An aerial photograph of a city street intersection, likely Keele Street and Avenue Road in Toronto. A large, modern multi-story building with many windows is the central focus in the background. In the foreground, a white van is driving on the street, and a group of people is walking on the sidewalk. The image is overlaid with a semi-transparent blue filter.

KEELE STREET AVENUE STUDY

(Sean Marshall, 2008)

by
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A major research project presented to Ryerson University
in partial fulfillment of the requirements for the degree of
Master of Planning in Urban Development.

Toronto, Ontario, Canada, 2019

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AUTHOR'S DECLARATION FOR ELECTRONIC SUBMISSION OF A MRP

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DEDICATION

Supported by: my loving and supportive parents and siblings.

To: Professor Keeble, a friend and mentor.

For: myself. *There are three things extremely hard: steel, a diamond, and to know one's self.*

INTRODUCTION/ABSTRACT

From its humble origins as a rural country road to its present form as a suburban arterial, the Keele Street Corridor - stretching from Wilson Avenue to Grandravine Drive - has long served the transportation and day-to-day needs of North York and Toronto residents.

The following study presents the corridor as it was, as it is, and as it could be. Through a series of recommendations, this report intends to offer a vision of the corridor as an urbanized, livable, and beautiful corridor in keeping with the Official Plan's *Avenues* policies and based on the following principles:

Locating new and denser housing types that encourage a mix of use, make efficient use of lands, frame the right-of-way, are appropriately massed and attractively designed.

Supporting the creation of complete communities that provide a mix of unit types and offers a range of affordability.

Creating high-quality and well-planned public spaces that retain existing residents, attract new residents, encourage interaction and animation, and provide the infrastructure required by all.

Prioritizing opportunities for greening within the right-of-way, including planting new trees, creating new parks with frontage along Keele Street, planters, and green buildings.

Reconfiguring and civilizing Keele Street into a complete street that serves as a living space for its residents, assigns priority to safety, and encourages active transportation and transit.

The report is divided into two parts:

The first part - BACKGROUND - contains a description of the corridor's boundaries, its evolution from an agrarian community, presents the current built environment, and reviews the existing policy layers affecting the Corridor.

The second part - PLAN - contains recommendations related to the future development and revitalization of the corridor related to future land uses, built form, development, public realm, parks and open space, and transportation network.

Key words: Avenue, urban design, urbanization, suburbs, mid-rise building, corridor.

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BACKGROUND

STUDY AREA

The Keele Street Corridor is located geographically in the north-west quadrant of Toronto.

The study area spans nearly 3 kilometres, bounded by Wilson Avenue to the south and Grandravine Drive to the north. All properties with frontage on Keele Street are included within the study area, excluding parcels included in the Downsview Secondary Plan. These lands are located on the east side of Keele Street from George Butchart Drive to Grandravine Drive (City of Toronto, 2012).

TORONTO

DOWNSVIEW-RODING-CFB NEIGHBOURHOOD

WARD 6

HISTORY

Keele Street has long served as an important north-south thoroughfare on the western edge of York Township. In 1825, the surrounding area was sparsely populated (Hart, Armstrong & North York Historical Society, 1971). Over the courses of the nineteenth century and through successive waves of Scottish, Irish, German and English immigrants, the area prospered as an agricultural community. The centre of the farming town of Downsview, at the present-day intersection of Keele Street and Wilson Avenue, served the basic needs of the small agricultural community. In a letter in 1870, a resident described his small town as such:

Ten years ago, our Church [present-day Downsview Church] was dedicated. There is no store, post office, or public buildings – only a church and school house within miles (Hart et al., 1971, p.209).

For shops and services, the farmers made the short trip west to the Village of Weston (Hart et al., 1971).

The first sign of growth appeared in 1851 with the opening of the the Ontario, Simcoe and Huron Railway between Keele and Dufferin Streets (Hart et al., 1971). The new rail connection proved vital in the transformation of the area. With a new station located near Lawrence Avenue West, local farmers were suddenly connected to an accelerated distribution network through which they could ship their goods to Toronto and across the province (Hart et al., 1971).

In 1928, the sleepy agricultural community greeted their newest neighbour – the DeHavilland Aircraft Company (City of Toronto, 2012). Following the Second World War, the Government of Canada purchased and consolidated the lands fronting Keele Street to establish CFB Toronto (Hart et al., 1971). The clustering of new, large industrial lands anticipated the pattern of development that dominated the subsequent fifty years along the corridor, in

North York, and across the region and brought new wealth and opportunity to the area.

New jobs brought new residents. In 1945, North York had 30,000 residents (Hart et al., 1971). Ten years later, the young township's more than tripled in size, with a total population of more than 100,000 residents (Hart et al., 1971).

By the early 1950s, Keele Street and Wilson Avenue had a bank, diner, and its long-awaited post office. The modest country road was widened to accommodate ever-increasing vehicular traffic and more and more Torontonians were moving north.

In 1953, the first apartment buildings emerged – small, two-story walk-ups fronting Keele Street (Hart et al., 1971). Modest apartment buildings would be built spanning most of the street frontage. Among other things, the apartment buildings insulated the new low-density housing that blanketed the landscape with new and spacious living spaces.

The building boom ran consistently until the end of the 1980s (Statistics Canada, 2017). But as the corridor aged, so too did its structures. Keele Street's built environment has remained much the same since its suburban transformation.

The most profound change arrived in 1993 when the federal government announced the closure of CFB Toronto (Czerniak, 2001). The closure of a military base is rarely ever used as a campaign promise; in the case of Downsview, the lure of announcing a giant new urban national park – the first of its kind in Canada – was too much to pass on. In 1999, after an international design competition, Rem Koolhaas's design was selected. Since then, amid a mix of optimism and criticism, Keele Street's most important stretch of frontage has continued the process of coming into being (Hume, 2017).

In 2015, Humber River Hospital opened just west of the study area. The hospital is a major employment centre in the neighbourhood.

STUDY AREA, 1947

STUDY AREA, 1977

STUDY AREA, 2018

SOCIAL PROFILE

STUDY AREA AGE PROFILE

(Statistics Canada, 2017a)

Downsview-Roding is a growing neighbourhood, though only slightly. This was not always the case. The year 2006 saw the neighbourhood's population decline by 6.6%, from 34,255 to 32,010 residents. By 2011, the neighbourhood population recovered above its 2001 population to 34,659. In 2016 the neighbourhood continued to grow to its current population of 35,052 residents.

Along the corridor, the total population has grown. Over a fifteen-year period, the number of residents along the corridor increased by nearly 1,000 residents, from 8,660 in 2001 to 9,580 in 2016.

The corridor has a slightly higher proportion of children and youth than the City of Toronto's averages. Children between 0 and 14 years of age make up 16% of the population, while youths between 15 and 24 years of age are 13.3% of the area's population. The highest concentration of both children and youths is at the north-west corner of Keele Street and Sheppard Avenue West. Within this portion of the study area, children make up 33.6% of the total population. Specifically, along this portion of the study area, planning for children is essential.

Vibrant urban life requires a high number of people living in close proximity to one another (Glaeser, 2011; Jacobs, 1961; Dunham-Jones & Williamson, 2009). One of the key characteristics of suburban areas is a low population density, especially in comparison to urban areas (Dunham-Jones & Williamson, 2009). As a residential corridor predominantly composed of multi-residential buildings, it comes as no surprise that Keele Street is densely populated. The current population of 9,580 residents live within an area of 2.12 square kilometres (Statistics Canada, 2017a). The population density of 45 persons per hectare is slightly higher than the city's average density of 43 persons per hectare and nearly twice as high as Downsview-Roding neighbourhood's density of 23 people per hectare (City of Toronto, 2016a).

The Study Area contains 3,820 households (City of Toronto, 2017b). Overall, city-wide trends show one-person dwellings are becoming more and more common. Along Keele Street, however, more people are living together and fewer people are living by themselves. Households are generally large (2.7 persons per household), and large household of four people or more make up over a quarter of the study area's 3,820 households.

STUDY AREA POPULATION DENSITY (PEOPLE/HECTARE)

(Statistics Canada, 2017b; City of Toronto, 2016a)

A total of 102 different ethnicities are represented along Keele Street (Statistics Canada, 2017c). While residents hail from a seemingly endless array of origins, no one group is dominant.

The Corridor's two largest ethnic groups are Filipinos and Italians. The rise of the Filipino population along the Corridor occurred rapidly: data taken from the 2001 census does not reveal a significant Filipino population in the Downsview-Roding neighbourhood – only 295 residents reported Tagalog as their home language. Fifteen years later, Filipinos make up the largest segment of the population (City of Toronto, 2003). The largest concentrations of Filipino residents are at the north- and south-west corners of Keele Street and Sheppard Avenue West (Statistics Canada, 2017c). Aside from these two dissemination areas, Filipino residents are dispersed consistently throughout the Study Area.

Italians have long been prominent in the surrounding residential area and remain in the Corridor (Hart et al., 1971). Unlike the Neighbourhood's high population of Filipinos who live along Keele Street (44.9% of all Filipinos in the Downsview-Roding Neighbourhood), the Corridor's 1,580 Italians are but a small fraction of the neighbourhood's 8,205 Italian residents (City of Toronto, 2018b; Statistics Canada, 2017c). Italians are prominent throughout the Study Area's dissemination areas.

Jamaicans, Vietnamese, and Chinese residents form the second tranche of ethnicities. The Study Area's Jamaican community of 695 residents are concentrated at the north-west corner of Keele Street and Sheppard Avenue West (Statistics Canada, 2017c). The Corridor's Vietnamese community of 715 residents are concentrated at two points: the north-west corner of Keele Street and Sheppard Avenue West and around Keele Street and Diana Drive, in close proximity to the Study Area's Chinese population of 640 (Statistics Canada, 2017c).

Of the 4,995 Corridor residents in the labour force, 4,610 are currently employed, an unemployment rate of 7.8% – just below the neighbourhood's unemployment rate of 7.9% and the City's rate of 8.2% (Statistics Canada, 2017e; City of Toronto, 2017b). Few workers – only 9.4% – work close to home. Most workers travel between 15 and 29 minutes to their job, primarily by car or public transit. Of note, however, are the exceptionally long commutes many residents make every morning and evening. Approximately 65.6% of residents have a commute to and from work of over 30 minutes and nearly a

quarter (24.0%) make commutes of over an hour each day (Statistics Canada, 2017e).

Like many other suburban areas, Downview-Roding has changed from a middle-income neighbourhood to what Hulchanski has referred to as "City #3" – the suburban areas of northeastern and northwestern Toronto found far away from the subway lines, where incomes have dropped radically over the past 40 years (Hulchanski, 2010). Residents along the corridor have a median after-tax income of \$24,356.96 (Statistics Canada, 2017e). Low income rates are high, at 17.23%, and the child poverty rate is 33.89% – rates substantially higher than the rest of the neighbourhood. The corridor contains no notable concentrated pocket of poverty.

BUILT ENVIRONMENT

KEELE STREET

Keele Street has long served as an important regional arterial road. The car is king on Keele Street. Jan Gehl discusses the difference between the human scale, design at 5km/h versus the high-speed scale, designed at 60km/h (Gehl, 2010). Keele Street was designed at the high-speed scale with a wide road, large spaces, and buildings design elements to be absorbed by a driver or passenger.

The high-speed scale has created an unpleasant environment for all users – cars, trucks, buses, cyclists, and pedestrians . On a daily basis, thousands of vehicles drive along five traffic-congested lanes – four north-south lanes and a centre turning lane. Signs of the former tree-lined country road have been replaced by a paved paradise.

LOW-RISE APARTMENT BUILDINGS

The first batch of small, two-story walk-up apartment buildings appeared in 1953 (Hart et al., 1971). As the area developed, low-rise apartments became the predominant building form south of Sheppard Avenue West. Apartment buildings were commonly used to protect the neighbourhood areas from the high-traffic arterial and the invasion by commercial uses. They remain the predominant residential type along the corridor and account for 32% of the corridor's dwelling units (Statistics Canada, 2017).

APARTMENT TOWER BUILDINGS

The study area's apartment towers are located north of Sheppard Avenue West. Like much of the study area buildings, the towers were built throughout the 1960s and 1970s (Statistics Canada, 2017).

The buildings are predominantly as tower-in-the-park developments – built on large lots, with a large building footprint, yet covering a low percentage of the lot. Much of the space between the building's faces are used for surface parking (to the rear) or passive greenspace (at the front or side). While most tower-in-the-park developments are setback a great distance from the street, the developments along Keele Street are relatively close to the property line; commonly matching the 7.5 metre setback south of Sheppard Avenue West (City of North York, 2012).

STRIP PLAZAS

Strip plazas emerged in Toronto during the early years of suburban expansion (Lorinc, 2005). Commonly located along major roads, these plazas represent old remnants of Toronto's

retail past. They are commonly on extended along the frontage on smaller lots, with low-flung one to three storey buildings. With a narrow pull-in parking strip between the building façade and property line, these strips were designed to accommodate shopping by vehicle in the early evolution of suburban Toronto. To respond to the evolving driver-shopper, many plazas installed roadside billboards on the canopy or above the building - another example of 60km/h design (Lorinc, 2005; Gehl, 2010).

Strip plazas are commonly local, serving neighbourhood ethnic markets (Buliung & Hernandez, 2009). Along the corridor, many of the strip plazas are small-scale retail shops or services, commonly catering to the area's diverse population. As targets for intensification, some commentators have noted the great social risk of losing these important services (Lorinc, 2005).

POWER CENTRES

Power centres appeared in Toronto within the last 15 to 20 years (Buliung & Hernandez, 2009). Power centres bring together several big-boxes stores, in addition to a series of smaller freestanding shops and services at the Corridor's major intersections (Buliung & Hernandez, 2009). They are commonly sited on large parcels, with low-flung, connected buildings, set within an expansive parking lot to accommodate regional shoppers. The Corridor's power centres are all located at the major intersections of Keele Street and Wilson Avenue and Keele Street and Sheppard Avenue West.

SURFACE PARKING

Surface parking between the front property line and the building face is prominent across the corridor. Direct access to many of the parking lots attached to commercial uses is provided from Keele Street. This has led to three key areas of concern:

1. The pedestrian realm is weakened when low-flung buildings are setback. Buildings should be built close to the property line to frame the street (Gehl, 2010).
2. Surface parking is an inefficient use of lands (Alexander, Ishikawa & Silverstein, 1977; Dunham-Jones & Williamson, 2009).
3. Vehicular access along Keele Street has led to frequent curb cuts, creating a hostile environment for pedestrians increasing the likelihood pedestrian-vehicular conflicts.

RECENT DEVELOPMENT

Between 1961 and 1980, much of Toronto went through a building boom (Canadian Centre for Economic Analysis & Canadian Urban Institute, 2019). City-wide, 31.2% of private dwellings were constructed during the 19-year period of extensive suburban development in York, North York, Etobicoke, and Scarborough.

Most of the study area's structures were constructed during this period (42.5%) and the preceding decade of early suburban development in North York (31.4%) (Statistics Canada, 2017h). A quarter of existing dwellings were constructed in the past 40 years. 1981-1990 saw a decline in construction, with only a modest uptick during the 1990s. Since 2001, fewer than 300 new private dwellings have been constructed, with limited developments near Keele Street and Wilson Avenue and proposed developments near Downsview Park.

AFFORDABILITY

The City's housing affordability crisis touches owners and tenants alike. The 2016 census data indicates 36.6% of the city's households (both owners and tenants) spend more than 30% of their income on shelter costs (Statistics Canada, 2017i).

Parsed further, the trends tell a different story. City-wide, 27.4% of owner households spend 30% or more of their income on shelter costs (City of Toronto, 2016a). Along the corridor, however, a larger share – 34.7% – spend above the 30% of income on rent.

For renters, the story is quite different. Keele Street's renters spend a greater part of their income on housing than owners. Compared to the city-wide trend, however, the corridor is a pocket of affordability. Keele Street's rate of unaffordability, 39.9% of renter households, is lower than the city-wide rate 46.8% of tenants (Statistics Canada, 2017i; City of Toronto, 2016a). While incomes along the corridor are generally low, so too are rents, at an average monthly rent of \$1,046.79 (Statistics Canada, 2016a).

HOUSING TENURE

Canada is a nation of homeowners. The 2016 census found 67.8% of Canadians are homeowners (Canadian Centre for Economic Analysis & Canadian Urban Institute, 2019). In Toronto, 66.5% of all households were homeowners (City of Toronto, 2016a). This represents a majority share of Toronto's 2.73 million residents; however, the share of the total population is declining.

With such a large number of multi-story apartment buildings, it will come as no surprise that the housing tenure within

OCCUPIED PRIVATE DWELLINGS BY PERIOD OF CONSTRUCTION
(Statistics Canada, 2017h)

CORRIDOR'S RENTER AND OWNER HOUSEHOLDS
(Statistics Canada, 2017b)

the Study Area differs greatly from City-wide trends. Renter households were found to make up 58.6% of the existing units, compared to the 40.6% privately-owned units (Statistics Canada, 2017i).

VACANCY RATE

Many factors have contributed to the low vacancy rate. The cost of homeownership continues to rise, supply has not kept pace the growing demand for purpose-built rentals, and rising costs of homeownership and city-wide population increases have all contributed to a low vacancy rate (Canadian Centre for Economic Analysis & Canadian Urban Institute, 2019).

In 2016, the area surrounding (and including) the Keele Street Corridor was at a near-healthy rate of 2.7% (Canadian Mortgage and Housing Corporation, 2017). In 2017, the vacancy rate dropped dramatically to 0.6%, below the City's 2017 rate of 1.0%. The last time the City of Toronto's vacancy rate was considered healthy was in 2009, when it jumped to 3%, after which it slowly declined to today's historic low.

SOCIAL INFRASTRUCTURE

SCHOOLS

The Study Area and surrounding neighbourhoods have a total of 8 elementary schools, 1 middle, 2 secondary schools.

Toronto District School Board (TDSB) facilities are located at:

- Blaydon Public School
- Downsview Public School
- Stilecroft Public School
- Sheppard Public School
- Pierre Laporte Middle School
- Africentric Alternative School
- Downsview Secondary School

Blaydon Public School is the only TDSB school within the Study Area over capacity (Toronto District School Board, 2015). Enrolment in the remaining schools range from moderate to low. Sheppard Public School and Downsview Secondary School are below 65% utilization; Downsview Secondary School, at 44%, being well below a healthy rate (City of Toronto, 2015a). At current rates, service levels are low which can lead to service level reductions or total elimination. Urbanization offers an opportunity to maintain and enhance under-utilized schools.

Toronto Catholic District School Board (TCDSB) facilities are located at:

- St. Jerome Catholic Elementary School
- St. Conrad Catholic Elementary School
- St. Raphael Catholic Elementary School
- Madonna Catholic Secondary School

Three of four catholic schools are at or above capacity (Toronto Catholic District School Board, 2016). St. Conrad Catholic Elementary is the exception. Projections completed by the School Board indicate enrolments will rapidly increase between 2016 and 2031, highlighting the need for future expansion or new schools.

LIBRARIES

Construction was completed on Downsview Public Library in 1962 (Toronto Public Library, 2016). The library is well-served by transit and over the last 3 years has evolved into more than just a library. In 2016, the digital innovation hub opened to foster technological literacy. In 2018, Downsview Library opened its youth hub, hosting workshops, programming, activities, and study space for youths aged 13 to 19. Matching the area's demographics, the Library boasts a collection of Italian, Spanish, Chinese, French, Tagalog, Hindi, Turkish, and Vietnamese materials.

COMMUNITY CENTRES

While there are no community centres within the study area, the Corridor is served by three community centres, providing a broad range of programming and activities for children and adults alike. They are located at:

- Grandravine Community Recreation Centre
- Roding Community Centre
- Northwood Community Centre

CHILD CARE

Two municipally licensed child care centres are located at Air-O-Down Child Care Centre and Kiiwednong Aboriginal Head Start and three Ontario Early Years Centres at Grandravine Community Centre, Northwood Neighbourhood Services - Kids Place, and Hincks Dellcrest Centre offer child care services for residents along the Corridor and within the surrounding neighbourhoods.

HERITAGE

DOWNSVIEW UNITED CHURCH

Downview United Church was completed in 1870 to replace the former York Church (which was across Keele Street) (Hart et al., 1971). Costing approximately \$6,500 to build, the brick church's 34 metre spire was far and away the tallest structures along the Corridor until the 1960s (Hart et al., 1971).

On September 25, 2008, Council passed By-law 998-2008, designating the property as culturally significant under Part IV of the Ontario Heritage Act (City of Toronto, 2008). As of 2019, Downview is still an active place of worship, having recently undergone a major renovation.

GEORGE JACKSON HOUSE

The George Jackson House was the former residence of a local farmer, George Jackson (City of Toronto, 2012a). Mr. Jackson inherited the property in 1885 and completed construction of the two-and-a-half storey residence in 1896. The property remained within the family until 1967. Today, it is used as the offices of Execu-Nannies, a home child care service.

On November 1, 2012, Council passed By-law 1418-2012, designating the property as culturally significant under Part IV of the Ontario Heritage Act (City of Toronto, 2012a).

OPPORTUNITIES & CONSTRAINTS

OPPORTUNITIES

SIZE OF KEELE STREET RIGHT-OF-WAY

The Toronto Official Plan sets the study area's planned right-of-way width at 36 metres (City of Toronto, 2015b). This places Keele Street as one of the widest rights-of-way in the City. The right-of-way width will be essential to creating an attractive public realm, re-allocating road space to support various users and uses, and encourage mid-rise developments to the maximum right-of-way width ratio of 1:1.

DOWNSVIEW PARK

Located on 232 hectares with approximately 860 metres of frontage along Keele Street, Downsview Park is a continuous work in progress striving to become a premier Toronto destination (Sacknacki, 2012; Hume, 2017). It currently hosts concerts, cultural events, contains a 9-acre lake, community gardens, and a series of walking trails with expansive south-facing views of downtown.

INFILL OPPORTUNITIES

Infill development offers the opportunity to urbanize the corridor in a manner compatible with the existing buildings. Large underutilized lots may be compatible for infill development. Infill development is primarily envisioned in the Apartment Neighbourhoods areas of the study area, specifically between Sheppard Avenue West and Grandravine Drive (City of Toronto, 2015b).

CONSTRAINTS

CONSTRAINED LOTS

Unlike most post-war Avenues, many of the existing properties on Keele Street tend to be wide and shallow, and therefore constrained (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010). Constrained lots fail to meet the minimum lot depths and/or widths to accommodate mid-rise development (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010). A total of 82 lots fail to meet the minimum lot width and/or depth.

Some parcels may require consolidation by a single land owner; others will be scaled to lower heights based on the lot dimension outlined under the built form guidelines.

INEFFICIENT USE OF LAND

Lot coverage is the ratio of the building's footprint to the size of the lot. Building footprints vary across the Corridor but veer low, averaging 624m². The former City of North York Zoning By-law encouraged low lot coverages and considerable dedication of land to surface parking or passive greenspace (City of North York, 2012). Within the study, the total lot coverage along the Keele Corridor is only 31%.

TRANSIT CONNECTIONS

Transit service through the corridor is janus-faced. In one sense, the corridor is well-served by bus routes on Keele Street, Sheppard Avenue West, Wilson Avenue, and a series of local routes. Most of the bus routes include stops at one of the nearby subway stations – connecting the corridor to the rest of the city.

Although the corridor is close to three subway stations, most residents must make at least two bus trips to reach Line 1. In part, this is because Downsview Park Station is sited too far from Keele Street to support pedestrian access from the corridor. Instead, the morning commute was generally observed to be crammed and uncomfortable – with scores of passengers on buses and traffic congesting the road. As the corridor develops, presenting alternatives to car use will require transportation solutions that prioritize reliable, comfortable, and effective public transit.

RENTAL REPLACEMENT

The Official Plan's rental replacement policies seek to protect the existing supply of rental and affordable units (City of Toronto, 2015b). Where a development would result in the loss of six or more rental units or the displacement of tenants, the new development is required to:

- Incorporate at least the same number, size, and rents in the new development.
- Maintain the units at the same rent for a minimum ten-year period.
- Provide a tenant relocation and assistance plan to mitigate the negative impacts of the new development on previous tenants (City of Toronto, 2015b).

This power has been especially important as the regional condominium market has been the driver of residential development and the existing supply of purpose-built rental units is lost (Canadian Centre for Economic Analysis & Canadian Urban Institute, 2019; City of Toronto, 2012c). In an area with a heavy presence of renters, the added cost of replacing and relocating former tenants may not be feasible, extinguish the development potential of certain sites.

"DOWNSVIEW AIRPORT HAZARD MAP" HEIGHT RESTRICTIONS

On June 7, 2018, Bombardier announced the sale of the Downsview Airport lands to the Public Sector Pension Investment Board (Real Estate Monitor Worldwide, 2018). What will become of the site is not yet known. Schedule D of the City of North York Zoning By-law applies height restrictions around the airport to ensure flight safety (City of North York, 2012). If the airport is decommissioned, it is anticipated that the height restrictions will be removed. Although this report presents a vision of the Corridor without the height restrictions, they remain, until such a time as the City of North York Zoning By-law is amended, in place.

**CITY OF NORTH YORK ZONING BY-LAW
SCHEDULE D
(Arup, 2016)**

POLICY CONTEXT

TORONTO OFFICIAL PLAN

The vision for the Keele Street Corridor is consistent with the City of Toronto's Official Plan's Avenues policy. Avenues are identified on Map 2 Urban Structure. Avenues sit along major arterials and are designated for population growth and reurbanization (City of Toronto, 2015b). Reurbanization includes:

- Locating new and denser housing types - primarily mid-rise buildings built to the height of the right-of-way width;
- Transit improvements;
- Creating new job opportunities;
- Enhancing the pedestrian and cycling environment;
- Streetscape and public realm improvements; and
- Allocating sufficient community amenities (City of Toronto, 2015b).

The Map 16 Land Use of the Official Plan includes 8 basic land use designations. The land use designations implement the general policies of the Official Plan to describe the appropriate uses to be permitted on all city lands. Each designation identifies areas that either reinforce the existing physical character of the area or anticipate population growth and physical change. The Official Plan's land use designations along the Keele Street Corridor include: Neighbourhoods, Apartment Neighbourhoods, and Parks and Open Space Areas (City of Toronto, 2015b).

NEIGHBOURHOODS

Neighbourhood Areas make up 7% of the study area. Neighbourhood Areas serve as dedicated residential areas, primarily consisting of low-scale housing (City of Toronto, 2015b). Low-scale housing includes detached and semi-detached houses, duplexes, triplexes, townhomes, and walk-up apartments provided they do not exceed four storeys. Permitted non-residential uses include parks, home occupations, cultural and recreational facilities, low-scale institutional, retail, service, office uses, and small-scale retail.

Areas under the Neighbourhoods designation are considered stable residential areas. As such significant population growth is not anticipated in under this designation. New development under this designation must protect and reinforce the prevailing character of the area.

APARTMENT NEIGHBOURHOODS

Apartment Neighbourhoods Areas make up 61% of the study area. From just north of Victory Drive and Paxtonia Boulevard to Wycombe Drive, the area consists primarily of multi-unit dwellings. Many of the residences are brick two-and-a-half storey walk-ups, while the few commercial uses are or low-flung strip plazas.

The Apartment Neighbourhoods designation anticipates limited population growth (City of Toronto, 2015b). Permitted uses include

**TORONTO OFFICIAL PLAN
MAP 2 URBAN STRUCTURE**
(City of Toronto, 2015b)

OFFICIAL PLAN LAND USE DESIGNATIONS BY PERCENT WITHIN THE STUDY AREA

Apartment Neighbourhoods | 61%

Mixed Use | 32%

Neighbourhoods | 7%

Parks & Open Spaces | 1%

apartment buildings, parks, local institutions, cultural and recreational facilities, and local retail, service and office uses, in addition to all of the uses permitted in the Neighbourhood designation.

PARKS AND OPEN SPACE AREAS

Within the surrounding neighbourhoods, parks and open spaces are generously provided; however, only 1% of the study area is designated as Park and Open Space Areas. The single designated patch under the Official Plan within the corridor is Downsview Memorial Park, located at the northeast corner of Keele Street and Wilson Avenue. Brookwell Park, though included in the study area, does not have frontage on Keele Street.

MIXED USE AREAS

Mixed Use Areas make up 32% of the corridor. Mixed Use Areas are located around the major intersections of Keele Street and Wilson Avenue and Keele Street and Sheppard Avenue West.

Mixed Use Areas are planned to be high-growth areas supported by transit, set on animated and safe streets (City of Toronto, 2015b). Building heights and massing are permitted at a higher intensity, while scaling down to provide a transition between lower growth areas.

Mixed Use Areas permit a wide range of residential, commercial, and institutional uses within the same building. Additionally, parks and open spaces and utilities uses are permitted under the designation.

CITY OF TORONTO ZONING BY-LAW

Both the City of Toronto Zoning By-law and Former City of North York Zoning By-law are in-force. There are 9 basic zoning designations within the City of Toronto Zoning By-law No.569-2013: residential, residential apartment, commercial, commercial residential, commercial residential employment, employment industrial, institutional, open space, and utility and transportation (City of Toronto, 2019).

RESIDENTIAL ZONES

Residential Detached Zone (RD)

The RD zone applies generally to the Neighbourhoods designation under the Official Plan. The prevailing character of Neighbourhood Areas are low-density dwellings in stable neighbourhoods. Accordingly, the RD zone exclusively permits detached homes and parks as-of-right uses (City of Toronto, 2019). Additional non-residential uses, such as home occupations, day nurseries, community centres, places of worship, etc. are permitted with conditions.

Residential Multiple Dwelling Zone (RM)

The RM zone applies generally to the apartment building complexes between Wilson Avenue and Sheppard Avenue West. Permitted residential uses include detached houses, semi-detached houses, duplexes, triplexes, fourplexes, and apartment buildings (City of Toronto, 2019). The zone typically applies to low-rise apartment buildings within the central portion of the corridor. The zoning permits building heights to a maximum 12 metres for apartment buildings, set on large lots.

Residential Townhouse Zone (RT)

A sliver of the study area is zoned RT. In addition to detached dwellings, the zone permits compact low-density residential dwellings such as townhomes and semi-detached homes (City of Toronto, 2019). Parks are permitted as-of-right, while various non-residential uses are permitted by condition. The zone generally permits building heights of 10.5 metres and three storeys.

RESIDENTIAL APARTMENT ZONES

Residential Apartment Zone (RA)

The RA zone is applied generally to the apartment building complexes between Sheppard Avenue West and Grandravine Drive. In addition to residential uses, a number of uses, such as day cares, community centres, places of worship, etc. are permitted contingent on specific conditions (City of Toronto, 2019). Building heights to a maximum of 24 metres are permitted.

Due to height restrictions in place around Downsview Airport, heights are restricted generally to 10.5 metres or three storeys (City of Toronto, 2019; City of North York, 2012).

Residential Apartment Commercial Zone (RAC)

As-of-right, the RAC zone permits residential apartment buildings, parks, ambulance depots, fire halls, or a police station (City of Toronto, 2019). Additional non-residential uses are permitted at-grade with conditions.

Building heights at 1450 Keele Street are limited to 10.5 metres or three storeys; at 3390 Keele Street, the maximum building height of 24 metres is permitted.

COMMERCIAL ZONES

Commercial Local Zone (CL)

The CL zone permits a variety of low-intensity uses exclusively. These uses include restaurants, indoor recreation establishments, day nurseries, etc (City of Toronto, 2019). Within the CL zone, residential uses are not permitted. The only property zoned CL is located at 2861-2875 Keele Street.

Commercial Residential Zone (CR)

Currently, only the properties at the corner of Keele Street and Sheppard Avenue West and the properties at 2819 and 2821 Keele Street are zoned CR under the city-wide zoning by-law. In

recognition of the various levels of desired intensity, the CR zone includes three Development Standard Sets: SS1, SS2, SS3. Within the corridor, all properties fall under SS3 (City of Toronto, 2019).

The CR zone generally applies to the areas designated Mixed Use under the Official Plan and permits a wide range of commercial and residential uses. The zone permits a maximum building height of 11 metres.

INSTITUTIONAL ZONES

Institutional Zone (I)

The I zone exclusively permits Institutional uses, including major educational, health, and government uses (City of Toronto, 2019).

OPEN SPACE ZONES

Open Space Zone (O)

The O zone exclusively permits parks, which includes gardens and small play areas.

CITY OF NORTH YORK ZONING BY-LAW

While the city-wide zoning by-law harmonized the zoning for much of the City, certain properties remain under the jurisdiction of the various zoning by-laws of the City of Toronto's predecessor cities. A total of 42 properties remain under the jurisdiction of the City of North York Zoning By-law No.7625. There are 8 basic zoning designations within the City of North York Zoning By-law: Suburban Residential Residential One-Family Detached Dwelling, Multiple Family Dwelling, Greenbelt, Commercial, Industrial, Airport, Open Space, Cemetery, York University, Hospital, and Wilson Avenue – Keele Street to Bathurst Street (City of North York, 2012).

RESIDENTIAL ONE-FAMILY DETACHED DWELLING ZONES

Suburban Residential Zone (R-A)

The R-A Zone is a low-density residential zone that only permits a single detached dwelling and accessory buildings (City of North York, 2012). Home occupation uses are limited to private instruction. Building heights are generally permitted to be no more than 11 metres.

One-Family Detached Dwelling Fifth Density (R5)

The R5 Zone is a low-density residential zone that permits the following: single detached dwelling, limited home occupations, recreational uses, and institutional uses (City of North York, 2012). Uses are permitted at a relatively higher density, but lower building height.

A site-specific exception was granted at the rear third of 2960 Keele Street to permit a variety of new uses. An "H" is overlaid on the Zone, requiring further study prior to the establishment of an adult education school, commercial use, or professional medical office.

MULTIPLE-FAMILY DWELLING ZONES

Multi-Family Dwelling Fifth Density (RM5)

The RM5 Zone allows for a range of uses, including apartment house dwellings, duplexes, single family dwellings, and a variety of institutional uses, such as hospitals, nursing homes, religious institutions (City of North York, 2012). Along the corridor, the RM5 zone typically consists of smaller walk-up apartments set on larger building lots, near the maximum permitted height of 11.5 metres.

A site-specific exception was granted at the front two-thirds of 2960 Keele Street to permit a variety of new uses (City of North York, 2012). An "H" is overlayed on the Zone, requiring further study prior to the establishment of an adult education school, commercial use, or professional medical office.

COMMERCIAL ZONES

General Commercial Zones (C1)

The C1 zone allows for a wide range of residential, multi-residential, commercial, and institutional uses (City of North York, 2012). The C1 zone is the lowest intensity commercial zone, generally consisting of strip plazas. Dwelling units are permitted above the first floor, at a restricted floor area and to a height no greater than three storeys or 9.2 metres.

A site-specific exception was granted at 2960 Keele Street to relax the yard setbacks and minimum lot depth requirement to permit a gas station (City of North York, 2012).

Avenues Mixed Use Zone (AV-MU)

The AV-MU Zone that applies to certain properties are at the corner of Keele Street and Wilson Avenue. The zone allows a wide range of commercial uses at grade with residential located above (City of North York, 2012). Buildings standards are generally higher than anywhere within the study area – with a permitted FSI of 2.5 and building heights to a maximum 30 metres or ten storeys.

AIRPORT HAZARD AREA ZONES/SCHEDULE D

Schedule D of the City of North York Zoning By-law imposes height restrictions on the area surrounding Downsview Airport. The Airport Hazard Map remains in effect. Height restrictions north of Tavistock Road range from 15.24 metre or 30.48 metres, below the right-of-way width (City of North York, 2012).

AREA POLICIES AND PLANS

The planning framework for the corridor is informed by the neighbouring Downsview Secondary Plan and Wilson Avenue Design Guidelines. Council approved the Downsview Secondary Plan in 2011 (City of Toronto, 2012b). The planning framework for the Downsview Secondary Plan provides policies with respect to

streetscape improvements, a finer street grid, improved multi-modal access between the neighbourhoods and Downsview Park, and built form guidelines encouraging compact low-rises and mixed use development.

The Wilson Avenue Design Guidelines were approved by Council in 2004 (City of Toronto, 2004). The Design Guidelines offers a vision for physical improvements with respect to streetscape elements, built form, and connectivity along Wilson Avenue between Keele Street and Bathurst Street. The Guidelines envision Keele Street and Wilson Avenue as a gateway with enhanced streetscaping, vegetation, and a mid-rise built form.

Immediately north of the study area, City Planning staff are conducting a study of the lands around Keele Street and Finch Avenue West (City of Toronto, 2018a). The Keele-Finch Plus study seeks to update the regulatory framework in anticipation of the the Finch LRT. Based on the Interim Report presented to North York Community Council in 2018, the lands north of Grandravine Drive along Keele Street are envisioned to consist of mid-rise buildings in a compact form. Together with the proposed land uses and built form under this vision, Keele Street will develop into an urbanized, connected corridor.

CITY-WIDE DESIGN GUIDELINES

A number of city-wide guidelines and policy documents will apply to the Keele Street Corridor.

Council adopted the Mid-Rise Building Performance Standards in 2010 (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010). The study implements the policies and goals of the Official Plan with respect to building heights, built form standards, and overall design of new mid-rise buildings along the Avenues. The Guidelines serve as a model to be implemented through as-of-right zoning by area specific studies – including Avenue studies.

Council adopted the Townhouse & Low-Rise Apartment Guidelines in 2018 (City of Toronto, 2018d). The study offers a framework for the implementation of the Neighbourhoods policies for the spectrum of compact low-rise development. Similar to the Mid-Rise Performance Standards, the guidelines are intended to be implemented through various city-wide or area specific plans.

The Complete Streets Guidelines offer a framework for the design of different types of streets to create safe, comfortable, healthy places for multi-modal users (City of Toronto, 2013). Streets are the primary setting for public life. As such, the long-term implementation of the directions contained in the Complete Streets Guidelines through secondary plan and area studies will help reimagine the City's streets into important public places.

PLAN

PRIORITY: URBANIZATION

The City of Toronto Official Plan identifies the study area as an Avenue. Avenues sit along major arterials and are designated for long-term *reurbanization* and population growth (City of Toronto, 2015b). Keele Street is one of many of examples of a former agricultural community transforming over the span of twenty years into a suburban form without having undergone a period of urbanization (Hart, 1971; Solomon; 2007).

The goal of this plan is nothing short of transforming the Keele Street arterial – as it is known today – into an urbanized Avenue.

There is no single recipe to creating an urban area. Rather, there are interworking parts that help contribute to a more urban environment. Urbanization along the Keele Street Corridor includes:

Locating new and denser housing types that encourage a mix of use, make efficient use of lands, frame the right-of-way, are appropriately massed and attractively designed.

Supporting the creation of complete communities that provide a mix of unit types that are family-friendly and offers a range of affordability.

Creating high-quality and well-planned public spaces that retain existing residents, attract new residents, encourage interaction and animation, and provide the infrastructure required by all.

Prioritizing opportunities for greening within the right-of-way, including planting new trees, creating new parks with frontage along Keele Street, planters, and green buildings.

Reconfiguring and civilizing Keele Street into a complete street that serves as a living space for its residents, assigns priority to safety, and encourages active transportation and transit.

Creating high-quality and well-planned public spaces that retain existing residents, attract new residents, encourage interaction and animation, and provide the infrastructure required by all.

LAND USE

The land uses recommended under this plan promote a balanced model for growth. The proposed designations locate appropriate uses and compact building types throughout the corridor to repair decades of car oriented suburban development. Over time, by permitting a mix of uses at varying scales of intensity along the Avenue, Keele Street will transform into an urbanized complete community that fits the city's urban structure and best serves its residents.

MIXED USE MID-RISE AREAS are planned to be high-growth areas well-supported by transit, set on animated and safe streets. Mixed Use Mid-Rise Areas are located at the Corridor's central nodes: at Keele Street and Wilson Avenue; across from Downsview Park at Keele Street and Denbigh Crescent; and at Keele Street and Sheppard Avenue West. A wide range of residential, office, commercial, and institutional uses are envisioned to be permitted within the same building. The following policies are recommended for the designation:

Non-residential uses should be permitted within the first three- storeys of any new building.

The maximum permitted density for new mid-rise buildings should be 4.0 times the lot area.

RESIDENTIAL MID-RISE AREAS are planned for moderate, stable growth. The predominant built form should be residential mid-rise buildings with small-scale commercial, office, or institutional uses encouraged at-grade. Additionally, hybrid mid-rises with attached stacked townhomes may be permitted on corner lots fronting a local road or fronting a laneway. The following policies should apply:

Non-residential uses should be permitted at-grade.

The maximum permitted density for new mid-rise buildings should be 4.0 times the lot area.

AVENUE LOW-RISE AREAS are transition areas between the urbanized Avenue and the stable Neighbourhoods. The predominant built form will permit a wide range of compact low-rise residential dwellings, including townhomes, stacked townhomes, back-to-back townhomes, and low-rise hybrid buildings. Recommended policies include:

The permitted maximum height should be 12 metres or less.

The maximum permitted density for new mid-rise buildings should be 2.0 times the lot area.

Lands designated **COMMUNITY FACILITIES AREAS** are intended for long-term use and retention as educational, health, and government uses within the corridor.

PARKS AND OPEN SPACES AREAS include hardscaped open spaces and green spaces intended for public use.

BUILT FORM

Built form considers the physical design of buildings and its relation to public spaces. Specifically, built form elements include building orientation, height and massing, articulation, placement, access, and parking.

MID-RISE DESIGN STANDARDS

BUILDING ORIENTATION AND FACADES

Building orientation considers the layout and location of a building and how it of the building and its interaction with the street (Dunham-Jones & Williamson, 2009). When a building is oriented well, it has the potential to enhance and activate the character of the area and the street (Gehl, 2010; Alexander et al., 1977; Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010). The following should generally apply to all new mid-rise development:

New buildings along the corridor will be designed to face and frame the street. Appropriate massing helps promote a hospitable pedestrian environment, can reduce the psychological impact of traffic, invites attraction along the Avenue, and allows sunlight within the public right-of-way.

Building facades should be articulated with narrow retail fronts, entrances that provide direct access from the street, and windows.

Buildings setbacks should range from 0 metres to 3 metres.

The distance from the Keele Street curb to a building wall should be at least 6 metres.

Most new buildings should be built to the property line except where the setback provides an opportunity for added sidewalk space.

Setbacks should be consistent block-by-block to create a harmonious and seemingly continuous three-storey building wall.

Building walls should occupy no less than 75% of the total building façade and should be built to the front property line, with the remaining 25% permitted to regress no more than 3 metres.

Building walls should not be longer than 60 metres. Where a new development is proposed at a length longer than 60 metres, mid-block connections or a public open space should be incorporated to enhance circulation and permeability.

BUILDING HEIGHTS & MASSING

All new buildings should be a minimum height of 10.5 metres

(Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

Mid-rise building heights along the Avenue will range from 12 to 36 metres.

Not all sites are configured to accommodate the maximum scale of development. Building heights will be informed by the location, context, flight path restrictions, and lot configuration of the proposed development:

1. Location: More intense developments should be sited in areas well-served by transit and community facilities (City of Toronto, 2015b).
2. Context: New buildings should be sensitive and respect the existing physical character of surrounding buildings, streetscapes, and open space patterns (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).
3. Lot Configuration: Building heights will be informed by the minimum lot depth and width for each proposed development. The permitted building height should be based on the following lot depths:

MINIMUM LOT DEPTH	MINIMUM LOT WIDTH	PERMITTED HEIGHT
32.6 metres	30 metres	20 metres
36.2 metres		23 metres
41.0 metres		27 metres
44.6 metres		30 metres
48.2 metres		33 metres
51.8 metres		36 metres

(Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010)

Mechanical penthouses should be permitted to exceed the maximum building height by no more than 5 metres (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

TRANSITIONS

All buildings adjacent to Neighbourhoods, Parks and Open Spaces, and Natural Areas will be sensitive to and respect the existing physical character of buildings, streetscapes and open space patterns in these areas (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010); City of Toronto, 2015b). Transitions through stepbacks and strategic landscaping will ensure the negative impacts of additional building height and density do not negatively impact these areas.

Rear yard setbacks will be 7.5 metres. Laneways and vegetated landscaping are permitted within the setback area (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

Applying a rear-side 45-degree angular plane on all buildings is recommended to encourage gradual height reductions from the rear property line (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

All buildings that are greater than 23 metres high should require a front setback continuously up the total building height based on the 45-degree angular plane. Buildings less than 23 metres will not require a front setback but will need 3-storey expression on all buildings..

For corner lots, the building heights and setbacks applied on the frontage will be applied on the other street frontage (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

Buildings can join in various ways. On the left (Miami, Florida), the two building walls are connected by a distinctive egg-shaped feature; on the right (St. Clair Avenue, Toronto, Ontario), the new mid-rise building is built directly to the older structure's wall.

BUILDING DESIGN

Avenue-facing buildings are the most visible features of the street. In many ways, the quality of building design is representative of the type of community. Building design should be guided by the following criteria:

To accommodate various users throughout the life-cycle of the structure, ground floors will be no less than 4.5 metres. All floors above the first storey will be 3.0 metres (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

Buildings should be articulated with narrow fronts, multiple entrances that provide direct building access for pedestrians, and windows that provide visual connections and invitations into buildings (Alexander et al., 1977; Gehl, 2010).

Projections, such as balconies, awnings, and arcades should be encouraged (City of Edmonton, n.d.). If the building is not located in an Activity Node or Significant Frontage Area, building projections should be discouraged from encroaching over the front property line.

Buildings should incorporate a palette of colours into the building's façade that enlivens the corridor during all times of the year (Gehl, 2010).

Blank street-facing walls should be prohibited (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

(Wyliepoon, 2011)

(Vancouver Public Space Network (VPSN), 2013)

VEHICULAR ACCESS AND PARKING

Various innovative parking approaches will be required to reduce the visual impacts of surface parking and reduce pedestrian-vehicular conflicts. Within the urbanized corridor, new developments will:

Appropriate parking standards should be established through

(Beyond My Ken, 2013)

implementing a zoning by-law, which considers, shared parking and transportation demand strategies, and coordinated with improvements to public transit.

Vehicular access will generally be provided on local streets and laneways.

Vehicular access to parking facilities is provided by a laneway, new developments should seek improve the safety and attractiveness of adjacent streets and mask any negative visual impacts through strategic landscaping.

Where vehicular access is provided directly from Keele Street, parking structures should minimize frontage and include streetscaping elements, such as paved pedestrian crossings, to demonstrate pedestrian priority along the Avenue.

Surface parking should only be provided as accessible parking spaces, interim parking, and short-term loading zones in private driveways or on local streets at restricted times. Commercial boulevard parking permits are not permitted.

Servicing areas should be:

- Provided at the rear buildings on laneways, local roads or new public streets (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

- Setback no less than 7.5 metres from the rear lot line (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010).

- Concealed or landscaped.

AVENUE LOW-RISE DESIGN STANDARDS

BUILDING ORIENTATION AND FACADES

New buildings should be oriented towards a public street.

Buildings should be articulated with narrow retail fronts, entrances that provide direct access from the street, and windows.

Street-facing private amenity space and projections, including balconies, stairs, awnings, and arcades, should extend into the setback area to minimize the distance from the building face to the street (City of Toronto, 2018d).

Buildings with a side wall facing Keele Street should be expressive, well-designed and consider the incorporation of murals or vegetation, such as climbing plants.

(Chimay Bleue, 2011)

BUILDING SETBACKS

Setbacks should vary from 1.5 metres to 4.5 metres, based on location, the size of the development, and surrounding context (City of Toronto, 2018d).

Where a new development is beside an existing low-density dwelling, the first townhomes should be set back to be aligned to match the existing setback pattern (City of Toronto, 2018d).

Setbacks should vary at strategic points to expand the public realm and contribute to creating a comfortable pedestrian environment.

(Heritage Vancouver Society, 2016)

SCALE AND TRANSITIONS

Transitions between compact, low-rise elements and the neighbourhoods are vital to ensuring new development is compatible with the existing physical character of the single detached dwellings.

All new buildings will be a maximum height of 12 metres (City of Toronto, 2015b).

Many new developments will back onto low-density areas. Achieving compatibility between Avenue development and its surroundings will be required by establishing appropriate transitions of no less than a 7.5 metre rear yard setback (City of Toronto, 2018d).

Minimum building facing distances should be incorporated to prohibit sight-lines into neighbouring dwellings. Generally, a minimum separation distance of 13 metres is recommended (City of Toronto, 2018d).

CONNECTIVITY AND SHARED SPACE

Streets, lanes, mews, and walkways should provide safe, direct, universally accessible pedestrian and cycling facilities to the new developments.

Mews, laneways and/or shared walkways are preferred to be located adjacent to the rear lot line.

A laneway may be located within the 7.5-metre rear yard setback (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/ Pace), 2010).

Private garages are preferred to be located at the rear of the house with access by laneway.

For projects with 20 units or more, or those 1.0 hectare or more, play space for children and shared outdoor amenity are required. Amenity spaces include courtyards, shared roof top terraces, plazas, and gardens (City of Toronto, 2018d).

SECTION 37

Large development sites in mixed use area may be candidates for increased height and density based on the proposed land use, lot configuration, and separation from Neighbourhoods areas, and location near transit and community facilities.

Development policies related to Section 37 agreements should include:

A maximum building height that does not exceed 42-metres.

Provisions requiring new buildings that exceed the 1:1 ratio will be considered towers and meet the built form and design requirements under the City of Toronto Tall Building Design Guidelines (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010)..

Maintain the intent of the built form design guidelines and mitigate adverse impacts on adjacent lots caused by increased height and massing, shadowing, wind, and parking.

The following public benefits should be preferred where an agreement under Section 37 is made:

1. The provision of affordable residential units where:

- A minimum 20% of the total residential gross floor area is allocated for affordable units.
- Affordable units are listed at 80% below average market rents or less.
- Affordable units include social housing units or seniors care.

2. Community facilities, such as child care centres and community recreation centres.

3. Capital improvements to existing parks (see Parks and Open Space Strategy).

4. Public art located at Activity Nodes.

5. Other community needs based on public consultation with residents prior to the adoption of an Avenue study.

HOUSING

All new development will be recommended to incorporate a mix of unit types, of various tenures, and varying degrees of affordability. The following policies should apply to all new residential developments:

ENCOURAGE A MIX OF UNITS

Providing a mix of unit types allows the housing stock to accommodate the needs of various residents, whether they are single or living in larger households. Housing policies within the study area should meet the following standards:

New buildings will provide a full range of housing opportunities in terms of type, tenure, unit size.

Generally, unit types should be provided based on the following:

BEDROOMS	PERCENTAGE (%)
1	25%
2	35%
3	25%
4+	15%

(Statistics Canada, 2017b)

INCORPORATE VARIOUS TENURES INTO NEW BUILDINGS

Construction of new purpose-built rental units has remained low in comparison to other tenure types (Canadian Centre for Economic Analysis & Canadian Urban Institute, 2019). The supply of rental units has remained stagnant since the 1980s, having been over-taken by the private condominium market (Canadian Centre for Economic Analysis & Canadian Urban Institute, 2019). These trends have led to the Toronto Official Plan policy requiring the replacement of all converted or demolished purpose-built rental units (City of Toronto, 2015b).

The City should maintain the intent of the City's rental replacement policy.

MAINTAIN THE CORRIDOR AS AN AFFORDABLE RENTAL DISTRICT

Affordable housing in Canada is generally defined as costing less than 30% of a household's before-tax income (Canadian Mortgage and Housing Corporation, 2018). In a predominantly rental corridor, maintaining the area as affordable for a wide range of future tenants is vital to the guiding principle of creating a complete community. As such:

Encourage the incorporation of various tenure types such as purpose-built rental, senior's assisted living units and/or social housing in all new developments.

Recommend new developments be streaming through the Open Door Affordable Housing Program.

City-wide trends show more and more people are living alone. Along Keele Street, the reality is different. Households are generally large (2.7 persons per household), and large household of four people or more make up over a quarter of the study area's 3,820 households (Statistics Canada, 2017; City of Toronto, 2016a).

CONSOLIDATION

Many constrained lots will require medium to large consolidations to meet the proposed building heights, densities, and built form outlined under this plan. The following lots have been identified for assembly to meet the minimum standards:

#	CIVIC ADDRESSES
1	1098 Wilson Ave, 1102 Wilson Ave, 1104-1112 Wilson Ave, 1114 Wilson Ave, 1116 Wilson Ave, 1118-1122 Wilson Avenue
2	2762 Keele St, 2766 Keele St, 2770 Keele St
3	2801 Keele St, 2811 Keele St and 6 Paxtonia Dr
4	2817 Keele St, 2819 Keele St, 2821 Keele Street, 2823 Keele St and 11 Tilbury Drive
5	2816 Keele St, 2818 Keele St and 2820 Keele St
6	2842 Keele St and 1 Wandle Ave
7	2850 Keele St and 2852 Keele St
8	2854 Keele St and 2856 Keele St
9	2858 Keele St, 2860 Keele St and 2862 Keele St
10	2864 Keele St and 2866 Keele St
11	2868 Keele St and 2874 Keele St
12	2880 Keele St, 11 Calvington Dr and 17 Calvington Dr
13	2837 Keele St, 2839 Keele St, 2841 Keele St, 2843 Keele St, 45 Cuffley Cres S, 47 Cuffley Cres S, 49 Cuffley Cres S, and 51 Cuffley Cres S
14	2861-2875 Keele Street and 2 Cuffley Cres S
15	2881 Keele St, 2883-2889 Keele St, 18 Keelegate Dr
16	2891 Keele St, 2893 Keele St and 48 Cuffley Cres N
17	2895 Keele St, 2897 Keele St, 2899 Keele St, 2901 Keele St, 2903 Keele St and 2905 Keele St, 50 Cuffley Cres N and 52 Cuffley Cres N
18	2910 Keele St, 18 Calvington Dr, 20 Calvington Dr and 22 Calvington Dr
19	2900 Keele St, 1 Tavistock Rd, 21 Tavistock Rd, 23 Tavistock Rd
20	6 Tavistock Rd, 8 Tavistock Rd, 10 Tavistock Rd, 12 Tavistock Rd, 14 Tavistock Rd, 16 Tavistock Rd, 2938 Keele St and 2940 Keele St
21	2954 Keele St and 2956 Keele St
22	2988 Keele St and 2990 Keele St
23	2992 Keele St and 2994 Keele St
24	28 Whitburn Cres, 26 Whitburn Cres, 24 Whitburn Cres, 3010 Keele Street, 3012 Keele St, 3014 Keele St, 3016 Keele St
25	2 Denbigh Cres, 4 Denbigh Cres, 6 Denbigh Cres, and 8 Denbigh Cres, 3030 Keele St, 3032 Keele St, 3034 Keele St, 3036 Keele St, 3038 Keele St, 3040 Keele St and parts of 2 Dorado Court
26	2 Diana Dr, 4 Diana Dr, 3232 Keele St, 3234 Keele St
27	3262 Keele St, 3264 Keele St, 3266 Keele St, 1 Wycombe Rd, 3 Wycombe Rd, 5 Wycombe Rd, 7 Wycombe Rd, 9 Wycombe Rd
28	2 Dovehouse Ave, 4 Dovehouse Ave, 6 Dovehouse Ave, 8 Dovehouse Ave, 10 Dovehouse Ave, 12 Dovehouse Ave, 14 Dovehouse Ave, 16 Dovehouse Ave

PUBLIC REALM

The public realm includes publicly-accessible exterior space between building faces that function as meeting places (City of Toronto, 2015b). Within these spaces – streets, sidewalks, setbacks, parks, open spaces – a series of interventions are recommended to provide new links, art, furnishing, and new spaces for interaction. Public realm design re-enforces the vision for a pedestrian-oriented, vibrant, and green corridor.

The following public realm designations address the diverse levels of activity spanning the Corridor:

ACTIVITY NODES are high volume pedestrian gateways in Mixed Use Areas where population growth, higher concentrations of residents and jobs, and a more intense built form is encouraged. Activity Nodes are located at:

- Keele Street and Wilson Avenue
- Keele Street between Denbigh Crescent and Maryport Avenue
- Keele Street and Sheppard Avenue West.

Recommended policies include:

New buildings should provide streetscape elements – such as planters, public art, and seating – within the minimum 2-metre setback space.

Overhangs, such as awnings, canopies, and arcades should be permitted to project beyond the property line and provide continuous weather protection.

Overhangs should use transparent materials that permits solar penetration.

Building facades should use colour and lighting to add character on all types of buildings.

Building façades should incorporate transparent glazing that encourages passive surveillance, illumination, and a strong relationship between indoor and outdoor spaces.

Where sufficient sidewalk space remains, street vendors may be permitted.

SIGNIFICANT FRONTAGES are anticipated to become medium volume pedestrian areas located near transit stops and important local roads. With moderate anticipated population growth, Significant Frontages provide small, high-quality conditions for people to walk, stand, stay, sit, linger, watch, listen and talk. Significant Frontages are located at:

- In front of Downsview Library at Keele Street and Paxtonia Boulevard
- Keele Street and Calvington Drive
- Keele Street and Keelegate Drive
- Keele Street and Diana Drive

Streetscape Elements (Arup, 2016)

Bus Shelters

Benches

Public Art

Overhangs

Trees and Plants

Poster Boards

Garbage bins

Ideal sidewalk dimensions (Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace), 2010)

- In front of 3374 and 3390 Keele Street
- Keele Street and Grandravine Drive.

The following policies are recommended for Significant Frontages:

Significant Frontages will form small centres of life, furnished with garbage bins, newspaper boxes, planters, seating, food stands, trees, and public art.

Astral garbage bins, benches, and newsstands will be provided in the furnishing zone within the public right-of-way.

Overhangs, such as awnings, canopies, and arcades should be permitted to project beyond the property line to provide continuous weather protection.

Awnings, canopies, and arcades should use colour and lighting to add character on all types of buildings.

Transparent materials for weather protection along building frontages that permits solar penetration is preferred.

Where there is a residential lobby or storefront, building façades should incorporate transparent glazing that encourages passive surveillance, illumination, and a strong relationship between indoor and outdoor spaces.

AVENUE AREAS are not anticipated for significant pedestrian activity. Recommended actions include targeted improvements at choice locations and corridor-wide interventions in support of creating an urbanized corridor.

Sidewalk improvements along the corridor and the surrounding neighbourhoods will evolve to create a connected, hospitable, comfortable, and safe pedestrian environment.

Boulevard sidewalks are to span the corridor

Sidewalks along Keele Street will be provided for within the right-of-way. Sidewalk widths will be a minimum 4.75-metres wide, which includes a 0.815-metre curb zone, a 1.83-metre furnishing zone, and a minimum 2.1-metre pedestrian clearway.

New sidewalks within the surrounding neighbourhoods should be 2.1 metres wide and are recommended on the following streets to improve pedestrian connections to the corridor:

- Pleasant Home Boulevard (east and west side from Wilson Avenue to Victory Drive)
- Wandle Avenue (north side from Keele Street to Bunnell Crescent)
- Tilbury Drive (south side)
- Calvington Drive (north side; to Keele Street)
- Cuffley Crescent North (west side)

- Tavistock Road (north and south side)
- Whitburn Crescent (north and south side)
- Denbigh Crescent (north side)
- Maryport Avenue (south side)
- Diana Drive (north and south side).

Greening Keele Street will be encouraged corridor-wide.

Trees are recommended to be planted at an interval of no more than 4 metres and no less than 10 metres apart.

Tree selection should be consistent throughout the corridor and match the various native deciduous species planted in the Black Creek Ravine and Downsview Park.

The Highway of Heroes Living Tribute should be expanded beyond Downsview Park throughout the area.

Privately-Owned, Publicly-Accessible Open Space (POPS): Privately-owned, publicly-accessible open spaces include mid-block connections, courtyards, forecourts, gardens or other types of open spaces.

Privately-owned, publicly-accessible open space will be provided through an agreement under Section 37 of the Planning Act.

The provision of POPS will not satisfy any requirement under Section 42 of the Planning Act (City of Toronto, 2018c).

As new development occurs, hydro lines and utilities are to be buried underground.

Existing traffic control boxes and Bell boxes should be painted or covered with laminated art cover. Designs are encouraged to be provided by neighbourhood volunteers or students or through the StreetARToronto program.

Ten billboard rooftops are currently within the study area. To support the removal of signage and visual clutter, the City of North York By-law 30788 should be amended to prohibit the erection of additional rooftop billboards along the corridor.

PARKS & OPEN SPACES

Parks and Open Spaces include public spaces used for recreation, leisure, and social interaction.

Many parts of the neighbourhood are generally well-served by parks and natural areas – to the west Downsview Dells Park is an important natural area near the corridor; to the east, Downsview Park plays a major role along the Corridor's frontage; and within the Neighbourhood Areas, small parks and school grounds provide space for recreation.

Some parts, including the south-east portion of the Corridor are deficient in local parks (City of Toronto, 2018c). Accordingly, the area has been designated a parkland acquisition priority area, which imposes a higher rate on new development for parkland dedication. Sites less than one hectare are required to dedicate a minimum 10% of the development area or provide cash in-lieu of parkland; sites one to five hectares will dedicate 15%; sites greater than five hectares, a maximum 20% (City of Toronto, 2018c).

Providing quality parks and open spaces throughout the corridor will be achieved through the following policies and actions:

ACQUIRING NEW PARKS IN PRIORITY AREAS

Incremental development will provide opportunities and funding for the creation of new parks and enhancements within the priority area. Parklands created through conveyance to the city should:

- Prioritize park frontages on Keele Street or legible linkages to Keele Street where frontage on Keele Street is unsuitable.

- Encourage connections northward to Downsview Park.

- Promote the creation of parkettes and local parks.

NEW PARK A is located on the current site of Downsview Plaza. The proposed local park will be immediately south of Downsview Library, have frontage on Keele Street, and run adjacent to the proposed Public Street B

NEW PARK B is located on the current site of the Wycliffe-Wilson Centre at 1077 Wilson Avenue. The ideal site for the proposed linear park would include frontage along Wilson Avenue and north-south along James Finlay Way.

NEW PARK C / D is located at 2 Cuffley Crescent South and 2-4 Cuffley Crescent North respectively. The site is currently occupied by 2-and-a-half storey apartment buildings and would not include frontage on Keele Street; however, lots are large enough to serve as local parks for residents of the Corridor and the surrounding neighbourhood.

IMPROVING EXISTING PARKS AND CONNECTIONS TO THE AVENUE

The surrounding neighbourhoods are well-served by parks. The

Official Plan (2015b) notes that the ratio of park space (in m²) to person throughout much of the neighbourhood is above 28m² per person. The Corridor, however, is lacking. A mix of on-site parkland dedication and cash-in-lieu funding should be allocated to the following candidate sites for enhancement that can enlarge existing parks and, ideally, extend them to Keele Street.

NEW PARK E is located at both 3390 Keele Street and 3374 Keele Street. Through development, the City should seek to extend Brookwell Park along the southern property line. The purchase of 3374 Keele Street has the potential to create a large local park along the Corridor and serves as the final piece to connect Brookwell Park to the Avenue.

NEW LINKAGE A provides improved access to Brookwell Park from Sheppard Avenue West that invites activity, encourages use by the community, improves the entrance's visibility.

NEW LINKAGE B should provide a new connection between Downsview Dells Park and Denbigh Crescent.

NEW LINKAGE C is a green link connecting Langdon Park and recreation space at Blaydon Public School to Keele Street.

NEW LINKAGE D enhances the existing connection between Downsview Public School and Tilbury Drive.

COLLABORATION

Not all green spaces are owned by the City of Toronto. Properties owned by the Toronto District School Board, the Toronto Catholic District School board, and Canada Lands, are among the largest landowners on the Corridor.

In consultation with the Toronto District School Board and the Toronto Catholic District School Board, parkland dedication funds should be used to improve access, provide linkages, and expand park space on school sites.

The City of Toronto and Canada Lands should coordinate pedestrian paths, cycling paths, and streetscape elements along Downsview Park's 850-metres of frontage along Keele Street. Priorities should include:

- Creating a hierarchy of walking infrastructure which considers connections and linkages to existing and proposed park trails, sidewalks, and public streets
- Coordination of streetscaping
- Improved signage towards Downsview Park and Downsview Park Subway Station.

"HOME RULE"

Through a directive from Community Council, payment received in-lieu of on-site parkland dedication should only be used for new parks and improvements within the district (City of Toronto, 2018c).

(City of Toronto, 2018b)

(Ministry of Municipal Affairs and Housing, 2012)

HERITAGE

An example of a building with a deep setback.

The two existing heritage buildings along Keele Street – the Downsview United Church and George Jackson House – offer a glimpse into the corridor's past as a distinct agrarian community. During the corridor's rapid evolution from an agrarian to a suburban form, many of the former farm houses were lost to development (Hart et al., 1971). Conserving the cultural heritage elements along the corridor will be achieved by:

RETAINING VIEWS

New construction adjacent to a property on the Heritage Register will be designed to conserve the cultural heritage values, attributes and character of that property. New development within the Downsview United Church View Preservation Area will:

- Ensure that building massing and heights do not negatively impact views of the Downsview United Church spire.

- Apply a height restriction of 28 metres within the front 15 metres to highlight the heritage characteristics of Downsview United Church and give unobstructed, prominent views of the 34-metre spire from the public realm.

PROMOTING SENSITIVE ADAPTIVE RE-USE

The adaptive re-use of heritage properties is encouraged, provided:

- The proposed alterations or development, retain the integrity of the property's cultural heritage value and attributes. Include placemaking elements to highlight the property's cultural significance.

- Promote an understanding of the corridor's local history evolution from a pioneering town through public art and commemorative plaques.

REGISTER NEW PROPERTIES

Over time, new properties, such as 1098 Wilson Avenue, should be studied for future designation.

STREET NETWORK

Keele Street has long served as an important regional arterial road. The car is king on Keele Street. But current conditions for all users – cars, trucks, buses, cyclists, and pedestrians – is unpleasant. On a daily basis, thousands of vehicles drive along five traffic-congested lanes – four north-south lanes and a centre turning lane. Signs of the former tree-lined country road have been replaced by a paved paradise.

Rather than cars hurtling down the arterial, the new Keele Street will handle traffic gracefully. The transportation plan for Keele Street will meet the Plan's vision for developing Complete Streets that are vibrant, support various functions – including walking, transit, and cycling – and allow the many experiences and journeys along the right-of-way to occur in a comfortable, safe, and pleasing manner (City of Toronto, 2013).

Rehabilitating Keele Street into an Avenue will be achieved through the following for policies and actions:

RECONFIGURE LANE WIDTHS

Keele Street should be reconfigured to the following lane widths:

Traffic lane	3.0 metres
Left-turn lane	3.0 metres

Dedicated right-turning lanes will not be provided on new public streets.

TRAFFIC CALMING THROUGH NEW INTERSECTIONS AND CROSSINGS

New intersections will serve as a means of traffic calming and provide increased opportunities for pedestrian crossing.

New intersections are recommended throughout the corridor, as shown on Schedule 12.

The introduction of left-turn prohibitions at signalized intersections should be implemented through by extending the raised median-strip through the corridor.

Permit u-turns at signalized intersections.

New intersections should include accent paving, painted marking or other paving designs to define pedestrian crossings to create legible and clearly-defined pedestrian spaces.

FUTURE KEELE STREET SECTION

NEW PUBLIC STREETS SECTION

NEW PUBLIC STREETS

New public streets are proposed to create a finer street grid and improve connections between Keele Street and the surrounding neighbourhoods.

Public streets, as shown on Schedule 10, are recommended.

The creation of more public streets that connect should be determined at the site plan stage of approval

Dedicated right-turning lanes will not be provided on new public streets.

All new public streets should include sidewalks built at a width of 2.1 metres, with an additional 0.8 curb zone/tree space (City of Toronto, 2013).

A New Public Street, extending Calvington Drive to North Cuffley Crescent should be pursued through a land swap or over the course of development.

LANEWAYS

Laneways will serve as the primary means of vehicular access for new mid-rise buildings. Laneways help:

- Create appropriate transitions between higher density development along the Avenue and low-density residential areas.
- serve as access points for vehicular traffic.
- provide rear lane access to mid-block sites without requiring driveway access from the Avenue.

The following guidelines should apply to all new laneways:

All laneways should be conveyed and treated as public rights-of-way.

Where laneways are required, they should be no less than 7.5 metres.

All laneways will provide two driving lanes (each 3.0 metres), a raised walkway (1.5 metres) and a vegetated buffer area along the rear lot line as determined at the site plan stage of approval.

FUTURE LANEWAY SECTION

TRANSIT

A significant portion of the Corridor's current residents list transit as their primary mode of transportation. Almost two-thirds of daily trips are made by public transit, on the bus routes running on and through the corridor (City of Toronto, 2017e). Population growth, higher population densities and more intensive land uses may require surface transit improvements to:

- Help move transit quickly along heavily-congested routes.
- Ensure passenger comfort and convenience.
- Added use as a dedicated lane for emergency vehicles
- Create a safer corridor by including left-turn prohibitions, signalized intersections mid-block pedestrian crossings, and pedestrian refuges at transit stops.
- Reduce auto dependence.
- Beautify Keele Street with in-street planting, public art, and displays.

As the Corridor is urbanized, evaluating the viability of a dedicated two-lane bus transit and emergency vehicle right-of-way should be prioritized. Recommended actions include:

Amend Map 5 Surface Transit Priority Network to include Keele Street as a Transit Priority Segment.

Bus lane widths should be 3.1 metres wide on raised lanes.

Bus stops should be incorporated into a planted 1.5 metre median strip (Jacobs, 2002). Median strips should be designed to include a pedestrian refuge near the street crossing, trees, and placemaking elements, such as public art.

Dedicated bus lanes on Keele should be developed concurrently with new development and the implementation of a dedicated transit lanes on Wilson Avenue.

JOURNEY TO WORK
(Statistics Canada, 2017e)

ACTIVE TRANSPORTATION

Planning for the safe movement of all street users is the foundational principle of the City of Toronto's Cycling Network 10 Year Plan (2016a) and the Vision Zero Road Safety Plan (2016c).

No residents currently cycle as a primary mode of transportation. Over time, urbanization may serve as an impetus for improved and cycling infrastructure. Accordingly, designating space within the right-of-way for future cyclists is vital.

Cycling routes are ordered under the following types:

BIKE LANES are dedicated cycling lanes located on the street (City of Toronto, 2016b).

Bike lanes are recommended to be no less than 1.8 metres wide.

Bike lanes are recommended on the following streets:

Calvington Drive, providing an east-west connection from Keele Street to Roding Park and Black Creek. Bicycle lanes may be distinguished by painted horizontal lanes and separate by bollards.

Dubray Avenue, Dale Road, Tilbury Drive, Hawksbury Road from Cuffley Crescent South to Wilson Avenue, serving as a north-south connection through the neighbourhood between Downsview Park and Wilson Avenue and the various schools.

The proposed Dovehouse Drive, an east-west the neighbourhood to Keele Street and the William Baker Lands.

Grandravine Drive, connecting to the proposed east-west connection at the north end of the William Baker Lands, through the neighbourhoods to the west.

Bike lanes should be constructed on all New Public Streets.

BOULEVARD TRAILS are shared pathways that supporting various users, including cyclists (City of Toronto, 2016b). Bike lanes are recommended on the following streets:

Keele Street, from Downsview Park Boulevard and Sheppard Avenue West. The City of Toronto and Canada Lands – responsible for Downsview Park – should coordinate to provide 3.6-metres of markings exclusively along the east side of Keele Street.

QUIET STREETS ROUTES use strategic traffic calming, such as bump-outs, landscaping, signage, and sharrows to help distinguish cycling space from automobile traffic (City of Toronto, 2016b). Quiet Street Routes are recommended on the following streets:

Sunfield Road, connecting to Sentinel Road north of Sheppard Avenue West.

Diana Drive, connecting to Seeley Drive.

Victory Road, connecting Keele Street to Wilson Avenue and Roding Park.

Through the new Special Pedestrian Corridor proposed under the Downsview Secondary Plan.

WAYFINDING

Clear wayfinding to Keele Street, Wilson Avenue, Sheppard Avenue West, Humber River Hospital, York University, Downsview Park and Downsview Park Subway Station is recommended along all cycling routes.

CONCLUSION/IMPLEMENTATION

The Keele Street Corridor will evolve over time. This plan presents a vision for urbanization based on five principles:

Locating new and denser housing types that encourage a mix of use, make efficient use of lands, frame the right-of-way, are appropriately massed and attractively designed.

Supporting the creation of complete communities that provide a mix of unit types and offers a range of affordability.

Creating high-quality and well-planned public spaces that retain existing residents, attract new residents, encourage interaction and animation, and provide the infrastructure required by all.

Prioritizing opportunities for greening within the right-of-way, including planting new trees, creating new parks with frontage along Keele Street, planters, and green buildings.

Reconfiguring and civilizing Keele Street into a complete street that serves as a living space for its residents, assigns priority to safety, and encourages active transportation and transit.

This study primarily foresees change occurring through private development on a lot-by-lot basis. Regulatory changes should be enacted by Council early on to provide the framework for the desired type and scale of development the City envisages along the Corridor.

The following regulatory changes are recommended for the Keele Street Corridor:

- Amendments to the Toronto Official Plan to create a distinct land use designation for moderate growth Avenue areas (under this plan the designation is Residential Mid-Rise).
- Amend Map 5 Surface Transit Priority Network to include a Transit Priority Segment on Keele Street.
- Review and rezone the corridor to increase the allowable building height according to Schedule 3.
- Create and implement urban design guidelines for the Corridor.
- Amend the City of North York Sign By-law - By-law 30788 – to prevent the erection of new billboard signs.
- Amend the Council-approved Cycling Network 10 Year Plan to recognize the proposed cycling network on Schedule 11.
- When plans for the Downsview Airport lands are finalized, Council should repeal Schedule D of the City of North York By-law No.7625.

SCHEDULES

SCHEDULE 1

SCHEDULE 2

SCHEDULE 3

SCHEDULE 4

SCHEDULE 5

SCHEDULE 7

SCHEDULE 8

SCHEDULE 9

SCHEDULE 10

SCHEDULE 11

SCHEDULE 12

WORKS CITED

LITERATURE

- Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A pattern Language: Towns, Buildings, Construction*. New York, NY: Oxford University Press.
- Beyard, M.D. & Pawlukiewicz, M. (2001). *Ten Principles for Reinventing America's Suburban Strip*. Retrieved from <https://library.ryerson.ca/>.
- Brook McIlroy Planning + Urban Design & Pace Architects (BMI/Pace). (2010). *Avenue & Mid-Rise Buildings Study*. Retrieved from <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/>.
- Buliung, R., & Hernandez, T. (2009). *Places to Shop and Places to Grow: Power Retail, Consumer Travel Behaviour, and Urban Growth Management in The Greater Toronto Area*. Retrieved from <https://library.ryerson.ca/>.
- Canadian Centre for Economic Analysis & Canadian Urban Institute (2019). *Toronto housing market analysis: From insight to action (PH2.5 Appendix 1)*. Retrieved from <https://www.canurb.org/>.
- Canadian Urban Institute. (2017). *Visualizing density*. Retrieved from <https://www.canurb.org/>.
- Canada Mortgage and Housing Corporation. (2017). *Rental market report: Greater Toronto Area*. Retrieved from https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/cmhc/pubsandreports/esub/_all_esub_pdfs/64459_2017_a01.pdf?sv=2017-07-29&ss=b&srt=sco&sp=r&se=2019-05-09T06:10:51Z&st=2018-03-11T22:10:51Z&spr=https,http&sig=0Ketq0sPGtnokWOe66BpqquDljVgBRH9wLOCg8HfE3w%3D.
- Canada Mortgage Housing Corporation (2018). *About affordable housing in Canada*. Retrieved from <https://www.cmhc-schl.gc.ca/developing-and-renovating/develop-new-affordable-housing/programs-and-information/about-affordable-housing-in-canada>.
- City of Edmonton. (n.d.). *Winter Design Guidelines: Transforming Edmonton into a Great Winter City*. Retrieved from https://www.edmonton.ca/city_government/urban_planning_and_design/designing-new-neighbourhoods.aspx.
- City of North York. (2012). *City of North York By-Law No.7625*.
- City of Toronto. (2003). *2001 Downsview-Roding-CFB Social Profile #2 – Neighbourhoods, Immigration, Ethnicity, Language*. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/neighbourhood-profiles/>.
- City of Toronto. (2004). *Toronto Urban Design Guidelines: Wilson Avenue*. Retrieved from <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/>.
- City of Toronto. (2008). *By-law No.998-2008*.
- City of Toronto. (2012a). *By-law No.1418-2012*.
- City of Toronto. (2012b). *Downsview Area Secondary Plan*.
- City of Toronto. (2012c). *Rental Replacement in Mid-Rise Development on Avenues – Official Plan Review*. Retrieved from <https://www.toronto.ca/legdocs/bylaws/lawhome.htm>.
- City of Toronto. (2013). *Toronto Complete Streets Guidelines: Making Streets for People, Placemaking and Prosperity*.
- City of Toronto. (2014). *2011 Neighbourhood Census /NHS Profile: 26. Downsview-Roding-CFB*.
- City of Toronto. (2015a). *Schools as Community Assets: A Policy Agenda for the City-School Boards Advisory Committee*. Retrieved from <https://www.toronto.ca/legdocs/mmis/2015/ex/bgrd/backgroundfile-77897.pdf>.

- City of Toronto. (2015b). *Toronto Official Plan*.
- City of Toronto. (2016a). *Neighbourhood profiles* [data set]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/open-data-catalogue/>.
- City of Toronto. (2016b). *Ten Year Cycling Network Plan*.
- City of Toronto. (2016c). *Vision Zero: Toronto's Road Safety Plan: 2017-2021*.
- City of Toronto. (2018a). *Keele Finch Plus - Encouraging Growth and Community Building - Interim Report* [PDF]. Retrieved from <https://www.toronto.ca/city-government/planning-development/planning-studies-initiatives/keele-finch-plus/keele-finch-plus-studies-reports/>.
- City of Toronto. (2018b). *2016 Neighbourhood Profile: Downsview-Roding-CFB*.
- City of Toronto. (2018c). *Toronto Municipal Code Chapter 415, Development of Land*.
- City of Toronto. (2018d). *Townhouse & Low-Rise Apartment Guidelines*.
- City of Toronto. (2019). *Zoning By-Law 569-2013*.
- City of Toronto. (n.d.). *Zoning by-law interactive map* [webpage]. Retrieved from http://map.toronto.ca/maps/map.jsp?app=ZBL_CONSULT.
- Czerniak, J. (2001). *CASE: Downsview Park Toronto*. Cambridge, Mass.: Harvard University, Graduate School of Design.
- Dunham-Jones, E., & Williamson, J. (2009). *Retrofitting suburbia: Urban design solutions for redesigning suburbs*. Hoboken, N.J.: John Wiley & Sons.
- Fillion, P. (2007). *The Urban Growth Centres Strategy in The Greater Golden Horseshoe: Lessons from Downtowns, Nodes, And Corridors*.
- Gehl, J. (2010). *Cities for people*. Washington, DC: Island Press.
- Glaeser, E. L. (2011). *Triumph of the city: How our greatest invention makes us richer, smarter, greener, healthier, And happier*. New York, NY: Penguin Group.
- Hart, P. W., Armstrong, F.H., & North York Historical Society. (1971). *Pioneering in North York: A history of the borough*. Toronto, ON: North York Historical Society. Toronto : General Pub.
- Hess, P. M. (2009). Avenues or arterials: The struggle to change street building practices in toronto, canada. *Journal of Urban Design*, 14(1), 1-28. doi:10.1080/13574800802451049
- Hulchanski, J. D. (2010). *The three cities within Toronto: Income polarization among Toronto's neighbourhoods, 1970-2005*. Toronto, ON: Cities Centre, University of Toronto.
- Hume, C. (2017, August 22). Downsview Park's potential is being squandered. *Toronto Star*. Retrieved from <http://ezproxy.lib.ryerson.ca/login?url=https://search-proquest-com.ezproxy.lib.ryerson.ca/docview/1930768570?accountid=13631>.
- Jacobs, A. B. (1993). *Great streets*. Cambridge, Mass : The MIT Press
- Jacobs, A. B., Macdonald, E., & Rofé, Y. (2002). *The boulevard book: History, evolution, design of multiway boulevards*. Cambridge, Mass.: MIT Press.
- Jacobs, J. (1961). *The death and life of great American cities*. New York, NY : Modern Library.

- Lorinc, J. (2005). Stripping away stereotypes: Toronto's retail plazas. In Wilcox, A., & McBride, J. (Eds.), *UTOpia: Towards a New Toronto* (132-139).
- Malone Given Parsons Ltd. & Joseph Bogdan Associates Inc. (2010). *401/Keele Provincial Campus*. Retrieved from <https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/>.
- Micallef, S. (2017, March 24). *Humber river hospital an example of ontario getting it right*. Toronto Star. Retrieved from www.thestar.com.
- Oldenburg, R. (1999). *The great good place: Cafés, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. Philadelphia, PA : Da Capo Press.
- Ontario. (2019). *Planning Act*, R.S.O. 1990, c. P.13.
- Urban Land Institute. (2016). *Building healthy corridors: Transforming urban and suburban arterials into thriving places*. Retrieved from <https://library.ryerson.ca/>.
- Real Estate Monitor Worldwide. (2018). *Bombardier completes sale of downsview property*. Retrieved from <http://ezproxy.lib.ryerson.ca/login?url=https://search-proquest-com.ezproxy.lib.ryerson.ca/docview/2051515082?accountid=13631>
- Soknacki, D. (2012, June 22). Downsview Park: Reasons for optimism. *The North York Mirror*. Retrieved from <http://ezproxy.lib.ryerson.ca/login?url=https://search-proquest-com.ezproxy.lib.ryerson.ca/docview/1021820771?accountid=13631>.
- Solomon, L. (2007). *Toronto sprawls: A history*. Toronto, ON: University of Toronto Press
- Statistics Canada. (2017a). *Age (in Single Years) and Average Age (127) and Sex (3) for the Population of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 100% Data*. (Catalogue number 98-400-X2016003). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).
- Statistics Canada. (2017b). *Age of Primary Household Maintainer (15), Tenure (4), Structural Type of Dwelling (10), Condominium Status (3) and Household Type Including Census Family Structure (16) for Private Households of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census -25% Sample Data*. (Catalogue 98-400-X2016226). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).
- Statistics Canada. (2017c). *Ethnic Origin (279), Single and Multiple Ethnic Origin Responses (3), Generation Status (4), Age (12) and Sex (3) for the Population in Private Households of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 25% Sample Data*. (Catalogue 98-400-X2016187). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).
- Statistics Canada. (2017d). *Generation Status (6), Place of Birth of Person (128), Place of Birth of Father (128), Place of Birth of Mother (128) and Age (6A) for the Population in Private Households of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 25% Sample Data*. (Catalogue 98-400-X2016153). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).
- Statistics Canada. (2017e). *Income Sources and Taxes (16), Income Statistics (5A) in Constant (2015) Dollars, Age (9), Sex (3) and Year (2) for the Population Aged 15 Years and Over in Private Households of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 25% Sample Data*. (Catalogue 98-400-X2016114). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).
- Statistics Canada. (2017f). *Main Mode of Commuting (10), Commuting Duration (7), Time Leaving for Work (7), Sex (3) and Age (5) for*

the Employed Labour Force Aged 15 Years and Over Having a Usual Place of Work or No Fixed Workplace Address, in Private Households of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 25% Sample Data. (Catalogue 98-400-X2016322). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).

Statistics Canada. (2017g). *Place of Work Status (5), Industry - North American Industry Classification System (NAICS) 2012 (122), Sex (3) and Age (11B) for the Employed Labour Force Aged 15 Years and Over in Private Households of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 25% Sample Data.* (Catalogue 98-400-X2016319). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).

Statistics Canada. (2017h). *Structural Type of Dwelling (10), Age (20) and Sex (3) for the Population in Occupied Private Dwellings of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 100% Data.* (Catalogue 98-400-X2016226). CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).

Statistics Canada. (2017i). *Shelter-cost-to-income Ratio (5A), Tenure Including Presence of Mortgage Payments and Subsidized Housing (7) and Household Type Including Census Family Structure (9) for Owner and Tenant Households in Non-farm, Non-reserve Private Dwellings of Canada, Provinces and Territories, Census Divisions, Census Subdivisions and Dissemination Areas, 2016 Census - 25% Sample Data.* CANSIM (database). Using CHASS (distributor). <http://dc2.chass.utoronto.ca/cansim2/english/catalogues.html> (accessed November 4, 2018).

Toronto Catholic District School Board. (2016). *School capacity and utilization 2015-2016 (Trustees all)* [PDF]. Retrieved from <https://www.tcdsb.org/Board/PlanningandFacilities/LTAPP/Pages/default.aspx>.

Toronto District School Board. (2015). *Elementary/Junior High School Enrolment, Capacity and Utilization Data (2004-2034)* [PDF File]. Retrieved from www.tdsb.on.ca.

Toronto Public Library. (n.d.). Downsview [web page]. Retrieved from <https://www.torontopubliclibrary.ca>.

Toronto Transit Commission. (2009). *Transit city bus plan*. Retrieved from <http://www.ttc.ca>.

IMAGES

- AJM STUDIOS (Photographer). (2010, July 22). *Vancouver, Washington (AJM NWPI)* [digital image]. Retrieved from <https://www.flickr.com/>.
- AllTheDaveNamesAreAlreadyTaken (Photographer). (2017, February 20). *George Jackson House north side February 20 2017* [digital image]. Retrieved from <https://commons.wikimedia.org>.
- Arup. (2016, November 2). Airport Hazard Map, Schedule "D" to By-Law 7625 of North York [digital image]. Retrieved from <https://www.toronto.ca/wp-content/uploads/2017/11/9916-city-planning-keele-finch-plus-Phase1-downsview-airport-needs-full.pdf>.
- Benn, M. (Photographer). (2012, February 16). *Architecture (6973012997)* [digital image]. Retrieved from <https://commons.wikimedia.org>.
- Beyond My Ken (Photographer). (2013, February 3). *55 - 75 Joralemon Street* [digital image]. Retrieved from <https://commons.wikimedia.org>.
- BillyCabic (Photography). (2016, March 24). *TTC 8502, 7913* [digital image]. Retrieved from <https://www.flickr.com/>.
- City of Toronto Archives (Owner). (1954, September). *Series 65, s0065_fl0049_id0003* [digital image]. Retrieved from <https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/>.
- City of Toronto Archives (Owner). (1954, September). *Series 65, s0065_fl0049_id0007* [digital image]. Retrieved from <https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/>.
- City of Toronto Archives (Owner). (1947a). *Aerial Photographs (8-A)* [digital image]. Retrieved from <https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/whats-online/maps/aerial-photographs/>.
- City of Toronto Archives (Owner). (1947b). *Aerial Photographs (8-E)* [digital image]. Retrieved from <https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/whats-online/maps/aerial-photographs/>.
- City of Toronto Archives (Owner). (1977a). *Aerial Photographs (77)* [digital image]. Retrieved from <https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/whats-online/maps/aerial-photographs/>.
- City of Toronto Archives (Owner). (1977b). *Aerial Photographs (102)* [digital image]. Retrieved from <https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/whats-online/maps/aerial-photographs/>.
- Chimay Bleue (Photographer). (2011, September 30). *The Q again* [digital image]. Retrieved from <https://www.flickr.com/>.
- Chung, P. (Photographer). (2010, July 17). *Mid-rise* [digital image]. Retrieved from <https://www.flickr.com/>.
- City of Toronto (Photographer). (n.d.). *Exterior of Grandravine Community Recreation entrance to arena* [digital image]. Retrieved from <https://www.flickr.com/>.
- Dalbéra, J-P. (Photographer). (2010, July 24). *Le quartier d'Aker Brygge (Oslo) (4852972106)* [digital image]. Retrieved from <https://commons.wikimedia.org>.
- Eric H. (Photographer). (2017, July 30). *Croft St* [digital image]. Retrieved from <https://www.flickr.com/>.
- Esri. (2019). *World imagery* [basemap]. Retrieved March 21, 2019 from ArcGIS 10.4.1.

Heritage Vancouver Society (Photographer). (2016, May 5). *False Creek South – The ideal planning community* [digital image]. Retrieved from <https://www.flickr.com/>.

Jantzen, M.V. (Photographer). (2010, February 13). *Logan mid-rise* [digital image]. Retrieved from <https://www.flickr.com/>.

La Citta Vita (Photographer). (2010, February 7). *Urban housing, Hammarby* [digital image]. Retrieved from <https://www.flickr.com/>.

La Citta Vita (Photographer). (2011, February 18). *Streetscape aerial, Stockholm* [digital image]. Retrieved from <https://www.flickr.com/>.

Ministry of Municipal Affairs and Housing (Photographer). (2012, November). *Mid-rise Housing Complex on a Brownfield Redevelopment Site | Complexe résidentiel de taille moyenne situé sur le site d'un réaménagement urbain de friche contaminée (2)* [digital image]. Retrieved from <https://www.flickr.com/>.

Ministry of Municipal Affairs and Housing (Photographer). (2012, November). *Toronto Mid-rise Building (Soho Street) | Immeuble de moyenne hauteur, Toronto (rue Soho)* [digital image]. Retrieved from <https://www.flickr.com/>.

Norman, C. (2013, August 26). *Ryerson University Visual Arts Building: Rainbow Glow* [digital image]. Retrieved from <https://www.flickr.com/>.

Pennington (Photographer). (2005, July 17). *Avenue Montaigne, Paris* [digital image]. Retrieved from <https://commons.wikimedia.org>.

Salmon, J.V. (Photographer). (1954). *Downsview United Church, Keele St., w. side, between Victory Drive and Wandle Ave.* [digital image]. Retrieved from <https://www.torontopubliclibrary.ca>

Salmon, J.W. (Photographer). (1955a). *Keele St., looking n. from s. of Diana Drive* [digital image]. Retrieved from <https://www.torontopubliclibrary.ca>.

Salmon, J.V. (Photographer). (1955b). *T.T.C., bus #1904, on Keele St. at Wilson Ave.* [digital image]. Retrieved from <https://www.torontopubliclibrary.ca>.

Sean_Marshall (Photographer). (2008, August 10). *Policeintersection* [digital image]. Retrieved from <https://www.flickr.com/>.

Sehr, E. (2014, April 6). *Mid-Rise St. Clair Ave. W. (DSC_2591)* [digital image]. Retrieved from <https://www.flickr.com/>.

Tindale, M. (Photographer). (2006, December 5). *Residential "soi" (laneway), Bangkok* [digital image]. Retrieved from <https://www.flickr.com/>.

Unwin, Foster & Proudfoot (Original Publisher). (1890, May). *Belt line map shewing northern suburbs of Toronto* [digital image]. Retrieved from <https://www.torontopubliclibrary.ca>.

Urban Corp (Photographer). (2017, November 30). *Downsview Park development* [digital image]. Retrieved from https://en.wikipedia.org/wiki/Downsview_Park.

Vancouver Public Space Network (VPSN) (Photographer). (2013, June 17). *Mid-rise – 10th & Fir* [digital image]. Retrieved from <https://www.flickr.com/>.

Vancouver Public Space Network (VPSN) (Photographer). (2013, May 11). *6-Storey Low/mid-rise* [digital image]. Retrieved from <https://www.flickr.com/>.

Wyliepoon (Photographer). (2011, November 24). *IMG_0001* [digital image]. Retrieved from <https://www.flickr.com/>.

GEOSPATIAL DATA

- City Clerk's Office. (2018). *City wards* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- City Clerk's Office. (2018). *Community Council boundary*. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- City Planning. (2014). *Zoning by-law* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- City Planning. (2018). *3D massing* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Information & Technology. (2012). *Former municipality boundaries* [data files]. <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Information & Technology. (2018). *Property boundaries* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Information & Technology. (2018). *Toronto centreline (TCL)* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Parks, Forestry & Recreation. (2018). *Parks* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Parks, Forestry & Recreation. (2018). *Ravine & natural feature protection area* [data file]. <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Social Development, Finance & Administration. (2014). *Neighbourhoods* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Statistics Canada. (2018). *Census of Canada 2016 cartographic file* (cartographic boundary file, lcsd000b16a_e). Using ArcGIS 10.4.1
- Toronto Transit Commission. (2018). *TTC subway shapefiles*. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Transportation Services. (2017). *Sidewalk inventory* [data file]. <https://www.toronto.ca/city-government/data-research-maps/open-data/>.
- Transportation Services. (2018). *Bikeways* [data file]. Retrieved from <https://www.toronto.ca/city-government/data-research-maps/open-data/>.