



3. EXISTING AND FUTURE CONDITIONS

3.1 Existing Conditions

The following section describes the study area in the context of the transportation infrastructure and the natural, socio-economic and cultural environments. This section summarizes the results of the studies that were completed as part of the project assessment, including the Existing Environmental Conditions Report, a Geotechnical Report, a Cultural Heritage Assessment, a Stage 1 Archaeological Assessment and studies of traffic and noise and vibration conditions.

3.1.1 TRANSPORTATION

3.1.1.1 Public Transit

The 36 Finch West bus route currently operates between Finch Station on the Yonge-University-Spadina Subway and the Humberwood Boulevard area, generally in an east-west direction. Accessible service is provided on the route and Finch Station is also an accessible subway station. Four services are operated by the TTC. The 36B (Finch Station - Humberwood) is the main branch, and operates at all times, seven days a week. The 36A (Finch Station-Kipling) short turn branch operates during the peak periods and midday from Monday to Friday, and from approximately 10:00am until approximately 6:50 pm on Saturday. The 36C (Finch Station-Jane) short-turn branch operates during the morning peak period only, from Monday to Friday. The 36D (Finch Station-Weston Road & Milvan) short-turn branch operates during the morning and afternoon peak periods, from Monday to Friday only.

There are also a number of TTC routes that serve the Finch Avenue West Corridor either along Finch Avenue West itself, or on perpendicular roadways. Refer to Exhibit 3-1 for the various route numbers, names and passengers per day in the corridor and Exhibit 3-3 for a map of routes within the study area.

Exhibit 3-1: TTC Route Summary

TTC Route No.	Route Name	Ridership Per Day (Mon. to Fri.)
36	Finch West	42,600
97	Yonge	3,600
98	Willowdale – Senlac	1,700
7	Bathurst	21,400
160	Bathurst North	2,500
104	Faywood	2,700
105	Dufferin North	1,900
106/196	York University (and Rocket)	27,700
117	Alness	2,600
107B	Keele North	1,400
41	Keele	22,800
108	Downsview	7,100
35	Jane	39,000

TTC Route No.	Route Name	Ridership Per Day (Mon. to Fri.)
165	Weston Road North	17,600
84	Sheppard West	16,000
37	Islington	16,600
45	Kipling	18,500
73	Royal York (Albion)	8,900
46 & 191	Martin Grove and Hwy 27 Rocket	16,100
96	Wilson	23,500

3.1.1.2 Roads

Finch Avenue West is a major east/west arterial road in the City of Toronto, constructed as an urban cross section, with curbs and gutters. It connects Yonge Street in the centre of the city to the westerly boundary of the City of Toronto, and beyond with full movement connections to Highway 400 and Highway 427. The existing lane configuration along the proposed Etobicoke-Finch West LRT route is generally two traffic lanes in each direction, with left-turn lanes or a two-way centre left turn lane. As an exception to this, three general purpose traffic lanes and left-turn lanes are provided between Jane Street and Weston Road, which is the section of Finch Avenue West that passes under Highway 400 at a full-movement interchange. The section of Highway 27 between Finch Avenue and Humber College Boulevard has the same cross section as most of Finch Avenue West, with two general purpose lanes in each direction and left turn lanes at the signalized intersections. The posted speed limit along this route is 60 km/h.

There are numerous bus bays and/or right-turn lanes along this corridor as well. However, some bus stops are situated in the general purpose curb lanes where buses stop and block the curb lanes.

There are 42 traffic control signals along the Finch Avenue West corridor, between and including Yonge Street at the east end and on Highway 27 at Humber College Boulevard at the west end. This total includes a new traffic control signal that was installed on Finch Avenue West in 2009, mid-way between the signalized intersections at Chesswood Drive and at Alness Street/Champagne Drive, primarily to provide controlled crossing opportunities for pedestrians at TTC bus stops. Four other mid-block and/or driveway traffic control signals are located on Finch Avenue West in the following locations: just east of Bathurst Street; east of Tangiers Road; west of Sentinel Road; and west of Kipling Avenue.

3.1.1.3 Assessment of Current Traffic Operations

Under normal circumstances, the efficiency of traffic flow along a major urban road corridor is defined by the vehicular flow through intersections controlled by traffic signals. The vehicular flow rate is typically described as the level of service during morning and evening weekday peak hours, and the signalized locations most prone to congestion on the corridor are those intersections with other major road corridors. The signal operations have been analyzed using standard software (Synchro 7) with original traffic volumes and traffic signal timings provided by the City of Toronto. Intersection approaches are deemed to be at capacity when the analysis determines that the average vehicle delay is equal to or exceeds 55 seconds. This delay corresponds to and is also expressed as Level of Service (LOS) E and F. The higher the letter the more constrained the traffic conditions.

A summary of the analysis of signalized intersections along the Finch Avenue West LRT route is included in Appendix C. As expected, those intersection approaches on Finch Avenue West with a level of service at capacity are mostly at



intersections with major roads crossing Finch Avenue West in the north-south direction. The locations on Finch Avenue West that experience measured traffic congestion at present are listed in Exhibit 3-2.

Exhibit 3-2: Finch Avenue West Peak Hour Intersection Approaches at Capacity

Finch\Cross Street	Approach	Peak Hour
Yonge Street	Westbound	AM
Yonge Street	Eastbound	AM & PM
Bathurst Street	Westbound	PM
Dufferin Street	Westbound	AM
Alness/Champagne	Eastbound	PM
Keele Street	Eastbound	AM
Jane Street	Eastbound	AM & PM
Norfinch/Oakdale	Eastbound	AM & PM
Norfinch/Oakdale	Westbound	AM & PM
Signet	Westbound	AM & PM
Signet	Eastbound	AM & PM
Weston Road	Westbound	PM
Weston Road	Eastbound	AM & PM
Albion Road	Eastbound	PM
Albion Road	Westbound	PM
Highway 27	Westbound	AM & PM
Highway 27	Eastbound	PM
Humber College Boulevard	Northbound	AM
Humber College Boulevard	Southbound	AM

As is evidenced by the number of major intersections that are currently experiencing congested traffic conditions along the study corridor, Finch Avenue West carries a large volume of motorized vehicles along its entire length. This high volume is often delayed and queued at signalized intersections, which negatively affects the efficiency and effectiveness of bus travel because these transit vehicles are sharing road space with general traffic.

Bridges and Structures

The Etobicoke-Finch West LRT follows the profile of the Finch Avenue West roadway, which crosses ravines and watercourses along its alignment and passes under other transportation corridors. Four overpasses along the alignment carry two railroads (CNR and CPR), a major limited access highway (Highway 400) and a pedestrian crossing (Farr Avenue near Kipling Avenue) over Finch Avenue West. The issues pertaining to these overpasses are discussed in Section 4.3 of this document. The introduction of the LRT will have no impacts on the structural features of these overpasses.

There are also four watercourse crossings that the roadway currently spans on specialized bridges and structures. These include a bridge over the West Don River west of Torresdale Avenue/Goldfinch Court, a culvert for a second crossing of the West Don River east of Dufferin Street, a culvert for Black Creek west of Sentinel Road, and a bridge for the Humber River at Islington Avenue. Since the LRT will operate in the centre of the Finch Avenue West roadway, the trackways, general traffic lanes, bicycle lanes and sidewalks will require rearrangement along the right-of-way and may entail widening some of the bridges and structures.

3.1.1.4 Pedestrian Conditions

In October 2002, the Toronto Pedestrian Charter was formally approved by City Council. The Charter sets out principles in six areas as follows:

- Accessibility
- Equity
- Health and Well-being
- Environmental Sustainability
- Personal and Community Safety
- Community Cohesion and Vitality



Exhibit 3-3: Existing TTC Bus Routes



Charter principles reflect the importance of a walkable city and place a high value on walking as the most sustainable form of travel. A walkable city also leads to an improvement in the social and economic environments.

The Pedestrian Charter briefly outlines the need for pedestrian-friendly design. The six principles support related goals of the City of Toronto by ensuring that walking is a safe and convenient mode of urban travel and creating an urban environment in the city that encourages and supports walking. The Pedestrian Charter identifies numerous actions for the City of Toronto to support these principles, including the reduction of conflict between pedestrians and other users of the right-of-way. In addition, it acknowledges numerous positive outcomes of creating and maintaining a more walkable city, including an increase in access to, and the use of public transit.

The design of the LRT in all Transit City projects, including along Finch Avenue, emphasizes the safety and comfort of the pedestrian realm through the provision of sidewalks, landscaping, streetscaping and protected pedestrian crossing facilities, including protected crossing connections to all LRT platforms. In addition, conflicts between pedestrians and cyclists will be mitigated as a result of the provision of bike lanes on both sides of Finch Avenue for the entire length of the LRT corridor.

3.1.1.5 Cycling

In July 2001, Toronto Council adopted, in principle, the recommendations of the Toronto Bike Plan, which is a 10-year strategy to guide the development of new policies, programs and infrastructure to create a bicycle friendly environment.

The Bike Plan recommends advancing cycling in the city across six broad fronts, which include improved links with transit to encourage “bike and ride” trips, and the adoption of bike friendly policies that give bicycles the same

consideration as vehicles on the street system. These policies have been refined further in Toronto’s draft Cycling and Transit Strategy: Bicycle Parking and Access to the TTC. The key strategies include the provision of safe and convenient bicycle access to all TTC stations and major transit nodes, and provision of bike access to Transit City LRT lines.

In the Finch Avenue West area, planned bike paths follow the hydro corridor, joining Finch Avenue near Weston Road. The City’s Bikeway Network proposes the inclusion of bike lanes on Finch Avenue west of Weston Road to beyond Highway 27. The design of the LRT corridor on Finch Avenue West allows for bicycle lanes along the entire route and are noted on the cross sections and plan drawings. This bicycle capacity between Yonge Street and Weston Road is an adjunct to the routes previously planned within the Toronto Bike Plan and represents additional access for bicyclists in this part of the City.

3.1.2 NATURAL ENVIRONMENT

The detailed Existing Environmental Conditions Report (refer to Appendix C) documents the results of the natural heritage investigation that was conducted in the summer and fall of 2008. The information contained in this report is based on field investigations and secondary data sources. The following sections describe in general the vegetation, aquatic and terrestrial communities, as well as designated or other significant natural heritage features within the study limits. Additional information and a copy of this report including a photographic record can be found in Appendix B.

Within the Etobicoke-Finch West study corridor there are no evaluated wetlands, Areas of Natural and Scientific Interest (ANSIs) or Environmentally Significant Areas (ESAs). Evaluated wetlands were assessed according to the Ontario Wetland Evaluation System created by the Ministry of Natural Resources. ANSIs represent significant

biological (life science) or geological (earth science) features, as identified by the Ontario Ministry of Natural Resources. ESAs are identified by local or provincial planning authorities as significant natural areas requiring protection. Natural vegetation lots that are present along the corridor are either classified as cultural (groomed and maintained) or lots associated with the protected valley of the several watercourses that cross Finch Avenue West. The dominant vegetation units of the West Don River Valley are cultural meadow (CUM) and cultural savannahs (CUS). The dominant vegetation units of the East Humber River are exotic and natural cultural savannahs and exotic and natural cultural woodlots (CUW). An exotic vegetation community is dominated by species that are not native to the area. A native vegetation community is dominated by species that are native to the area. Cultural meadow is a vegetation community with tree cover <25% and shrub cover <25%, which results from or is maintained by anthropogenic disturbance. Cultural savannah is a vegetation community with 25-35% tree cover, which results from or is maintained by anthropogenic disturbance. Cultural woodland is a vegetation community with 30-60% tree cover, which results from or is maintained by anthropogenic disturbance.

The study limits are within the East Humber River and West Don River watershed. Five watercourses identified within the study limits include the West Don River, Dufferin Creek, Black Creek, Black Creek Tributary and the East Humber River. The aquatic communities and habitats of these watercourses are generally degraded. Minimal bridge work is required at several crossings and impacts of this work will be limited.

3.1.2.1 Vegetation and Vegetation Communities

Within the study limits eleven (11) Ecological Land Classification (ELC) vegetation communities along Finch Ave. W. were identified from TRCA mapping (enumerated in Exhibit 3-4 with maps provided in Appendix A). These areas were generally located within and directly adjacent to the Humber River and the Don River valleys (see Exhibit 3-5 and Exhibit 3-6). The mapping shows no designated ELC units along Black Creek in the vicinity of the Finch Avenue crossing.

Exhibit 3-4: ELC Vegetation Communities within the Study Limits (TRCA)

ELC Community	Location
Hawthorn Cultural Woodland and Savannah	Don River Valley, west of Wilmington Ave.
Dry Fresh Sugar Maple-Beech Deciduous Forest	Don River Valley, west of Wilmington Ave.
Exotic Cultural Savannah	Don River Valley, west of Wilmington Ave.
Turbid Open Aquatic (Disturbed)	Don River Valley, west of Wilmington Ave.
Native Deciduous Cultural Savannah	Don River Valley, east of Wilmington Ave.
Dry-moist Old Field Meadow	East of Ardwick Blvd., south of Finch Ave. W., Duncanwoods Park
Exotic Cultural Savannah	Humber River Valley
Native Cultural Savannah	Humber River Valley
Native Cultural Woodland	Humber River Valley
Exotic Cultural Woodland	Humber River Valley
Dry-moist Old Field Meadow	Humber River Valley

Exhibit 3-5: Humber River, downstream side of Islington Bridge, south of Finch Ave.



Exhibit 3-6: Don River Valley, south side of Finch Ave.





Appendix B of the EPR contains accounts of vegetation species within the study limits, as identified from mapping provided by the TRCA. Butternut, an endangered species protected by federal and provincial species at risk legislation, occurs in the vicinity of the NE and SE corners of Dufferin and Finch.

Two (2) other plant species of conservation concern, scarlet beebalm (*Monarda didyma*) and mousetail (*Myosurus minimus*), have historically been noted in the vicinity of the study area according to the Natural Heritage Information Centre (NHIC) databases. These species are ranked S2 and S3 (“imperilled” and “vulnerable”) in the province of Ontario, respectively, though they are not regulated under provincial or federal species at risk legislation. These species were not recorded within the study area during preliminary field investigations conducted in the summer and fall of 2008; however, dedicated surveys for these species were not completed at that time. Site-specific surveys will be required in impacted areas during detailed design to confirm the presence or absence of these species and appropriate mitigation measures will be incorporated where needed.

There are no areas of concerns for the project or significant impacts anticipated to vegetation and vegetation communities as a result of this project.

3.1.2.2 Aquatic Habitat and Communities

The study area lies within the Humber River watershed and the Don River watershed, with eight (8) identified watercourses crossing Finch Avenue West within the study area. Of these, five (5) support fish and fish habitat. Background information was supplied by the Toronto and Region Conservation Authority (TRCA) and the Ontario Ministry of Natural Resources (OMNR). Field investigations were conducted on November 7th and 14th, 2008, to document the existing conditions of the watercourses immediately upstream and downstream of the study area corridor to supplement background data, and to identify any additional water crossings that may support fish and fish habitat. Exhibit 3-7 summarizes the existing aquatic resources within the study area and Appendix C has a detailed Photographic Record of the aquatic resources within the study area.

Exhibit 3-7: Summary of Existing Aquatic Resources within the Project Area

Watercourse name	Crossing location along Finch Avenue West	General description of aquatic habitat	Thermal regime
West Don River	East of Wilmington Ave. <i>Utm: 17t 624282 4847590</i>	Permanent watercourse providing direct aquatic habitat	Warmwater
Dufferin Creek	Immediately East of Dufferin St. <i>Utm: 17t 623587 4847362</i>	Permanent watercourse providing direct aquatic habitat	Warmwater
Black Creek	Between Tobermory Dr. and Sentinel Rd. <i>Utm: 17t 620376 4846257</i>	Permanent watercourse providing direct aquatic habitat	Warmwater
Tributary To Black Creek	Immediately West of Tobermory Dr. <i>Utm: 17t 620052 4846169</i>	Intermittent watercourse may provide direct or indirect fish habitat	Warmwater
Emery Creek	Between Jayzel Dr. and Weston Rd. <i>Utm: 17t 617055 4845227</i>	Enclosed watercourse, no aquatic habitat present	N/A
Unnamed Watercourse	Between Duncanwoods Dr. and Milvan Dr.	No aquatic habitat present	N/A

Watercourse name	Crossing location along Finch Avenue West	General description of aquatic habitat	Thermal regime
	<i>Utm: 17t 616322 4845014</i>		
East Humber River	Intersection Of Finch Ave. W. and Islington Ave. <i>Utm: 17t 615285 4844617</i>	Permanent watercourse providing direct aquatic habitat	Warmwater/coldwater
Albion Creek	Between Albion Rd. and Kipling Ave. <i>Utm: 17t 613744 4844237</i>	Enclosed watercourse, no aquatic habitat present	N/A

West Don River

The West Don River (see Exhibit 3-8) is characterized as a permanent flowing warmwater system, which is thermally unstable. The watercourse is ranked as one of the healthiest systems in the watershed and contains some of the most diverse fish species in the watershed. Records indicate the historical presence of the reddsides dace and the Atlantic salmon. The reddsides dace is currently federally protected under the Fisheries Act, and provincially under the Ontario Fisheries Regulations and the Endangered Species Act (2007). North of the study area the river flows through a naturalized valley and traverses Finch Avenue West through a concrete rigid frame bridge. To the south the watercourse abuts a wall reinforced with sheet piling along the west and a naturalized embankment on the east.

Dufferin Creek

Dufferin Creek (see Exhibit 3-9) is a tributary of the West Don River. Like the West Don River, Dufferin Creek is characterized as a permanent flowing warm water system with the historical presence of the reddsides dace and Atlantic Salmon. Dufferin Creek traverses Finch Avenue West in a northerly direction through a twin steel concrete box culvert. There is no channel on either the upstream or downstream side of Finch Avenue West.

Exhibit 3-8: West Don River, south side of Finch Avenue



Exhibit 3-9: Dufferin Creek, south side of Finch Avenue



Black Creek

Black Creek is a permanent flowing warm water system that originates within the City of Vaughan and outlets to the Humber River. Urbanization has greatly reduced the quality of the system, resulting in a degraded aquatic ecosystem with tolerant species composing a large portion of the aquatic community. Historical records also indicate the presence of reddsides dace. Black Creek traverses Finch Ave. W. through a corrugated steel arch culvert with concrete headwalls. Downstream (south) of Finch Avenue. West, Black Creek flows through a highly eroded channel. Upstream (north) is a more naturalized channel, with denser vegetation with no signs of erosion.

Tributary to Black Creek

A tributary to Black Creek (see Exhibit 3-10) is characterized as an intermittent warm water system. The watercourse flows southerly through a shallow depression between Tobermory Drive and Topcliff Avenue along Finch Avenue West. The watercourse is predominately channelized with minimal natural characteristics.

Exhibit 3-10: Black Creek tributary, south side of Finch Avenue



Emery Creek

Emery Creek is a tributary to the Humber River draining through a mixed industrial – commercial-residential area. With high contaminate levels and frequent chemical spills, Emery Creek has been identified as the most polluted creek in the Humber River watershed. The majority of the watercourse is buried as sewers or converted to concrete channels. In the study area, Emery Creek traverses Finch Avenue West through an enclosed pipe and does not provide or support fish and fish habitat.

Unnamed Watercourse

This crossing does not support fish or fish habitat within the vicinity of Finch Avenue West. This watercourse likely only functions as aquatic habitat well south of the study area.

East Humber River

Within the study area, the East Humber River (see Exhibit 3-11) is described as a warm water/coldwater system that forms part of the Lower Humber River subwatershed. The East Humber River traverses Finch Avenue West and Islington Avenue intersection through a two span CPCI girder bridge. Fish community sampling at the Islington Bridge in 2001 identified several species, including: rainbow trout, white sucker, northern hogsucker, river chub, golden shiner, blacknose dace, and fantail darter. TRCA records also indicate the presence of blacknose dace and the America brook lamprey. Species of concern identified include the redbside dace and Atlantic salmon. Downstream (south) of the Finch Avenue West and Islington Avenue intersection the river is generally well buffered with vegetation along both embankments. Upstream (north) is also well treed and vegetated along a steeper embankment on the west side. The watercourse bank along the east is bordered by a pedestrian path just beyond the bridge.

Exhibit 3-11: Humber River, upstream of Islington Bridge looking west, north of Finch Avenue



Albion Creek

Within the study area, this watercourse is enclosed. The enclosed watercourse flows southward under Finch Avenue West and the Albion Centre commercial complex. This watercourse, within the study area, does not support fish and fish habitat.

3.1.2.3 Wildlife and Wildlife Habitat

Background information on wildlife and wildlife habitat in the study area was obtained from various sources including the Ontario Ministry of Natural Resources’ Natural Heritage Information Centre online database and documents published by the Toronto and Region Conservation Authority. Following this review, preliminary field investigations were conducted in the summer and fall of 2008.

The NHIC databases report two historic occurrences of wildlife species of conservation concern in the vicinity of the study area: a moth (*Syngrapha selecta*) which is ranked S2 (“imperilled”) but not regulated under Species at Risk (SAR) legislation, and Henslow’s sparrow (*Ammodramus henslowii*), an endangered species regulated both provincially and federally. Urban development has drastically reduced the suitable habitat for these species in the study area, and it is not expected that they presently inhabit the Finch Avenue West right-of-way.

No birds were observed nesting under or on the West Don River Bridge or the Islington Bridge; in fact, the Islington Bridge has measures in place to prevent the nesting of birds on the structure. Some common bird species no doubt nest in the vegetation in the right-of-way and surrounding lands. Species that were observed in the area include cedar waxwing (*Bombycilla cedrorum*) and red-tailed hawk (*Buteo jamaicensis*); TRCA records indicate other species such as wood thrush (*Hylocichla mustelina*), gray catbird (*Dumetella carolinensis*), house sparrow (*Passer domesticus*), eastern kingbird (*Tyrannus tyrannus*), great crested flycatcher (*Myiarchus crinitus*), willow flycatcher (*Empidonax traillii*), ruby throated hummingbird (*Archilochus colubris*) and red-eyed vireo (*Vireo olivaceus*) in the valleylands adjacent to the right-of-way.

Wildlife communities of significance within the study area are limited. Wildlife habitat likely exists within watercourse valleys but is generally restricted to areas outside of the Finch Avenue West right-of-way. In consultation with TRCA, the likelihood of encountering significant wildlife habitat within the study area was deemed to be low (Project Team Meeting held on October 7, 2008 at TRCA); however, this preliminary judgment will be tested through further study if it is determined that subsequent site-specific studies are necessary due to unexpected expansion of the Finch Avenue street allowance during design of the LRT. Exhibit 3-12 presents a summary of the existing wildlife habitat within the right-of-way and adjacent areas along Finch Avenue West.

Exhibit 3-12: Summary of Wildlife Habitat within the Right-of-Way

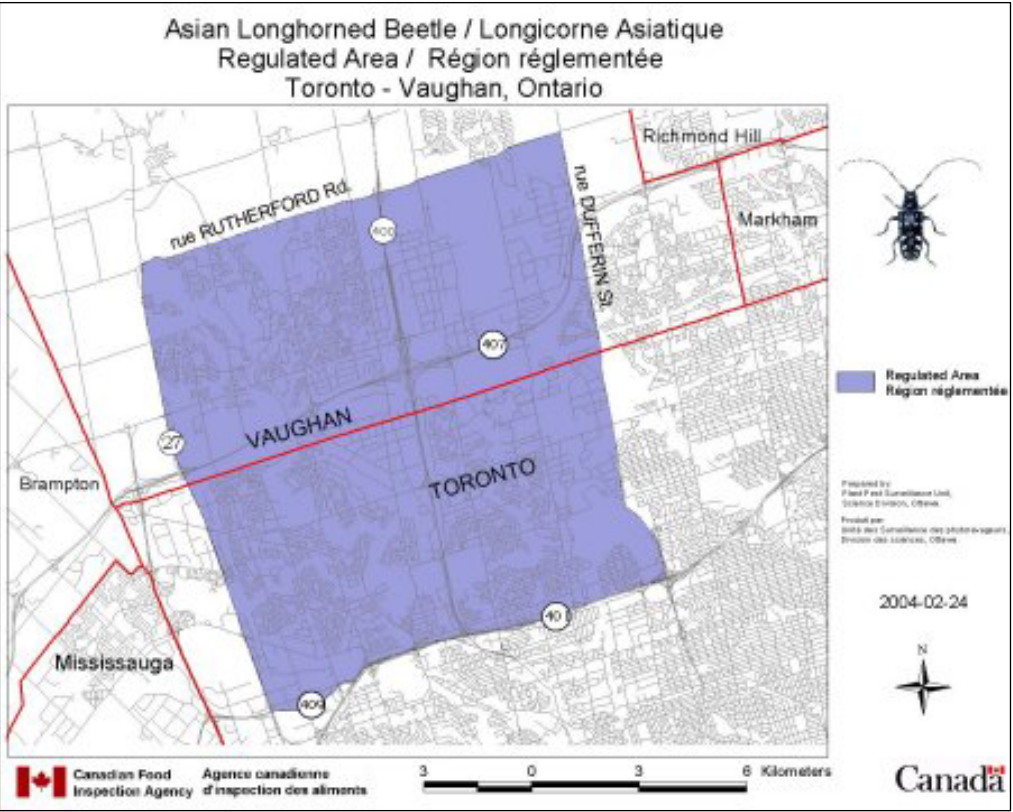
Location	Description	Significance/Value
Don River Valley (North)	Naturalized grassed areas with small shrubs adjacent to the bridge. Valley is fragmented and slightly disconnected to the rest of the G. Ross Lord Park	Wildlife habitat generally away from right-of-way
Don River Valley (South)	Small forested area along the right-of-way east of the bridge. Extend southward into the large continuous valley	Habitat function and connectivity to other areas
Black Creek Valley (South)	Naturalized grassed area transitioning to shrubs and wooded areas well beyond the right-of-way. Some connectivity to downland habitats	Wildlife habitat generally away from right-of-way
Black Creek Valley (North)	Naturalized grassed area transitioning to dense shrub/wooded area around the creek. Some connectivity to upland habitats	Wildlife habitat generally away from right-of-way
Black Creek Tributary (North)	Manicured grasses, valley is treed, area is small in size	Minimal wildlife habitat value

Location	Description	Significance/Value
Black Creek Tributary (South)	Manicured grasses, valley is treed but extensive understory growth. Some connectivity to downland habitats	Habitat value through connectivity to Black Creek valley
Finch-Islington Park	Treed along Finch Ave. W., small in area, little connectivity to the Humber River Valley	No wildlife habitat value
Rowntree Mills Park	Sparsely treed along Finch Ave. W., some shrubs adjacent to the bridge. Some connectivity to the Humber River Valley.	Wildlife habitat generally away from right-of-way
Gord & Irene Risk Park	Manicured grasses, some sparse coniferous trees	No wildlife habitat value
West Humber Parkland	Small trees, shrubs and grasses along Finch Ave. W. Direct connectivity to the Humber River Valley	Minimal wildlife habitat value
Other	Manicured grasses with isolated deciduous and coniferous trees	No wildlife habitat value

The Canadian Food Inspection Agency (CFIA) has established a regulated area to prevent the spread of the Asian Long-Horned Beetle (*Anoplophora glabripennis*). These regulated areas are located in parts of the City of Toronto and City of Vaughan (Exhibit 3-13). Within the study area, the regulated area extends along Finch Avenue West from Dufferin Street in the east to Highway 27 in the west. The majority of the study area is within the containment zone. The *Asian Long-Horned Beetle Infested Place Order* (February 2004) prohibits the movement of any tree materials out of or through the regulated area unless authorized by a Movement Certificate issued by the CFIA pursuant to the *Plant Protection Act*.

A designated area for quarantined wood products infected by the Asian Long-Horned Beetle operated by TRCA is located on the north side of Finch Avenue West, east of Jayzel Drive (Plate 1). The disposal and quarantine site is located at 27 Toryork Road.

Exhibit 3-13: CFIA Asian Longhorned Beetle Regulated Area



3.1.2.4 Designated Natural Areas

Environmentally Significant Areas (ESAs) are significant natural areas that are designated for protection. These sensitive areas offer a range of significant environmental functions, natural attributes and species diversity. There are no identified ESA's within the study area; however, TRCA and the NHIC identified the Rowntree Mills Swamp ESA just outside the study area. This area is described as a 4.0 ha non-provincially significant wetland composed of two individual wetland types, that is dominated by tall shrubs and deciduous trees. It is located in the vicinity of the northwest corner of the Islington Avenue / Finch Avenue West intersection; however it is located more than 500 m from the Finch Avenue West right-of-way.

The City of Toronto's Natural Heritage System identifies several natural heritage features in the vicinity of the study area. These areas are highlighted as areas where protection, restoration and enhancement should be given high priority in city-building decisions. The identified areas include the Humber River Valley, Duncan Woods Greenbelt, Derrydowns Park and the West Don River Valley.

TRCA owns several properties in the vicinity of the study area - specifically, within the Humber River, Black Creek and Don River valleys. These lands do not include the road allowance for Finch Avenue West.

3.1.2.5 Geotechnology

Geotechnical investigations were completed during June and July 2008. A total of twenty-seven boreholes (BH F01-08 to F27-08) were completed to depths between 4.6 m and 15.85 m below existing ground surface for the purpose of obtaining preliminary geotechnical information along the alignment. Three piezometers (BH F06-08 and F10-08) were installed for the purpose of groundwater monitoring after completion of the drilling. However, rising head tests were performed only on BH F06-08 and BH F10-08 as BH F07-08 remained dry during the period of field investigation.

Regional Geology

The main physiographic regions which the proposed alignment crosses are the Peel Plains, between Black Creek and Humber River, and the modern river deposits in the vicinity of Don River, Black Creek and Humber River. Based upon available subsurface information, the surface of the shale bedrock ranges from about Elevation 120 m near Yonge Street in the east to about Elevation 150 m near Highway 27 and Humber College in the west; for the majority of the alignment, the bedrock surface is generally approximately between Elevation 130 m and 135 m. As noted in the Geotechnical Report included in Appendix J, previous detailed geotechnical investigations have taken place (e.g. boreholes of varying depths, monitoring wells) for the majority of the study corridor. The technical report supports the assumption that the LRT can be installed in the Finch Avenue West right-of-way without major cuts or fills, new bridges or retaining structures.

Surface and Groundwater

The proposed Etobicoke-Finch West LRT route intersects two watersheds, the Don River on the eastern portion of the corridor and the Humber River on the western portion. The project crosses the Don River Watershed twice, east of Dufferin Street in a culvert and west of Torresdale Avenue over a bridge. The watershed is mainly in a discharge mode at these points. The corridor enters into the Humber River watershed at Keele Street and crosses three sub-watersheds of the Humber River. The alignment crosses the Black Creek sub-watershed west of Sentinel Road over a culvert. It enters the Lower Humber sub-watershed east of Highway 400 and crosses the Humber River at Islington Avenue over a large bridge. The alignment enters the West Humber sub-watershed east of Kipling Avenue. The proposed alignment crosses areas designated as urban by the Toronto and Region Conservation Authority (TRCA) in its Final Humber River Watershed Plan Report (June 2008). Since the alignment is located completely within the City of Toronto, it is subject to Toronto's Wet Weather Flow Master Plan.

For the Don River watershed, groundwater generally flows in a southeast direction from its headwaters within the Oak Ridges Moraine and discharges into Lake Ontario. Groundwater recharge is the highest in the Oak Ridges Moraine, and groundwater discharge mainly occurs along the south slope of the Oak Ridges Moraine where the deposit intersects the ground surface, and further south along the glacial Iroquois shoreline (south of Eglinton Avenue).

The west branch of the Don River originates near Maple in the Region of York and flows southeast through the suburban industrial belt of Concord in Vaughan, before intersecting Finch Avenue west at the site of the G.Ross Lord Reservoir which was completed in 1973 as a means of flood control after Hurricane Hazel. In this area of Finch Avenue West, the watershed is mainly in a discharge mode.

The Humber River areas are primarily groundwater recharge zones. TRCA's Humber River Watershed Plan states: "aquifer water levels are considered stable at present and groundwater quality sampling shows that Ontario Drinking Water Standards, Objectives and Guidelines and Provincial Water Quality Objectives are met." Additional details related to groundwater can be found in Appendix I.

Further investigation at each watercourse located within the study area will be completed during detailed design. Determination of specific impacts associated with the proposed LRT on these reaches as well as appropriate mitigation and/or compensation measures will be developed and presented to the TRCA for approval.

3.1.2.6 Air Quality

In June 2007, the City of Toronto published the "Greenhouse Gases and Air Pollutants in the City of Toronto, Toward a Harmonized Strategy for Reducing Emissions Study" that documents the greenhouse gases and air pollutants for the City as a whole, including all potential sources of emissions that impact air quality. This study finds that in Toronto, NOX and PM₁₀ are significant problems, with PM_{2.5} less significant and SO₂ and CO not significant. The study also finds that historically targeted sources, such as tall industrial smokestacks are not the City's most problematic sources with respect to "general" air quality. But in fact the potentially greater significance of local industrial sources during smog events needs further investigation. The study further recommends that recognition be given to the "many small sources" that are more significant than "fewer larger sources" in Toronto. The significant "many small sources" are vehicles and residential natural gas furnaces. Existing bus service on Finch Avenue would therefore be considered a significant small source of air quality pollutant and with the implementation of the LRT and the removal of Finch West buses, it is anticipated that local air quality will improve.

3.1.2.7 Stormwater

The project is located within the Humber River watershed, including the Black Creek subwatershed of the Humber River and the Don River watershed. The divide between the two watersheds is located generally at the intersection of Finch Avenue West and Keele Street. The City of Toronto's existing stormwater management systems serve the majority of the line between the Yonge Street terminus and the vicinity of Highway 27. On-street surface flows in these areas are collected into a system of drains which feed into the City's system. A culvert and a bridge near the G. Ross Lord Reservoir provide all-weather flow structures over the Don River. At the West Don River bridge location, the existing storm sewers outlet directly into the river. There are two outlets, one on the north side of the crossing, and one on the south side.

The Finch Avenue West crossing of Black Creek is over a corrugated steel pipe culvert. This crossing was upgraded in 2005 after a failure of the previous pipe in a storm washout.

On Highway 27 between Finch Avenue West and Humber College Boulevard, the storm flows are collected in drainage swales on either side of the road. These swales drain into the municipal storm sewer system at two locations: one connection is approximately half-way between Finch and Humber College Blvd flowing east, the other connection discharge location is into the storm sewer at Humber College Blvd, again flowing east. The storm flows eventually discharge directly into the Humber River just west of Martin Grove Road.

Storm flows in the vicinity of the terminal station on the campus of Humber College are collected through the City of Toronto's existing stormwater management system.

3.1.3 SOCIO-ECONOMIC ENVIRONMENT

3.1.3.1 Land Use and Economic Environment

The land use environment along the corridor encompasses a wide range of uses.

Residential

The study area is primarily composed of single and multi-unit residential buildings. There are several areas that consist of single unit residential and townhomes, but there are also apartment neighbourhoods, such as the segment between Keele Street and Jane Street.



Employment

The employment areas along the EFWLRT alignment are primarily industrial and commercial lands. There are a few buildings west of Dufferin Street to Keele Street; however this segment has the largest concentration of commercial and industrial businesses within the study area.

There is a large scale concentration of retail areas at Jane and Finch, along with several areas of smaller stores and plazas throughout the corridor.

Institutional

The schools in the study area range from elementary to post secondary schools, such as Humber College Institute of Technology and Advanced Learning. Humber College is currently conducting a Master Planning exercise to improve the institution’s accessibility through considerations of possible connections to Highway 27. The study team is currently working with the College’s planning staff to determine stop/terminus locations that are convenient for staff and students as well as in line with their Master Plan study.

There are three major hospitals along the alignment: North York General Hospital Branson site, between Bathurst Street and Virgilwood Drive; Humber River Regional Hospital which is just east of Highway 400 on the south side of Finch Avenue; and Etobicoke General Hospital William Osler Health Centre, east of Highway 27 on Humber College Boulevard.

There are also numerous community centres and other social service facilities throughout the corridor.

Utility Corridors

There is a hydro corridor that is located north of and parallel to Finch Avenue. The corridor runs from east of Yonge Street to west of Jane Street and then runs south-west from Highway 400. This hydro right-of- way serves a variety of other uses including bicycle trails and transit facilities. A second smaller north-south hydro corridor crosses the EFWLRT alignment east of Highway 27.

Several long-distance pipelines cross Finch West Avenue in the vicinity of the hydro corridor between Signet Drive and Weston Road. Consultations with the owners of the pipelines has commenced as part of preliminary design activities. Other local;and regional utility facilities are located along Finch Avenue West, primarily in the outer boulevard areas of the street allowance. Relocation of some of these facilities is expected in the course of the road widenings undertaken for the LRT project.

Open Space and Parks

There are several open spaces along the alignment. There are large open spaces located between Bathurst Street and Dufferin Street and also within the Humber Aboretum, which is adjacent to Humber College. Parks in the area include G. Ross Lord Park to the east of Dufferin on the north side of Finch Avenue and Derrydowns Park which is west of Keele Street and on the north and south sides of Finch Avenue.

3.1.4 NOISE AND VIBRATION

3.1.4.1 Noise Analysis

Background noise levels were measured as part of this study at five (5) locations along the existing Finch Avenue between Yonge Street in Toronto, and Woodbine Downs Blvd./Humber College Boulevard in Etobicoke. Existing noise was also predicted. The background/existing noise environment was determined based on the following:

- 1. Traffic noise predictions using the Ministry of Environment STAMSON noise model; and,
- 2. Ambient noise monitoring at 5 receptors within the study area.

Existing (2004 or 2006) traffic volumes for Finch Avenue were provided by the City of Toronto’s Traffic Data Centre. The data is a culmination of measurements over an overall duration of eight (8) hours spread over AM peak and PM peak and off-hour counts. As per the conventional practice, the eight (8) hour count was assumed to comprise 64% of the AADT (Annual Average Daily Traffic). The data assumes a 50/50 split in two-way traffic along the route.

On the basis of site reconnaissance and land use maps, the locations of sensitive receptors were identified along the Finch Avenue Corridor, within each of the road segments. These included residences, including seniors’ residences, schools, churches, hotels, motels, daycare centres, etc.

Both daytime and nighttime traffic noise levels were predicted for the existing noise analysis. The traffic noise predictions were based upon the following key assumptions:

- 1. An existing (2004-2006) AADT;
- 2. A traffic volume breakdown in most instances consisting of about 90% automobiles, 4-6% medium trucks and 4-6% heavy trucks;
- 3. All residential receptors are located outdoors (backyards) during the daytime;
- 4. Nighttime receptor height of 4.5 m (second story window); and
- 5. A daytime/nighttime traffic volume split of 85/15%

In each instance the traffic noise was predicted at the existing receptor closest to the roadway.

Exhibit 3-14 below shows the traffic noise prediction results for existing conditions at selected closest receptor locations along the preferred route for both daytime and nighttime. The STAMSON model data sheets are provided with a copy of the full noise and vibration report in Appendix F.

Exhibit 3-14 Predicted Existing Daytime and Nighttime Traffic Noise Levels

Location	Predicted Sound Level (DBA)		Closest Receptor Distance (m)
	Daytime	Nighttime	
1. 145 Blair Court	65	61	25
2. 7 Hun Crescent.	65	61	31.5
3. 34 Romfield Drive	68	64	25
4. 31 Cedar Spring	69	64	31.5
5. 140 Finch Avenue West	64	60	41





The table shows high daytime and nighttime sound levels at receptors closest to the major roads along the corridor. The high existing noise levels reflect the high traffic volumes on these roads with reasonable truck volumes as well as close proximity of the receptors to Finch Avenue.

3.1.4.2 Vibration Analysis

The same five (5) locations chosen for the noise analysis were also chosen for the vibration analysis. The vibration levels were measured on the ground surface through a mounted accelerometer. The accelerometer was connected to a vibration meter, whose output drove a paper chart. The whole system was calibrated using a Bruel and Kjaer vibration calibrator. The calibrator produces a level of 10 mm/sec velocity of 160 Hz.

The vertical vibration at each of the 5 locations was collected over a short period. The period included pass-bys (at various speeds) of cars, vans, buses, and trucks of various sizes. Copies of the paper chart results are provide in Appendix F. The results present a sample of the collected data. The results show that there are no perceptible vibration levels from existing traffic at the closest sensitive receptor locations along the Finch Avenue Corridor. Most of the values are well below 0.1 mm/sec. This is expected since the traffic basically consists of rubberized-tire vehicles and the levels from such traffic are negligible unless there are some anomalies, such as an expansion joint, in the roadbed. The only vibration sensation that was detected by the transducer occurred when the equipment operator tapped adjacent to it.

3.1.5 CULTURAL ENVIRONMENT

3.1.5.1 Archaeology

A Stage 1 Archaeological Assessment was conducted as part of the Transit City Light Rail Plan for the Etobicoke-Finch West Corridor. The Stage 1 Archaeological Assessment Report is included in Appendix G. There is one previously registered archaeological site adjacent to the study corridor. Four others sites have also been registered within a two kilometre radius of the study corridor. Details concerning these sites can be found in Exhibit 3-15.

Exhibit 3-15: Registered Archaeological Sites within Two Kilometres of the Study Area

Borden #	Name	Cultural Affiliation	Site Type	Researcher
AkGu-12	Dufferin	Aboriginal – Woodland	Campsite	F. Meighan, 1971
AkGv-8	E.A. Parson	Aboriginal – Woodland	Village	J.V. Wright, 1966; J. Morrison, 1979; J.N. Emerson, 1972; ASI, 1998
AkGv-12	Emery	Aboriginal – Woodland	Campsite	F. Meighan, 1950
AkGv-70	Boynton	Euro-Canadian	Homestead	ASI, 1998
AkGv-71	Bramalae	Aboriginal	Isolated Find	ASI, 1988

The Emery site (AkGv-12), a Woodland campsite, was originally documented by Father Meighan in 1950 and is the only site adjacent to the study corridor. The site was reported as being destroyed in the early 1960's by earthmoving activities. The Emery site was revisited in 1988 as part of the watermain route evaluation from the Richview Pumping Station to the Keele Reservoir (ASI 1989). No material associated with the site was encountered during the assessment. Nevertheless, it was recommended that this conclusion be confirmed through topsoil stripping and these additional investigations were carried out in September, 1993. Based on these results, it was concluded that the site

was not located in the watermain right-of-way within the hydro corridor, and, based on the surviving accounts, it was most likely located within the area of the high school; any archaeological deposits that may have been present have been destroyed.

It was concluded that no archaeological site potential is present in the Finch Avenue right-of-way. An earlier recommendation for a field review of the study corridor was conducted to confirm the assessment of archaeological site potential and to determine the degree to which development and landscape alterations may have diminished that potential. This field review was carried out in May 2009 and confirmed no archaeological sites of interest in the corridor.

3.1.5.2 Cultural Heritage

A cultural heritage assessment, including Built Heritage Resources (BHR) and Cultural Heritage Landscapes (CHL) was completed in June 2008 (refer to Appendix H). A further field review was conducted in June 2009. Through historic mapping and database searches the assessment identified five BHRs and seven CHLs within the study limits, which are listed in Exhibit 3:16 and illustrated in detailed maps within Appendix H. The assessment concluded that although all identified cultural heritage resources are located in close proximity, or immediately adjacent to the proposed LRT and road alignment, appropriate mitigation measures could be developed to eliminate or minimize impacts in the detailed design phase. During the detailed design phase, a detailed historical review of 20th century buildings and landscapes that could be of heritage significance is recommended, including special treatment of BHR-3, which is adjacent to an LRT stop. Otherwise, indirect impacts of adding LRT to the corridor are not a concern to cultural heritage resources.

Exhibit 3-16: Identified Built Heritage Resources (BHR) and Cultural Heritage Landscapes (CHL) within the Study Area

Feature	Location	Feature Type	Age	Description/Comments
BHR-1	1130 Finch Ave. W	Church and Cemetery	1901	Elia Episcopal Church and Cemetery, Designated (By-law: 31873). The burial grounds are also known as Gram's Appointment Church Cemetery. 1832 is the earliest marker recorded and is now inactive
BHR-2	685 Finch Ave. W	Church	1928	A listed property, which includes a detached house and rectory, is referred to as 'Shadowbrook' in the inventory. Also known as St. Bernard's Convent' it includes St. Bernard's Convent Roman Catholic Cemetery, established 1961
BHR-3	172 Finch Ave. W	Residence	1920s	It is reported (Apr 24/07) that City Council intends to designate this property: the Arthur Edward Waine House
BHR-4	1125 Finch Ave. W	Industrial	Mid-20 th Century	Identified during the field review. Functions as a factory and headquarters for "Open Window Bakery", in operation since 1957.
BHR-5	5600 Yonge Street	Commercial	Ca.1920-1930	Identified during the field review. This two storey, brick structure likely originally served as a bank or utility building at the southwest corner of Finch Ave. W and Yonge St.
CHL-1	Humber River	Waterscape		Identified on historic mapping
CHL-2	Between Hwy 400 and Weston	Railscape	1853	Currently operated by Canadian National. 1860 Map: Northern Railway 1878 Map: Northern Railway

Feature	Location	Feature Type	Age	Description/Comments
				Built in 1853 by Northern Railway to connect Toronto with Collingwood (Andreae 1997)
CHL-3	Black Creek	Waterscape		Identified on historic mapping.
CHL-4	Between Dufferin and Keele	Railscape	1871	1860 Map: not present 1878 Map: Toronto, Grey & Bruce Railway. Built in 1871 by Toronto, Grey & Bruce. Currently operated by Canadian Pacific (Andreae 1997)
CHL-5	Dufferin Creek	Waterscape		Identified on historic mapping
CHL-6	Don River West Branch	Waterscape		Identified on historic mapping
CHL-7	North and south side of Finch Ave. W; Endell St. to Edithvale Dr.	Mid-20th century transitional, residential streetscape	Mid-20th Century	Identified during the field review. This portion of the Finch Ave. W. Right-of-Way is anchored by a residential streetscape that is predominantly reflective of circa 1940's-1950's residential development. In the vicinity of Senlac Rd., two earlier, circa 1920's residences are located on the north side of the Right-of-Way, which help illustrate 20th century transitions in the built form along this portion of Finch Ave. W., coinciding with the creation of North York.



The following Exhibits are some of the identified Built Heritage Resources within the study area.



Exhibit 3-17: Elia Episcopal Church and Cemetery

Exhibit 3-18: Shadowbrook, St. Bernard's Convent



Exhibit 3 -19 Arthur Edward Waine House

Exhibit 3-20: Open Window Bakery



Exhibit 3-21: 5600 Yonge Street (originally a bank or utility building)



3.1.5.3 Contaminated Sites

Preliminary screening information was collected in May and June, 2009 on properties that have the potential to contribute to environmental contamination along the study corridor. Properties located within 200 m of the proposed LRT route were included in the review databases and were contemplated in the preliminary screening exercise. Based upon information presented, properties within the 200 m buffer zone were categorized as having low, moderate, or high potential to contribute to environmental contamination of the project area. The criteria used to assign a risk rating to each property are summarized in Exhibit 3-21. Exhibit 3-22 shows the number of properties associated with the risk ratings that are located within the 200 m buffer zone for the EFWLRT corridor.

Exhibit 3-22: Contaminated Risk Rating Criteria

High Potential (H) to Contribute to Environmental Contamination	Moderate Potential (M) to Contribute to Environmental Contamination	Low Potential (L) to Contribute to Environmental Contamination
<p>A high risk rating was assigned when, based on a collective review of records, a property met one or more of the following criteria:</p> <ul style="list-style-type: none">Underground storage tanks (USTs) or above-ground storage tanks (ASTs) within 50 m of the proposed route;Landfill sites (historic) within 50 m of the proposed route;>15 years use and storage of new and used hydrocarbon products and non-chlorinated solvents;>15 years of liquid industrial and hazardous waste generation (e.g. oils and lubricants, photo processing chemicals, non-chlorinated solvents);Bulk fuel handling and storage facilities, primary business;PCB storage sites, reported PCB spills;Storage and use of new and used chlorinated solvents	<p>A moderate risk rating was assigned when, based on a collective review of records, a property met one or more of the following criteria:</p> <ul style="list-style-type: none">USTs/ASTs between 50 and 100 m from the proposed route;Landfill sites (historic) between 50 and 100 m from proposed route;10-15 years use and storage of new and used hydrocarbon products and non-chlorinated solvents;10-15 years of liquid industrial and hazardous waste generation (e.g. oils and lubricants, photo processing chemicals, non-chlorinated solvents);Bulk fuel storage, secondary business (incidental use);Mixing, bulking, and application of pesticides (operator use);Automobile wrecking and recycling facilities;	<p>A low risk rating was assigned when, based on a collective review of records, a property met one or more of the following criteria:</p> <ul style="list-style-type: none">USTs/ASTs greater than 100 m from the proposed route;Landfill sites (historic) greater than 100 m from the proposed route;<10 years use and storage of new and used hydrocarbon products and non-chlorinated solvents;<10 years of liquid industrial and hazardous waste generation (e.g. oils and lubricants, photo processing chemicals, non-chlorinated solvents);Propane handling and storage facilities;Storage and handling of pesticides (vendors only)Active or closed waste disposal sites with potential hazard to humans (Class A or B)



High Potential (H) to Contribute to Environmental Contamination	Moderate Potential (M) to Contribute to Environmental Contamination	Low Potential (L) to Contribute to Environmental Contamination
(non-laboratory use); <ul style="list-style-type: none">Radioactive material; andOne-time spill event to the soil (>100 L)	<ul style="list-style-type: none">Storage and use of new and used chlorinated solvents (laboratory use only); andOne-time spill events to the soil between 50 L and 100 L	<ul style="list-style-type: none">Pathological waste; andOne-time spill events <50 L (to paved areas or to storm sewers)

Exhibit 3-23: Summary of Sites With Potential to Contribute to Environmental Contamination

Potential to Contribute to Environmental Contamination	Number of Sites
Low	107
Moderate	48
High	77
Total	232

For detailed locations of the potential sites, refer to Tables 1 to 3 and Figures 1 to 4 in **Appendix J**.

3.1.5.4 Utilities

Numerous existing utilities and services are located within the Etobicoke Finch West LRT corridor that either run parallel to Finch Avenue West or cross it. These have been identified and their owners/operators are listed as follows:

- Bell Canada
- Toronto Hydro
- Toronto Water
- Rogers Cable
- TH Energy Services – street lighting
- Cogeco
- Allstream
- Hydro One – Transmission tower in close proximity to alignment, west of Signet Dr.
- Sun Canadian Pipelines
- Sarnia – Imperial Oil Pipeline System
- Trans-Northern Pipelines Inc.
- Enbridge -- gas
- Enbridge Pipelines Inc.

The alignment of the Etobicoke Finch West LRT will run mainly on the surface of the street, except for the two underground stations to be located at the cross streets of Yonge and Finch, and Keele and Finch, respectively. Both

underground options, Finch Station at Yonge and Finch West Station at Keele, are expected to require relocation of underground utilities.

Generally, there are shallow utilities along the entire Finch West corridor that will be relocated based on a utility relocation strategy in coordination with the operational needs of the utility owners. It is anticipated that the shallow utilities within the LRT right-of-way will require relocation to the outside edge of the right-of-way. No major conflicts for the surface alignment are identifiable at this stage.

Information received from Enbridge Gas Utility Company indicates a high pressure pipe along Finch near the Keele Street intersection and also another one running along Keele Street crossing Finch Avenue West. A relocation or avoidance strategy will be developed during the design phase once more accurate location detail is available.

The depth of cover for the Trans-Northern and Enbridge Pipelines located near the hydro corridor east of Weston Road will be confirmed in the design stage. Confirmation will be to verify that the foundation structure of the LRT safely clears their existing locations, since any required relocation of such pipes would trigger a National Energy Board approval process. It is currently envisaged that solutions could be sought at the engineering stage to avoid moving these pipelines.

3.2 Future Conditions

In this section, the future conditions are investigated as they would be without implementation of the LRT system.

3.2.1 TRANSPORTATION

3.2.1.1 Transit

Without the Etobicoke-Finch West LRT, transit services would continue to be offered mainly by buses operating in mixed traffic in the corridor. As described previously, this would not meet the needs of the population, employment, health care and educational facilities along the route.

3.2.1.2 GO Transit

GO Transit services can be expected to increase on the Barrie Line (CN) although there will be no practical impact for the Etobicoke-Finch West corridor, since there is no existing or planned station to connect to Finch Avenue West. A study is being conducted by GO Transit to examine the feasibility of starting rail service on the Bolton Line (CPR). Some alternative station sites in the vicinity of the Finch Avenue West and Weston Road intersection are under consideration. A connection with one or more existing TTC transit routes in the area may be possible, depending on the site chosen.

3.2.1.3 Bicycle and Pedestrian Network

The City of Toronto bicycle plan calls for a route along the Hydro corridor north of Finch Avenue West from the CPR overpass to Yonge Street and beyond. West of the CPR overpass, the plan calls for bicycle lanes along Finch Avenue West.

3.2.1.4 Road Network

No major road improvements are proposed for the area.

3.2.1.5 Assessment of Traffic Conditions

Traffic conditions in the area are expected to worsen, as population, employment and the use of education and health care facilities increase. Further details can be found in Appendix C.

3.2.2 NATURAL ENVIRONMENT

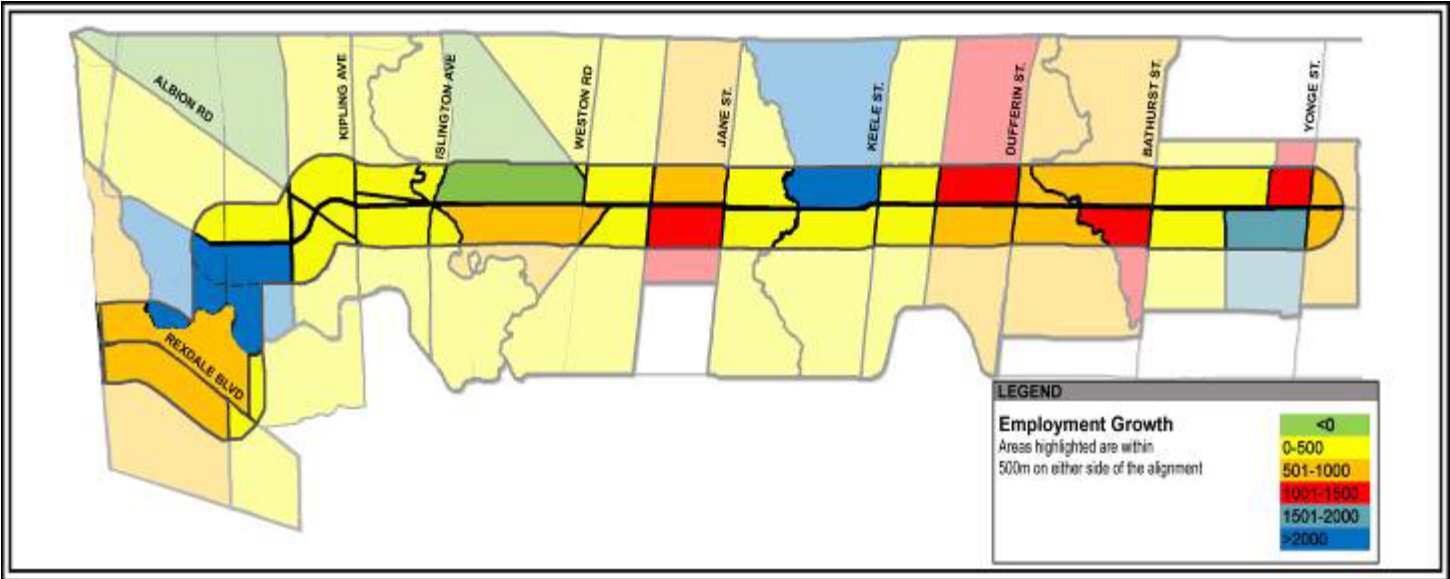
An increase in population and development in the study area will undoubtedly result in further loss and degradation of existing natural resources in the future. Within that time, however, natural areas may be designated as significant and thereby protected from future development. Recovery plans currently in place and future plans still to be developed will assist in the restoration of watercourses and other natural features.

3.2.3 SOCIO-ECONOMIC ENVIRONMENT

Future Population and Employment

The City of Toronto's City Planning Division provided the study team with an analysis on the increase in number of residents and employment from 2001 to 2031 within the study area. The results indicate significant employment and population growth along the EFWLRT corridor (see Exhibit 3-24 and Exhibit 3-25). There are several areas along the corridor that are projected to have an increase of over 1000 residents. Similarly, the City of Toronto anticipates that there will be several areas that will incur an increase of over 1000 jobs.

Exhibit 3-25: 2001 to 2031 Employment Growth (City Planning Division, City of Toronto, 2002)



Future Development

There are significant new approved developments along the study area, including:

- Medallion mixed use development on the southeast corner of Finch Avenue West at Weston Road;
- Intensification of the retail plaza on the northeast corner of Finch Avenue West at Highway 27;
- Advent healthcare redevelopment on the south side of Finch Avenue West at Virgilwood Drive;
- Finchwood Village Shopping Centre on the northwest corner of Finch Avenue West at Highway 27; and
- 83 Finch Avenue West mixed commercial-residential development (south-east corner of Finch Avenue and Talbot Road).

3.2.3.1 Land Use Policies

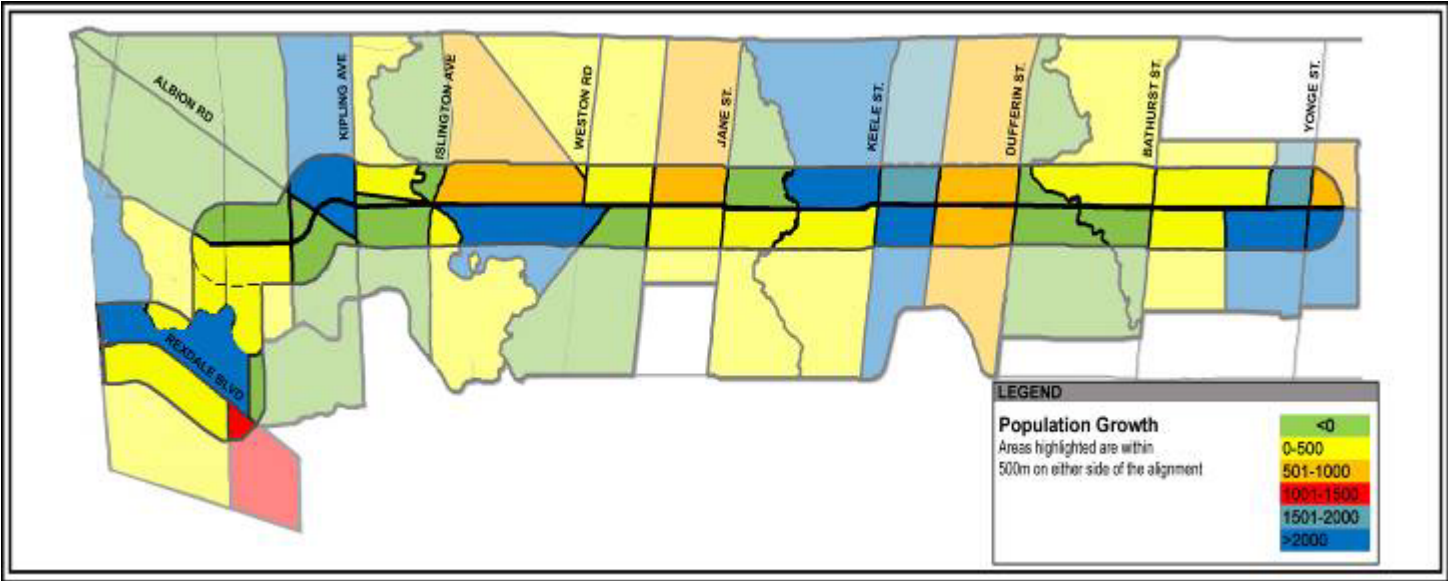
Studies and Secondary Plans provide guidelines on the type of growth and changes to the built environment in a given area in the City of Toronto. Segments along the Etobicoke Finch-West LRT are within the City of Toronto's Avenue Study, as well as three secondary plans, Emery Village, North York Centre and Centre Finch Area.

Emery Village Secondary Plan

The Emery Village Secondary Plan, approved in 2002, provides guidance to the development of the area and implementation of infrastructure and includes an improved transportation network including new roads. Specifically, the Secondary Plan's goal is to:

"...provide a framework for development that encourages a village-like street oriented, mixed-use pattern of development that promotes transit, pedestrian use, cycling and improvement to the area's streetscape and significant open space system."

Exhibit 3-24: 2001 to 2031 Population Growth (City Planning Division, City of Toronto, 2002)



The objectives for the Plan go on to direct initiatives within the study area to:

“...reurbanize Emery Village community by facilitating new mixed-use development on an incremental basis consistent with the capacity of existing or planned infrastructure and create a balance of high quality commercial, residential, institutional and open space uses that reduce automobile dependence and meets the needs of the local community.”

The implementation of the Etobicoke-Finch West LRT within the Emery Village Secondary Plan, in a manner that provides for streetscaping that supports a connected street system for pedestrians, bicycles, transit and cars, supports the Emery Village Secondary Plan goals and will help provide a viable alternative to automobiles in this corridor. Implementation would also accommodate a new grid system of neighbourhood streets.

North York Centre Secondary Plan

The North York Centre Secondary Plan contains policies that strongly emphasize transit based employment and residential growth. Finch Station and the area west of Yonge Street on Finch Avenue are part of the North York Centre North segment of the Plan. The Plan considers Yonge Street as the “spine” and the principal pedestrian “promenade” of the Centre for which specific built-form and design parameters are defined. The main concepts and objectives of the Plan include:

- A multi-use character that contains a mixture of residential, retail, commercial, services, office, institutional, entertainment and open spaces;
- Increasing the proportion of transit trips through a combination of significant concentrations of employment and residents located along the North York Centre North and South and rapid transit service;
- A pedestrian system, integrated with existing and future development that encourages the separation of pedestrians from vehicular traffic.

The Official Plan and the North York Secondary Plan contain policies regarding land use that would be supported by improving transit, pedestrian and cycling environments.

Centre Finch Area Secondary Plan

The portion of this study area that falls within the Centre Finch Area Secondary Plan is the segment between Bathurst Street and Yonge Street. The main objectives of the Centre Finch Plan include:

- The promotion of mixed use areas primarily composed of office and multiple unit residential buildings that front onto Finch Avenue between Bathurst Street and Willowdale Avenue;
- Support for street oriented retail and commercial uses west of Yonge street;
- Reduction in private driveway access to Finch Avenue;
- Encouragement of the use of Finch Avenue as a major arterial road; and
- Establishment of vibrant street activity in the Central Finch Area.

The Plan’s policies strongly encourage the consolidation of lots and shared access of surface parking areas to encourage efficient vehicle access. The Plan also indicates that the City of Toronto does not generally support widening of Finch Avenue beyond five lanes.

3.2.4 CULTURAL ENVIRONMENT

No major changes are anticipated in the cultural environment of this area. The study area is currently part of an urban landscape and will continue to exist as such, with the identified cultural heritage resources being protected and preserved into the future.