



City of Toronto
Keele Finch Plus Study
Existing Environmental Conditions Report

FINAL

September 2016



KEELE FINCH PLUS STUDY

EXISTING ENVIRONMENTAL CONDITIONS REPORT

Toronto, Ontario

FINAL

Prepared for the City of Toronto

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Executive summary

The City of Toronto (the City) is undertaking a Council directed Planning Study for the area surrounding the intersection of Keele Street and Finch Avenue West (known as Keele Finch Plus), with the objective to identify potential feasible future land uses. Due to the future subway extension and integrated light rail transit (LRT) station, the intersection of Keele Street and Finch Avenue West has been identified as a “mobility hub” (in Metrolinx’ Big Move) and “major transit station area” (in the Province’s Growth Plan for the Greater Golden Horseshoe), with potential for increased residential and employment densities. The City would like to gain an understanding of the environmental factors and reasonable separation distances from existing or future industrial uses in proximity to the Keele Street and Finch Avenue West intersection. This will assist City Planning in determining where future residential and non-residential developments are reasonable and support the employment zones/uses.

This report is intended to provide the City with a better understanding of the environmental factors and potential constraints from existing and future industrial uses within close proximity to the Study Area. A 500 m primary area of influence and a secondary 800 m area of interest from the intersection of Keele Street and Finch Avenue West were established.

Guideline D-6 – Compatibility between industrial facilities and sensitive land uses, was utilized as part of this study, which provides a framework with the objective to prevent or minimize the encroachment of sensitive land uses upon industrial land use and vice versa. Depending on the potential and actual impacts on new sensitive land uses, different types of evaluation, assessment, and mitigation measures are possible. In accordance with *Guideline D-6 – Compatibility between industrial facilities and sensitive land uses*, industrial uses and facilities are categorized into Class I, II and III industrial uses, based on the objectionable nature of their emissions, physical scale, production volumes and intensity, and scheduling of operations. Class I is the least impactful to sensitive uses, whereas Class III is the most impactful. The Study Area encompasses five Class III industrial uses, three Class II industrial uses and one Class I industrial use. As directed by *Guideline D-6* areas of potential influence and recommended minimum separation distances for Class I, II and III industrial uses are determined based on case studies and experience. The recommended areas of influence for Class I, II and III industrial uses within the Study Area are 70 metres, 300 metres and 1000 metres, respectively. The recommended minimum separation distances from Class I, II and III industrial uses are 20 metres, 70 metres and 300 metres, respectively.

A site visit of the Keele Street and Finch Avenue West Study Area was conducted on April 12, 2016. During the site visit it was determined that the Keele Street and Finch Avenue West Study Area has an industrialized feel, based on observations of significant truck and transport activities and the number of industrial and bulk oil/tank farm facilities located within the Study Area. No significant presence of intrusive odours or significant air quality observations was observed.

A review of all historic and current environmental compliance approvals/certificate of approvals (ECAs/CoAs) was conducted for all Class I, II and III industrial uses located within the Study Area. The information obtained from the ECAs/CoAs in concurrence with a thorough desktop review of the Study Area was used to aid in determining the appropriate Class of industrial use for each industrial facility located within the Study Area, in accordance with *Guideline D-6 – Compatibility between industrial facilities and sensitive land uses*.



In addition to a thorough review of all ECAs/CoAs, a comprehensive zoning analysis was conducted for the Study Area, which considered both the former North York Zoning By-law 7625 and City of Toronto Zoning By-law 569-2013, which was used to determine existing and permitted land uses within the Study Area. It is important to understand existing as-of-right uses within the Study Area in order to evaluate the potential for the future development of sensitive land uses in congruence with existing as-of-right uses as well as Class I, II and III industrial uses.

A representative sample of traffic counts of intersections in the Study Area along the Keele Street and Finch Avenue West corridors was analyzed to determine the approximate volume and potential environmental impact of freight activity within the Study area with respect to other transportation modes. Criteria for air contaminants most relevant to transportation are carbon monoxide, nitrogen oxides (NO_x), volatile organic compounds (VOCs), particulate matter and ozone. However, further study is required to determine (with a high degree of accuracy) potential site-specific impacts and mitigation measures based on the site's outputs of fugitive emissions, ambient noise and other potential environmental impacts associated with freight activity within the Keele Street and Finch Avenue West Study Area.

General mitigation measures have also been established based on conducted desktop investigations and review of the ECAs/CoAs of Class I, II and III uses. Mitigation measures for air emissions are nearly always at the source, and would require cooperation from industrial facilities. Some approaches are relatively simple, including taller stacks to aid dispersion. Other mitigation measures may be more extensive, including pollution control equipment or process adjustments. However, some decisions can be made by developers, including site layout and location of building ventilation intakes and windows. As with air emissions, odour mitigation tends to be done at the source, and uses similar techniques. However, developers can make decisions such as locations of air intakes and positioning of buildings on a site that could influence the impact of odour at the site. Mitigation of noise can be done at the source or at the receiver. Receiver controls could include additional soundproofing or inoperable windows. Source controls could include barrier walls, silencers, or equipment replacement, but this requires cooperation from industrial facilities. Mitigation measures for dust emissions, resulting from truck traffic and facility storage piles typically focus on controls at the source, by treating road surfaces and storage piles. Particulate matter emissions are regulated as part of O. Reg. 419/05, and compliance is assessed at the property line and beyond. Thus, as with air emissions, individual facilities are likely to be compliant and cumulative effects (particularly with respect to combustion and fugitive emissions from truck traffic) would need to be evaluated if significant dust impacts are expected.

This Study identifies areas of influence for Class I, II, III industrial uses and minimum separation distance. In doing so, this study serves as a benchmark to identify site specific and land use specific mitigation measures that may be required by future developments within the area of influence. Some common mitigation measures have been described that site developers could implement to reduce typical effects as well as the potential for existing industrial site operators (should they choose to). The cumulative impact of many nearby industries was not evaluated in this study.

Depending on the potential and actual impacts on new sensitive land uses, different types of evaluation, assessment, and mitigation measures are possible. In general, land uses within the area of influence of industrial facilities should be evaluated for noise and odour impact, as these tend to generate most complaints, with consideration given to dustfall and other air emissions. The City should consider requiring potential developments to include studies around air emissions, odour, dust and noise to review the existing industrial development from a cumulative impact perspective.