites situated in ‘in-between’ neighbourhoods (Young and Keil, 2014) is meant as a deliberate action to problematize the urban-suburban binary and recognize the complexity of planning in a dynamic urban region where some neighbourhoods are disadvantaged and lack a cohesive political voice to support their needs. The outer municipalities in the GTHA are also earmarked for substantial transit investment. In fact, each case study neighbourhood was chosen in part because of their proximity to proposed transit investments under TBM.

The criteria for selecting the sites included:

- Being located in ‘in-between’ neighbourhoods;
- A lack of higher-order transit but are sites of investment (under construction or proposed) under TBM priorities list where there are opportunities to include transit equity criteria;
- A higher prevalence of low-income households than the municipal average;
- A higher prevalence of unemployed residents than the municipal average;
- A higher prevalence of new and recent immigrants than the municipal average.

The criteria for contrasting the sites included:

- Having a variety of built forms, i.e. high-rise apartment, detached housing;
- Having been built in a range of different construction periods;
- Having a variation in representation from different age groups, i.e., high number of seniors versus a high number of children and youth;
- Representation from inner and outer suburban neighbourhoods;
- Representation from different municipalities in the Greater Toronto Area.

Quantitative data available for the GTHA was collected and analyzed in order to select neighbourhoods for the case study analysis. The data allowed for an inquiry into the social and economic composition of the neighbourhoods to highlights patterns related to the inequitable distribution of transit service and infrastructure. Based on a review of the quantitative data, the five neighbourhood sites (major intersections) chosen were:

- Scarborough Village (Kingston Road/Markham Road/Eglinton Avenue East in Scarborough): Figure 7;
- Applewood/Rathwood [Applewood] (Dixie Road and Burnhamthorpe Road East in Mississauga): Figure 8;
- Springdale (Dixie Road and Sandalwood Parkway East in Brampton): Figure 9;
- Mount Dennis (Weston Road/Jane Street/Eglinton Avenue West in York): Figure 10;
- Mount Olive-Silverstone-Jamestown [Mount Olive] (Albion Road/Islington Avenue/Finch Avenue West in Etobicoke): Figure 11.

See Figure 6 for a map of the sites in relation to the GTHA.

# GREATER TORONTO AND HAMILTON AREA

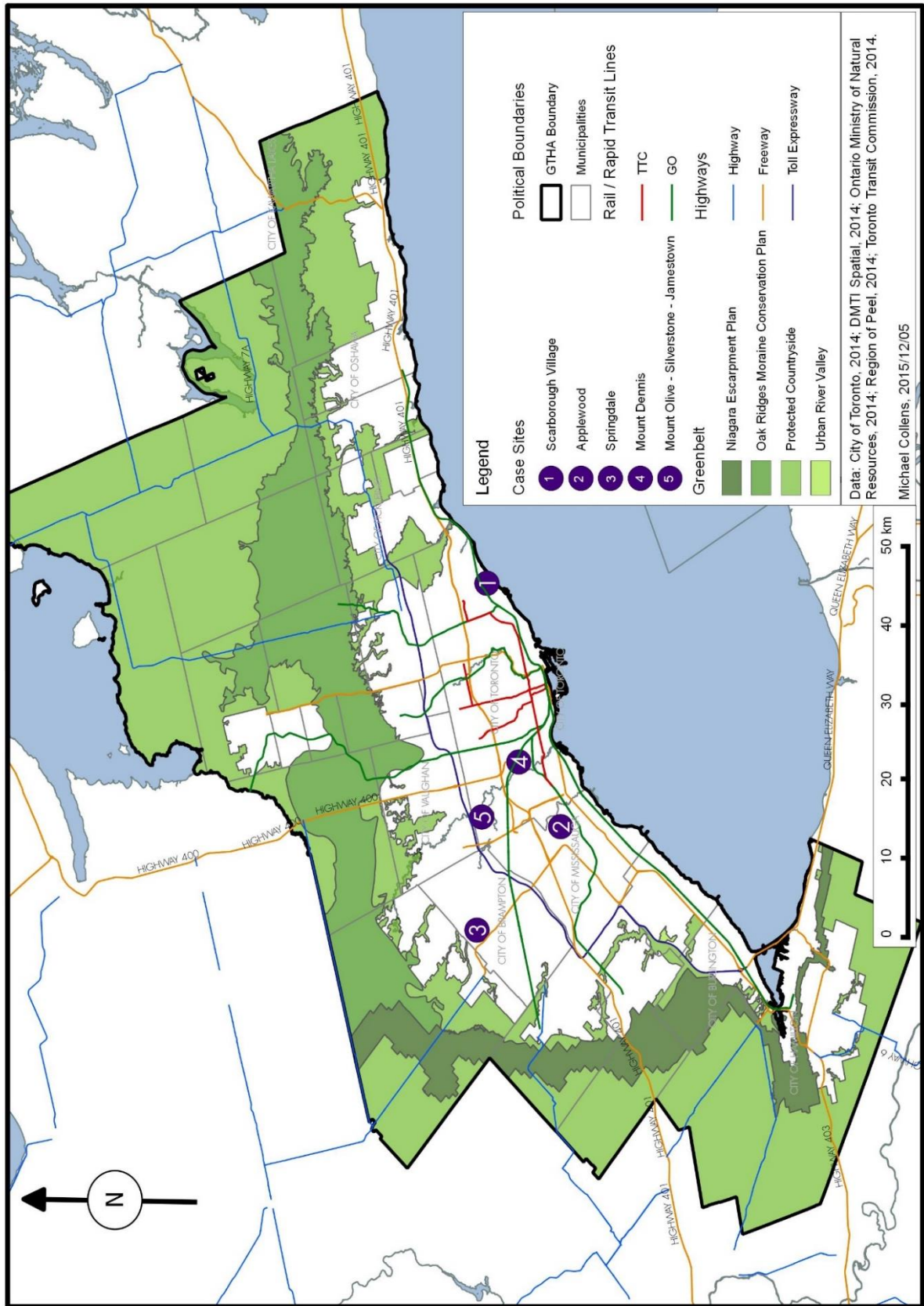


Figure 6. Key map of the five case study sites.  
Source: Michael Collens.



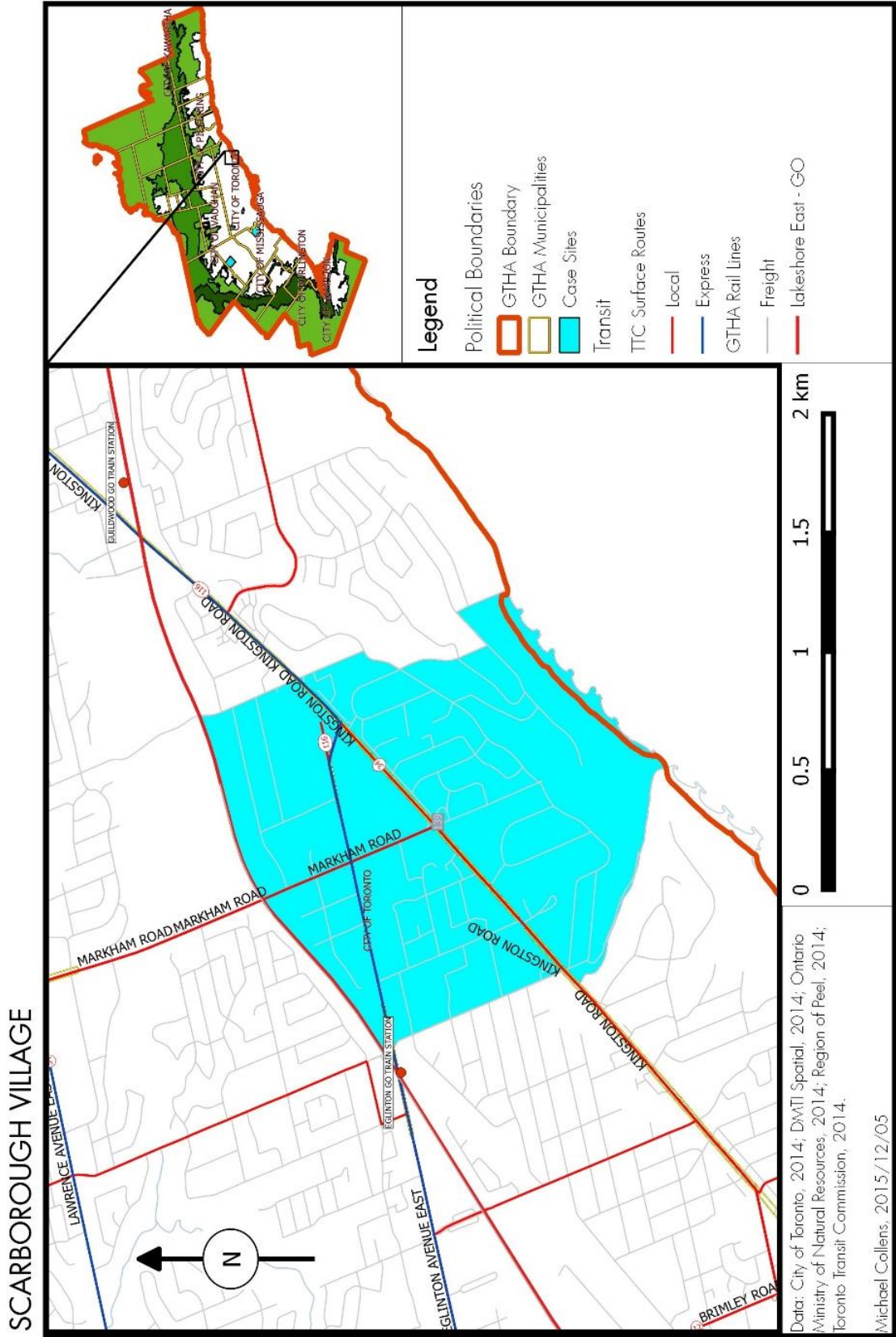


Figure 7. Scarborough Village, Scarborough (Toronto), Ontario.  
 Source: Michael Collens.

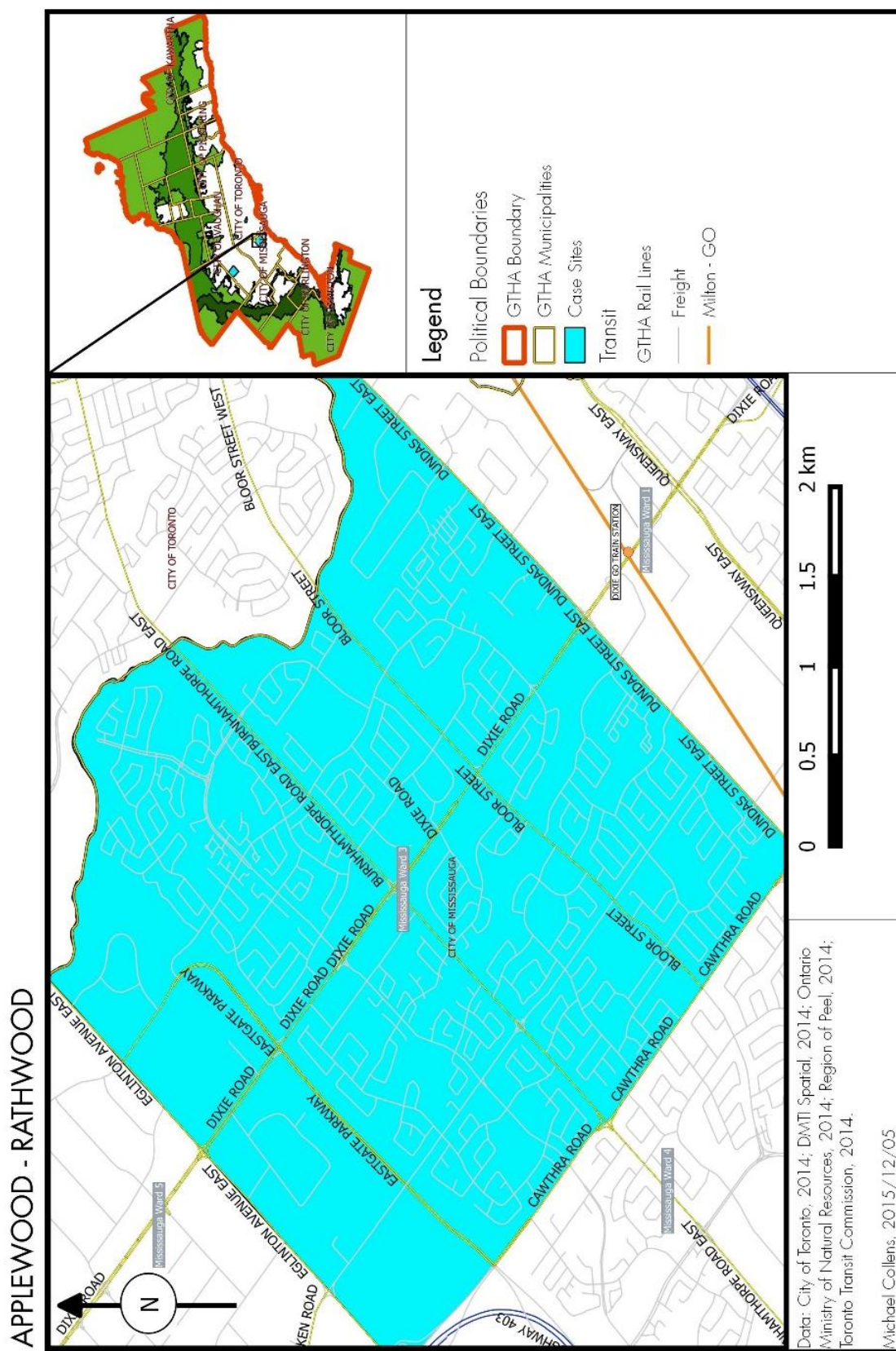


Figure 8. Applewood – Rathwood [Applewood], Mississauga, Ontario.  
Source: Michael Collens.



Figure 9. Springdale, Brampton, Ontario.  
 Source: Michael Collens.

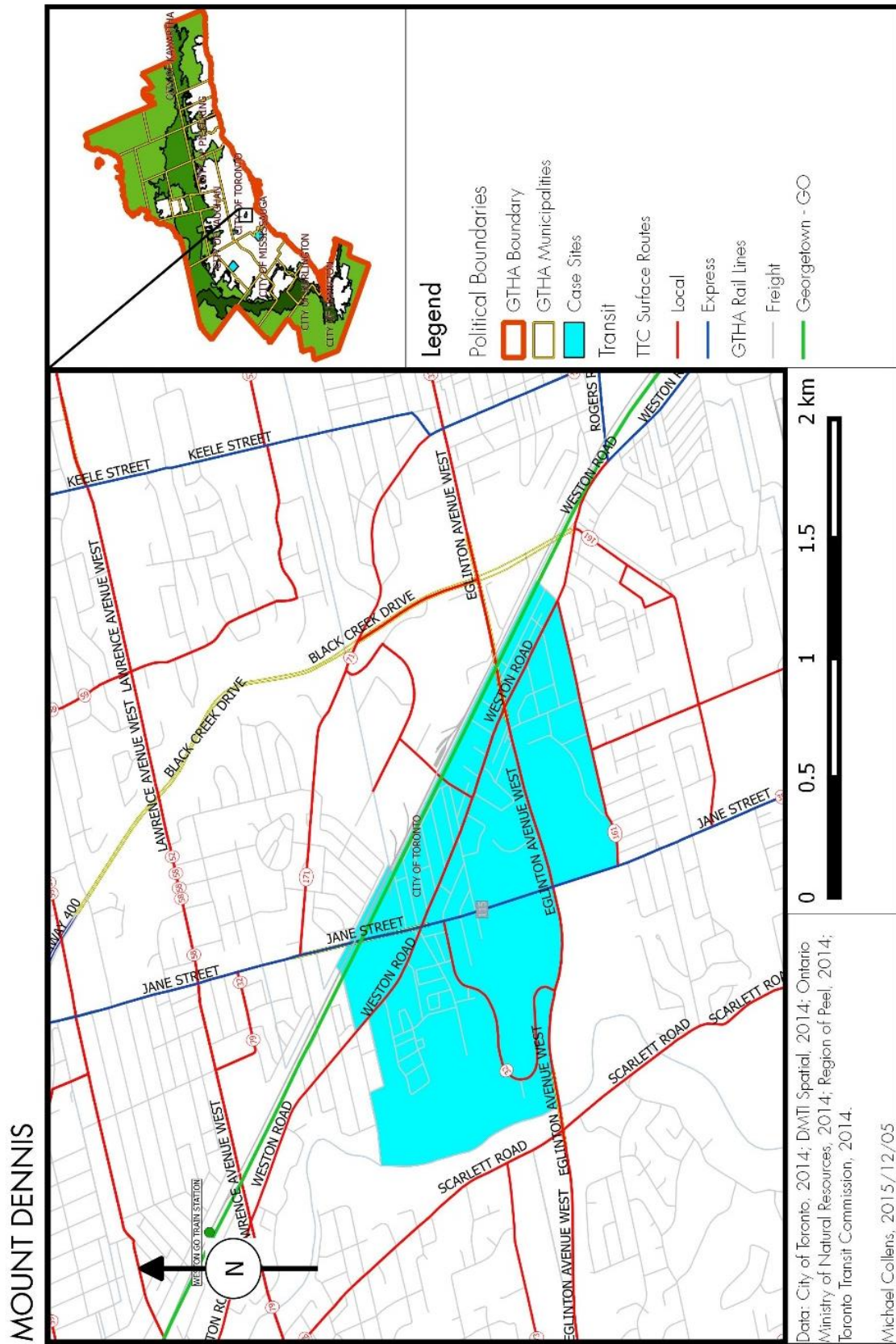


Figure 10. Mount Dennis, York (Toronto), Ontario.  
Source: Michael Collens.

# MOUNT OLIVE - SILVERSTONE - JAMESTOWN

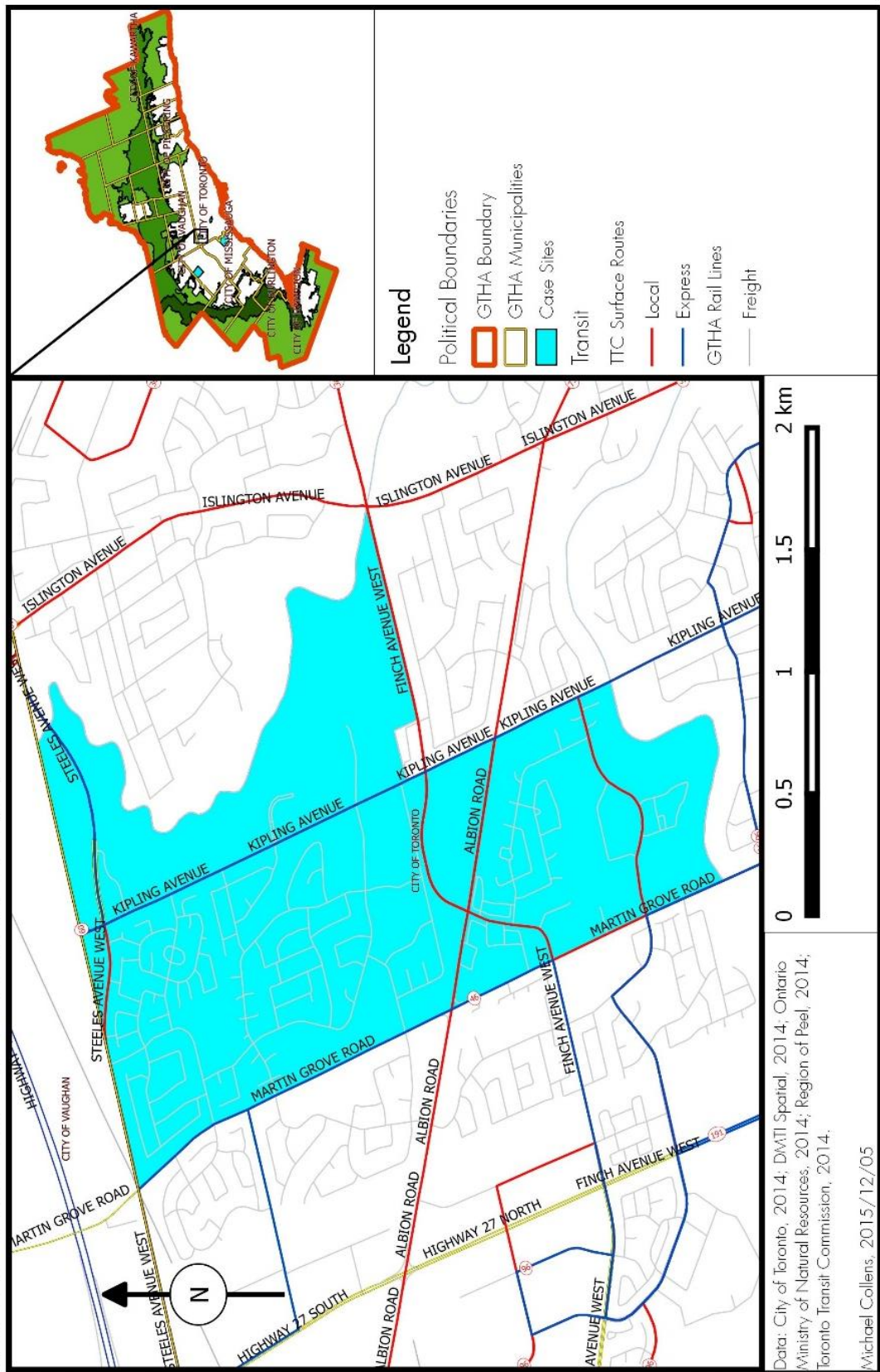


Figure 11. Mount Olive – Silverstone – Jamestown [Mount Olive], Etobicoke (Toronto), Ontario.  
 Source: Michael Collens.

Once the specific boundaries of the sites were selected, a visual site analysis of the five sites was conducted to explore the built form, looking specifically for the physical form of transit inequity. These include difficult transfers, inhospitable streetscapes, missing pedestrian connections, and the location of retail, residential and employment sites in relation to transit stops. The landscape was documented by photograph.

An important consideration in the methodological approach taken with the case studies was the inclusion of a series of semi-structured interviews. Stories of inequity as experienced by transit users travelling an uneven transit landscape were brought to the fore and helped to augment the dialogue sparked by the GTSWB roundtable following the publication of *Switching Tracks* (see Section 1; Appendix A: Links to Full Reports) on transit equity between planners, community activists and users in a way that recognizes the diversity of voices on transit. The interview subjects' personal experiences opened a window into the lived experiences of inequity. Interviews were conducted with transit riders intimately aware of transit in the case study sites by virtue of either living, working, or go to school there on a regular basis. Their experiences on their travels through the sites and in connection to other neighbourhoods were eye-opening providing first-hand accounts of the hidden barriers to transit accessibility that only become apparent to those who face them directly. Interviews were conducted with non-profit sector community leaders who are involved in building community resilience and social support networks, and are active in the selected neighbourhoods. Their experiences and insights highlighted systematic gaps in transit planning and patterns that reproduce transit inequity and identified organized efforts of resistance. Interviews were also conducted with government officials who are involved with transit, land use planning and community support services to identify how planning policies regarding social equity are internalized by government and shape the provision of transit, and land-use planning more generally.

The results of the case studies expand upon the literature of transit equity in Section 1 by connecting it with the lived experiences of transit users. This section helps to set the stage for making the case for transit equity planning in Section 4.

## REPORT CONTRIBUTION

*This text comprises Tab 4 of Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area as published. There are differences in formatting but the text is unaltered. The content herein is reproduced with permission of the authors. For the link to the full report, see Appendix A: Links to Full Reports.*

### **“YOU CAN’T GET THERE FROM HERE”:**

#### **Neighbourhood narratives of transit inequity**

##### *Introduction*

##### *Background*

Socio-spatial inequality in the Greater Toronto and Hamilton Area has been well documented (see, for example: Hulchanski 2010; Keil & Young 2008; Toronto Foundation 2013; and Young et.al. 2011). Decades of political decisions, in combination with market forces, often at work at scales beyond the urban region, have created structural inequalities evidenced by income disparity, social disinvestment, precarious labour, and people living in the physical and social margins, including the “in-between” spaces of the urban/suburban fringe. The Big Move recognizes that areas of social need exist, and that there is an uneven landscape when it comes to the distribution of the existing transit network. There is an explicit recognition that transit plays a role in helping to reduce social need. Missing in The Big Move, however, are goals and strategies to specifically address social need and vulnerable populations in the planning and delivery of transit.



Figure 12. Key map of the five case study sites.  
Source: Shima Mirkarimi.

## Research Methods

One way to fill this gap is to investigate the needs of particular sites in the transit delivery area. We approached these site investigations – to get a snapshot of vulnerable or low-income neighbourhoods and the people who rely on transit in these areas – through four angles:

1. A review of the literature and case studies related to vulnerable populations and neighbourhoods, as contained in the “Switching Tracks” discussion paper (See Tab 2).



2. An analysis of neighbourhood-level economic and social data (e.g. 2011 Census and 2011 Transportation Tomorrow Survey) to further describe indicators of social inequality in general, and transit equity in particular.
3. Visual site analyses to observe how transit is used, what clues the streetscape can offer to illustrate and identify signs of transit inequity, and to document visible barriers to transit.
4. Interviews with a number of neighbourhood residents, municipal government experts and community organizers to gain an understanding of the lived experiences relating to transit inequity.

### Site Selection

Sites were chosen as representative samples of neighbourhoods with physical, social, and economic characteristics indicative of vulnerable “in-between” communities both within the City of Toronto and surrounding municipalities. Using a preliminary review of the demographic, economic and travel pattern data, a long list of sites was identified where comparable data was available, where transit existed 7-days-a-week and where transit investments were either built or under construction as part of The Big Move. We were interested, in particular, in identifying and reaching out to those groups of people – “different publics” – who are socially and economically disadvantaged, and who may be further disadvantaged by insufficient or a complete lack of transit service.

### Summary

Isolation and invisibility might be the hardest concepts to consider in transit planning, precisely because of the need to find what cannot be seen. Someone who cannot access the support they need is made invisible and is left vulnerable to alienation and isolation. An accessible transit system gives a person freedom to more fully participate and engage with family and friends, the economy (i.e. work) and the community (i.e. services and amenities) in a way that provides greater social resilience.

To say that “the suburbs were designed for car drivers” is to ignore the complexity of places where, increasingly, changing social and economic conditions are giving rise to new and varied landscapes of mobility and access. There is a sociological side to car use. The physical environment in most suburban neighbourhoods gives an impression that society does not respect transit riders. Cars and drivers are granted prime spots while transit riders, cyclists and

pedestrians are spatially and functionally marginalized. Transit stops and access spaces, for example, are often restricted to the fringes of vast parking lots in commercial establishments such as malls, or in public amenities such as government offices. Convenient access for car drivers often means a long, circuitous route for pedestrians and transit users. Beyond the physical landscape, there is a degree of social pressure that owning a car is necessary for work, school and to accomplish daily chores. But owning a car brings costs to the individual, to the household and to society that degrade the quality of life for each.

Poverty, precarious employment and unemployment are prevalent, but are often invisible, in the suburban carscape. While better transit could very well serve as a social equalizer in this environment for vulnerable residents, the lack of transit options and limited availability contribute to precariousness. Transit inequity, then, becomes yet another barrier to upgrading education, accessing affordable childcare, caring for family members, finding stable employment and building a strong social support network. Transit “trip chaining” – such as dropping off children at daycare before work – extend travel times and compound the effects of poorly coordinated and erratic transit. For some riders, and especially shift workers, limited hours of operation are an insurmountable barrier to taking transit.

Housing affordability, employment and transit – too often unattainable or disconnected – are converging issues that are forcing many vulnerable residents out of transit rich neighbourhoods, and into transit deserts because of housing costs. New Canadians, increasingly, are settling in areas with lower levels of transit service and with few employment options in the immediate neighbourhood. The new immigrant experience, once linked to the dense downtown arrival neighbourhoods of Toronto, is now associated with the transit deserts of the inner and outer suburbs. This simultaneously raises the association of car-ownership with belonging and limits options of integration for non-driving new immigrant community members. The lack of transit could therefore become a barrier to successful integration into Canadian life. The complexities of transit – schedules, fares and transfer policies – are especially difficult for individuals who struggle with Toronto’s dominant and official language: English. Transit, rather than a help up, becomes an opaque obstruction to access that isolates, frustrates and impoverishes residents.

## Recommendations

1. Public consultations for proposed transit projects within areas of high social need should be more proactive and engaging to generate more inclusive and meaningful feedback. Approaches should include education-focused outreach far in advance of project initiation, and holding meetings in locations and at times easily accessible to most residents.
2. Transit planning should include an inventory and analysis of housing and retail/commercial opportunities and price points, and establish targets to maintain a healthy and accessible supply of affordable housing and retail spaces when a new transit line or services comes into operation. Development intensification nearest transit stations, for example, should not result in a net loss of affordable rents or the displacement of vulnerable residents.
3. Improve the transit riders' experience through better customer service, more reliable operations, improved seating, and better coordination on transit connections and cross-boundary fares. While service frequency is important, the user experience is equally important for transit users with low incomes.
4. Promote residents' and users' knowledge and use of transit services and facilities through specific outreach materials and programs including open houses (e.g. Brampton Transit's "newcomers' bus tour").
5. Better serve employment destinations, especially those trips made in off-peak hours, through a further analysis of origin-destination pairs including travel-to-work trips that begin and end outside of the Toronto downtown core. There needs to be a recognition in planning regarding the changing nature of travel, including the rising significance of suburb-to-suburb trips.

## *Case Study 1: Scarborough Village*

### *Description*

Scarborough Village is a neighbourhood in the City of Toronto, located in the former City of Scarborough. It straddles three city wards: Scarborough Southwest (36), Scarborough Centre (38), and Scarborough East (43). The Village's approximate boundaries take on a triangular shape bounded by Eglinton Avenue East, Markham Road and Kingston Road (formerly Provincial Highway No. 2). These streets are a part of, and strongly reflect, the centuries old rural concession grid which forms the "bone structure" of today's modern street network. The former Grand Trunk Railway line, now owned by Metrolinx and used for GO Transit Lakeshore East trains, serves as the northern edge of the neighbourhood. Canadian National Railways (CN), successor to the Grand Trunk Railway, maintains operation rights for local freight service.

The neighborhood saw urban development primarily between the late 1950s to the 1970s. Eglinton Avenue East and Kingston Road serve as the old "main street" of the neighbourhood, with strip plazas and small highway commercial sites. A Walmart Superstore on Eglinton Avenue East, west of Markham Road, and Markington Plaza on the southeast corner of Eglinton Avenue East and Markham Road, anchored by a Metro supermarket, are the largest commercial nodes. Residential high-rise apartment buildings are the predominant form of housing, comprising 69% of the local housing stock. The highest densities, punctuated by apartment blocks, are concentrated along the frontages of Markham Road, Kingston Road and Eglinton Avenue East. Low density housing, comprised of mostly detached and semi-detached stock, are the predominant built form on lands further away from the main streets.

The neighbourhood appears to have a high degree of community needs, with a Canadian Red Cross drop-in centre, a food- and clothing-bank, harm reduction services, and a public nurse among its supports. There are immigrant settlement services and employment support services as well.



Figure 13. Scarborough Village case study map.  
Source: Shima Mirkarimi.

### Demographics

The population of the neighbourhood was 16,610 in 2011. It grew by 6.5% from 2006. That number is higher than Toronto’s growth of 4.4% in the same period. This is a young neighbourhood, with a higher proportion of children and youth than Toronto, and fewer seniors. There is a much higher rate of single-parent families at 29.9%, compared to the city average of 21.3%.

A very high proportion – 70% – of neighbourhood residents belong to a visible minority group, and 41% of residents were born in Canada. Languages other than the English and French – Canada’s official languages – are spoken by 30% of residents at home.

There is a high level of unemployment – 14% of residents - in the neighbourhood, and 33% of residents are below the Statistics Canada Low Income Cut Off – After Tax (LIM-AT). There are 922 occupied social housing units in the neighbourhood and 683 people remain on the waiting list.

### Travel

Toronto Transit Commission (TTC) bus routes 9, 86, 102 and 116 provide local service. Route 198 provides express service between University of Toronto Scarborough and Kennedy Subway Station. Routes 86 and 116 are trunk routes on the TTC’s frequent service network, connecting Scarborough Village to Kennedy Subway Station. Route 334 provides overnight service to the area along the Eglinton Avenue East corridor.

GO Transit Lakeshore East trains, along with VIA Rail intercity passenger service, are available in the neighbourhood. There are GO stations on the west and east end of the neighborhood, at Eglinton Avenue East and Bellamy Road (Eglinton) and at Kingston Road and Livingston Road (Guildwood). VIA trains stop at Guildwood Station. Most Scarborough Village residents live within a 20 minute walk to their nearest station. GO Train service runs 7-days-a-week, which was recently improved to 30-minute frequencies on weekends.

The wide range and frequency of transit options in the neighbourhood contribute to a transit modal share that is comparable to the city as a whole. However, a distinct pattern is evident when comparing top trip destinations between transit riders and private vehicle users. Transit is a preferred mode to commute to downtown, with Trinity Spadina (Ward 20), and Toronto Centre Rosedale (Wards 27 and 28) as the top three destinations by ward via transit. The top destinations via private vehicle by ward are the neighbouring wards of Scarborough Southwest (35), Toronto Beaches (32) and Scarborough Centre (37 & 38).

Table 3. Neighbourhood population and travel profile for Scarborough Village, Scarborough, Ontario.  
 Data Sources: City of Toronto (2012a,c; 2013a,c,e,g; 2014b,d,e; 2015a,b), Transportation Tomorrow Survey 2011 (2013).

|                                      | Scarborough Village |       | City of Toronto |       |
|--------------------------------------|---------------------|-------|-----------------|-------|
| Population (2011)                    | 16,610              |       | 2,615,070       |       |
| Change (2006-2011)                   | 1,015               | 6.5%  | 111,800         | 4.5%  |
| Children (0-14 % of Population)      | 3,485               | 21.0% | 400,860         | 15.3% |
| Youth (15-24 % of Population)        | 2,455               | 14.8% | 333,510         | 12.8% |
| Senior (65+ % of Population)         | 2,025               | 12.2% | 377,440         | 14.4% |
| Families (All census types)          | 4,325               |       | 690,340         |       |
| Single Parent Families               | 1,295               | 29.9% | 146,985         | 21.3% |
| Density (km <sup>2</sup> )           | 5,358               |       | 4,079           |       |
| Dwellings                            | 5,910               |       | 1,047,885       |       |
| House (Detached & Semi-Detached)     | 1,125               | 19%   | 347,415         | 33%   |
| Row & Duplex                         | 355                 | 6%    | 105,035         | 10%   |
| Apartment (5 Storeys & Above)        | 4,050               | 69%   | 429,225         | 41%   |
| Apartment (Under 5 Storeys)          | 365                 | 6%    | 163,865         | 16%   |
| Social Housing Units                 | 922                 |       | 92,113          |       |
| Social Housing Waiting List          | 683                 |       | 57,442          |       |
| Renting (2006)                       |                     | 56%   |                 | 45%   |
| Spending more than 30% on Occupancy  |                     | 42%   |                 | 35%   |
| Transportation                       |                     |       |                 |       |
| Transit Modal Share                  |                     | 23%   |                 | 24%   |
| Walking and Cycling Modal Share      |                     | 5%    |                 | 9%    |
| Transit Stops                        | 29                  |       | 9,969           |       |
| Pedestrian Collisions (2009-2011)    | 110                 |       | 24,438          |       |
| Unemployed                           |                     | 14%   |                 | 9%    |
| Low Income (LIM-AT)                  |                     | 33%   |                 | 19%   |
| Education                            |                     |       |                 |       |
| Post-Secondary                       |                     | 56%   |                 | 69%   |
| High School                          |                     | 27%   |                 | 21%   |
| No Certificate                       |                     | 17%   |                 | 11%   |
| Immigration & Language               |                     |       |                 |       |
| Non-Official Language Spoken at Home |                     | 30%   |                 | 28%   |
| Born in Canada                       |                     | 41%   |                 | 49%   |
| Immigrated before 2001               |                     | 32%   |                 | 33%   |
| Immigrated between 2001-2005         |                     | 12%   |                 | 8%    |
| Immigrated between 2006-2011         |                     | 11%   |                 | 8%    |
| Visible Minority                     |                     | 70%   |                 | 49%   |

## Stories

Cobbling together trips – “often called “trip chaining” – is an important skill for transit riders make an otherwise impossible trip possible. But the transit

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*“A lot of depending on people for rides”  
- Scarborough East resident*

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system in the GTHA is not always conducive to making multiple trips in a timely manner. Parents with young children, seniors with mobility aids, persons with disabilities and low-income riders are particularly disadvantaged by over-crowded vehicles, poorly-coordinated transfer points, poor accessibility between transfer points, having to pay multiple fares and a lack of coordination in land use to support multiple transit trips. An invisible transit network is developed by leaning on friends and family to get around and take care of errands. But it takes a toll. Relying on friends and family to run errands, to take part in cultural and religious events, and even to spend time with family has costs. It is stressful and frays social bonds. And not everyone has a social network that can step in to provide accessibility for disadvantaged riders.

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*“Yeah, I feel excluded. I have a nephew. He turned 1 in June. My mom had gone out of town and I was dog-sitting, so I had the car. I thought ‘wouldn’t it be cool to go visit my nephew.’ So I call my brother and asked if it was OK, and I hadn’t made mention of having access to a car but I also didn’t ask him to come pick me up or make arrangements to meet me at wherever. I just figured he’d think I’d come for a visit, or whatever. He called me back saying he didn’t think it would work, his wife was tired. I was a little put off by it. He was always like ‘you have an open invitation.’ I was talking to my sister about it. We chatted, and at the end she’s like ‘did he even know you had a car?’ I said ‘no, I didn’t mention it’. She said it’s probably why. He didn’t know you were able to get there on your own. I’ll be quite frank, it has really left a bitter taste in my mouth.”*

*- Scarborough East resident*

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Figure 14. Canadian Red Cross community hub on Markham Road north of Eglinton Avenue East, Scarborough Village, Scarborough, Ontario. Its goal is to reduce social isolation and build community resiliency. Some services it provides includes settlement housing services, harm reduction support, general nurse care, a drop-in centre, and a food and clothing bank. Source: Michael Collens.



Figure 15. Eglinton Avenue East looking east from Markham Road, Scarborough Village, Scarborough, Ontario. The neighbourhood has access to good bus service north to Markham, west to Kennedy Subway Station and northeast to Malvern via Meadowvale Road. Source: Michael Collens.



Figure 16. Eglinton Avenue East, looking west at Cedar Drive, Scarborough Village, Scarborough, Ontario. The roads are wide with long gaps between pedestrian crossings. It makes for a dangerous pedestrian environment with few safe locations to cross and forces pedestrians to walk longer distances. Source: Michael Collens.

Someone living without transit when they need it leaves them vulnerable to alienation and isolation from their support networks. A harm reduction clinic or a public health nurse are only as helpful as they are accessible to those that need them. But in a broader sense, an accessible transit system gives the freedom to participate and engage with family, friends and the community in a way that provides greater social resilience.

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*“[With a car] I’m able to pick up my grandmother. Being able to be there for her if she needs anything. Even this Thanksgiving, having that extra day off and being able to visit my sister, which just wouldn’t have happened. It would take more than two hours. She’s in Vaughan, and I don’t even know the schedules of the buses there.”*

*- Scarborough East resident*

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Considering the wide range of transit options available in the neighbourhood and the level of poverty and unemployment, it is perhaps surprising that the transit modal share is not higher. Downtown Toronto with

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*“Not having a car afforded me to do things I otherwise couldn’t afford to do, like being able to enrol my daughter in extracurricular things.”*  
*- Scarborough East resident*

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the higher costs of parking and the perceptions of severe, chronic congestion make car use less attractive, while the high numbers of commuters make transit more socially acceptable.

However, there is a degree of social pressure that owning a car is necessary to accomplish daily chores closer to home. The car also symbolizes a freedom to find opportunities for work and engage in the social and cultural life of the city. But freedom of mobility is often exchanged for the yoke of financial obligations a car brings. It is a very expensive way to travel. Aside from the direct financial hit of car payments, insurance, gas, licencing, maintenance and parking, there are additional negative financial pressures as a household’s disposable income is drained to support the car and unavailable for other uses. Costs are also born by society through congestion, pollution, and a myriad of interconnected secondary impacts.

## *Case Study 2: Applewood*

### *Description*

Applewood covers the area bounded by Dundas Street East on the south, Cawthra Road on the west, Eglinton Avenue East on the North, and the Mississauga city limits along the Etobicoke Creek on the east. Prior to urbanization, the area was home to the village of Burnhamthorpe, at the intersection of Burnhamthorpe Road East and Dixie Road, and the village of Dixie, at Dundas Street East and Dixie Road. Farms were established in the early 1850s and survived until the 1960s. Applewood was the generic name for the various residential developments phases built by the Shipp Corporation in the east part of Mississauga, south of Burnhamthorpe Road East and east of Cawthra Road. The first Applewood – Applewood Acres – was built in the mid-1950s in the area between The Queensway East and Queen Elizabeth Way east of Cawthra Road. As a condition of financing the initial development, the lender “insisted all the homes be built with attached garages, ‘because anybody who would live way out there was certainly going to need a car’,” (Brennan, 2012).

The neighbourhood called Applewood today was developed as Applewood Heights and Applewood Hills, beginning in 1967. Most of the “greenfield” development was completed by the early 1980s, although the “Applewood Landmark” high-rise condominiums on Bloor Street East were built in the 1990s. The area north of Burnhamthorpe Road was developed as Rathwood, combining Applewood with Rathburn Road.

Rockwood Mall, on the east side of Dixie Road at Burnhamthorpe Road East is the largest retail site, but the neighbourhood has a number of small neighbourhood plazas in the residential areas off the main streets. Dixie Road serves as a north-south retail corridor through Applewood. Dundas Street East, formerly Highway 5, is a major commercial and industrial corridor for the City of Mississauga. All commercial sites feature a large number of parking spaces. There are no continuous street front commercial rows, just a series of small buildings and larger plazas, each set well back from the street and situated behind parking lots.



Figure 17. Applewood case study map.  
Source: Shima Mirkarimi.

There are a range of housing types and ages. There are a few structures that date back to the pre-urbanization period but most date from 1966 to 1986. A number of newer infill projects have been constructed along Rathburn Road East and Bloor Street East. Detached and semi-detached housing, and units in apartment buildings each comprise about 40% of dwellings in the neighbourhood.

## Demographics

Applewood had a population in 2011 of 59,840. It was an increase of 355 people from 2006. Children and youth are slightly underrepresented compared to Mississauga as a whole. There are 50% more seniors, proportionately, at 10.9%. Renters comprise 46% of households.

Employment levels in Applewood are comparable to the GTA. Low income households account for 11% of residents. It is a similar level to the City of Mississauga as a whole, but just over half the level reported in the City of Toronto. Education levels are similar to the Mississauga average, but persons with a post-secondary diploma or degree are notably higher in Toronto. 43% of residents were born in Canada. Most immigrants living in Applewood came before 2001. Visible minority persons comprise 40% of the population.

## Travel

Mississauga did not have a transit service until 1969, although the TTC operated bus services to Toronto on Lakeshore Road from Port Credit and from Malton on Airport Road. Transit service has matured in Mississauga from a system geared to serve the needs of commuters and students to a network of trunk lines to serve diverse needs. The Mississauga Transitway, still under construction with sections open for service, runs parallel to Highway 403 and Eastgate Parkway along the north side of the neighbourhood. It will be a completely separated bus-rapid-transit corridor crossing the entire east-west length of Mississauga once completed. There are stops at Cawthra Road, Tomken Road and Dixie Road. Future stops are under construction at Tahoe Boulevard and Creekbank Road. Two express routes, branded MiExpress, currently use the Transitway Monday to Saturday. MiWay (as the Mississauga's transit system is branded) carried a record level of 35.8 million rides in 2013). Route 107 connects to Mississauga City Centre and Malton through Pearson International Airport. Route 109 connects Meadowvale in the northwest corner of Mississauga. Route 185 is a limited service express route jointly operated by Mississauga and Brampton, connecting Dixie Transitway Station with Bramalea Transit Terminal, in Brampton. Local routes are branded MiLocal. Routes 3, 20, 26, and 76 travel east-west through Applewood between Mississauga City Centre and Islington Subway Station. Routes 5 and 51 are north-south routes through the area. Routes 3, 5, 20 and 26 are the routes with the highest frequency and operate 7-days-a-

week. The GO Transit Milton line runs to the south of Applewood. Dixie GO Station is on Dixie Road, south of Dundas Street East.

Transit connections to the TTC Islington Subway Station in Toronto take approximately 20 minutes from Dixie Road. It is also about 20 minutes to Mississauga City Centre Terminal. In spite

of the number of high frequency routes, transit modal share for Applewood is only 13%. It is above the Mississauga average of 11%, but significantly lower than the share in Mount Olive and Scarborough Village which are also 20-30 minutes from the TTC subway. Transit is a popular way to get to downtown Toronto, with Toronto Centre Rosedale (Wards 27 and 28) and Trinity Spadina (Ward 20), as positions one, three and four of the top four GTHA destinations by ward via transit. The second most popular destination is Mississauga Ward 4, home to Mississauga City Centre – an area with a limited supply of costly parking. A private vehicle (either as a driver or a passenger) is the preferred mode to travel around Applewood and connect to nearby neighbourhoods, which is quite understandable considering the entire area was designed around having a car in every garage.

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*“If you don’t have a car in some spaces in Peel (Region) you’re done. It’s not like Toronto where you can jump on the subway and be at Yonge and Bloor from Broadview and Danforth in 20 minutes. You can’t get on a bus on Hurontario in Mississauga and get to the north of Brampton in 20 minutes. It’s a barrier - not intentional – that prohibits real community interaction.”*

*- Peel Region community leader in the non-profit sector*

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*“I remember (a specific person), she used to work here. It’s literally a 15-20 minute max (trip by car) to get there. She didn’t have a car, and she had to take three buses from here to there. Two hours for her, one way. In summer we had summer hours where on Fridays we could leave at one (p.m.). On Fridays at one (p.m.) everyone is rushing to leave, and she was sitting in the lunch room having a sandwich, and I said to her ‘what are you doing?’ She said, ‘Well, I’m having my sandwich because my bus is coming at such-and-such a time and it will take me two hours to get home. I’ll get hungry’. We are free - we can go. She was stuck, and that’s how she had to plan it.”*

*- Peel Region community leader in the non-profit sector*

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Table 4. Neighbourhood population and travel profile for Applewood, Mississauga, Ontario.  
 Data Sources: City of Mississauga (2010, 2015), Region of Peel (2014a,b,c,d,e), Transportation Tomorrow Survey 2011 (2013).

|   | Applewood |       | City of Mississauga |       |
|---|-----------|-------|---------------------|-------|
| Population (2011)   | 59,840    |       | 713,450             |       |
| Change (2006-2011)  | 355       | 0.6%  | 44,851              | 6.7%  |
| Children (0-14 % of Population)                                 | 9,665     | 16.2% | 128,125             | 18.0% |
| Youth (15-24 % of Population)                                   | 6,865     | 11.5% | 94,240              | 13.2% |
| Senior (65+ % of Population)                                    | 6,505     | 10.9% | 54,790              | 7.7%  |
| Families (All census types)                                     | 17,140    |       | 199,380             |       |
| Single Parent Families  | 3,160     | 18.4% | 32,780              | 16.4% |
| Density (km <sup>2</sup> )                                      | 3,616     |       | 2,448               |       |
| Dwellings   | 17,425    |       | 234,585             |       |
| House (Detached & Semi-Detached)                                | 6,880     | 39%   | 118,150             | 50%   |
| Row & Duplex  | 2,390     | 14%   | 40,635              | 17%   |
| Apartment (5 Storeys & Above)                                   | 7,110     | 41%   | 58,820              | 25%   |
| Apartment (Under 5 Storeys)                                     | 1,040     | 6%    | 16,595              | 7%    |
| Social Housing Units  | 451       |       |                     |       |
| Social Housing Waiting List                                     |           |       |                     |       |
| Renting (2006)  | 8,030     | 46%   | 58,875              | 25%   |
| Spending more than 30% on Occupancy<br>Below Occupancy Standard | 6,855     | 32%   | 71,920              | 31%   |
| Transportation  |           |       |                     |       |
| Transit Modal Share (24h)                                       |           | 13%   |                     | 11%   |
| Walking and Cycling Modal Share (24h)                           |           | 5%    |                     | 5%    |
| Unemployed  |           | 10%   |                     | 10%   |
| Low Income (LIM-AT)   |           | 11%   |                     | 12%   |
| Education   |           |       |                     |       |
| Post-Secondary  |           | 50%   |                     | 51%   |
| High School   |           | 30%   |                     | 29%   |
| No Certificate  |           | 20%   |                     | 20%   |
| Immigration & Language  |           |       |                     |       |
| Non-Official Language Spoken at Home                            |           | 33%   |                     | 27%   |
| Born in Canada  |           | 43%   |                     | 46%   |
| Immigrated before 2001  |           | 38%   |                     | 34%   |
| Immigrated between 2001-2005                                    |           | 9%    |                     | 10%   |
| Immigrated between 2006-2011                                    |           | 9%    |                     | 8%    |
| Visible Minority  |           | 40%   |                     | 53%   |



## Stories

Transit service, even when the vehicles come frequently, is often much slower than driving a car can be. But outside of the City of Toronto, there are usually much lower frequencies. Chaining trips together is very difficult when longer distances are compounded by typically lower frequencies of service, especially when transfers add additional delays. For some riders, like shift workers, limited hours of operation are an insurmountable barrier. If one part of the trip must happen when the bus is unavailable, the whole trip is impossible by transit.



*Figure 18. Burnhamthorpe Road East, looking west towards Mississauga City Centre at Dixie Road, Applewood, Mississauga, Ontario.*

*Good transit connections to Mississauga City Centre and Islington Subway Station. Fewer north-south connections to the airport employment areas. Source: Michael Collins.*



*Figure 19. Behind Rockwood Mall on Bough Beeches Boulevard, Applewood, Mississauga, Ontario. Pedestrian access leading to the apartments and seniors residences is very poor, and visibly improvised by residents. Source: Michael Collens.*

People who depend on transit live their lives on a completely different clock compared to people with easy access to a car. What can be a quick 10-minute trip in a car can easily become an hour-long trip by transit. The outer parts of the urban region have been planned over the past 50 years for someone having a car, and there was little effort to consider how important living and working destinations would ever be connected in any other way. A car is granted a prime spot right outside the shop door, while a pedestrian is often not even granted a dedicated, paved walkway. Transit riders are left on the fringe of vast parking lots. Winter weather compounds the inaccessibility. Snow is usually cleared from roads and parking lots quickly. Sidewalks and street crossings are blocked until the main roads are cleared, putting transit riders obviously below car drivers. In-between spaces used by pedestrians and transit

riders become impenetrable behind windrows and snow mounds, sometimes for months until the spring thaw turns them into muddy and slushy messes.



*Figure 20. Bloor Street, east of Dixie Road, Applewood, Mississauga, Ontario. Poor pedestrian access to the residential buildings from High Point Mall (background). Source: Michael Collens.*

### *Case Study 3: Springdale*

#### Description

Springdale is designed as a “master-planned” community on a 1,600 ha site comprised of former tracts of agricultural land. Construction began in the early 1990s. Construction is not yet complete, with the northern portion along Countryside Drive still undeveloped. Highway 410 runs in a north-south direction along the western edge of the community. It is bounded by Highway 410, Bovaird Drive East on the south, Torbram Road on the east and the Brampton city limits along Mayfield Road on the north.

There are no industrial sites. The neighbourhood was agricultural until the 1990s. Brampton Civic Hospital is at the corner of Bramalea Road and Bovaird Drive, and there are medical and professional office facilities nearby. There are no high-rise apartments. The housing is predominantly – 79% – detached or semi-detached dwellings, and the remainder of the housing stock is a mix of row housing and other ground-related forms. There are no subsidized housing units in Springdale. Springdale’s density of 2,614 persons/km<sup>2</sup> is significantly higher than one could expect for a seemingly – on the outside – low density community. This is especially surprising, given that there are still large tracts of vacant land yet to be developed north of Countryside Drive.

Trinity Common Mall is a large-format or “big-box” retail centre in the southwest corner of Springdale, at Highway 410 and Bovaird Drive East. There are small plazas along Dixie Road and Bramalea Road. None are situated conveniently for pedestrian access, being set back from the road and separated by large parking lots. Each commercial lot abuts a residential street, but are physically disconnected from the surrounding residential area. . Convenient access for car drivers often means a long, circuitous route for pedestrians and transit riders. Trinity Common Mall has a bus terminal, but most of the bus routes in the neighbourhood do not serve the mall, meaning area residents are forced to take two buses.

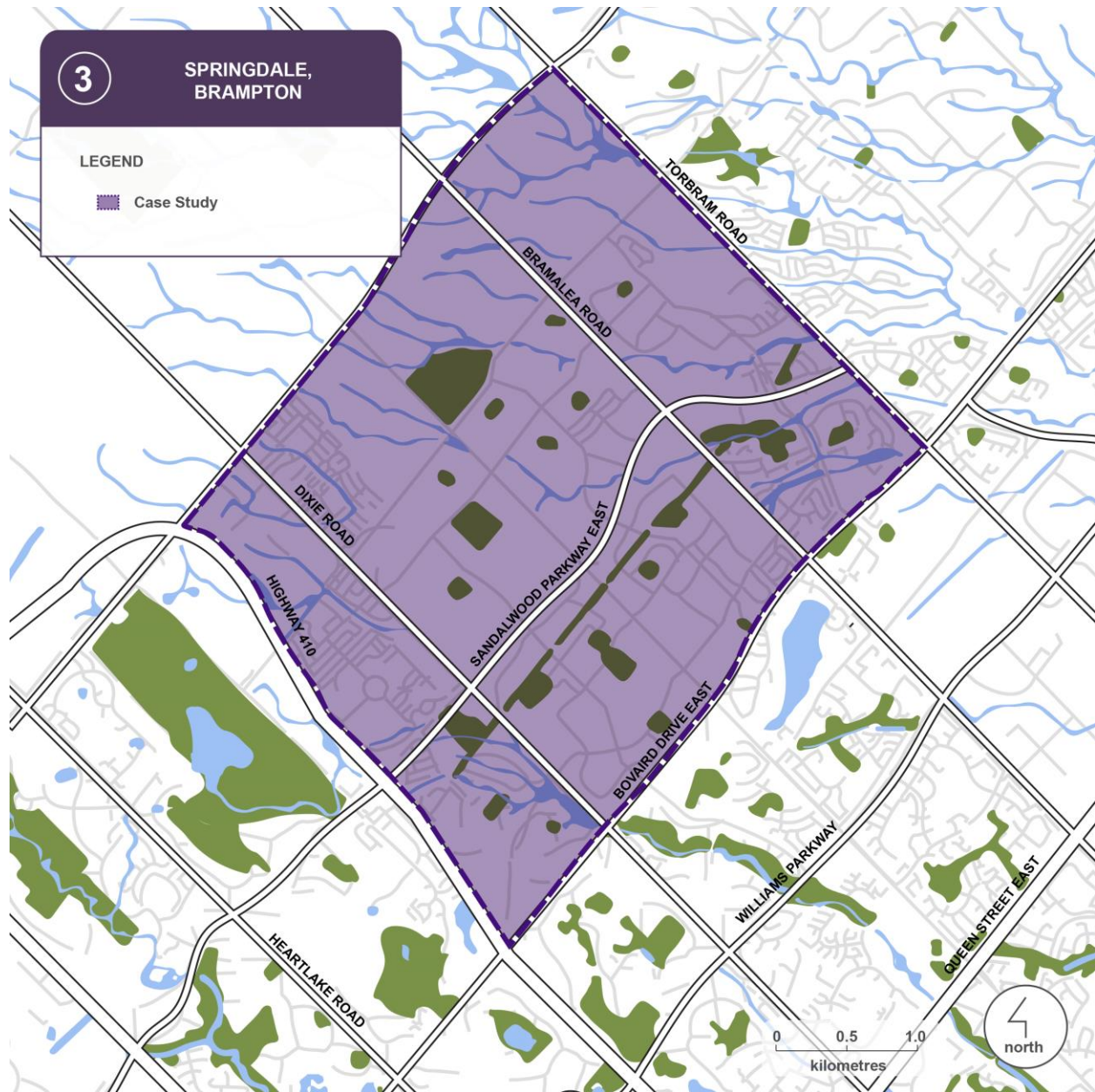


Figure 21. Springdale case study map.  
Source: Shima Mirkarimi.

### Demographics

In 2011, Springdale had a population of 58,360. It has grown by 37% since 2006. It is a very youthful area, with 24% of the population being 14 or younger. Only 5% are seniors. The community has a very high proportion of New Canadians: 60% of Springdale residents immigrated to Canada. Of those, nearly a quarter arrived here in within the past 10 years. Overall, 85% of Springdale residents identify as belonging to a visible minority group.

Table 5. Neighbourhood population and travel profile for Springdale, Brampton, Ontario.  
 Data Sources: City of Brampton (2014), Region of Peel (2014a,b,c,d,e), Transportation Tomorrow Survey 2011 (2013).

|                                       | Springdale |       | City of Brampton |       |
|---------------------------------------|------------|-------|------------------|-------|
| Population (2011)                     | 58,360     |       | 523,910          |       |
| Change (2006-2011)                    | 15,830     | 37.2% | 111,800          | 27.1% |
| Children (0-14 % of Population)       | 14,035     | 24.0% | 113,400          | 21.6% |
| Youth (15-24 % of Population)         | 7,425      | 12.7% | 66,080           | 12.6% |
| Senior (65+ % of Population)          | 3,015      | 5.2%  | 31,945           | 6.1%  |
| Families (All census types)           | 15,930     |       | 145,350          |       |
| Single Parent Families                | 2,065      | 13.0% | 25,050           | 17.2% |
| Density (km <sup>2</sup> )            | 2,614      |       | 1,945            |       |
| Dwellings                             | 14,155     |       | 149,275          |       |
| House (Detached & Semi-Detached)      | 11,190     | 79.1% | 99,125           | 66.4% |
| Row & Duplex                          | 2,690      | 19.0% | 26,185           | 17.5% |
| Apartment (5 Storeys & Above)         | -          | 0.0%  | 17,005           | 11.4% |
| Apartment (Under 5 Storeys)           | 255        | 1.8%  | 6,805            | 4.6%  |
| Social Housing Units                  | -          |       |                  |       |
| Social Housing Waiting List           |            |       |                  |       |
| Renting (2006)                        | 1,300      | 9.2%  | 27,255           | 18.3% |
| Spending more than 30% on Occupancy   | 4,880      | 34.5% | 48,515           | 32.5% |
| Transportation                        |            |       |                  |       |
| Transit Modal Share (24h)             |            | 8.0%  |                  | 8.0%  |
| Walking and Cycling Modal Share (24h) |            | 6.0%  |                  | 5.0%  |
| Unemployed                            |            | 10%   |                  | 10%   |
| Low Income (LIM-AT)                   |            | 11%   |                  | 12%   |
| Education                             |            |       |                  |       |
| Post-Secondary                        |            | 50%   |                  | 51%   |
| High School                           |            | 30%   |                  | 29%   |
| No Certificate                        |            | 20%   |                  | 20%   |
| Immigration & Language                |            |       |                  |       |
| Non-Official Language Spoken at Home  |            | 39%   |                  | 27%   |
| Born in Canada                        |            | 40%   |                  | 48%   |
| Immigrated before 2001                |            | 38%   |                  | 33%   |
| Immigrated between 2001-2005          |            | 12%   |                  | 9%    |
| Immigrated between 2006-2011          |            | 9%    |                  | 8%    |
| Visible Minority                      |            | 85%   |                  | 66%   |

This is much higher than the City of Brampton as a whole, although Brampton is becoming an increasingly a popular settlement location for newcomers. National retailers are adapting to serve the needs of New Canadians (see <http://chalofreshco.com/>, a Sobeys

discount chain tailored for desis<sup>5</sup>). Springdale has a slightly higher employment rate than the national average, at 10%, and 11% of Springdale households are low-income. Renters comprise 9.2% of the neighbourhood households, and 34.5% of households report spending in excess of 30% of their income on housing.

## Travel

Express bus service in Brampton is separately branded as Züm with red livery. It is designed to incorporate some elements of a dedicated bus rapid transit (BRT) line, such as protected queue-jumping lanes and priority signalling, but without a completely separated right-of-way. Route 505 provides express service along the south edge of Springdale, connecting Mount Pleasant GO Station in the west and Queen Street East and Goreway Drive in the East. From there, riders can take route 501 eastward to York University in Toronto.

Local routes 5, 12, 14, 15, 17, 18, 19, 23, 32 and 33 serve the neighbourhood. Core service is found on each of the arterial roads which follow the former rural concession roads, spaced between 1.5km and 3.1km apart. Routes 14, 15 and 18 each connect Springdale south to the Bramalea Transit

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*“If you overdevelop outward and avoid the opportunity to intensify (development, such as housing), then you actually create the problems that we’re talking about - where people are living in areas that no longer have the things to support them, like public transportation. Then, they become socially isolated.”*

*- Social service provider staff*

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Terminal, and these routes continue southward to Mississauga. Trinity Common Terminal, in Trinity Common Mall, provides a transfer point between the three east-west routes: 5, 23 and 505. There are also limited GO Bus connections to Toronto.

In spite of the large number of connections, the transit modal share is 8%. It is comparable to the City of Brampton as a whole but below the modal share of neighbouring Mississauga. The top destinations by ward via transit are the Bramalea industrial areas in Brampton Ward 8, downtown Toronto in Toronto Centre-Rosedale (Ward 27), York West (Ward

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<sup>5</sup> A desi is a person of Indian, Pakistani, or Bangladeshi birth or descent who lives abroad (Oxford University Press, 2016).

8) - home to York University, Mississauga Ward 5 - home to the Airport Corporate Centre and industrial areas, and Toronto Centre-Rosedale (Ward 28).

The top destinations for car drivers by ward each contain large industrial areas: Brampton Ward 10 (Goreway Drive/Highway 407), Brampton ward 8 (Bramalea), Mississauga ward 5 (Airport), Brampton Ward 7 (Fiat-Chrysler) and Brampton Ward 3 (Steeles Avenue/ Highway 410). Transit service to industrial areas often has the lowest frequencies and limited hours of operation, which may keep transit from being a practical travel option.

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*“We had our holiday party way down in Port Credit. The young woman never actually made it on the bus. It was mid-December. She was coming from north Brampton. Like hours. She finally just gave up and turned around after maybe two and a half or three hours.”*  
- Peel Region community leader in the non-profit sector

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### Stories

Isolation and invisibility might be the hardest concepts to consider in transit planning, precisely because of the need to find what cannot be seen. The rapid growth in Springdale has led to some intense growing pains. For instance, there are very few social services available, subsidized housing is unavailable, and employment opportunities in the immediate area are few. Accessing these important things requires long trips for Springdale residents – so long that inaccessibility is becoming a growing concern.

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*“There are some (Ontario Works government assistance) clients who aren’t able to accept a job offer because they have young children and they can’t access childcare. Just because a subsidy is available, if it’s located in a place where a family doesn’t have a car and you have to navigate two buses in order to get to that centre, is it truly accessible?”*  
- Social service provider staff

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Social supports only truly exist when they are accessible. Someone who cannot access the support they need is made invisible by not being at the door knocking for help. Isolation comes from invisibility. How do we include all members of society when they cannot engage with the community?





Figure 22. Sandalwood Parkway East, looking east towards Dixie Road, Springdale, Brampton, Ontario. Private automobile is the dominant mode of travel, and most streets are designed to accommodate large volumes at higher speeds. Source: Michael Collens.



Figure 23. Looking west from Great Lakes Drive north of Bovaird Drive. Springdale, Brampton, Ontario. Highway 410 is in the background. There are mostly single detached housing, but a significant proportion of the single-family housing stock is rental. There is also a significant number of secondary units adding to the rental stock. Source: Michael Collens.



Figure 24. Trinity Common Bus Terminal, Springdale, Brampton, Ontario. Trinity Common is a regional, large format (“big box”) shopping centre. There are good bus connections in the neighbourhood, including Brampton Transit express buses and GO Transit connections to Toronto, but routes are radial from the station making other trips complicated and time-consuming. Source: Michael Collens.



Figure 25. Sandalwood Parkway East, looking west towards Dixie Road. Springdale, Brampton, Ontario. Very few destinations are walkable at a neighbourhood scale. Source: Michael Collens.

## *Case Study 4: Mount Dennis*

### Description

Mount Dennis is located in Toronto in the former City of York. The Humber River valley on the west and the rail corridor on the east effectively restrict Mount Dennis to approximately 500 meters on either side of Weston Road. The main intersection is Weston Road and Eglinton Avenue West.

Transportation has played a long and important role in the history of Mount Dennis. Weston Road, the “main street” through the neighbourhood originated as a Huron-Wendat trail – the “Carrying Place Trail” - prior to European contact. . By the mid-17<sup>th</sup> century, the trail became a key transportation route for the Mississaugas of the New Credit First Nation (MNCFN) between Georgian Bay, Lake Simcoe and Lake Ontario. The land covering the watershed of the Humber River was purchased by the Crown in 1787. A subsequent purchase in 1805 intended to clarify the details of the 1787 transaction were contested as to the extent of land surrendered. It was subject to a land claim regarding fair compensation by the MNCFN, settled in 2010. The Trail was first surveyed in 1785. It was widened and opened as a road in 1811. It became a plank toll road in 1841 connecting Toronto with the agricultural communities to the northwest, including what is now Mount Olive-Silverstone-Jamestown. In 1856, the former Grand Trunk opened its main line to Sarnia parallel to the Trail. The line is now owned by Metrolinx and used for GO Transit Kitchener and Union-Pearson Express trains. VIA Rail Canada operates daily intercity trains along the line but they do not stop in the neighbourhood. CN maintains operation rights for local freight service.

The Eastman Kodak Company of Canada (Kodak) established its Canadian manufacturing and headquarters in Mount Dennis in 1911. The facility closed in 2005. The site is slated to be home to the Eglinton Crosstown maintenance and storage facility. The former employees’ recreation building, Building 9, has been retained as a historical structure and will be incorporated into Mount Dennis Station, the western terminus of the Eglinton Crosstown line.



Figure 26. Mount Dennis case study map.  
Source: Shima Mirkarimi.

The long history of industrial manufacturing in Mount Dennis continues to the present. The large Irving Tissue complex on Weston Road north of Jane Street produces Royale paper products. However, there is evidence that manufacturing in the area is in a steady decline, with a number of vacant and underused sites, the largest being the Kodak site.

Another large employer is West Park Healthcare Centre. It opened in 1904 as the Toronto Free Hospital for Consumptive Poor on the plateau above Eglinton Flats west of Weston Road. It specializes in long-term care, complex care and rehabilitation. It remains Ontario's only hospital with in-patient tuberculosis care.

As expected there is a mix of age and styles of housing, considering the long history of Mount Dennis and changing land use patterns over the past century. The housing stock, generally, varies from pre-WWII housing to more recent "urban infill" projects. There are a number of apartment blocks dating from the 1960s. Weston Road exhibits continuous, block-long rows of low-rise commercial buildings with upper apartments on both sides of the street, familiar in older parts of the City of Toronto. Detached and semi-detached housing comprise 25% of the housing stock. Apartments make up 63%. Nearly half of all households are renters. The mix of housing and the share of renters is largely representative City of Toronto averages.

### Demographics

Mount Dennis had a population of 13,140 in 2011 – up only 320 people from 2006. People who identify as belonging to a visible minority group are 64% of the Mount Dennis population, compared to 49% city-wide. About 59% of residents immigrated to Canada, however, the vast majority came before 2001. There are slightly higher numbers of children and youth compared to the Toronto average. However, there are many more single family households, comprising 36% of all households with children, compared to 21% for Toronto. While there are 2,455 children aged 14 years and under, there are only 185 licenced and subsidized childcare spaces in the neighbourhood.

There is a substantial low-income population in Mount Dennis, with 24% of households meeting the threshold for Statistics Canada's low income cut off. Unemployment is about 50% higher in Mount Dennis compared to the city as a whole – 14% versus 9%, respectively. Approximately 45% of households report spending more than 30% of their income on housing. There are 864 units of social housing, representing 18% of household dwellings. There are 545 households on the waiting list.

Table 6. Neighbourhood population and travel profile for Mount Dennis, York, Ontario.

Data Sources: City of Toronto (2012a,d; 2013a,d,e,h; 2014c,d,e; 2015a,b), Transportation Tomorrow Survey 2011 (2013).

|                                       | Mount Dennis |       | City of Toronto |       |
|---------------------------------------|--------------|-------|-----------------|-------|
| Population (2011)                     | 13,140       |       | 2,615,070       |       |
| Change (2006-2011)                    | 320          | 2.5%  | 111,800         | 4.5%  |
| Children (0-14 % of Population)       | 2,455        | 18.7% | 400,860         | 15.3% |
| Youth (15-24 % of Population)         | 1,865        | 14.2% | 333,510         | 12.8% |
| Senior (65+ % of Population)          | 1,515        | 11.5% | 377,440         | 14.4% |
| Families (All census types)           | 3,425        |       | 690,340         |       |
| Single Parent Families                | 1,250        | 36.5% | 146,985         | 21.3% |
| Density (km <sup>2</sup> )            | 6,230        |       | 4,079           |       |
| Dwellings                             | 4,865        |       | 1,047,885       |       |
| House (Detached & Semi-Detached)      | 1,215        | 25%   | 347,415         | 33%   |
| Apartment (5 Storeys & Above)         | 2,025        | 42%   | 429,225         | 41%   |
| Apartment (Under 5 Storeys)           | 1,035        | 21%   | 163,865         | 16%   |
| Row & Duplex                          | 590          | 12%   | 105,035         | 10%   |
| Social Housing Units                  | 864          |       | 92,113          |       |
| Social Housing Waiting List           | 545          |       | 57,442          |       |
| Renting (2006)                        |              | 48%   |                 | 45%   |
| Spending more than 30% on Occupancy   |              | 45%   |                 | 35%   |
| Transportation                        |              |       |                 |       |
| Transit Modal Share (24h)             |              | 28%   |                 | 24%   |
| Walking and Cycling Modal Share (24h) |              | 6%    |                 | 9%    |
| Transit Stops                         | 59           |       | 9,969           |       |
| Pedestrian Collisions (2009-2011)     | 59           |       | 24,438          |       |
| Unemployed                            |              | 14%   |                 | 9%    |
| Low Income (LIM-AT)                   |              | 24%   |                 | 19%   |
| Education                             |              |       |                 |       |
| Post-Secondary                        |              | 50%   |                 | 69%   |
| High School                           |              | 27%   |                 | 21%   |
| No Certificate                        |              | 23%   |                 | 11%   |
| Immigration & Language                |              |       |                 |       |
| Non-Official Language Spoken at Home  |              | 32%   |                 | 28%   |
| Born in Canada                        |              | 41%   |                 | 49%   |
| Immigrated before 2001                |              | 38%   |                 | 33%   |
| Immigrated between 2001-2005          |              | 9%    |                 | 8%    |
| Immigrated between 2006-2011          |              | 9%    |                 | 8%    |
| Visible Minority                      |              | 64%   |                 | 49%   |

Attaining education credentials is a problem in Mount Dennis. Only 50% of residents in Mount Dennis report having a post-secondary diploma or degree, compared to 69% for Toronto. This places the neighbourhood at a distinct disadvantage in finding stable employment in a post-industrial economy, which is further compounded by transportation options and access to other important services.



*Figure 27. Jane Street looking south towards Eglinton Avenue West, Mount Dennis, York, Ontario. Eglinton Flats straddling the Humber River makes accessing Mount Dennis challenging when not using a car. There is good bus service along Jane and Eglinton, but transfers are made in the valley with no amenities or services nearby. Source: Michael Collens.*

## Travel

Mount Dennis is served by local TTC bus routes 32, 35, 71, 89, 161 and 171. There are no routes within the neighbourhood that are part of the Toronto Transit Commission 10-minute frequent service network. However, Weston Road, Jane Street and Eglinton Avenue West form the core trunk routes of the neighbourhood and each connects to the subway network. The

express route 195 Jane Rocket connects Jane Subway Station with York University. Routes connect to the Keele, Dundas West and Eglinton West subway stations. It takes approximately 20 minutes by the posted schedules to reach each subway station from Mount Dennis, although Eglinton Crosstown LRT construction can produce long delays, particularly along Eglinton Avenue West. Construction is expected to be completed in 2020. The 32 Eglinton route connects Weston Road and Eglinton Avenue West with the Airport Corporate Centre in Mississauga in about 30 minutes. There will be a connection with the Mississauga Transitway at Renforth Gateway Station, opening in 2017. TTC routes 332 and 335 provide overnight service along Eglinton Avenue West and Jane Street, respectively.



*Figure 28. Metrolinx rail overpass (Kitchener Line) at Eglinton Avenue West, looking west, Mount Dennis, York, Ontario. The Union-Pearson Express may stop here in the future with an interchange to the Eglinton Crosstown line. Source: Michael Collens.*



With a 28% transit modal share, Mount Dennis has one of the highest transit usage rates in the GTHA for a neighbourhood not on the existing subway or streetcar network. A walking and cycling mode share of 6%, lower than the Toronto rate, can be considered in part as a product of the neighbourhood's physical isolation (i.e. bounded by a river valley and rail corridor) and the challenging topography surrounding the neighbourhood. Together, these attributes produce long gaps between street and pedestrian crossings to destinations outside of the neighbourhood, and pedestrian amenities – including sidewalks – are lacking.

The Union-Pearson (UPX) Express line and GO Transit Kitchener line run through the neighbourhood but do not presently stop in it. A UPX and GO connection is expected as part of the future Mount Dennis Station on the Eglinton Crosstown. The station will be located on Eglinton Avenue West, on the east side of the rail corridor opposite. While the Crosstown project has the potential to transform transit travel patterns for neighbourhood residents by providing quick connections along Eglinton Avenue to Kennedy Road and provide a local connection the regional rail network, the pedestrian connections approaching the station will be vital to ensuring the station is truly accessible.

### Stories

Despite the large number of transit options currently available, and those under construction or planned, Mount Dennis experiences a number of social challenges. These include high numbers of unemployment, poverty, education attainment, and a lack of affordable housing choices. Transit accessibility to jobs in downtown Toronto or in the Airport Corporate Centre, which is the second largest employment node in the GTHA, is good. However, this does not translate to employment for Mount Dennis residents without a secondary school diploma. The high number of single-parent households make childcare critical, yet there are only three facilities offering subsidize spaces in the neighbourhood. Transit equity is vital for ensuring that residents are able to access opportunities, but there must be a concerted effort to address other factors contributing to social inequities.



*Figure 29. Future Mount Dennis Station, Eglinton Avenue West and Photography Drive, Mount Dennis, York, Ontario. This building is a historically-designated structure may be incorporated into the new terminus station of the Eglinton Crosstown line at the junction with Kichener GO and UPX lines. It was a former employees' recreation centre between 1940 and 2005 as part of Kodak's Canadian headquarters (Filey, 2013). Source: Michael Collens.*

Without a concerted, comprehensive approach to reducing inequity in Mount Dennis, improved transit accessibility may actually harm the existing residents. Vacant land, relatively low land prices, demand for new residential units in the City of Toronto and the attractiveness of the existing and future transit connection in Mount Dennis are likely to put upward pressure on already untenable housing costs. Low income residents face displacement without active intervention to support the existing residents. Displacement would tragically deny them the accessibility needed to help reduce the disadvantages already faced in Mount Dennis.



*Figure 30. Weston Road and Eglinton Avenue West, Mount Dennis, York, Ontario. Weston Road is the “Main Street” of the neighbourhood. Source: Michael Collens.*

## Case Study 5: Mount Olive-Silverstone-Jamestown

### Description

The Mount Olive-Silverstone-Jamestown (Mount Olive) neighbourhood is located in the northern part of the former City of Etobicoke. It draws its name from three streets in the area: Mount Olive Drive, Silverstone Road and Jamestown Crescent - forming an inverse 'L' shape. The area developed initially as a typical post-World War II, car-centric suburban development in early 1960s. Mount Olive Drive and Silverstone Road are circuitous residential streets north of Finch Avenue West. Most of the neighbourhood's social housing was built by 1967 with a mix of high-rise and low-rise housing. Jamestown Crescent is one of the streets with social housing south of Finch Avenue West. High-rise apartment towers are clustered primarily along the Humber River near Kipling Avenue, and north of Finch Avenue West, between Kipling Avenue and Martin Grove Road. Over 60% of all neighbourhood dwellings are in high-rise buildings.

The small rural village of Smithfield was located at the intersection Martin Grove Road and Albion Road. One of the only signs of its existence is Smithfield Park, on Mount Olive Drive. Thistletown, at Islington Avenue and Albion Road, was a police village up until 1961. It still features its old village "four-corners" street front commercial. A few older homes can be seen interspersed in the area. The main retail area is Albion Centre, an enclosed shopping mall anchored by Canadian Tire and a No Frills grocery store. The mall is home to Albion Cinemas, "your Bollywood movie theatre," reflecting the multicultural social infrastructure in the neighbourhood.

There are a number of community amenities in the area but they are not organized in a coherent way as to form a central core. Some, like the Rexdale Community Hub, in a former school building, on Panorama Court are away from the main streets and without transit service to the door.

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*"You have to strategize. You have to start thinking every day, is it faster to go to Eglinton, (or) should I go to Lawrence? Finch?"*  
– Mount Olive resident

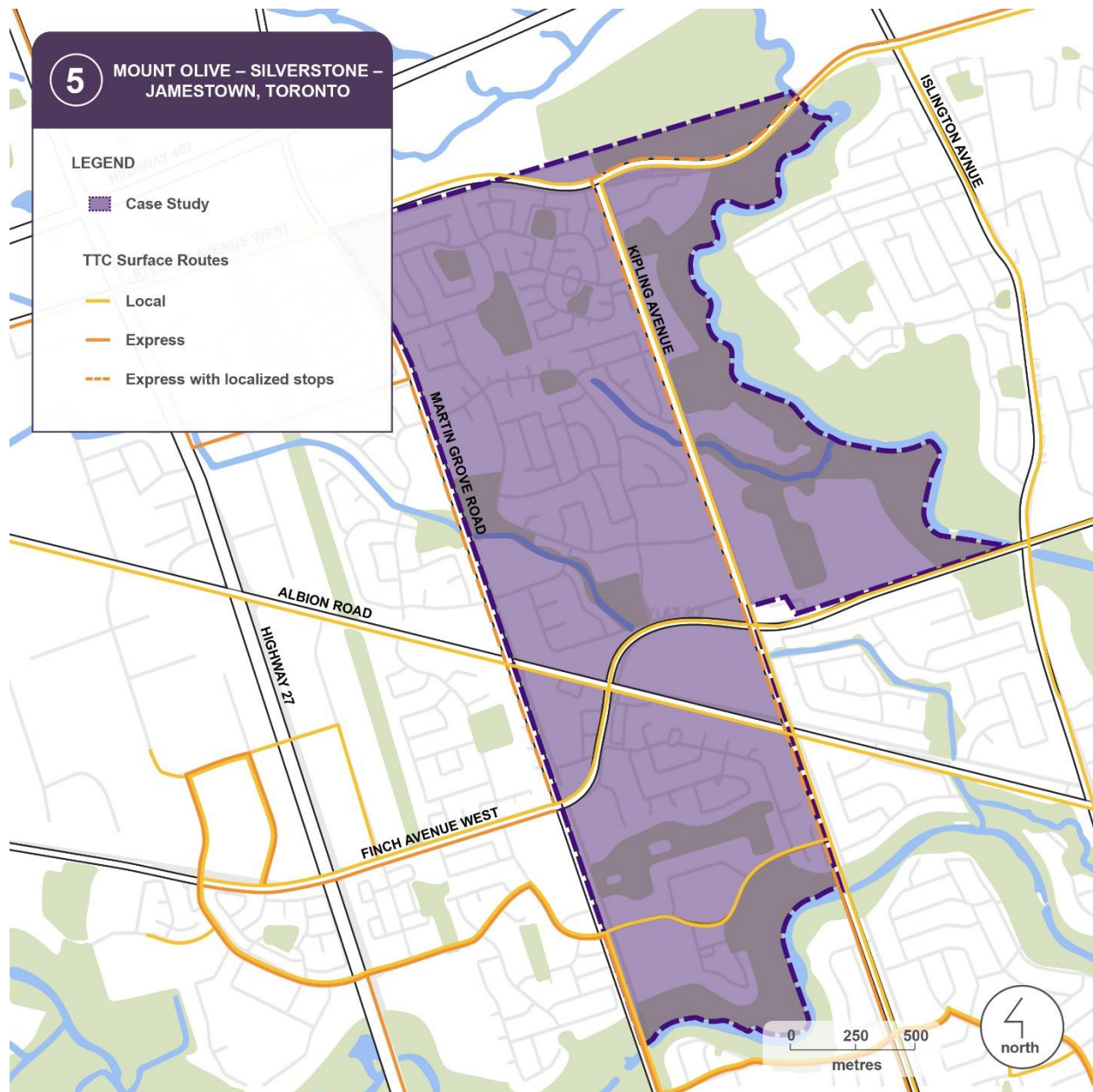


Figure 31. Mount Olive case study map.  
Source: Shima Mirkarimi.

*“In the winter time I’ll travel less and I’ll be more cautious. In the summer, I can always walk.”*  
– Mount Olive resident



*Figure 32. Albion Road looking southeast, south of Finch Avenue West, Mount Olive, Etobicoke, Ontario. Albion Mall is in the background. It is a major community destination for shopping and recreation. It is designed for car access, with no pedestrian connection to the community. Inter-regional transit connections happen here with Peel Region paratransit vehicle connecting to the mall. Source: Michael Collens.*

All of the arterial roads are wide with long gaps between pedestrian crossings, reducing accessibility. The mall is a de facto hub, and the commercial properties around the mall also appear to serve as community gathering spots. There is no visible industrial employment activity. Humber College and William Osler Health Centre Etobicoke Site are just over one kilometre west of Mount Olive along Finch Avenue West.

Finch Avenue West, between Kipling and Islington Avenues, was completed in 1989 and is very much an auto-oriented roadway – with a four-lane cross-section lined by noise walls, with low density residential behind them. A pedestrian overpass was constructed to connect the north and south sections of Farr Avenue.

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*“If I’m at Martin Grove and Finch waiting and the bus short turns at Kipling, we never see it. I have to wait 20 to 25 minutes for a bus. And by the time it gets to Martin Grove it’s full.”*  
– Mount Olive resident

The Thistleton Regional Centre, on the north side of Finch Avenue West, between Kipling and Islington Avenues, closed in 2014. It began its existence in 1928 as a convalescent branch of the Hospital for Sick Children. It became Ontario’s first psychiatric centre for children in 1958. It offered programs for children with severe and complex mental health needs and behaviour issues, along with supports for children who have experienced sexual abuse. It had on-site residential programs, a day-school, community outreach and parental respite support. Its programs have been transferred to regional non-profit providers with government funding. Its 15 ha site sits unused but with all of its structures intact. It represents an opportunity for the Province to directly support the broader objectives of the Big Move, Places to Grow and Provincial Policy Statements by leveraging the Finch West LRT investment. The site could be redeveloped in a way that supports the transit investment, including significant affordable housing options while improving pedestrian accessibility and the streetscape.

Table 7. Neighbourhood population and travel profile for Mount Olive, Etobicoke, Ontario.

Data Sources: City of Toronto (2012a,b; 2013a,b,e,f; 2014a,d,e; 2015a,b), Transportation Tomorrow Survey 2011 (2013).

|                                       | Mt. Olive-Silverstone-<br>Jamestown |       | City of Toronto |       |
|---------------------------------------|-------------------------------------|-------|-----------------|-------|
| Population (2011)                     | 32,788                              |       | 2,615,070       |       |
| Change (2006-2011)                    | 674                                 | 2.1%  | 111,800         | 4.5%  |
| Children (0-14 % of Population)       | 7,670                               | 23.4% | 400,860         | 15.3% |
| Youth (15-24 % of Population)         | 5,015                               | 15.3% | 333,510         | 12.8% |
| Senior (65+ % of Population)          | 2,985                               | 9.1%  | 377,440         | 14.4% |
| Families (All census types)           | 8,575                               |       | 690,340         |       |
| Single Parent Families                | 2,285                               | 26.6% | 146,985         | 21.3% |
| Density (km <sup>2</sup> )            | 7,254                               |       | 4,079           |       |
| Dwellings                             | 9,610                               |       | 1,047,885       |       |
| House (Detached & Semi-Detached)      | 1,860                               | 20%   | 347,415         | 33%   |
| Row & Duplex                          | 1,690                               | 18%   | 105,035         | 10%   |
| Apartment (5 Storeys & Above)         | 5,975                               | 62%   | 429,225         | 41%   |
| Apartment (Under 5 Storeys)           | 85                                  | 1%    | 163,865         | 16%   |
| Social Housing Units                  | 1,146                               |       | 92,113          |       |
| Social Housing Waiting List           | 1,049                               |       | 57,442          |       |
| Renting (2006)                        |                                     | 52%   |                 | 45%   |
| Spending more than 30% on Occupancy   |                                     | 38%   |                 | 35%   |
| Transportation                        |                                     |       |                 |       |
| Transit Modal Share (24h)             |                                     | 20%   |                 | 24%   |
| Walking and Cycling Modal Share (24h) |                                     | 9%    |                 | 9%    |
| Transit Stops                         | 70                                  |       | 9,969           |       |
| Pedestrian Collisions (2009-2011)     | 224                                 |       | 24,438          |       |
| Unemployed                            |                                     | 15%   |                 | 9%    |
| Low Income (LIM-AT)                   |                                     | 27%   |                 | 19%   |
| Education                             |                                     |       |                 |       |
| Post-Secondary                        |                                     | 49%   |                 | 69%   |
| High School                           |                                     | 31%   |                 | 21%   |
| No Certificate                        |                                     | 20%   |                 | 11%   |
| Immigration & Language                |                                     |       |                 |       |
| Non-Official Language Spoken at Home  |                                     | 49%   |                 | 28%   |
| Born in Canada                        |                                     | 31%   |                 | 49%   |
| Immigrated before 2001                |                                     | 36%   |                 | 33%   |
| Immigrated between 2001-2005          |                                     | 12%   |                 | 8%    |
| Immigrated between 2006-2011          |                                     | 18%   |                 | 8%    |
| Visible Minority                      |                                     | 86%   |                 | 49%   |





*Figure 33. Finch Avenue West, looking west towards Kipling Avenue, Mount Olive, Etobicoke, Ontario. Wider road lanes with turning lanes at the intersections make the roadway more difficult to navigate for children, seniors and persons with disabilities by extending the distances they need to travel and exposing them to more lanes of traffic. Source: Michael Collens.*

## Demographics

Mount Olive had over 32,000 residents in 2011. The neighbourhood grew 2.1% between 2006 and 2011, a rate less than half of the City of Toronto. This is a young neighbourhood with nearly a quarter of the population aged 14 years and under. Another 15%, are between the ages of 15 and 24. Nearly 8 out of 9 residents belong to a visible minority group. Most of the residents immigrated to Canada, with 30% of residents arriving after 2001. Half of households in Mount Olive do not speak English or French at home.

This neighbourhood exhibits signs of distress. The unemployment rate is 15% and 27% of households are considered to be low income. Both indicators are well above the Toronto

average. Education levels are much lower, with 20% of residents without a secondary school diploma which is nearly double the Toronto-wide trend. Just under 40% of households spend more than 30% of their income on housing, slightly above the Toronto average. There are over 1,100 social housing units in the neighbourhood and there are over 1,000 households on the waiting list.

## Travel

The TTC offers both express and local service though the neighbourhood. Local routes 45, 46 and 73, and express routes 45E and 191 connect to the Bloor-Danforth Subway. Local routes 36 and 60, and express route 60F connect to the Yonge-University-

Spadina Subway at Finch Station. Route 36 is part of the frequent service network, offering 10-minute-or-better service. Route 96 runs in a southeasterly direction to the Wilson subway station. Routes 336, 337 and 396 provide overnight service. The subway is at least 45 minutes away from Finch Avenue West and Albion Road, regardless of travelling east or south. Construction of the Spadina Subway extension is currently increasing east-west travel times along Finch Avenue. The Finch West LRT line, projected to open in 2021, will improve travel times.

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*“The good thing about the night bus is it’s 24-hours, which means I’m always able to get home. But I have to walk a good long block from home. If I come home at 2 am, 3am in the morning, I would never walk that alone.”*  
– Mount Olive resident

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Despite being near the boundaries of the Cities of Brampton, Mississauga and Vaughan, cross-boundary transit links to the neighbourhood are not well-served by the

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*“I’ll leave early and still be late for school! By the time you get to school you’re tired.”*  
– Mount Olive resident

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TTC. Buses from all three cities connect to Toronto, with Humber College being the primary interchange hub. York Region Transit offers limited service northward. Brampton and Mississauga both have local and express service to Humber College. The express services connect to large employment areas along Highway 407 and the Toronto Pearson Airport. However, TTC bus route 36 (Finch West) does not serve the Humber College terminal, which requires riders to make a “long walking transfer” to make cross-boundary connections to other

transit services. The City of Toronto only permits external transit operators to drop off when travelling to Toronto and pick up only when travelling back to their home regions, restricting travel options for residents. GO Transit discontinued its route serving Humber College in September 2015.

Transit modal share is 20%, which is somewhat lower than the share for the whole city, despite having both local and express connections to the subway, 24-hour service, and being on the frequent service network. Downtown Toronto and York University are

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*“With the subway I know once I get on how long it’s going to take. Where (on) the bus you might sit there and say ‘Am I going to get there in an hour?’ I’ll leave early and still be late for school!”*  
– Mount Olive resident

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popular transit destinations, placing in three of the top five destinations by Ward. Cross-boundary travel is important for neighbourhood residents, since Brampton, Mississauga and Vaughan each have large employment areas near their boundaries with Toronto. These areas include the large industrial and office areas surrounding Toronto Pearson Airport, the area around the Bramport Intermodal Yard in Brampton and the Vaughan West Business Park. Even though these destinations border Mount Olive, and cross-boundary transit is available, these locations are quite inaccessible by transit. Connections and transfers that fail the needs of riders are indicative of an inequitable system.

### Stories

Long trips, poor connections and high fares are all factors that reduce the overall accessibility of the transit network. Residents in an area like Mount Olive, with a number of physical and artificial boundaries, are acutely impacted by being stuck in traffic on long routes, having to negotiate different transit systems, unpredictable trips due to delays, high fares as a result of cross-boundary travel and other impediments. Trips by transit can often take twice as long on some days compared to others because of traffic, poor weather, missed connections, bunched-up transit service that forces long waits, and short-turned buses that do not reach neighbourhoods at the end of the line. Riders are at the mercy of these vagaries. It forces them to always plan for the worst case scenario or risk being late for work, school or other commitments that may trigger serious personal consequences, like job loss or a failed exam.



*Figure 34. Rexdale Community Hub, Mount Olive, Etobicoke, Ontario. It is a regional community service and support hub, on Panorama Court, north of Finch Avenue West off Kipling Avenue. The site is on a cul-de-sac with limited access to the neighbourhood and no transit service to the door. Source: Michael Collens.*



*Figure 35. Finch Avenue West, looking west from Islington Avenue, Mount Olive, Etobicoke, Ontario. High sound barriers line the road between Kipling and Islington Avenues, dividing the neighbourhood and increasing pedestrian travel distances. Source: Michael Collens.*



*Figure 36. Kipling Avenue and Finch Avenue West, southwest corner, Mount Olive, Etobicoke, Ontario. Good pedestrian access at the intersections is not extended by the private owners into their properties. Source: Michael Collens.*

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*“If I’m going with my friends and we’re going downtown. It’s not as if we leave late, but if I leave at 12:35 I won’t get to my neighbourhood until after 1:35 and I miss the bus.”*

*– Mount Olive resident*

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The problems of erratic service are particularly acute on the “shoulder hours” of the weekday, when missing a bus can mean a long walk home. Security and fear are a large concerns that discourage transit use and make the system inaccessible. Personal security, particularly at night and in isolated areas, effectively limits the times when transit is available. The fear of not being able to get home restricts the ability to get out in the first place.

Mount Olive, in particular, is an area where half of the population does not speak English or French at home. The challenge of understanding the complexities of transit and expressing their needs are further complicated by language skills. Connections and schedules, fare and transfer policies, even stop and vehicle signage, are hard enough for a new resident to understand with one system. These challenges could be compounded five-fold for Mount Olive residents needing to travel outside of Toronto on neighbouring systems, and further frustrated by language and other barriers. Transit, therefore, becomes an opaque barrier to access that isolates, frustrates and impoverishes residents.

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*“One thing we haven’t touched on is literacy. Those who have issues around literacy, those who have language issues, transit doesn’t work. If you can’t read the website, the timetable, you don’t know”*

*– Community organizer*

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## SECTION 4

### PUBLIC TRANSIT AND THE PUBLIC GOOD: WHY AND HOW PLANNERS CAN DELIVER MORE EQUITY

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#### INTRODUCTION

This section is intended to directly engage with the planning profession and continue a dialogue opened in Section 1 with the definition of transit equity. It is also intended to bring the disparate needs of different ‘publics’ brought to the fore in Section 3 into focus for engagement and inclusion in the planning process. The twin tasks set out in this section are accomplished with an article published in the Ontario Planning Journal directed explicitly to the planning profession. The article expresses the working definition of transit equity established in Section 1 as it applies to transit planning, why planning with transit equity objectives in mind is important by highlighting the societal impacts of inequity as they relate to transit infrastructure, and position transit equity within the Ontario planning regime by connecting equity concerns to regulatory requirements the planning profession are required to have regard to.

The need to consider transit infrastructure as soft, or service-based, infrastructure is complicated by the fact it also comprises hard, physical infrastructure. In this respect, transit infrastructure is a hybrid technology that straddles definitions of each form. However, the soft infrastructure side of transit deserves primary consideration by virtue of its central role as a service to provide for the accessibility needs of residents. Access to transit, or transportation more broadly, is now essential for day-to-day activities and uneven access produces social inequity:

“The rise of motorized transport has thus re-shaped the social meaning of the transport good. Once, transport was hardly perceived as a good, but rather taken-for-granted, as a natural extension of life itself. Now, the ability to travel through space has become so important for everyday lives, that mobility can be considered an asset” (Martens, 2012, p. 1044).

Infrastructure cannot be divorced or untangled from the complex social, economic political, and ecological – particularly in consideration of those altered by human activity – processes that shape and define its form, function and design. Transit equity planning is an effort to insert consideration of those complex processes into the geographic distribution of the network and its function. It matters greatly where the hard infrastructure assets are located, how the various transportation modes mesh together, such as for walking and cycling, and how they all relate to corresponding land uses (Meyer and Miller, 2001, pp. 6-13). Transit infrastructure represents a marriage of the hard, physical assets which enable urban mobility, and the soft services that ensure that the system is equitable in providing users with accessibility to take advantage of opportunities to meet their social and economic needs. But, as a consequence of land use being intimately tied to the demand for transportation, the location of the infrastructure itself is an equity concern as it regulates the accessibility of disparate uses, and users. All too often, transit is conceived of as hard infrastructure where the objectives can be related to throughput – number of people and jobs within a catchment area, number of riders expected to use the line, the speed of the line, etc. Considerations about the social needs of users, the equitable distribution of infrastructure to serve the needs of disadvantaged publics and the accessibility of the infrastructure have not been factors in the planning of transit infrastructure until recently (Meyer and Miller, 2001, p. 33).

Water and sewage infrastructure is also exhibit hybrid characteristics in a similar way to transit infrastructure. Both are conventionally conceived, planned and operated from the perspective of being hard infrastructure, without accounting for the soft, social considerations. However, there is a key difference why the physical location of transit infrastructure should be conceived primarily as soft infrastructure. At the core of a functioning water distribution system, water comes from a clean and treated source, distributed for consumption, and then it



is released, again in a treated form. How it travels, where the lines are located, and the capacity of the lines are less important, as long as the needs of the system are met and social equity objectives are ensured such as affordability and equity of access. The soft side of water infrastructure is linked to the provision of potable water and the removal of waste. The social equity in water is more than just access. It assumes an equitable distribution and supply of water. The network design needs to ensure there are no deleterious impacts from, among many factors, excessive water draw at the source, the form and design of the transmission systems, and exposure to pollutants and pathogens either through untreated supply or related to the treatment and release of waste water. There are important social considerations when infrastructure is used as a strategy to promote a competitive city agenda that favours a privileged public and serve the needs of economic activity over the social needs of residents. The servicing of development land with water infrastructure also presents equity concerns in the consideration of who benefits from land speculation and future development. There are also concerns regarding the impact on immediate neighbours, the regional populace and ecosystem.

However, while the lines themselves also have important functions in shaping regional development, watermains and sewage trunks are not inherently dependent upon their precise location to support social equity. The physical infrastructure design is a primary concern in meeting social equity. The same cannot be asserted for public transit. Accessibility enabled by transit infrastructure is intimately tied to its location in relation to trip origins and destinations, with close proximity to affordable housing and a range of employment options, among other equitable objectives.

There is an important lesson to learn from systems failures, which demonstrate how the infrastructure cannot be separated from the complex social, economic and political that define it. The catastrophic failure of the water supply system in Walkerton, Ontario in 2000 which saw seven residents die from health complications and over 2,300 fall ill caused from exposure to toxic pathogens in the water supply was more than a fiasco caused by human failure to maintain the system, although it was a key contribution to the disaster. As S. Harris Ali points

out when examining the failure of complex infrastructure systems, in this case the provision of water, investigations

“tend not to be wide-ranging and are usually limited to the identification of two major types of causes—the failure of the relevant physical/technical systems or “human error” (i.e. operator failure). However, as we have already seen with respect to the micro-ecological level of analysis, the effect of this individualistic search for blame essentially diverts investigative attention away from the relevant structurally informed antecedents of the disaster,” (Ali, 2004, 2606).

Ali is clear that the disaster was as much as product of the structural processes that set the design and operation parameters of the infrastructure. In order to ensure that transit infrastructure addresses social equity it is imperative for planners to ensure that decision-based planning processes are inclusive and ensure disadvantaged publics brought into the process to be built into the design and operation of the infrastructure.

Planners have long recognized the need to engage with affected communities (Krumholz, 1982). Furthermore, there has been a recognition “there are many ‘publics’ that are affected by transportation” (Meyer and Miller, 2001, p. 35). The disparity in access revealed by recognizing the existence of different publics necessitates strategies by planners and decision-makers to reach out to engage with those different publics and ensure meaningful input into planning decisions. Section 3 brings to light how users experience transit, highlighting the existing gaps in transit infrastructure that produce inequity by restricting different publics from taking advantage of opportunities to meet their needs. Section 4 engages with the planning profession to help build on the nascent understanding of transit equity objectives to establish the imperative for planners to be active participants in achieving transit equity, connects the planning profession with academic research on transit equity (See Section 2 and Appendix B: Presentations), and with the broader public discourse on transit equity (see Appendix C: News Releases and Appendix D: List of Media Coverage).

## ARTICLE

*This text comprises Public Transit and the Public Good: Why and How Planners Can Deliver More Equity as published. There are differences in formatting but the text is unaltered. The content herein is reproduced with permission of the authors.*

### **PUBLIC TRANSIT AND THE PUBLIC GOOD: WHY AND HOW PLANNERS CAN DELIVER MORE EQUITY**

By: Michael Collens and Sean Hertel, MCIP, RPP

Transit is important for unlocking the opportunities that urban living affords. In the face of increasing costs of living and stagnating wages, the ability to travel conveniently and economically to access services, amenities and employment opportunities within and beyond your neighbourhood or community becomes especially critical for a good quality of life. Through this lens, transit infrastructure becomes more than a physical asset, it is a social good that has the power to make a positive difference in the emotional, physical and economic wellbeing of residents. However, transit equity is not something that just happens. It has to be planned for.

Transit infrastructure and operations need to be considered in a holistic way to improve equity in the Greater Toronto and Hamilton Area (GTHA). Changing demographics and attitudes towards car ownership are increasing pressure on cities to accommodate users with a wide range of abilities and needs. The requirements of the Accessibility for Ontarians with Disabilities Act is also putting the onus on service providers to improve accessibility. Land use policies are encouraging increased density increasing the effectiveness of transit, including those mandated by the Growth Plan for the Greater Golden Horseshoe. Improved transit access is also able to contribute the long-term health of residents, by reducing exposure to transportation-related pollution, supporting a more active lifestyle and increasing the accessibility of social supports.

Viewed together, transit is vital to supporting the future aspirations and quality of life of the region.

Recently announced funding for transit is an opportunity to build a more equitable region through the planning process. Province of Ontario, through The Big Move Regional Transportation Plan (TBM), is in the midst of a \$50 billion infrastructure investment over 25 years and it is currently undergoing its mandated review process. The Federal government has recently announced \$3.4 billion for transit as a first phase of a 10 year investment strategy.

*Next Stop: Equity: Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area*, by Sean Hertel, Roger Keil and Michael Collens, summarizes an 18-month research program housed at CITY and funded by the Province of Ontario's transit agency, Metrolinx. It is one of the academic reports supporting the review of TBM. Published in February, 2016, the report aims to contribute to planning theory and practice by defining what equity is in a transit and planning context, telling stories of everyday life and challenges faced by transit captives in marginalized communities, and making recommendations for how to ensure transit will improve social equity.

An undercurrent to the report is that there are a number of unintended consequences in planning transit improvements and supportive land uses. Among these is the pervasive displacement of people and businesses as land values increase along new or improved transit spines, especially rail. Most often these are lower income residents – those who could benefit the most from better transit – and smaller, independent businesses.

A literature review of the topic provided a state of the research and the scope of the problem. Mark Garrett and Brian Taylor (1999) identified a number of the dynamics that reproduce transit injustice in the United States: income polarization; imbalances between infrastructure and social need; rising levels of precarious employment; the decentralization of workplaces to outer suburbs; and ignoring existing socio-spatial inequities in older neighbourhoods. The conditions in GTHA are similar. David Hulchanski (2011) exposed how income polarization in Toronto has taken root in the city. Poverty is, increasingly, being concentrated in the “inner suburbs” which have the least transit connectivity and other

transportation options (e.g. safe cycling and walking paths). Pamela Blais (2015) found both the changing nature and spatial distribution of employment in the GTHA. Rapid growth is occurring in outer suburban employment nodes poorly served by transit geared to knowledge-intensive industries, while manufacturing in older parts of the GTHA are in decline. Our work showed how different publics – students, seniors and those with disabilities – experience transit differently, and face unintended inequities when a transit system is not designed to their needs.

Based on the literature, equity as it applies to transit is considered “the fair and responsive delivery of transit infrastructure and services to meet people’s needs, especially vulnerable populations including low income residents, users in underserved parts of the GTHA including newly-developed areas, visible ethnic and cultural groups, the elderly, and persons with mental and physical disabilities.” (Hertel et al, 2016, p. 9).

We convened a roundtable with the Greater Toronto Suburban Working Group (GTSWG) to discuss transit equity, with the literature and case study review as a launching point. Planners, researchers and academics, developers, community activists, non-profit and government representatives were invited for a frank discussion on transit equity. We heard that transit equity cannot be achieved in an ad-hoc manner –that it must be combined with other ‘bottom lines’. Land use and transit equity are linked. Gentrification along transit lines is a barrier to equity, with higher income residents benefiting from good accessibility, while low-income residents are limited to areas with fewer transit options and employment opportunities. Transit, in order to improve accessibility, must consider not only the location of jobs, but the changing nature of employment with the rise of precarious, contract, part-time and shift work. The artificial suburban/urban boundaries create breaks in service and planning that exacerbate transit inequity.

Transit is not simply about the mobility of residents, it is about access to opportunities and amenities. We engaged in a multi-pronged approach to investigate how transit inequity impacts residents in the GTHA. Five sites were selected in order to investigate how inequity appears at the neighbourhood level by identifying barriers to accessibility. Interviews with local

residents, community activists, non-profit social service providers and planners were conducted to identify how transit inequity impacts individual lives. They cited long and unreliable commutes, high fares relative to disposable income – particularly across municipal boundaries, spatial gaps in the social safety net – notably a shortage of childcare spaces, a lack of affordable housing options close to major transit lines and hubs, and a mismatch between transit infrastructure and employment and higher education zones. Transit inequity is tied to the increasingly polarized socio-economic landscape of the GTHA. Furthermore, transit users expressed their negative experiences with existing transit services citing crowded, dirty, inconsistent and uncoordinated services. Site visits detailed some of physical barriers, such as incomplete sidewalks, long gaps between street crossings, and isolated walkways identified as unsafe through the interview process. Other barriers were found unreliable transit operations that negatively impact travel times.

Since the cost of transit fares, was identified as a barrier to accessibility, a review of the fare and fare policies of the 10 GTHA transit systems, including GO Transit. It revealed a variegated and uneven regional landscape for residents. Some residents benefit from discounted fares, but policies are generally produced at the local or regional municipality level, with little coordination between jurisdictions and a limited ability of residents to qualify for discounted fares across boundaries. This creates a situation where some residents are more disadvantaged than others based solely on where they live. A municipal boundary represents a significant fare barrier, particularly between the City of Toronto and the outer suburban municipalities. This is important in light of the steady migration of employers to the outer parts of the GTHA.

Based on the results of our research 18 recommendations were made organized into three themes. The first concerned how to incorporate transit equity into The Big Move. Transit equity should be clearly defined and included as a stated objective of the plan, with criteria to ensure projects achieve transit equity objectives. This provides a common language for stakeholders and a way to test proposals to gauge progress towards improving transit equity. The definition of transit ‘accessibility’ needs to expand beyond addressing barriers for persons with disabilities, as essential as such measures are, to include other forms of inaccessibility.

These include affordability, barriers related to race, gender and age, greater travel choice, and access to important community amenities and services to strengthen the ability of transit to support community resiliency.

The second articulate ways to ensure that transit investments contribute to social equity. Well planned transit projects are more than tools to improve mobility. They are powerful catalysts in improving the desirability of neighbourhoods by opening the door to more opportunities through greater accessibility. However, that attractiveness has the potential to displace residents and employers as neighbourhoods attract redevelopment (e.g. gentrification). Therefore, transit planning should include an inventory and analysis of housing and retail/commercial opportunities and price points, and establish targets to include a healthy and accessible supply of affordable housing, employment opportunities and retail spaces when a new transit line or service comes into operation.

The last are intended to ensure residents can afford to access transit across all levels of income and circumstance. The research has shown that cost is a prohibitive barrier to mobility. The development of a GTHA-wide framework for the universal provision of discounted transit passes for low income persons is needed to bring a regional perspective and consistent application to affordable fares. Statistics Canada's Low Income Cut Off is a useful benchmark for eligibility in order to support the working poor. The current piecemeal approach to discounted post-secondary student pricing should be replaced with a GTHA-wide pass, and expanded to include students enrolled in private career training and skills upgrading programs.

GTHA residents face inequities when it comes to accessing transit. The unprecedented investments in infrastructure being made at the local, Provincial and Federal levels have the potential to reshape the mobility landscape. But mobility is not the same as accessibility. Accessibility is about how to reach and take advantage of opportunities. Transit can be a door to employment, education, housing and social opportunities, but that door is sometimes inadvertently locked to some residents. Infrastructure decisions impact on social equity. Our report identifies tools to ensure that the benefits are shared broadly by defining what equity means and making sure that investments work to reduce social inequity.

Planners and the policies they shape and implement indeed have a profound impact, although sometimes unidentified and unintended, on how equitably the spaces and places we help create are accessed and enjoyed. Being more deliberate about equity through planning will not only advance the impactfulness and reach of the profession, but also make lasting structural changes to how infrastructure is prioritized and utilized.

We wish to thank Metrolinx and The City Institute at York University for supporting our research.

#### Authors

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*Figure 37. Weston Road and Eglinton Avenue West, Mount Dennis, York [Toronto], Ontario. Transit is vital for ensuring that residents in low income neighbourhoods such as this are able to access opportunities, but there must be a deliberate effort to ensure transit investments do not inadvertently exacerbate social inequities. Source: Michael Collens.*



## CONCLUSION

Economic and social divisions have exacerbated and become entrenched since the 1970s to the point where they can be identified in the GTHA using the label the ‘three cities’ (Hulchanski, 2010). Income polarization is not restricted to the inner suburbs, with 45% of Peel Region census tracts reporting average individual income less than 20% of the regional level (Hulchanski et al, 2013). These neighbourhoods are not only home to the poorest residents, but in areas that have experienced relative economic decline since 1970. As a consequence of political squabbles surrounding transit investment priorities in the 1980s (E.J. Levy, 2013, ch. 12), a burst in the valuation housing and a deep recession in the early 1990s, and an aggressive Ontario government program of roll-back and roll-out neoliberal policies in the mid-1990s (Keil, 2002), transit investment lagged behind meeting the immediate need for service, investments in new and existing infrastructure to support future growth, and to extend infrastructure to support the growing urban footprint. In this period, a subway tunnel under construction was literally filled in (Campion-Smith, 1995) and upper-level government funding for both operations and capital vanished. Government restructuring produced a more fractured political environment in the GTHA with the forced amalgamation of the former Metropolitan Toronto municipalities into a ‘megacity’. The new City of Toronto lacked the ability to fund or build large scale infrastructure projects (Sewell, 2009, 213-217). Large scale transit planning of any kind effectively vanished in the GTHA until the return of upper-level investment in the mid-2000. Transit infrastructure plans were once again being drafted. The contested landscape of transportation infrastructure in the GTHA have seen the needs of riders relegated as “afterthoughts” against of powerful interests competing for a market-driven economic expansionist agenda (Keil and Young, 2008, p. 745). Some transit investment plans, like most of the Transit City network of lines proposed to serve priority neighbourhoods have languished without funding or have been delayed. Other projects with economic and political backing that served the needs of the competitive city and elite actors like UPX were completed.

## UPX AND TRANSIT EQUITY

The UPX express rail line connecting downtown Toronto with PIA serves as an important example. UPX was built and is operated by Metrolinx – the regional transportation authority. It has a long and complicated history dating back to a report released in 1969 by Metropolitan Toronto, calling for a connection between the two points using conventional commuter rail vehicles (Hayes, 2008, pp. 166-167). Various plans were released in the 1970s and 1980s which envisioned the use of different corridors and technologies with no tangible progress being made towards their realization (E. J. Levy, 2013, ch. 9-12).

The Government of Canada became interested in studying a possible mass transit link between PIA and Union Station in 1999, beginning with the commissioning of reports on the technical feasibility and projected passenger demands to gauge the need for the UPX. The Federal government was also keen on advancing the UPX as a P3, explicitly stating that the project “employ a public-private partnership approach to avoid the use of public funds” (Canada. Department of Transport, 2003a). The decision to build the UPX with a private partner constrained the range of transit equity planning options that could have been implemented by explicitly articulating an objective to commit a minimal amount of public funds while guaranteeing an attractive rate of return on the investment by the private partner. The decision also created a path dependency for future decision makers bound to the P3 model. The winning proposal was submitted by a consortium led by SNC-Lavalin in 2003 (Canada. Department of Transport, 2003b).

In 2001, the Federal government announced funding for improvements to the West Toronto Diamond grade separation project (Canada. Department of Transport, 2001), identified as a barrier to supporting a high-speed rail service to the airport. The funding, timed before the private partner was even selected and a ‘business case’ was made, let alone exposed to potential financial risk, was provided in order to facilitate the construction of the UPX. The funding commitment demonstrates the pressure faced by the public sector to absorb financial risks in order to frame P3 projects for private partners interested in high-return, low-risk investments (Siemiatycki, 2011, p. 1720).

Like many existing transit plans, the UPX project was rolled in as part of TBM on its release. When the private concessionaire backed out over cost recovery concerns and the inability to come to terms on a level of operation subsidies from government (Lorinc, 2010; as turned out to be prescient: see Spurr, 2016), responsibility for the completion of the line was transferred to Metrolinx. It was built on time during a period when multiple projects were delayed by political squabbles and fiscal pressures. Not that the project was uncontroversial. It was built over the objections of local residents on three key issues. First, there were concerns about accessing the line, considering its status as a premium service with a high proposed fare aimed towards intercity business travelers and tourists. Second, there were fears about the environmental impacts of noise and air pollution being concentrated along the corridor from the type of equipment used and the hours of operation considered, placing the burden of the environmental costs of the infrastructure on those neighbourhoods the line bypassed. Third, the techniques deployed in the construction of the line antagonized local residents and was ultimately found to be in breach of Metrolinx' obligations to minimize neighbourhood impacts under federal legislation (Canadian Transportation Agency, 2009). Metrolinx was ordered to alter its construction plans and techniques to accommodate neighbourhood demands to reduce noise and vibrations, and hours of the day where construction is permissible.

As well, there are factors at others scales that have repercussions on equity issues at the neighbourhood scale. The project is an example of a global trend towards unbundling existing infrastructure designed for equal access, and then re-bundling it into a premium service for elite users (Graham and Marvin, 2001). UPX, conceived as an express service to the airport, at a premium fare – up to \$27.00 one-way, caters primarily to business travellers and tourists. It offers high speed connections – up to 130km/h – between stations, onboard WiFi, flight check-in kiosks at Union Station, and even a complimentary 'in-flight magazine', *On the UP*. While the service along the corridor was initially conceived as two separate operations, one private, and the other public, the separate structure was maintained even after the private partner walked away. UPX and the existing GO Transit commuter rail service (another branch of Metrolinx)

each nominally maintained its own internal operating structure<sup>6</sup>. The effect of the division of service and granting preferred access in the rail corridor to UPX reduced track time for the existing commuter line along the corridor, thereby decreasing travel options and negatively impacting travel times for a much higher number of commuters who access the line from other stations. It also imposed a higher fare for riders served by the UPX at the two stations along the corridor who need to travel at times when the commuter train cannot run due to track restrictions. UPX highlights the complexity of transit equity concerns that span multiple scales, from the global traveller to the neighbour. It also demonstrates the influence of complex social, economic and political factors on the design and operation of transit infrastructure.

The vision of the line is to “be more than just a train service, it will be a symbol of Ontario’s ongoing progress and of Toronto’s increasing importance on the world stage.” (Metrolinx, 2014). At the same time, the conventional transit service in the inner suburbs bypassed by the UPX is subjected to underinvestment in both capital infrastructure and operational budgets. After the UPX line opened, considerable political pressure was brought to bear on Metrolinx to reduce fares and increase ridership, primarily to “make the service more competitive” with taxis, but also to consider the inequity of a high-fare, low utilized line running through priority neighbourhoods (CBC News, 2016). While extolling their success in achieving most of their UPX project objectives, Metrolinx implemented a change in UPX fares to be more consistent with that of the commuter rail service (Haley, 2016). However, UPX benefits from an extraordinarily high level of public subsidy that conventional transit operators cannot attain (Spurr, 2016).

UPX, while arguably working as designed, fails to meet the definition of transit equity advanced in Section 1. While the project predates TBM by many years, it reflects the fact that TBM does not include any tangible transit equity criteria that would have shaped the project before its implementation. The lack of equity is noteworthy considering the line was planned, built and operated by Metrolinx, with an intimate knowledge of TBM requirements. By building a high-speed line with few stops, establishing high fares that are not coordinated with

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<sup>6</sup> The decision to maintain UPX as a distinct division within Metrolinx is subject to a reassessment (Shah, 2016).

connecting agencies, and poor station accessibility with the surrounding neighbourhoods, the line is a niche service for a privileged public and serves the competitive city agenda. The design and operation of the line would look different if there was a recognition that line travels through “Areas of Social Need” defined in TBM (see Figure 3, p. 27) and was planned including equity objectives. The UPX demonstrates how planning decisions that favour elite riders and preferred spaces have the effect of erasing some places off the map, such as Mount Dennis and Rexdale while privileging others, like Downtown Toronto and the airport district. UPX is not the only example of transit service in the GTHA catering to a privileged clientele. A number of high-rise residential condominiums and suburban office parks provide private shuttle bus services, fragmenting the provision of public transit.



*Figure 38. Private transit vehicle (centre of frame) at Bay Street and Lake Shore Boulevard West, Toronto, ON. The Palace Pier condominium complex in Etobicoke offers residents a network of private bus routes to destinations in Etobicoke and the downtown core of Toronto. Source: Michael Collens*

## TRANSIT EQUITY IS POLITICAL

Investment in transit infrastructure is not an apolitical process. ‘Evidence-based’ or ‘business-case’ analysis does not ensure social needs are met. There are a wide range of competing interests that have a stake in having transit, or transportation infrastructure more broadly, reflect their social, economic and political needs. Transportation infrastructure in Toronto is becoming polarized with privileged projects, locales and residents prioritized while disadvantaged others experience the brunt of disinvestment and fragmented service. In the current neoliberal climate, infrastructure investment proposals are often framed within the lens of economic competitiveness. Transportation has been explicitly linked by the Toronto Region Board of Trade (TBOT), a business lobby group, as a competitiveness issue by arguing that “the Toronto region’s infrastructure is quickly becoming the biggest threat to our continued growth and economic prosperity” (TBOT, 2011, p.10). Transit investment is a key means of reducing congestion for freight and in attracting the ‘creative’ worker that are considered to drive economic prosperity. Meeting the infrastructure needs of the TBOT may provide ancillary social benefits for the wider community, but without a clear articulation of social equity into the planning process, equitable outcomes should not be assumed. Indeed, in highlighting the ‘false choice’ of urban development, Slater argues (2014) that development for the sake of economic competitiveness is at the heart of propagating the neoliberal restructuring process. When transit infrastructure is framed as a factor in producing a competitive city, other interests are subordinate. Neoliberal ideology is further entrenched within the state in two key ways. First it aligns government with the needs of a privileged class, and second the wealth of the state is used to support them, as evidenced by transit planning and governance decisions that prioritize business cases, economic development, P3s and the needs of privileged users. It can even be seen in the notion of ‘neighbourhood investment areas’ that reframe meeting social equity objectives from being a state obligation one that falls to personal initiative. By reframing social supports in a way that casts individuals as responsible for their success ‘in the marketplace’, structural biases like social isolation, race, gender and age barriers, lack of employment, ‘municipally managed gentrification’ (see Slater, 2004) and

fraying or missing connective infrastructure like transit that are linked to social inequity are hidden from view (Leslie & Hunt, 2013).

In order to ensure that transit equity planning occurs the explicit creation of space for it to be expressed is required. It is not enough for planners to infer from the existing planning regime that improving equity is a goal, because the regulatory framework is quiet on how to articulate equity objectives. Planners cannot act without support. They are bound to follow the policies that are spelled out. Furthermore, as the different section of this portfolio establish, there is not just one public. There is a complexity and fluidity in the intersectionality of identities that each express different characteristics and needs. There are segments of society with power and influence to shape planning decisions to serve their needs. Examples above, including TBOT, land developers and speculators, and elite business actors, demonstrate how power is wielded in the GTHA to mobilize infrastructure planning and investment to serve particular needs. In the context of transit equity planning the unevenness of opportunity created by social inequity is manifest not only in the outcomes of the planning process, but in access to the halls of power that can alter any inequitable results.

It is not enough to simply open the floor for discussion without recognizing that there are embedded power structures that are shaping the flow of the discussion, just as it is not enough for a planner to be an advocate in such circumstances since the very range of options have been defined by the existing power structure. Once the broad concept of equity is incorporated in the transit planning regime, care has to be taken to ensure inclusivity. The focus on improving equity for individuals is a disempowering strategy that is used to reproduce neoliberalism (Miraftab, 2004). There needs to be room for collective action to redress structural inequities by recognizing that there are inherent, systematic biases that have disadvantaged groups and communities, not just individuals. The focus on individuals perpetuates the neoliberal notion that individuals are to blame for being disadvantaged.

There is a spatial element to the unevenness in the distribution of the physical infrastructure of public transit that is tied to social equity. The Fordist development ideal of equal access to infrastructure has been exploded resulting in a spectrum of accessibility with, at

one extreme, those with easy, efficient and affordable access, and at the other extreme those with poor or no access and high costs. It is not an accident. There are systematic power imbalances that give some actors more influence on planning decisions. There is also competition for public investment in infrastructure. In order to address social inequity, improving social equity should be an explicit goal of public transit infrastructure investment decisions with tangible criteria to assess progress. This includes the deliberate re-calibrating of public investment decision-making criteria to align with social need, and to re-balance obvious gaps in investment between the centre and periphery. A transit equity lens is helpful to ensure that systematic inequities are not propagated and reinforced and to address social marginalization of disadvantaged groups and geographies because public transit is more than just physical infrastructure. It provides a vital social service. It goes beyond the tangible constituents of its routes, stations and vehicles. It is more than how to move those vehicles through the network. It is about people and how they move in the city. It empowers residents to take advantage of the opportunities of urban living.

## THE PORTFOLIO AND THE ROUTE AHEAD

The sections of this portfolio serve as a toolkit to help advance transit equity and take it somewhere meaningful. Section 1: *Switching Tracks* started the process by reviewing the literature on transit equity in order to articulate a functional definition. It began with an explicit assumption that transit inequity exists and it requires a concerted effort to ensure transit equity is reflected in planning decisions. Section 1 also reflected on examples from North America, South America, Australia and Europe which demonstrate how transit equity principles have been incorporated into transit planning. The examples demonstrate top-down action through government and bottom-up engagement by community activists in order to highlight how different strategies can be employed to support transit equity objectives. The examples served to demonstrate the contested nature of transit infrastructure. Section 3: *“You Can’t Get There From Here”* expanded on the work in Section 1 by using a transit equity lens to reveal the lived experiences of inequity at a neighbourhood scale in the GTHA context. A case study approach was designed with the awareness that suburban neighbourhoods are complex and variegated, home to different ‘publics’ and thus experience inequity in different ways. The



narratives that came out of the studies through the voices of residents and the expression of the built form provided a link between the theoretical grounding of the literature with the lived experiences of inequity in transit infrastructure. The contribution of residents' stories in particular was a vigorous contribution into the conversation on the need to include transit equity in planning.

Importantly, *Switching Tracks* and *Next Stop: Equity* are important contributions towards the statutory review of TBM, funded by Metrolinx, for making the case for transit equity to be included with a clear definition and articulated criteria.

The abstract and presentation in Section 2: *Global Suburban Infrastructure Conference* built on the work in Section 1 by presenting the findings in an academic setting to contribute to the active conversation already underway concerning transit equity in academic circles. The feedback from community activists and non-profit service providers, planning professionals, representatives from the development industry and academics, following the release of *Switching Tracks* was an helpful contribution towards articulating a common language around transit equity in the public discourse in the GTHA (see Appendix C: News Releases; and Appendix D: List of Media Coverage). Also, questions for further research on how to identify and plan for transit equity were posed to urge a continuation of the dialogue on how to include transit equity in planning from an academic perspective. Section 4: *Public Transit and the Public Good* served a similar goal by presenting a synopsis of the work on transit equity in Section 1, Section 2 and Section 3 in an article aimed at the planning profession. The intention is to establish the imperative for planners to understand transit equity and how to include it as a planning objective, aided by the reports on transit equity of which Section 1 and Section 3 contribute. It also makes the case of why transit equity is important and relevant in the Ontario planning context, and why it is crucial for the planning community to be active participants in achieving transit equity.

The sections herein have already begun to bear fruit towards realizing the efforts towards planning for transit equity. On April 13, 2016, I was invited to make a presentation to the Fair Fare Coalition (FFC), a volunteer, grassroots organization comprised of representatives

from social service agencies, transit advocacy groups, adult learning centres and community activists. Their objective is to ameliorate the social isolation and economic hardship high fares impose on low-income riders in Toronto, and thereby improve their physical and mental health by facilitating affordable access to community support networks, medical services, health food options, education opportunities and gainful employment.

As an organization focused on the needs of riders of the TTC, the FFC board was interested in the upcoming roll out of the Presto Card – an electronic fare card intended to facilitate ‘seamless’ travel across the multiple local transit agencies in the GTHA along with the regional commuter service and the airport express line. FFC was explicitly concerned with how the Presto Card expansion in Toronto will impact low income riders. The presentation began with a review of different fare strategies, both in the GTHA and beyond, and how different transit agencies implemented concession – or discounted fares – for specific publics. I reviewed the Presto Card rollout and operation from users’ perspective and experiences in areas where implementation has begun, such as the need to buy a card, minimum load values, the 24-hour delay when adding funds online, and the limited loading options for people who need to load in person (self-serve stations are rolling out). The presentation to FFC closed with an overview of how different agencies are responding to the needs of low income riders, using examples including Mississauga's social assistance pilot program and summer “Freedom Pass” for youth aged 12-14, Hamilton's low income discount pass, GO 'loyalty' plans and Brampton’s buck-a-ride policy for seniors. These examples of using fare concessions to achieve transit equity objectives represent how transit agencies acknowledge the barriers high fares present to disadvantaged riders, but also demonstrate the fragmentary pattern of setting policies in the GTHA without a clearly articulated set of objectives on how to implement transit equity for users.

This meeting also embodied how I was able to support improving transit equity by building a connection to community activists and bringing my knowledge and experiences gained through the MES program, and represented in this portfolio, to empower transit users to work towards transit equity objectives. In the true spirit of advocacy planning I was able to reflect their concerns about how low income riders access GTHA transit today in environment

that has not been designed with transit equity objectives in mind. The dialogue helped to better inform my understanding of the nature and extent of barriers to transit.

On June 24, 2016, I was invited to participate in a workshop hosted by Metrolinx which attracted representatives from advocacy groups and academia to provide feedback regarding and input towards Metrolinx' GTHA-wide fare integration project. The goal of the project is to propose a harmonized set of transit fare policies while reducing obvious spatial inequities caused by punitive costs imposed on crossing the historical fare boundaries in place.

The presentation at the beginning of the workshop set the context and parameters for the discussions which followed. Therein, points for consideration and proposed recommendations reflected some of the work in *Switching Tracks* and *Next Stop: Equity*. In fact, the reports were specifically mentioned by Metrolinx' planners at the breakout sessions as informing their work. For instance, the definition of equity evolved from a simple relationship that connects fares with speed and distance travelled (Woo, 2016a) to one where fare integration policies have an important role in improving transit equity by supporting accessibility and disadvantaged publics across the region with public transit (Woo, 2016b). There is a recognition that the GTHA is home to a constellation of diverse publics with disparate needs who require different sets of accommodation strategies. Fare policies which reflect the disparate needs are tools to support accessibility and transit equity. Metrolinx is recommending a 'modified status quo' integration strategy over a fare-by-distance model with a premium charged for higher-speed modes. There are two main objectives of the revised strategy. The first is to implement a co-fare policy to lessen the impact of the '416' barrier (the boundary between the City of Toronto and GTHA outer municipalities – commonly referred to as '905' – are labelled in the local vernacular by their distinct telephone area codes) while still preserving the largely flat fare structure currently experienced by most transit riders in the GTHA. Equity and accessibility become central tenets of the fare integration policy, recognizing the rising importance of suburb-to-suburb commutes and the rising poverty in the inner suburbs who are disadvantaged by distance fares skewed to benefit the longest-distance riders and high cross-boundary fares into the City of Toronto.



Figure 39. Brampton Transit Züm (express) bus at the Mississauga City Centre bus terminal, Mississauga, ON. The Cities of Brampton and Mississauga provide overlapping service along Hurontario Street between Steeles Avenue and Rathburn Road, with seamless and no-cost passenger transfers between systems. Source: Michael Collens

The workshop revealed that there were some important gaps in understanding how to incorporate transit equity into policy and planning decisions. To preserve a stated fare policy objective of revenue neutrality, suburb-to-suburb travellers may be subjected to a boundary co-fare where none exists now. This decision does not reflect the experience on the ground for transit users who experience a seamless system through route or corridor interlining (i.e. coordinating service and schedules) and free transfers between transit agencies. Specifying revenue-neutral policies represents a practical result of having a clearly articulated business case strategy that defines the fiscal objectives to be achieved. The fiscal criteria can be tested through policy analyses and scenario modelling. The efforts of Metrolinx planners clearly demonstrate their intention to incorporate transit equity in their policies. However, social equity objectives are not refined to the same degree as ‘business-case’ criteria anchored in rollout of neoliberal governance policies and conventional transit planning objectives that hew to roots of transit planning in civil engineering. While social equity is expressed as a factor for consideration in the form and function of the proposed fare integration strategy, there was no effort to define what social equity means and how it can be measured. Without a definition to

underpin a set of criteria, transit equity objectives cannot be weighed against other objectives such as the one specifying revenue neutrality. It reveals the shortcoming in TBM where transit equity is not defined.

The workshop represented an opportunity to use the knowledge gained in the pursuit of the MES degree, and allowed me to participate in a forum that combines my practical experience and ability to bring connections from the community to contribute towards transit equity. These two examples represent the successful marriage of the four sections of this portfolio, the knowledge gained through the MES program coursework, and the skills and experience gained through the planning stream and my GA work.

This portfolio is the culmination of my MES and BES degrees. Together, the four sections of represent my vision of what it means to be a professional planner. They combine academic rigour, first person research, outreach to different publics to include their voices in the planning process, and a desire to affect positive change. It demonstrates my desire to work within the planning community to develop policies and projects that help build stronger, more inclusive and equitable communities. This portfolio is the written record that reflects my passion, and the dreams of my 10-year-old self who had to experience the Scarborough RT.

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# APPENDICES

## APPENDIX A: LINKS TO FULL REPORTS

### SWITCHING TRACKS: TOWARDS TRANSIT EQUITY IN THE GREATER TORONTO AND HAMILTON AREA

Hertel, S., Keil, R., & Collens, M. (2015). Switching tracks: Towards transit equity in the Greater Toronto and Hamilton Area. Toronto, ON: The City Institute at York University. Retrieved from: [http://suburbs.apps01.yorku.ca/wp-content/uploads/2015/03/Switching-Tracks\\_9-March-2015.pdf](http://suburbs.apps01.yorku.ca/wp-content/uploads/2015/03/Switching-Tracks_9-March-2015.pdf)

### NEXT STOP: EQUITY: ROUTES TO FAIRER TRANSIT ACCESS IN THE GREATER TORONTO AND HAMILTON AREA

Hertel, S., Keil, R., & Collens, M. (2016). Next stop: Equity: Routes to fairer transit access in the Greater Toronto and Hamilton Area. Toronto, ON: The City Institute at York University. Retrieved from: [http://city.apps01.yorku.ca/wp-content/uploads/2016/02/Transit-Equity\\_Reduced\\_020216.pdf](http://city.apps01.yorku.ca/wp-content/uploads/2016/02/Transit-Equity_Reduced_020216.pdf)

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## APPENDIX B: PRESENTATIONS

### GLOBAL SUBURBAN INFRASTRUCTURE CONFERENCE

Presented: June 16, 2015

Global Suburban Infrastructure Conference

Organized by: Major Collaborative Research Initiative (MCRI) on Global Suburbanisms: Governance, Land, and Infrastructure in the 21st Century, The City Institute at York University (CITY), and the School of Planning and the Faculty of the Environment of the University of Waterloo.

University of Waterloo  
Waterloo, Ontario, Canada  
June 14-16, 2015



## WITH MANY THANKS

Metrolinx  
Roger Keil  
Sara Macdonald  
CITY Institute at York University



SWITCHING TRACKS

HERTEL | COLLENS

## WHAT WE AIM TO ACHIEVE

We seek to introduce and position equity as a bona fide transit planning concern and objective.

We want to know how equity has been defined, addressed and achieved.

- Where has it been done, and how?
- How can we incorporate it as a central tenet of infrastructure planning and investment in the GTHA?

We aim to provoke thought and spur action.



SWITCHING TRACKS

HERTEL | COLLENS

*Source: Michael Collens.*

## WHAT DO WE MEAN BY TRANSIT EQUITY?

EQUITY is the fair and appropriate distribution of the costs and benefits.

We make the claim that transit inequity exists.

Addressing systemic inequity requires affirmative action – an array of interventions



SWITCHING TRACKS

HERTEL | COLLENS

*Source: Michael Collens.*

## GREATER TORONTO + HAMILTON

2011

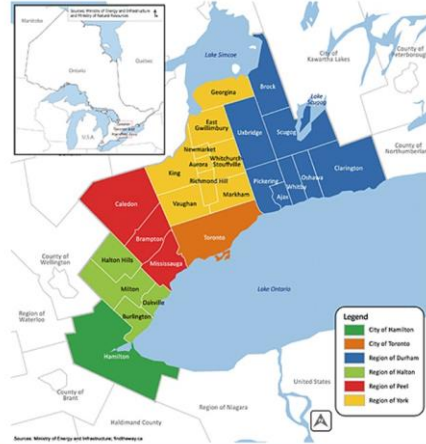
- 6.5 Million residents
- 3 Million jobs

2031

- 9.0 Million residents
- 4.5 Million jobs

Fragmented Governance

- 2 Single Tier – eg. Toronto
- 4 Upper Tier – eg. York Region
- 24 Lower Tier – eg. Mississauga



SWITCHING TRACKS

HERTEL | COLLENS

Source: Greater Toronto Transportation Authority, 2008, p. 4. ©Queen's Printer for Ontario.

## THE PROBLEM

There is an uneven transportation landscape.

Low-income neighbourhoods have poor access.

Growth is highest in the outer suburban areas, without the infrastructure and service to support it

SWITCHING TRACKS

HERTEL | COLLENS

## THE FRAGMENTED REALITY

Complex region with complex governance

Fragmented in myriad other ways

- Space
- Processes
- Actors
- Publics (transit captives, choice riders, captive drivers, choice drivers)



SWITCHING TRACKS

HERTEL | COLLENS

Source: Michael Collens.



Source: Greater Toronto Transportation Authority, 2008, p. 94. ©Queen’s Printer for Ontario.

## TOUGH, UNPOPULAR QUESTIONS

How are the needs of the most vulnerable being met by this investment?

The region will grow by 2.5-million people and 1.5-million jobs over next 20 years, while investing \$50-billion to build 1,200 km of rapid transit. If we can’t achieve equity now, can we ever?



## THE OPPORTUNITY

Transportation infrastructure and service is not limited to “the network” - it is (or should be) about us.

Pursuing equity in transit planning can counteract existing structural social inequities.



Source: Michael Collens.

## SOUNDS GREAT!



SWITCHING TRACKS

HERTEL | COLLENS

*Source: Michael Collens.*

## BUT EQUITY DOES NOT JUST HAPPEN



SWITCHING TRACKS

HERTEL | COLLENS

*Source (left): Michael Collens. Source (right): Michael Collens.*

## THE TIME-SPACE ARMS RACE



SWITCHING TRACKS

HERTEL | COLLENS

*Source (left): Michael Collens. Source (right): Michael Collens.*

## THE SOFT SIDE OF HARD INFRASTRUCTURE

Even if/when we “get it right” we need to be aware that infrastructure is not static. It is always relational and dynamic.

- Those who have service could lose it, and those who want it can buy it.
- Stratification further marginalizes some groups/publics: women, minority communities, persons with disabilities, lower income residents, etc.



SWITCHING TRACKS

HERTEL | COLLENS

*Source: Michael Collens.*

## WINNERS AND LOSERS

There are, consequently, “winners” and “losers”.

In general, those already benefiting will continue to benefit

Those who do not will continue to not do.

We argue for a deliberate re-calibrating of public investment decision-making criteria to align with social need.

SWITCHING TRACKS

HERTEL | COLLENS

## THE PUBLIC(S) IN TRANSIT

Transit investments have more than technical and operational impacts.

They also build cities, enable communities, and empower individuals to participate in society’s opportunities more fully.

“infrastructures are, therefore, not an end in themselves. They are enablers, providing conditions making other activities possible.”  
Filion and Keil (2015)



SWITCHING TRACKS

HERTEL | COLLENS

*Source: Michael Collens.*

## HOW DO WE ACHIEVE EQUITY?

Generally, three points of intervention:

1. **Network** – where the lines go
2. **Access** – service, frequency
3. **Price** – affordability



SWITCHING TRACKS

HERTEL | COLLENS

Source: Michael Collens.

## ESCAPE FROM CONGESTION

Car/non-car binary of access

- In the Big Move, equity is associated with access to car-oriented mobility

Equity needs to be identified and pursued with **deliberate intention** through planning and investment decision-making processes.

Equity needs to incorporate life-cycle, inter-generational considerations of all people



SWITCHING TRACKS

HERTEL | COLLENS

Source: Michael Collens.

## BUILDING THE CONNECTION



SWITCHING TRACKS

HERTEL | COLLENS

Source: Sean Hertel.

## TRANSITY EQUITY ROUNDTABLE -GREATER TORONTO SUBURBAN WORKING GROUP

By itself, transit equity will not be a rallying cry.

Transit equity is a political non-starter if not articulated with other policy concerns, and other “bottom lines”.

Transit equity planning cannot be done on an ad-hoc basis in order to produce tangible improvements region-wide.

Transit equity needs to be expressed in a way that can be measured and assessed.

SWITCHING TRACKS

HERTEL | COLLENS

## GREATER TORONTO SUBURBAN WORKING GROUP - FEEDBACK

Residents should be able to determine how transit decisions will actually impact them.

There is a disconnect between some residents the decisions which impacting them.

Institutional capacity in government for transit planning needs to be strengthened.

Artificial suburban/urban boundaries create breaks in service and in planning that exacerbate transit inequity

SWITCHING TRACKS

HERTEL | COLLENS

## GREATER TORONTO SUBURBAN WORKING GROUP - FEEDBACK

The importance of employment cannot be overstated

Lower income residents are travelling further and further to work

The jobs-housing imbalance is creating “commutes of constraint” rather than “commutes of choice”.



SWITCHING TRACKS

HERTEL | COLLENS

*Source: Michael Collens.*



## NEXT STEPS

Conduct case study research to further explore and test ideas and conclusions, i.e. expose real world examples.

SWITCHING TRACKS

HERTEL | COLLENS

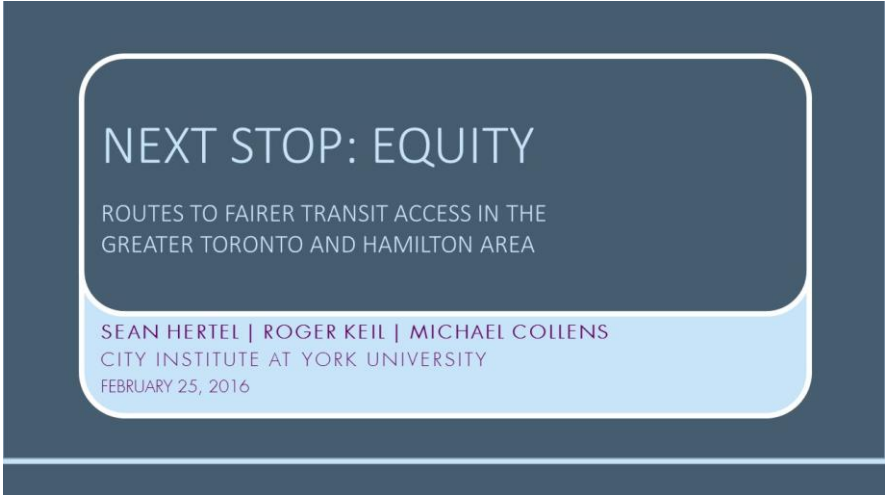
THANK YOU

SEAN HERTEL | Urban Planning Consultant  
MICHAEL COLLENS | York University

# NEXT STOP: EQUITY REPORT

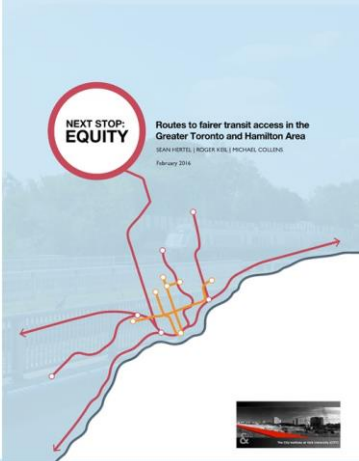
Presented: February 25, 2016

Metrolinx  
Toronto, Ontario, Canada



## TALK + ACTION ON EQUITY

- 1. Overly simplistic, limited transit discussions
- 2. Equity and justice in a transit context
- 3. Situating transit equity in the GTHA
- 4. Case studies: neighbourhood narratives
- 5. (Un)Fares: an analysis of the 10 fare systems
- 6. Enshrining equity as key pillar in Big Move
- 7. Recommendations and next steps



## BIG REGION, BIG MOVE(S), BIG CHALLENGES

GTHA growing by 2.5 M people  
& 1.5 M jobs by 2031

+

Investing \$50-billion in 1,200km  
of rapid transit over same  
period

+

Population, employment and  
poverty becoming concentrated  
in periphery



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Greater Toronto Transportation Authority, 2008, p. 94. ©Queen's Printer for Ontario.

## COMPLEX REGION, SIMPLISTIC TRANSIT DEBATE

“Subways! Subways! Subways!”

“We deserve \_\_\_\_\_ (insert mode here)”

“Who will pay for this?”

“How will this effect traffic?”

“We already pay enough taxes.”

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

## THERE ARE MISSING ELEMENTS TO TRANSIT TALK

- People – transit users
- Their needs – the public good
- Better access (as opposed to mobility)
- Housing – jobs gaps
- Perceived versus actual patterns and needs



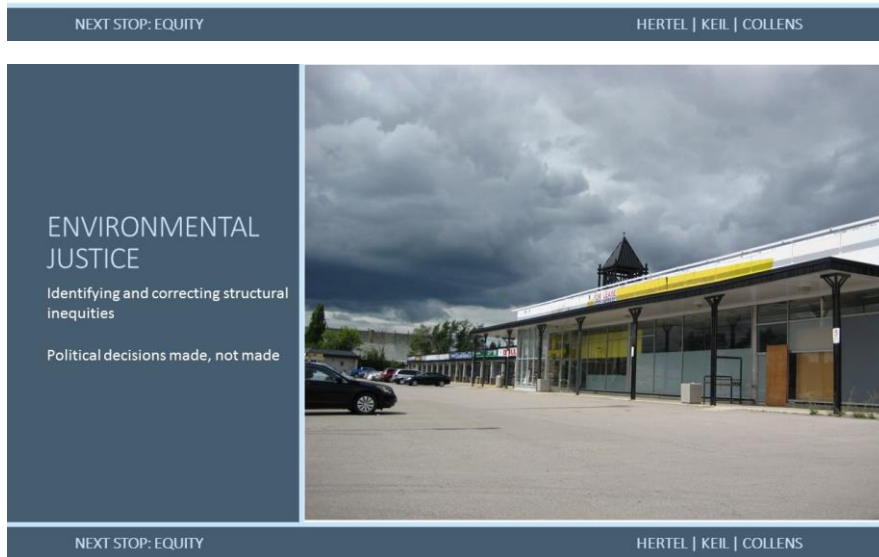
NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source (left): Michael Collens. Source (centre): Michael Collens. Source (right): Michael Collens.

## THEREFORE, TRANSIT EQUITY IS...

The fair and responsive delivery of transit infrastructure and services to meet people's needs, especially vulnerable populations including low income residents, users in under-served parts of the GTHA including newly-developed areas, visible ethnic and cultural groups, the elderly, and persons with mental and physical disabilities.



Source: Michael Collens.

## THREE WAYS TO IMPACT TRANSIT EQUITY

The network

The service

The price + payment



Source (left): Greater Toronto Transportation Authority, 2008, p. 94. ©Queen's Printer for Ontario.

Source (centre): Sean Hertel. Source (right): Sean Hertel.

## EQUITY DOES NOT JUST HAPPEN



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

*Source (left): Michael Collens. Source (right): Michael Collens.*

## THE STATE OF TRANSIT (IN)EQUITY IN THE GTHA

- Rise in income inequality and poverty
- Unaffordable housing
- Gentrification
- Challenge in new immigrant settlement
- Mismatch between housing and transit
- Rise in employment inequality
- Mismatch between employment and transit
- Urban growth outpacing transit
- Rising fares



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

*Source: Michael Collens.*

## SOCIO-SPATIAL FRAGMENTATION

Convergence of social, economic  
and physical peripheries

The “in-between city”

Vulnerable neighbourhoods,  
populations

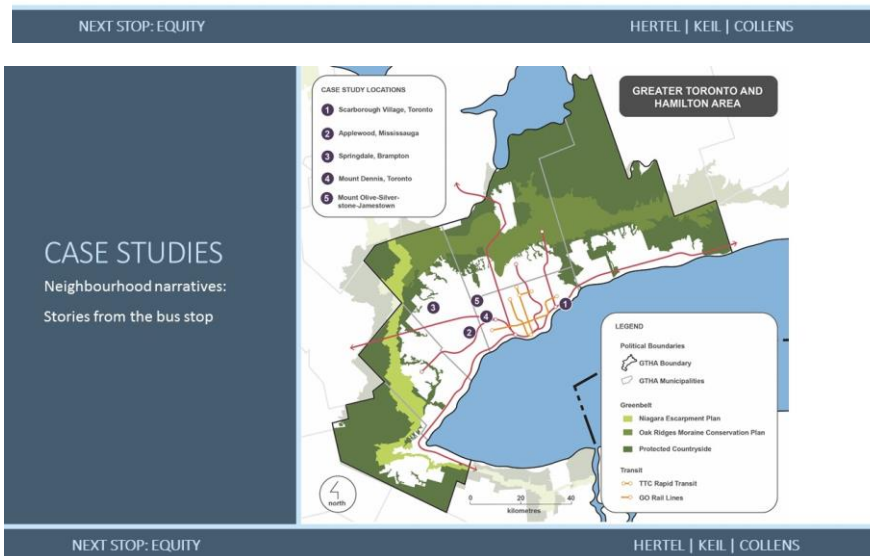
Sharp rise in income polarization  
since 1970

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

# TRANSIT: SYMPTOM AND AMPLIFIER OF DISPARITIES

Lowest income areas in 'City 3' have poor access to transit



Source: Shima Mirkarimi.

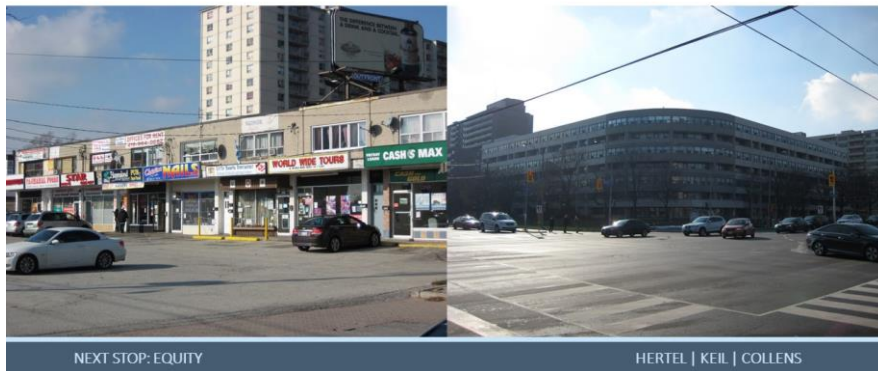
## SCARBOROUGH VILLAGE

- Development largely between 50s-70s
- Mix of retail – strip malls and big-box
- 69% high-rise apartments
  - Long wait for subsidized housing
- Good mix of transit options to downtown
  - GO Train (7 days)
  - TTC express to Kennedy
  - TTC overnight
- Transit is slower for local trips



Source: Shima Mirkarimi.

## SCARBOROUGH VILLAGE



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source (left): Michael Collens. Source (right): Michael Collens.

## APPLEWOOD

Car suburb, built 60s-80s

Today:

- 50% detached/semi/row
- 50% apartments

Good east-west transit connections

- Mississauga City Centre
- Islington Subway
- Transitway requires extra transfer for most residents

Bus stops at the edges of commercial and residential zones

Long gaps and poor connections

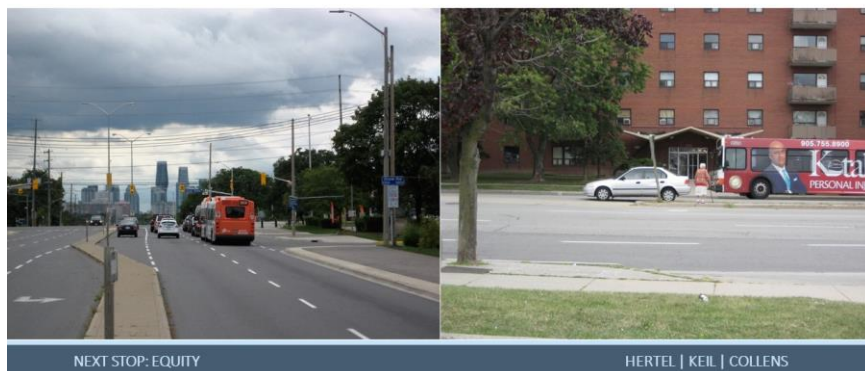


NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Shima Mirkarimi.

## APPLEWOOD



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source (left): Michael Collens. Source (right): Michael Collens.

## SPRINGDALE

- Still under construction
  - Started in 1990s
  - High growth – 37% between 2006-2011
- Mostly detached/semi/row
  - No high-rise housing
  - Hidden housing – basements
- Little visible employment
- Few visible social service supports
  - No subsidized housing
- Transit trips are long
  - Compounded by poor 'last mile' connections



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Shima Mirkarimi.

## SPRINGDALE



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source (left): Michael Collens. Source (right): Michael Collens.

## MOUNT DENNIS

- Old community following an old plank road
- Small-town strip along Weston Road
- Good transit access along Weston & Jane
  - Crosstown is functionally outside of the neighbourhood
- Shuttered shops and community service agencies belie neighbourhood under stress
- Formerly dominated by industry attracted by easy rail access
- Large pockets are abandoned or disused



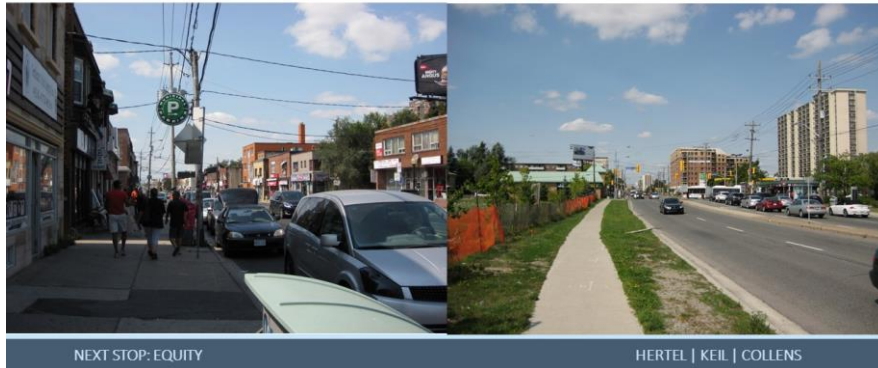
NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Shima Mirkarimi.



## MOUNT DENNIS



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source (left): Michael Collens. Source (right): Michael Collens.

## MOUNT OLIVE

Highway focused built form

- Highway 27
- Highway 50 / Albion Road
- Finch Avenue connector

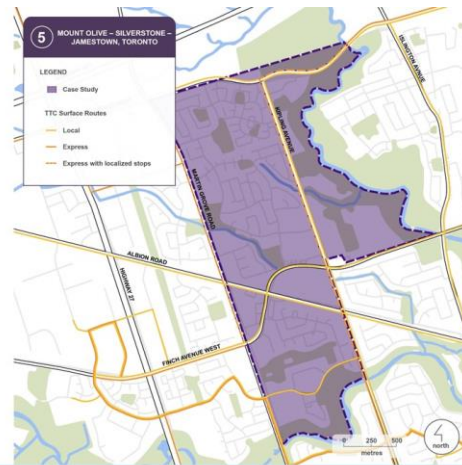
62% live in high-rise apartments

- High density: 7,254 persons/km<sup>2</sup>

Car focussed

- Poor pedestrian and transit connectivity
- Few safe pedestrian crossings
- long gaps between amenities

Population impacted by fare boundaries  
Large employment zones in Brampton / Vaughan / Mississauga  
Poor inter-agency connections



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Shima Mirkarimi.

## MOUNT OLIVE



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source (left): Michael Collens. Source (right): Michael Collens.

## INEQUITY IS COMMON THREAD

- Poor local access  
(long travel times for nearby destinations)
- Poor coordination between transit services, housing and employment zones outside of the core
- Lack of coordination across municipal boundaries
- Poor pedestrian connections  
(“last mile connection”)



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Michael Collens.

## (UN)FARES ANALYSIS

How much you pay  
How you pay

## COMPARISON OF GTHA TRANSIT SYSTEMS

Great unevenness in price and transfer policies

Only 5 of 10 systems – all outside Toronto – offer discounts based on income

Even subsidized TTC passes out of reach for many

Student discounts not applicable to everyone

Low income users often rely on cash fare

Presto card not yet popular/viable option for low income riders

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

| AGENCY                        | SINGLE CASH FARE   | MONTHLY PASS OTHER BULK           | CHILD   | STUDENTS   | SENIOR   | OTHER DISCOUNT   | NOTES  |
|-------------------------------|--|-----------------------------------|---|--|--|--|--|
| <b>City of Hamilton</b>       |  |                                   |   |  |  |  |  |
| Hamilton Street Railway (HSR) | \$2.75<br>(\$2.15 Presto)                                | \$94.60/mo. (same with Presto)    | Free < 5 years  | \$1.80 single or \$79.20/mo.   | \$2.15 (ticket)<br>\$1.80 (Presto)<br>\$23.50/mo. or \$235/yr.         | Affordable Transit Pass Program (ATPP)<br>GO Transit co-fare discounts with Presto<br>Travel is good for 2 hours (time-based transfer)       | Only those <19 yrs. are eligible for student discounts.<br>Presto card required for student and senior discount.<br>ATPP available only to Hamilton residents, 18-64 yrs of age, receiving ON/OSSP or meet Statistics Canada Low-Income Cut-Off, based on household size and income.<br>Valid transfers are accepted on, and from, Burlington Transit. |
| <b>Halton Region</b>          |  |                                   |   |  |  |  |  |
| Burlington Transit            | \$3.50<br>(\$2.70 Presto only)<br>10 tickets for \$27.50 | \$97.00                           | Free < 5 yrs<br>6-12 yrs 10 tickets for \$18.50 or \$1.85 single fare (Presto only) | \$71.00/mo.<br>10 tickets for \$19 or \$1.85 single fare (Presto only)   | \$59.25/mo.<br>10 tickets for \$19 or \$1.85 single fare (Presto only) | Subsidized Passes for Low Income Transit (SPLIT)<br>GO Transit co-fare \$0.70<br>Travel is good for 2 hours (time-based transfer)            | SPLIT is a program administered by Halton Region to provide a minimum 50% subsidy for monthly passes in each of the Region's three (independent) transit systems. High school students, seniors and adults are eligible for program, based on a combination of age and income.<br>Valid transfers are accepted on, and from, HSR, Oakville and MiWay.  |
| Milton Transit                | \$3.25<br>(\$2.85 effective Jan 1) Presto Only           | \$70.00<br>10 tickets for \$26.00 | Free < 5 yrs  | \$50.00/mo. Or<br>10 tickets for \$19.00   | \$50.00/mo. Or<br>10 tickets for \$19.00                               | SPLIT<br>\$7.50 day pass for all ages<br>Persons with vision loss are free (with CNIB card)<br>GO Transit co-fare \$0.65                     |  |
| Oakville Transit              | \$3.50<br>(\$2.85 effective Jan 1) Presto Only           | \$115/mo.                         | Free < 5 yrs  | \$70/mo. for 6-19 yrs attending full-time primary or secondary school<br>\$15/mo. "Student Freedom Pass" (valid after 4 pm weekdays and all weekend) | >65 yrs<br>\$1.80 (Presto only)<br>Free all-day Monday                 | SPLIT<br>Persons with vision loss are free (with CNIB card)<br>GO Transit co-fare \$0.75<br>Travel is good for 2 hours (time-based transfer) | Valid transfers are accepted on, and from, Burlington Transit and MiWay.   |

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Shima Mirkarimi.

| AGENCY                              | SINGLE/CASH FARE                  | MONTHLY PASS OTHER BULK  | CHILD   | STUDENTS  | SENIOR   | OTHER DISCOUNT  | NOTES   |
|-------------------------------------|-----------------------------------|--|---|---|--|---|---|
| <b>Peel Region</b>                  |                                   |  |   |   |  |   |   |
| MWVay (Mississauga)                 | \$3.50<br>(\$2.90 Presto only)    | \$125/mo.<br>10 tickets for \$29.00<br>5 tickets for \$14.50<br>GTA Weekly Pass \$61                           | Free < 5 yrs<br>6-12 yrs \$1.65 (Presto only)<br>6-12 yrs 10 tickets for \$16.50<br>5 tickets for \$8.25  | High School students 15-19 yrs \$2.25 (Presto only)<br>10 tickets for \$22.50<br>5 tickets for \$11.25<br>Public school students \$2.65 (Presto only)<br>U-Pass for students of University of Toronto Mississauga (UTM) | >65 yrs \$1.00   | GO Transit co-fare \$0.80<br>Travel is good for 2 hours (time-based transfer)<br>Under 2014 Peel Region pilot program, qualifying low income residents can purchase monthly pass for one-third of the cost. City of Mississauga extended program participation into 2016. | GTA Weekly Pass good for travel on MWVay, TTC, Brampton Transit (including Zim), and York Region Transit (including Viva)<br>Valid transfers are accepted on, and from, HSR, Burlington Transit, Oakville and YRT/Viva.<br>U-Pass is a transit pass included as part of students' tuition at UTM.   |
| Brampton Transit                    | \$3.75<br>(\$2.80 Presto)         | Adult Presto fares: \$21.00 weekly, \$118.00 monthly   | Free < 5 yrs<br>6-12 yrs \$2.50 (Presto)  | High school students 13-19 yrs<br>Presto fare: \$2.50 single \$27.00 weekly \$155.00 monthly  | \$1 cash fare with valid Brampton Transit ID Card<br>Presto fares: \$1.55 weekly \$50.00 monthly | GO Transit co-fare \$0.75<br>Persons with vision loss are free (with CNIB card)<br>Travel is good for 2-hours (time-based transfer)   | Valid transfers are accepted from HSR, Burlington Transit, Oakville Transit, MWVay, YRT/Viva, DRT, and TTC (contracted routes only)   |
| <b>York Region</b>                  |                                   |  |   |   |  |   |   |
| York Region Transit/Viva (YRT/Viva) | \$4-\$5<br>(\$3.40/\$4.40 Presto) | \$136/\$181 for monthly pass<br>\$34/\$44 for 10 tickets<br>\$57/\$87 for monthly pass<br>GTA Weekly Pass \$61 | Free < 5 yrs<br>\$2.10/\$3.10 6-12 yrs (Presto only)<br>\$102/\$147 for monthly passes<br>High school Students 13-20 yrs \$102/\$147 for monthly pass | Elementary school students +13 yrs \$2.60/\$3.60<br>\$102/\$147 for monthly passes<br>High school Students 13-20 yrs \$102/\$147 for monthly pass   | \$2.10/ \$3.10 (Presto only)<br>\$21/\$31 for 10 tickets<br>\$57/\$87 for monthly pass           | GO Transit co-fare \$0.75<br>Travel is good for 2-hours (time-based transfer)<br>Subsidized monthly passes are available to OVIQDSP clients.  | Two-zone fare system<br>GTA Weekly Pass good for unlimited zone 1 travel in the GTA, including TTC<br>Valid transfers are accepted from HSR, Burlington Transit, Oakville Transit, MWVay, Brampton Transit, DRT and TTC (contracted routes only)<br>Fare increases will come into effect July 1, 2016, including a \$1 increase to 10-ticket bundles, \$4 increase to adult monthly passes, and \$3 increase to student monthly passes. Cash fares will not change. |

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

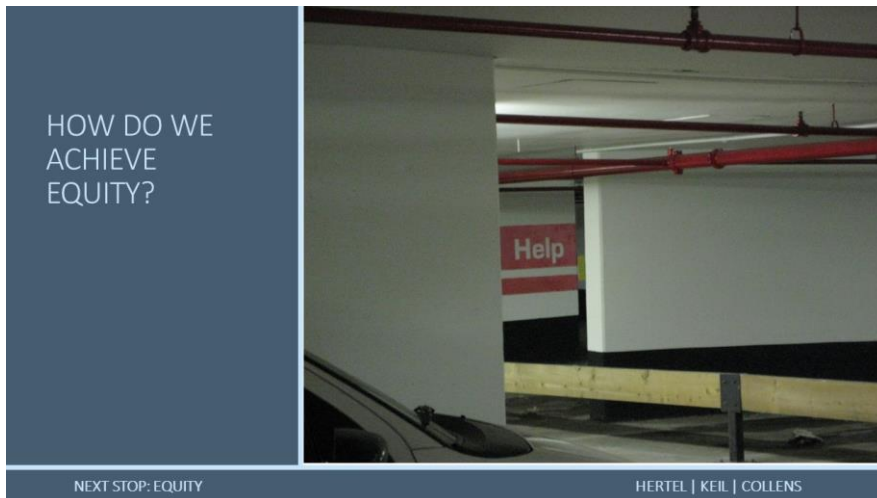
Source: Shima Mirkarimi.

| AGENCY                           | SINGLE/CASH FARE                  | MONTHLY PASS OTHER BULK   | CHILD   | STUDENTS  | SENIOR   | OTHER DISCOUNT  | NOTES  |
|----------------------------------|-----------------------------------|---|---|---|--|---|--|
| <b>Durham Region</b>             |                                   |   |   |   |  |   |  |
| Durham Region Transit (DRT)      | \$3.50<br>(\$3.00 Presto)         | \$112 monthly pass<br>\$30 for 10 tickets   | Free < 5 yrs<br>6-12 yrs \$2.00 (ticket/Presto) or \$2.25 cash<br>\$91 for monthly pass<br>\$20 for 10 tickets<br>\$63.50 for monthly pass  | 13-19 yrs \$2.70 ticket or Presto<br>\$27 for 10 tickets<br>\$91 for monthly pass<br>U-Pass for students of Durham College, LICIT, and Trent University (Oshawa).                 | 2.00 (ticket/Presto) or \$2.25 cash<br>\$20 for 10 tickets<br>\$45 for monthly pass                        | \$0.75 GO Transit co-fare<br>Travel is good for 2-hours (time-based transfer)<br>Persons with vision loss are free (with CNIB card) | U-Pass is a transit pass included as part of students' tuition at the participating schools. This pass includes some GO Transit bus routes, and prices vary according to distance.   |
| <b>City of Toronto</b>           |                                   |   |   |   |  |   |  |
| Toronto Transit Commission (TTC) | \$3.25 (\$2.90 Presto)            | \$141.50 monthly pass (\$129.75 for 12-mo. bulk buy)<br>\$2.90/ticket<br>GTA Weekly Pass \$61   | Free < 12yrs  | 13-19 yrs \$2.00 cash fare<br>\$9.75 for min. 5 tickets<br>\$112 monthly pass (\$102.75 for 12-mo. bulk buy)  | >65 yrs \$2.00 cash fare<br>\$9.75 for min. 5 tickets<br>\$112 monthly pass (\$102.75 for 12-mo. bulk buy) |   | Cash fares increased from \$3.00 to \$3.25 on January 3, 2016. Tokens also increased in price: 10 cents to \$2.90.<br>GTA Weekly Pass good for travel on TTC, MWVay, Brampton Transit, and York Region Transit.<br>City of Toronto has convened an inter-departmental committee to prepare a "formal City-wide policy framework for defining, funding, implementing and evaluating transit affordability." Policy is expected in the first half of 2016. |
| <b>GTA-wide</b>                  |                                   |   |   |   |  |   |  |
| GO Transit                       | Fares vary, according to distance | Day passes are available for travel between 2 specific fare zones.<br>Group Pass is available for up to 5 people, provided no more than 2 are aged >18 yrs. | <1 yrs. ride free<br>One child aged 1 to 5 yrs per rider can ride free (child rates apply for each additional child)<br>Rates available for >6 to 12 yrs<br>Day passes not discounted | Discount rates for elementary and secondary students with valid school-issued ID.<br>Discount rates for full-time university and college students with valid GO-issued Student ID | Single rates available for >65 yrs. Day passes not discounted.   | A person with a disability can travel with an attendant on a single fare.   |  |

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Shima Mirkarimi.



NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

Source: Michael Collens.

## 18 RECOMMENDATIONS, INCLUDING:

### **Metrolinx to coordinate GTHA-wide approach for:**

- Discounted fares for low income users
- Time-based (2-hr) transfers
- Presto as medium for discounted fares
- Transit equity working group

### **Expand TTS data to include social indicators (e.g. household income)**

### **Improve service – the “dignity factor”**

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS

## 18 RECOMMENDATIONS, INCLUDING:

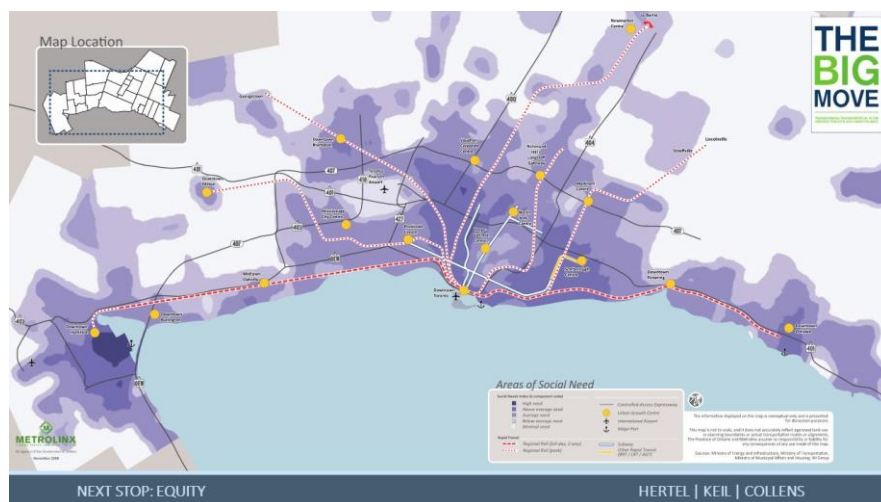
### **Equity-specific enhancements to Big Move:**

- Add “social equity” as pillar, consistent with the Growth Plan (2006)
- Define “equity”
- Broaden “access” to include affordability and inclusivity regardless of where people live or where they’re from
- Include social indicators, access to BCA and AFP metrics

### **Enhance public outreach, engagement to social and physical peripheries**

NEXT STOP: EQUITY

HERTEL | KEIL | COLLENS



Source: Greater Toronto Transportation Authority, 2008, p. 104. ©Queen’s Printer for Ontario.

# THANK YOU

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## APPENDIX C: NEWS RELEASES

### SWITCHING TRACKS

Retrieved from: <http://city.apps01.yorku.ca/?p=4258>

#### **New Report on Transit Equity in Toronto**

Greater Toronto Suburban Working Group coordinators Sean Hertel and Roger Keil, in collaboration with MES student Michael Collens, have just released a report on transit equity and justice in Toronto. This report, based on research funded by Ontario's regional transportation agency Metrolinx, that can be downloaded in its entirety below provides a survey of existing research and practice on transit equity and justice. Using insights and examples from around the world, the report notes the importance of making equity concerns a priority in transit planning. It is meant to inspire debate on transit equity in the Greater Toronto and Hamilton Area more generally, and will be the basis of an expert workshop on the topic hosted by the GTSWG on Tuesday, March 31 in Toronto.

For more information, please contact Sean Hertel ([sean@seanhertel.ca](mailto:sean@seanhertel.ca)) or Roger Keil ([rkeil@yorku.ca](mailto:rkeil@yorku.ca)).

Click here to access a report of the report: [Switching Tracks – Transit Equity in the Greater Toronto and Hamilton Area](http://city.apps01.yorku.ca/wp-content/uploads/2015/03/Switching-Tracks_9-March-2015.pdf) <[http://city.apps01.yorku.ca/wp-content/uploads/2015/03/Switching-Tracks\\_9-March-2015.pdf](http://city.apps01.yorku.ca/wp-content/uploads/2015/03/Switching-Tracks_9-March-2015.pdf)>

## NEXT STOP: EQUITY

Retrieved from: <http://city.apps01.yorku.ca/?p=4622>

### YORK UNIVERSITY RESEARCH POINTS THE WAY TO A MORE EQUITABLE TRANSIT FUTURE FOR THE GREATER TORONTO AND HAMILTON AREA

TORONTO – FEB. 2, 2016 - In the fast-growing, complex and diverse Greater Toronto and Hamilton Area, transit discussions rarely focus on improving access for the greatest number of people and addressing the complex needs of the public. As plans are made, money is spent, routes are plotted and fare schedules are set, “**transit equity**” must enter the discussion.

*Next Stop: Equity – Routes to Fairer Transit Access in the Greater Toronto and Hamilton Area*, a York University study released today, argues we need to reframe the discussion to consider **transit equity**, or how to use infrastructure investment and operation to help the greatest number of current and future transit users across the region.

Instead of focusing on **equality**, where everyone is treated the same, **transit equity** recognizes that people have different needs, situations and challenges that require different responses.

Research for *Next Stop: Equity* was funded by Metrolinx and conducted by Roger Keil at the Faculty of Environmental Studies, City Institute researcher Sean Hertel and planning Master’s student Michael Collens. It relied on extensive stakeholder consultations, case study research and an analysis of fares across the 10 GTHA transit agencies. The study makes 18 recommendations for achieving a more equitable regional approach including:

- developing a GTHA-specific definition of equity that recognizes the diverse needs of the region’s residents, to guide future planning;
- creating a consistent regional framework for transit fares, including discounted passes for low-income residents and more broadly defined groups of students;
- implementing land use planning policies to acknowledge and begin to counteract the displacement of residents created by rising property values along new or improved transit lines;
- ensuring new development near transit stations does not result in a net loss of affordable apartments or displace vulnerable residents;
- augmenting service to employment destinations, especially those trips made in off-peak hours, through a further analysis of evolving commuting patterns, especially outside the downtown core;
- enhancing public consultation techniques, especially in lower income and suburban communities; and,
- improving customer service, including vehicle and station comfort and cleanliness.



Widening gaps between affordable housing and employment opportunities have converged to make transit service disparities especially severe in suburban areas. Overall, the historic lack of transit investment means many living in the “inner ring” or “905” suburbs of Toronto must either have access to a car or find a home somewhere else.

Transit, as target for substantial investment by multiple levels of government, has huge potential to balance out social inequalities. It can connect underserved neighbourhoods to employment centres, enhance mobility and utilize subsidies and other fare innovations to encourage ridership. Transit is quite literally a vehicle for providing access to the community, economy and services that make living a fulfilling life possible.

But the discussion needs to depart from the current situation, where politicians fight over limited funding, change plans mid-stream and build new lines that continue to primarily assist commuters traveling to and from downtown at rush hour.

*Next Stop: Equity* builds upon last year’s report, *Switching Tracks*. The extensive research, also funded by Metrolinx, included a series of broad-based roundtables, a review of insights and examples from around the world, summary of the region’s patchwork fare system and case studies of neighbourhoods lacking the transit residents need.

The report, with a focus on how the GTHA’s complex fare structures and boundaries contribute to social inequity, and on case studies that paint a picture of how inequity is experienced, is especially timely. Metrolinx is undertaking a review of its \$50-billion regional transit plan, *The Big Move*, and as Prime Minister Justin Trudeau is promising \$10 billion in infrastructure investment. Also, the City of Toronto is revising its rail transit lines for Scarborough and introducing new rapid bus lines to create faster connections in the inner suburbs.

While *The Big Move* already recognizes the benefits of ensuring 80 per cent of residents live near rapid transit, the opportunity is ripe for making **transit equity** the next stop on the line towards a mobility future where those who don’t have cars or otherwise face obstacles can participate in the full life of the city.

*Next Stop: Equity* can be downloaded [here](http://city.apps01.yorku.ca/wp-content/uploads/2016/02/Transit-Equity_Reduced_020216.pdf) < http://city.apps01.yorku.ca/wp-content/uploads/2016/02/Transit-Equity\_Reduced\_020216.pdf >.

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ROGER KEIL is York Research Chair in Global Sub/Urban Studies at the Faculty of Environmental Studies at York University and Principal Investigator of the Major Collaborative Research Initiative, Global Suburbanisms: Governance, Land and Infrastructure in the 21st Century. [rkeil@yorku.ca](mailto:rkeil@yorku.ca) / @rkeil

MICHAEL COLLENS is a student in the Masters in Environmental Studies program at York University, concentrating on planning for sustainability and equitability in public transportation. [mcollens@yorku.ca](mailto:mcollens@yorku.ca) / [@michaelcollens](https://twitter.com/michaelcollens)

## APPENDIX D: LIST OF MEDIA COVERAGE

### SWITCHING TRACKS

- Bowerman, G. (2015, Mar. 30). What not to do when trying to be fair about transit. *Metro Toronto*. Retrieved from: <http://www.metronews.ca/views/toronto/your-ride/2015/03/30/what-not-to-do-when-trying-to-be-fair-about-transit.html>
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### NEXT STOP: EQUITY

- CBC News Toronto. (2016, Feb. 10). Crushing commutes make Toronto's suburbs intolerable for some. *Canadian Broadcasting Corporation*. Retrieved from: <http://www.cbc.ca/news/canada/toronto/programs/metromorning/crushing-commutes-make-toronto-s-suburbs-intolerable-for-some-1.3441023>
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# APPENDIX E: HUMAN PARTICIPANTS REVIEW SUB-COMMITTEE FORMS

## PROTOCOL FORM

Updated Dec 2013

### HUMAN PARTICIPANTS REVIEW SUB-COMMITTEE (HPRC) *Protocol Form*

***Who should complete this Protocol Form?***  
All faculty members (including contract, adjuncts, and seconded) who are conducting funded or un-funded, minimal or more than minimal risk\* research that involves the use of human participants, must complete this Protocol Form. Students who are conducting funded minimal or more than minimal risk research that involves the use of human participants must also complete this form. This includes all experiments, interviews, and participant observation. If you are a student and your research is non-funded AND minimal risk, please consult with your Department Chair's, Graduate Programme Director's or Faculty Dean's office to discuss the approval process for your research.

***How long will the review process take?***  
The average time to process minimal risk protocols is approximately twenty working days from the date of receipt in the Office of Research Ethics (ORE). **INCOMPLETE OR ILLEGIBLE PROTOCOLS WILL BE RETURNED TO THE RESEARCHER, WHICH WILL DELAY THE PROCESS.**

***Online Ethics Review System***  
If you would like to submit your protocol using the Online Ethics Review System, please click on the following link: <http://www.yorku.ca/research/support/documents/#ethics>. Please note that the system is currently only accessible to faculty members and requires a York Passport Account. Hardcopies are not required if you are submitting your protocol via the online system.

***Who can I contact if I have any questions?***  
Please contact the Coordinator, Research Ethics Review, Office of Research Ethics at ext.55201 or (wjokhoo@yorku.ca).

\*The HPRC uses the definition of minimal risk as outlined in the SSHRC/NSERC/CIHR *Tri-Council Policy Statement "Ethical Conduct for Research Involving Humans"* (December 2010): "If potential subjects can reasonably be expected to regard the probability and magnitude of possible harms implied by participation in the research to be no greater than those encountered by the subject in those aspects of his or her everyday life that relate to the research then the research can be regarded as within the range of minimal risk" (p. 1.5). An expanded version of this definition is available from ORE upon request.

Please submit completed form and attachments (plus six copies) to:  
**Secretary, Human Participants Review Sub-Committee**  
**Office of Research Ethics**  
**5<sup>th</sup> Floor, Kaneff Tower**  
**\*\*Hardcopies are not required if you are using the Online Ethics Review System**

#### Checklist:

- Original, plus six copies
- Form is signed
- Consent statement is attached (informed consent form, letter, online consent or verbal statement)
- Additional Documentation (Ethics approval certificates/ letters of permission from other institutions or departments, a sample of the interview questions, questionnaires or survey if applicable) \*\*

\*\* Please visit our [website](#) for Guidelines on:

- Research in an Online Environment
- Research Conducted by External Researchers
- Research in Hospital Clinical Settings
- Research in Educational Settings
- Research Involving Minor Age Participants
- Research with People who are Homeless
- Data Security Guidelines
- Ethical & Hazard Identification Guideline for Classroom and Research Projects Conducted at York University
- Research Involving Aboriginal Peoples
- Aboriginal Research - Checklist for Researchers
- Invasive Procedures

Note: Protocols involving Invasive Procedures and/ or the collection of human bodily fluids will NOT be accepted for review unless the Health & Safety Checklist is completed and all relevant documentation is attached (e.g. Biosafety Permit, Proof/ Certification of delegation of the controlled act by the relevant registered Health Professional, Radiation Safety Permit).

**PART A - GENERAL INFORMATION**

**A. Name of Principal Investigator(s):** Roger Keil

**B. Department and Home Faculty (or Research Centre/Institute):** Faculty of Environmental Studies

**Campus Mailing Address:** 213 HNES      **Extension:** 22604      **E-mail:** rkeil@yorku.ca

**C. Names of any other persons involved in the data collection:**

|    | Name            | Role                      | Institution/ Research Centre |
|----|-----------------|---------------------------|------------------------------|
| 1. | Sean Hertel     | Co-Principal Investigator | York University              |
| 2. | Michael Collens | Researcher                | York University              |
| 3. |                 |                           |                              |
| 4. |                 |                           |                              |
| 5. |                 |                           |                              |
| 6. |                 |                           |                              |
| 7. |                 |                           |                              |
| 8. |                 |                           |                              |

**D. Status of Principal Investigator:**

- York Faculty Member
- Graduate Student
- Undergraduate Student
- Other:

If student, please provide course director's or supervisor's name:

**E. Title of Research Project:** Policy Levers to Close Suburban Transportation Equity and Public Benefit Gaps in the Toronto Region

**F. Is this research defined:**

- Minimal Risk
  - Non-minimal Risk
- (Please see (\*) footnote on first page for definition of minimal risk.)

**G. If your research involves the use of human tissue/ blood/ body fluid and/or invasive procedures, please refer to the Submission and [Ethics Review Guidelines](#) for Research Involving Invasive Procedures and/or Collection of Human Bodily Fluids confirm whether Biosafety approval is in place:**

- Yes - Please append a copy of your approval certificate to your application

- No - *HPRC protocol cannot be reviewed until the ACOBS approval certificate is in place.*  
 Not applicable

For more information on Biosafety please contact the Occupational Health Coordinator & Biosafety Officer, Phone: x44745

**H. If your research involves the use of radioactive materials and/or radiation exposure, please confirm whether Radiation Safety approval is in place:**

- Yes - *Please append a copy of your approval certificate to your application*  
 No - *HPRC protocol cannot be reviewed until the Radiation approval certificate is in place.*  
 Not applicable

For more information on Radiation training please contact the Radiation Safety Officer (RSO), Department of Occupational Health and Safety, x44745

**I. Does your research involve Aboriginal/ Indigenous Peoples?**

- Yes – *Please complete and append a copy of the '[Checklist for Researchers](#)'. Your protocol will first be reviewed by the Aboriginal Research Ethics Review Advisory Group.*  
 No

**J. Is this a revised version of a protocol previously reviewed by the HPRC?**

- Yes  
 No

If yes, please explain:

**K. Approximate dates for proposed study:**

Start: July 1, 2015                      End: December 31, 2015

**L. Is any anticipated funding for this project from internal (i.e., York University) sources?**

- Yes  
 No

If yes, what is the funding source?:

**M. Is any anticipated funding for this project from any external (i.e., outside York) sources?**

- Yes  
 No

If yes, what is the funding agency and/or program?: Metrolinx

## **PART B - RESEARCH INFORMATION**

**1. In layperson's terms, please provide a general and brief description of the research (e.g., hypotheses, goals and objectives, etc.).**

The research being conducted is aimed at gaining broader and deeper insights into the processes and influences shaping the planning, funding and governance of public transportation infrastructure within the suburban communities of the Greater Toronto and Hamilton Area (GTHA). There is a large body of work – as reported in both popular media and academic spheres – that point to growing social inequity and income polarization across the GTHA that is contributing to, and is compounded by, the uneven distribution of transit infrastructure and services. The working poor, women, students, seniors, and people with physical disabilities are particularly vulnerable to, and made further vulnerable by, transit investment priorities that historically favour more affluent neighbourhoods and residents. Our aim is not only to better understand such inequities, but to identify potential ways forward within the current governance structure directing transit investments across the GTHA. Research will be conducted with representatives from GTHA-based government, private sector and non-government organizations (NGO's) who are involved in, experienced with and/or observers of suburbanization and transportation processes in the GTHA.

The research is leveraging existing partnerships formed by the Greater Toronto Suburban Working Group (GTSWG) created by the Major Collaborative Research Initiative (MCRI) of The City Institute at York University (CITY), entitled “Global suburbanisms: governance, land, and infrastructure in the 21st century”. The basis for our further investigation is a recent report by Hertel, Keil and Collens entitled, “Switching Tracks: Towards transit equity in the Greater Toronto and Hamilton Area” (March 9, 2015). The report can be accessed on the City Institute at York University website: <http://suburbs.apps01.yorku.ca/2015/03/27/3936/>.

**2. State who the participant(s) will be (e.g., experimental subjects, interviewees, community members to be observed, etc.). Please provide details about the research subjects that are relevant to your particular research (number, age, sex, students, children, businesspeople, government employees, etc.). Also discuss the relationship of the researchers to the prospective subjects (e.g., teacher, parent, advisor, stranger, etc.).**

The research participants will comprise of politicians, provincial and municipal government officials, local planning officers, private planning consultants, builders/developers, and NGOs. They will be chosen for their expertise and experience in the research area, and they will be encouraged to share their own personal and/or professional experiences and insights. The participants will be selected based on their professional relationship to the field of research.

**3. (a.) How will participants be recruited (e.g., snowball technique, random sampling, previously known to interviewer, telephone solicitation, etc.)?**

Some research participants will be asked to participate based on their pre-existing relationships with the co-investigators. Some work has already been done on this subject through the extant GTSWG of CITY and has undergone a separate HPRC review. We anticipate that additional research participants will become engaged in the study as identified through the course of the interviews with, and upon the recommendations of, the current proposed participants.

**(b.) Will you be using any advertisements, flyers, posters etc.?**



- Yes
- No

*If yes, please attach a copy with your application.*

**4. Will you be offering inducements to participate (e.g., money, gift certificates, academic credit, etc.)?**

- Yes
- No

*If yes, please elaborate:*

**5. What exactly will be required of the participant(s) (e.g., answer a formal questionnaire, respond to interview questions, engage in a free-ranging discussion, undergo any medical procedures, etc.)? If applicable, please attach any research instruments (e.g., sample interview questions, questionnaires, etc.).**

The interviews will be conducted as a free-ranging form of discussion on previously agreed upon subjects related to the larger theme of the research and tied to the proposed participants' field of expertise, experience and interest.

**6. What, if any, are the risks to the participants? Or,  No risks:**

**7. What, if any, are the benefits to the participants? Or,  No benefits**

The insights gained through the interviews will be used to advance and broaden the understanding of equity and fairness in public transit decision-making processes, and particularly those impacting suburban areas. This study could also potentially inspire new modes of governance, open new avenues for further research, and new theoretical foundations. We foresee that the participants will benefit by gaining new knowledge and information related to their interests, and establish new and lasting connections for further dialogue and collaboration.

**8. Is there a possibility of commercialization of research findings? If so, would give rise to an apparent or actual or potential conflict of interest on the part of researchers, the University or sponsors?**

- Yes
- No

*If yes, please elaborate:*

**9. This section pertains to issues around informed consent. Before completing, please read "Important Statement Regarding Informed Consent" attached to the end of this form.**

**(a) Will you provide to the participants a full explanation of the research prior to their participation?**

- Yes  
 No

*If no, please elaborate:*

**(b) Is substitute consent involved (e.g., children, youths under 16, incompetent adults, etc.)?**

- Yes  
 No

*If yes, please elaborate:*

**(c) Is deception involved?**

- Yes  
 No

*If yes, please elaborate (including issues around debriefing, if applicable):*

**(d) Will individuals remain anonymous?**

Please note that it is expected that participants remain anonymous unless participants explicitly have given their permission otherwise.

- Yes  
 No

*If no, please elaborate:* Participants may choose to remain anonymous, without prejudice, although it would be optimal for participants' identities to be known and their comments attributed given their expertise, experience and representation of partner firms, organizations, municipalities and/or government agencies they each represent. Each participant will be asked to sign a consent form and, in so doing, would acknowledge that their statements would be attributed in the minutes and/or transcript and/or video and/or audio recording arising from that session. Those wishing not to be identified, seen and/or heard would be accommodated.

**(e) Will the data be kept confidential?**

Please note that it is expected that the data be kept confidential unless the participants explicitly have given their permission otherwise.

- Yes  
 No

*If no, please elaborate:*

**(f) How will data security and management be addressed?**

Please provide details regarding proposed measures for safeguarding information – in particular personally

identifiable data - for the full life cycle of information: its collection, use, dissemination, retention and/or disposal. At a minimum, researchers should **consider the full implications of the data collection, use, retention and destruction/archiving when developing data security and management plans.** (Researchers are encouraged to review the [Data Security Guidelines](#) for reference re their responsibilities for data management).

The data will be safely stored in a locked filing cabinet and password-protected computer, and only research staff will have access to this information. The data will be kept for two years after the end of the project and will subsequently be destroyed. Confidentiality will be provided to the fullest extent possible by law.

**(g) How will informed consent be obtained? (Please check one):**

- Informed Consent Form (please attach draft version)
- Letter\* (please attach draft version)
- Verbally\* (please attach draft approximation of what participants will be verbally told)
- Online Consent Form\*\* (please attach draft version)

*\*If informed consent is being obtained by letter or verbally, please provide a rationale regarding why an informed consent form is not being used:*

*\*If online consent is being obtained, please indicate the website where the questionnaire/ survey will be hosted:*

**10. Is there any additional information that you would like to add that may assist the HPRC in reviewing your protocol?**

I have examined the guidelines and principles detailed above, and *the Senate Policy for the Ethics Review Process for Research Involving Human Participants*, and affirm that, to the best of my knowledge, this research conforms thereto. I hereby undertake to notify the Human Participants Review Committee if I make any major procedural changes involving the use of human participants on this project. I will also notify the Human Participants Review Committee if any unforeseen risks not specified in the research proposal appear. In such a case, the study will be suspended pending clarification.

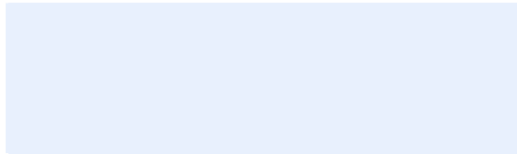
\_\_\_\_\_  
Signature of Principal Investigator (PI)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Faculty Advisor (if PI is a student)

\_\_\_\_\_  
Date

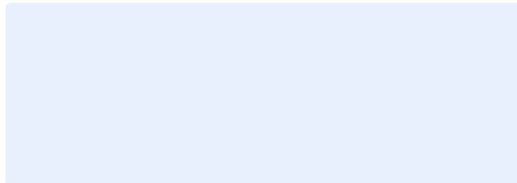
**Section into insert Digital Signatures (if applicable):**



[Click here to enter a date.](#)

\_\_\_\_\_  
Electronic Signature of Principal Investigator (PI)

\_\_\_\_\_  
Date



[Click here to enter a date.](#)

\_\_\_\_\_  
Electronic Signature of Faculty Advisor (if PI is a student)

\_\_\_\_\_  
Date

**Item 9 - Important Statement Regarding Informed Consent**

- A. The HPRC has adopted the position that all human participants (e.g., interviewees, research subjects, community members, etc) have the right to be informed of:
- the nature of the research (hypotheses, goals and objectives, etc.);
  - the research methodology to be used (e.g., medical procedures, questionnaires, participant observation, etc.);
  - any risks or benefits;
  - their right not to participate, not to answer any questions, and/or to terminate participation at anytime without prejudice (e.g., without academic penalty, withdrawal of remuneration, etc.)
  - their right to anonymity and confidentiality;
  - any other issues of which the participants should be aware that are relevant to specific protocols and research projects.
- B. The HPRC recognizes that the manner the researcher uses to obtain the informed consent varies according to the nature of the research, status of the participants, and culturally-specific norms. Although the HPRC requires that the principles of informed consent (outlined in A. above) be met, it is very flexible in how this consent is obtained. The HPRC will accept any of the three methods outlined below:
1. Informed consent form: The traditional informed consent form is the standard for research involving human participants. This would detail the principles outlined in A. above, and require the participants' signatures.
  2. Letter: Where the traditional informed consent form is not appropriate (e.g., interviews with artists or government officials, mass mailed questionnaires, etc.), the researcher may wish to seek permission through a letter inviting them to participate. This letter must nonetheless incorporate the principles of informed consent outlined in A. above.
  3. Verbal statement: In some instances, where written communication is not feasible (children, illiterate adults, certain communities), researchers can relay the principles outlined in A. above verbally.

Although it is impossible to come up with *one* generic model that will suffice for every research endeavour, an Informed Consent Form Template is available for your review and assistance on the [York Research website](#).

- C. The HPRC recognizes that researchers completing this protocol may not be at the stage of their research where they are able to provide this information. Nonetheless, the HPRC requires that a "best effort" draft be attached to this protocol. **PROTOCOLS THAT DO NOT ATTACH THIS INFORMATION (CONSENT DOCUMENT) WILL BE RETURNED TO THE RESEARCHER.**

# INFORMED CONSENT FORM

## Informed Consent Form

**Study Name:**

Policy Levers to Close Suburban Transportation Equity and Public Benefit Gaps in the Toronto Region

**Researchers:**

Roger Keil, Co-Principal Investigator

York Research Chair in Global Sub/Urban Studies

213 Health, Nursing and Environmental Studies Building, York University, 4700 Keele Street, Toronto, Ontario, M3J 1P3

416-736-2100 ext. 22604

[rkeil@yorku.ca](mailto:rkeil@yorku.ca)

Sean Hertel, Co-Principal Investigator

Urban Planning Consultant

416-579-0769

[sean@seanhertel.ca](mailto:sean@seanhertel.ca)

Michael Collens, Researcher

Student, Masters in Environmental Studies

416-912-9069

[mcollens@yorku.ca](mailto:mcollens@yorku.ca)

**Sponsor:**

Metrolinx

**Purpose of the Research:**

We are interested in understanding the degree to which, and how, current and planned transit investments are responding to public needs in the Greater Toronto and Hamilton Area (GTHA). There is a large body of work – as reported in both the popular media and in academic spheres – that point to growing social inequity and income polarization across the GTHA that is contributing to, and is compounded by, the uneven distribution of transit infrastructure and services. The working poor, women, students, seniors, and people with physical disabilities are particularly vulnerable to, and made further vulnerable by, transit investment priorities that historically favour more affluent neighbourhoods and residents. Our aim is not only to better understand such inequities, but to identify potential ways forward within the current governance structure directing transit investments across the GTHA. Serving as the thematic and conceptual basis for our further investigation is a recent report by Hertel, Keil and Collens entitled, “Switching Tracks: Towards transit equity in the Greater Toronto and Hamilton Area” (March 9, 2015). The report can be accessed on the City Institute at York University website: <http://suburbs.apps01.yorku.ca/2015/03/27/3936/>.

**What You Will Be Asked to Do in the Research:**

We are asking you to actively participate in our interviews, through which you will have the opportunity to share your personal and professional experiences as well as insights regarding social and spatial contexts related to factors influencing, and influenced by, public transit investment priorities. A range of topics will be discussed, which may include land use and development, existing and proposed infrastructure, socioeconomic, spatial and demographic realities, and government and governance. The length of the interviews are approximately 1 hour.

**Risks and Discomforts:**

We do not foresee any risks or discomfort from your participation in the research. Participants are encouraged to discuss any concerns they may have with the research topics and/or process during the sessions, or to the co-principal investigator(s) privately.

**Benefits of the Research and Benefits to You:**

The insights gained through the interviews will be used to advance and broaden the understanding of equity and fairness in public transit decision-making processes, and particularly those impacting suburban areas. This study could also potentially inspire new modes of governance, open new avenues for further research, and new theoretical foundations. We foresee that the participants will benefit by gaining new knowledge and information related to their interests, and establish new and lasting connections for further dialogue and collaboration. Your responses and information provided during the interview will not be used in any way for commercial purposes.

**Voluntary Participation:**

Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the nature of your relationship with the researchers, York University, or any other group associated with this project either now, or in the future.

**Withdrawal from the Study:**

You can stop participating in the study at any time or refuse to answer any particular question, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer particular questions, will not affect your relationship with the researchers, York University, or any other group associated with this project. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible unless you expressly consent otherwise.

**Confidentiality:**

Unless you choose otherwise, all information you supply during the research will be held in confidence and unless you specifically indicate your consent, your name will not appear in any report or publication of the research. The data may be collected and stored via handwritten notes, audio tapes, and/or digital device. Your data will be safely stored in a secure facility and only research staff will have access to this information. The data will be kept for two years after the end of the project and will subsequently be destroyed. Handwritten notes will be shredded. Electronic storage files will be deleted and wiped from the storage medium. Confidentiality will be provided to the fullest extent possible by law.

**Questions about the Research?**

If you have questions about the research in general or about your role in the study, please feel free to contact either Roger Keil (telephone at 416-736-2100 ext. 22604 or email at [rkeil@yorku.ca](mailto:rkeil@yorku.ca)) or Sean Hertel (telephone at 416-579-0769 or email at [sean@seanhertel.ca](mailto:sean@seanhertel.ca)). This research has been reviewed by the Human Participants in Research Committee, York University’s Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5<sup>th</sup> Floor, Kaneff Tower, York University (telephone 416-736-5914 or e-mail [ore@yorku.ca](mailto:ore@yorku.ca)).

**Legal Rights and Signatures:**

I, \_\_\_\_\_, consent to participate in “Suburban Transportation Equity” study conducted by Roger Keil and Sean Hertel. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

**Signature** \_\_\_\_\_  
Participant

**Date** \_\_\_\_\_

**Optional Waiver of Confidentiality:**

I, \_\_\_\_\_, waive my right to anonymity by participating in this research. I acknowledge that my identity may be made public.

**Signature** \_\_\_\_\_  
Participant

**Date** \_\_\_\_\_

**Signature** \_\_\_\_\_  
Principal Investigator

**Date** \_\_\_\_\_

## APPROVAL

YORK



UNIVERSITÉ  
UNIVERSITY

OFFICE OF  
RESEARCH  
ETHICS (ORE)  
5<sup>th</sup> Floor, Kaneff  
Tower

4700 Keele St.  
Toronto ON  
Canada M3J 1P3  
Tel 416 736 5914  
Fax 416 736-5512  
[www.research.yorku.ca](http://www.research.yorku.ca)

|                         |                          |
|-------------------------|--------------------------|
| <b>Certificate #:</b>   | <b>2015 - 207</b>        |
| <b>Approval Period:</b> | <b>07/22/15-07/22/16</b> |

## Memo

To: Professor Roger Keil, Faculty of Environmental Studies, [rkeil@yorku.ca](mailto:rkeil@yorku.ca)

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics  
*(on behalf of Veronica Jamnik, Acting-Chair, Human Participants Review  
Committee)*

Date: **Wednesday, July 22, 2015**

Re: Ethics Approval

Policy Levers to Close Suburban Transportation Equity and Public Benefit  
Gaps in the Toronto Region

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I am writing to inform you that the Human Participants Review Sub-Committee has reviewed and approved the above project.

Should you have any questions, please feel free to contact me at: 416-736-5914 or via email at: [acollins@yorku.ca](mailto:acollins@yorku.ca).

Yours sincerely,

Alison M. Collins-Mrakas M.Sc., LLM  
Sr. Manager and Policy Advisor,  
Office of Research Ethics



## **RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE**

Upon receipt of an ethics approval certificate, researchers are reminded that they are required to ensure that the following measures are undertaken so as to ensure on-going compliance with Senate and TCPS ethics guidelines:

1. **RENEWALS:** Research Ethics Approval certificates are subject to annual renewal. **It is the responsibility of researchers to ensure the timely submission of renewals.**
  - a. As a courtesy, researchers will be reminded by ORE, in advance of certificate expiry, that the certificate must be renewed. Please note, however, it is the expectation that researchers will submit a renewal application prior to the expiration of ethics certificate(s).
  - b. **Failure to renew an ethics approval certificate** (or to notify ORE that no further research involving human participants will be undertaken) **may result in suspension of research cost fund and access to research funds may be suspended/ withheld.**
2. **AMENDMENTS:** Amendments must be reviewed and approved **PRIOR** to undertaking/making the proposed amendments to an approved ethics protocol;
3. **END OF PROJECT:** ORE must be notified when a project is complete;
4. **ADVERSE EVENTS:** Adverse events must be reported to ORE as soon as possible;
5. **POST APPROVAL MONITORING:**
  - a. More than minimal risk research may be subject to post approval monitoring as per TCPS guidelines;
  - b. A spot sample of minimal risk research may similarly be subject to Post Approval Monitoring as per TCPS guidelines.

**FORMS:** As per the above, the following forms relating to on-going research ethics compliance are available on the Research website:

- a. Renewal
- b. Amendment
- c. End of Project
- d. Adverse Event

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## APPENDIX F: REFERENCES

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