

Equity & Climate Change in Municipal Decision-Making

Transportation Equity in Toronto

Presentation for Clean Air Council, April 13, 2021

Matthew Davis & Katie Wittmann

Capital Projects & Program, Transportation Services



Capital Projects & Program Unit

- Provides strategic oversight of Transportation Services Capital Program and Budget (\$5 Billion over 10 Years)
- Establish priorities for decision making on capital investments
- Ensure investments generate intended benefits
- Build a safe, efficient, effective, accessible, and equitable transportation system

Capital Projects & Program Unit



Budget
Development
&
Control

Divisional Capital &
Operating budget
development and
management



Active
Transportation

Planning of active
transportation
network and capital
coordination of AT
projects



Project
Development

Feasibility studies,
Master Plans,
Phase 1 & 2
Environmental
Assessments,
Project Sponsorship



Capital Planning
&
Programming

Capital coordination
of TS capital projects



Transportation
Safety

Road Safety Audits,
In-Service Safety
Reviews, Vulnerable
Road User Reviews,
delivery of capital
recommendations



Surface Transit

Planning,
programming,
delivery,
monitoring of
City/TTC surface
transit
improvements

Climate Change & Cycling Infrastructure

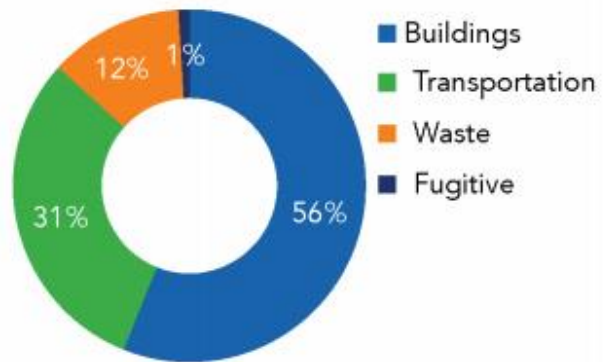
TransformTO goal:

By 2050, 75% of trips under 5 km will be walked or cycled.

3.2.1 2011 - the base year

In the baseline year, buildings account for 56% of GHG emissions in the City, followed by transportation at 31%.

TOTAL EMISSIONS BY SECTOR, 2011



TOTAL EMISSIONS BY FUEL, 2011

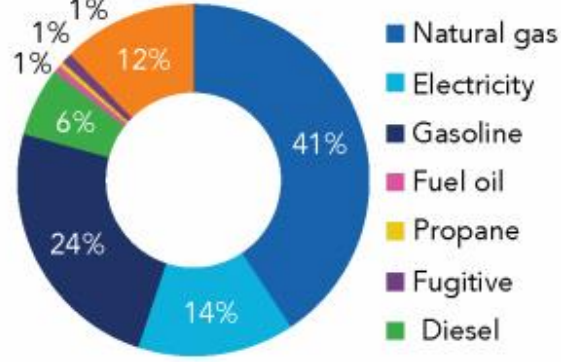


Figure 3. Two views on GHG emissions in 2011.

PERSON TRIP MODE SHARE BY TRIP DISTANCE- LC 2050

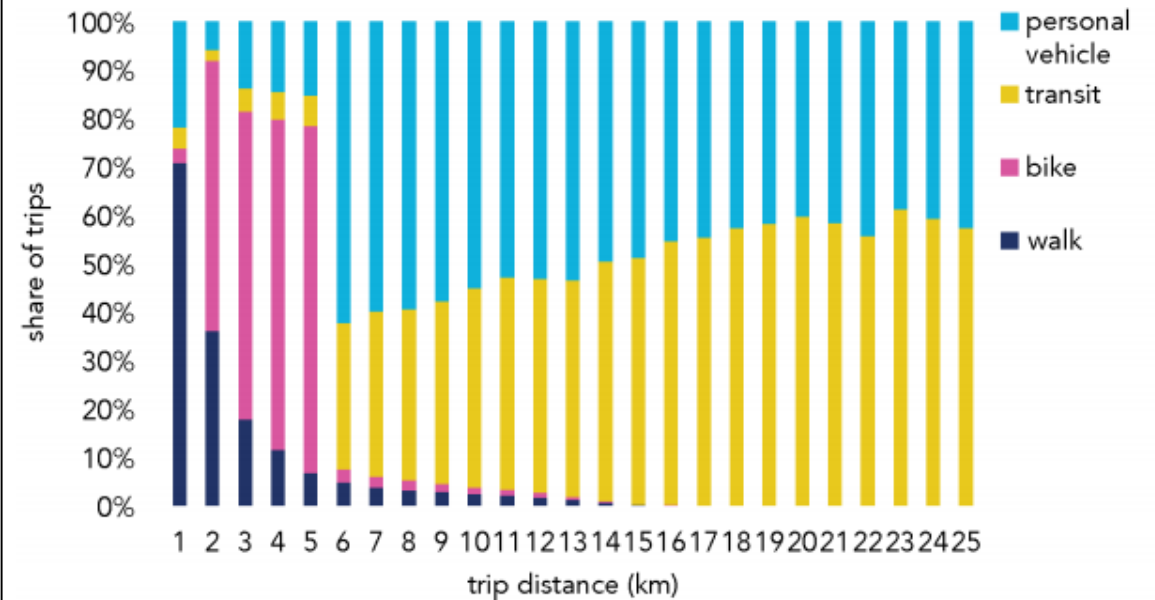


Figure 29. Person trip mode share by distance, Low Carbon 2050.



Search [magnifying glass icon] [A+] [A-]

I want to... [dropdown arrow]

- Services & Payments
- Community & People
- Business & Economy
- Explore & Enjoy
- City Government

Home City of Toronto / Services & Payments / Streets, Parking & Transportation / Cycling in Toronto / Cycling & Pedestrian Projects / Cycling Network Plan

Cycling Network Plan

Share Print

On June 9, 2016 Toronto **City Council approved** the 10 Year Cycling Network Plan to connect, grow and renew infrastructure for Toronto’s cycling routes. On July 17, 2019 Toronto **City Council approved** the Cycling Network Plan Update, which provides a new timeframe to improve road work coordination, accountability, and implementation.

The Cycling Network Plan now consists of a longer-term overall proposed network, as well as a detailed three year rolling implementation program (currently 2019 to 2021). A new map illustrating Toronto’s Major City-Wide Cycling Routes has been developed to identify the significant projects completed, underway, and proposed, which serve as the backbone of the cycling network.

- Background**
- Cycling Network Plan Maps
- Cycling Impact Analysis
- Staff Report and Attachments
- Previous Ten Year Cycling Network Plan

In This Section	
Cycling & Pedestrian Projects	—
Argyle Street Bikeway	
Bloor Street Bike Lanes	
Conlins Bike Lane Upgrade	
Cycling Network Plan	—
Cycling Network Plan Maps by Ward	
Cycling Wayfinding	

Analysis Category Enhancements

Current cycling demand

Trip generators

Connectivity

Barrier crossings

Equity

Potential cycling demand

Transit access

Network coverage

Safety



Equity Lens Dashboard

Welcome to your Equity Lens Dashboard! Your personal, online Equity Lens account will allow you to analyze and track how equity is being considered and integrated into your initiative over the short and long term. You may share an analysis with a co-author, save drafts for later completion, or copy an analysis for future phases of the initiative. To begin, click "Start a New Equity Impact Analysis".

Help: For guidance on how to use the Equity Lens tool and other equity related questions, visit [Equity Lens website](#) or contact: diversity@toronto.ca. For technical issues, contact: [IT Service Desk](#).

Projects

[Start a New Equity Impact Analysis](#)

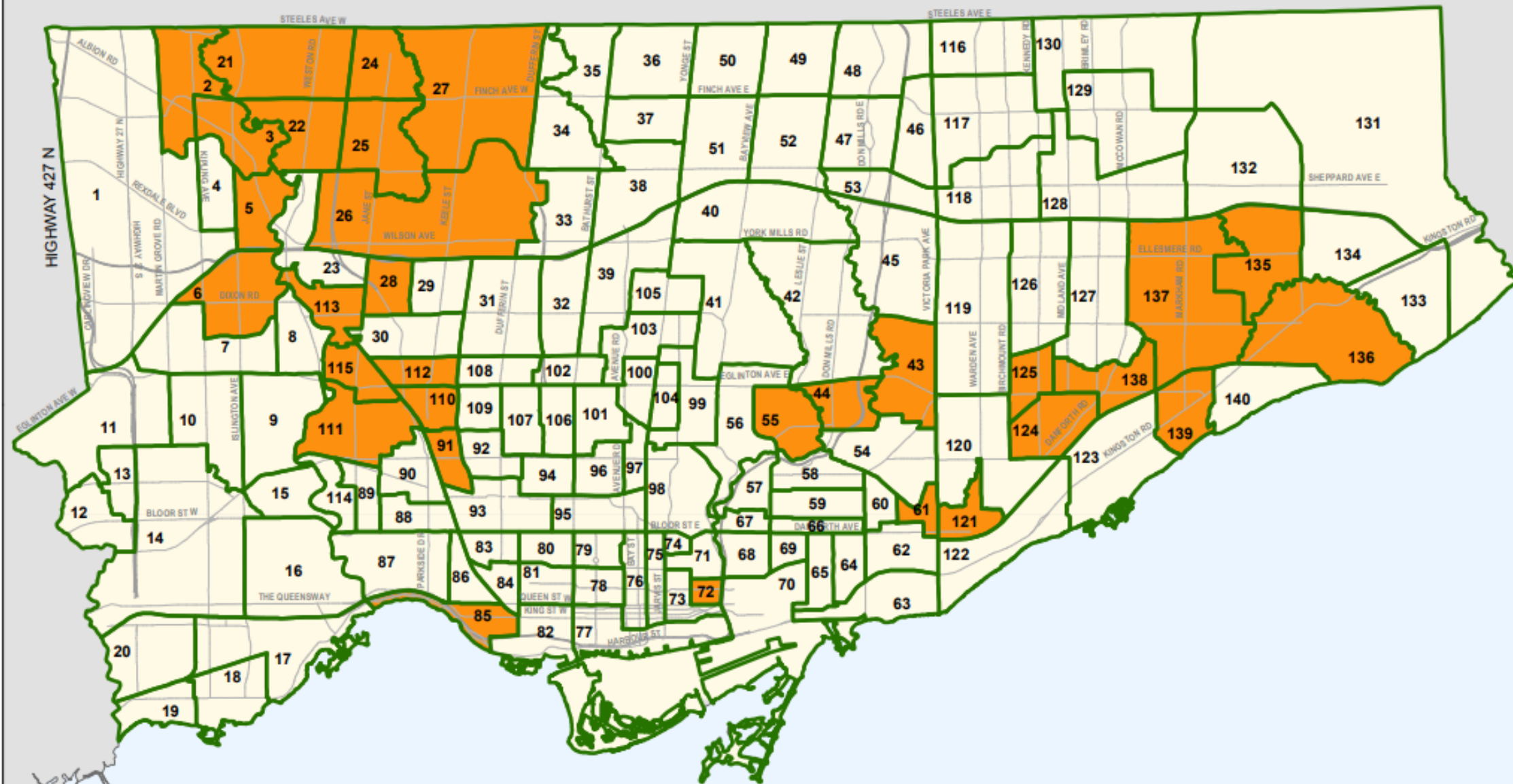
Show entries

Search:

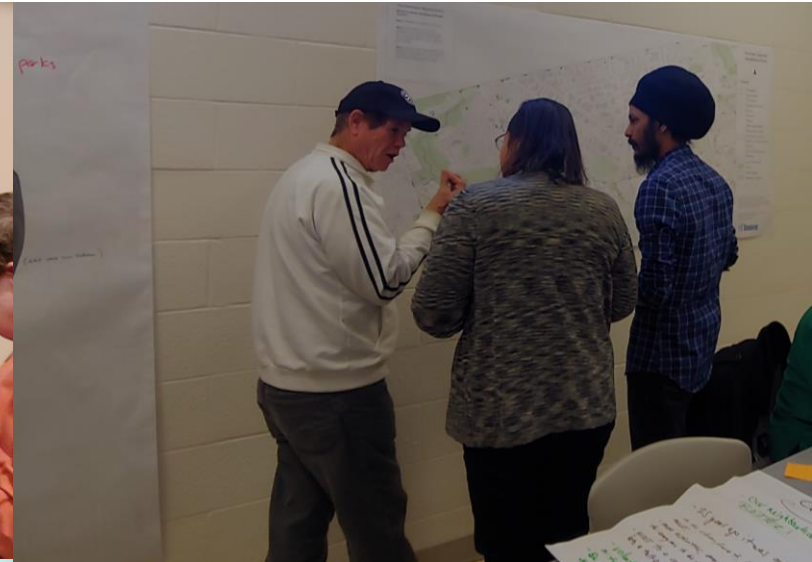
Created On	Name of Initiative	Stage	Status	Modified On	
2019-02-04 By: kwittma	Ten Year Cycling Network Plan Update	Definition & Planning	In Progress	Mon Feb 04 2019 15:26:28 GMT-0500 (Eastern Standard Time) By: kwittma	Delete Create Duplicate Edit Excel Report
Created On	Name of Initiative	Stage	Status	Modified On	

Showing 1 to 1 of 1 entries

Neighbourhood Improvement Areas



Neighbourhood Planning Table Activities

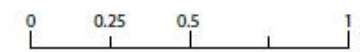


York South Weston Neighbourhood



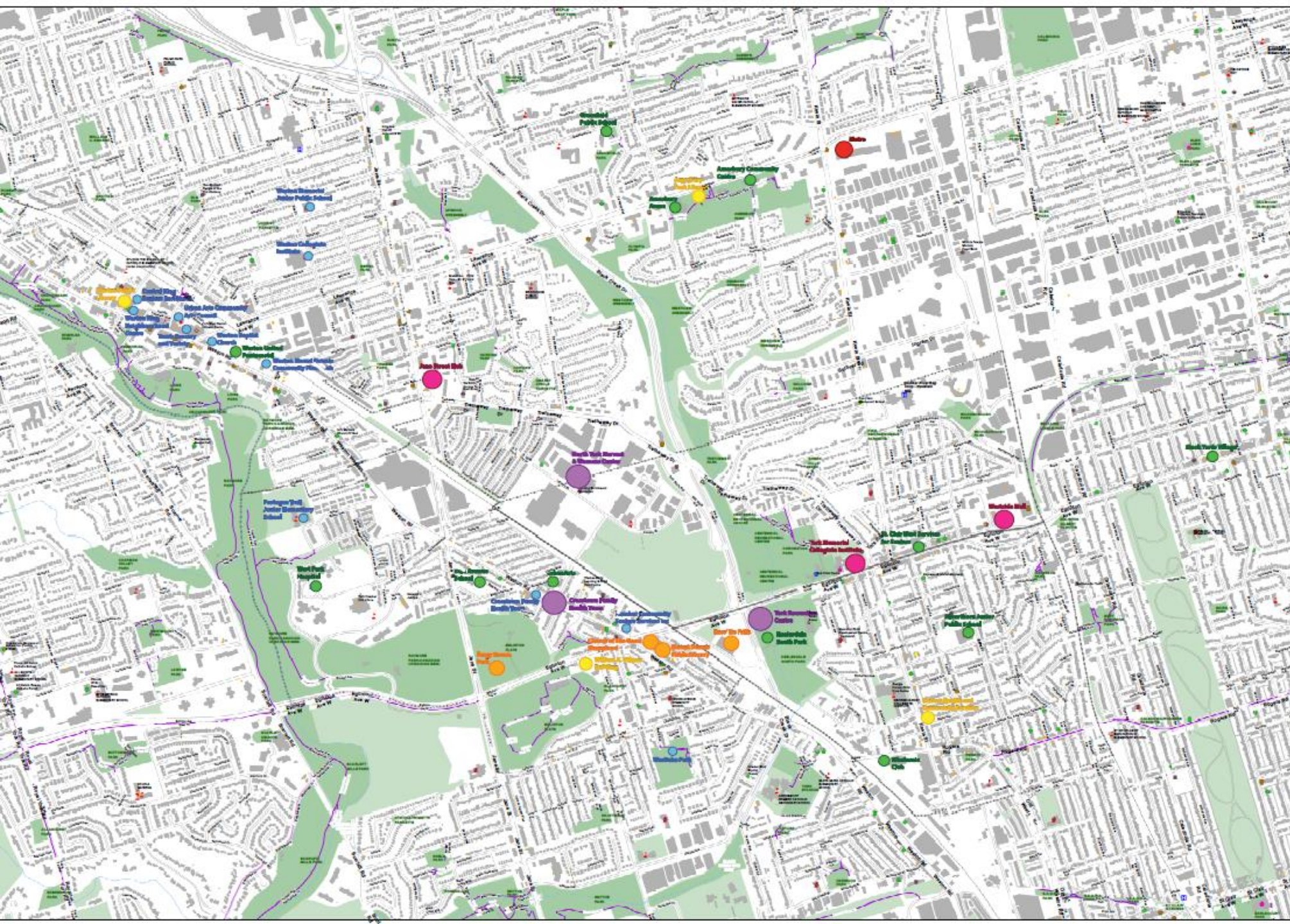
Legend

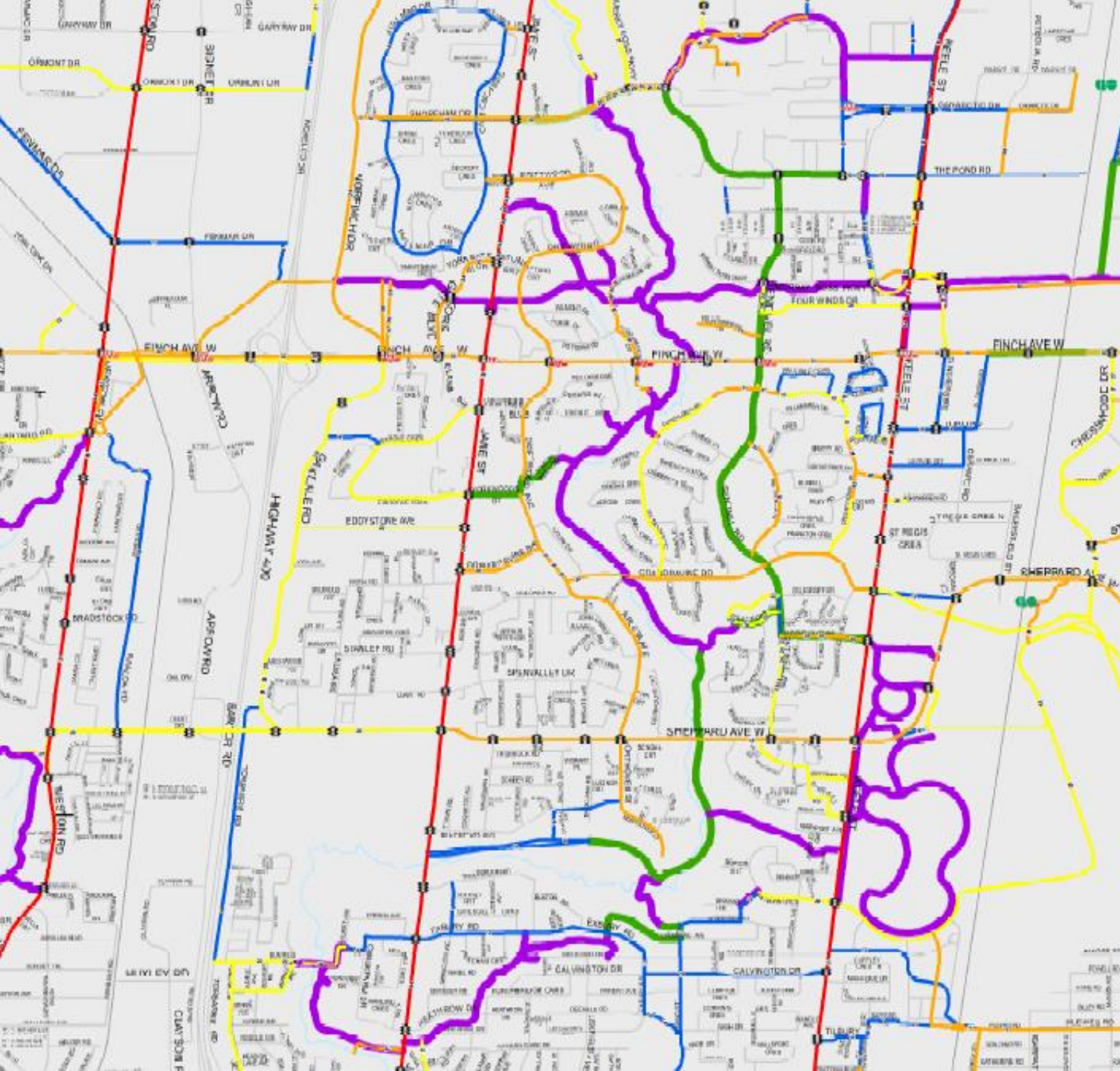
- Points of Interest - Popularity Rating
 - 1 (light blue circle)
 - 2 (green circle)
 - 3 (yellow circle)
 - 4 (orange circle)
 - 5 (red circle)
 - 6 (pink circle)
 - 7 (purple circle)
- GO Station (green circle with white center)
- Supermarket (orange square)
- Civic Centre (blue square)
- Community Centre (pink square)
- School (red square)
- Hospital (blue square)
- Libraries (yellow square)
- Faith Organization (green square)
- Convenience Store (orange square)
- Community Services (pink square)
- Daycare (orange square)
- Sports and Recreation (green square)
- Existing Cycling Network (purple line)
- Area of Interest (white box with black border)
- Parks (green area)



Data Source: City of Toronto (2018). Contains information licensed under the Open Data Government Licence - Toronto
Projection: NAD 1927 MTM 3

Cartography: Cycling Infrastructure & Programs, City of Toronto
Date: January 2019





Score

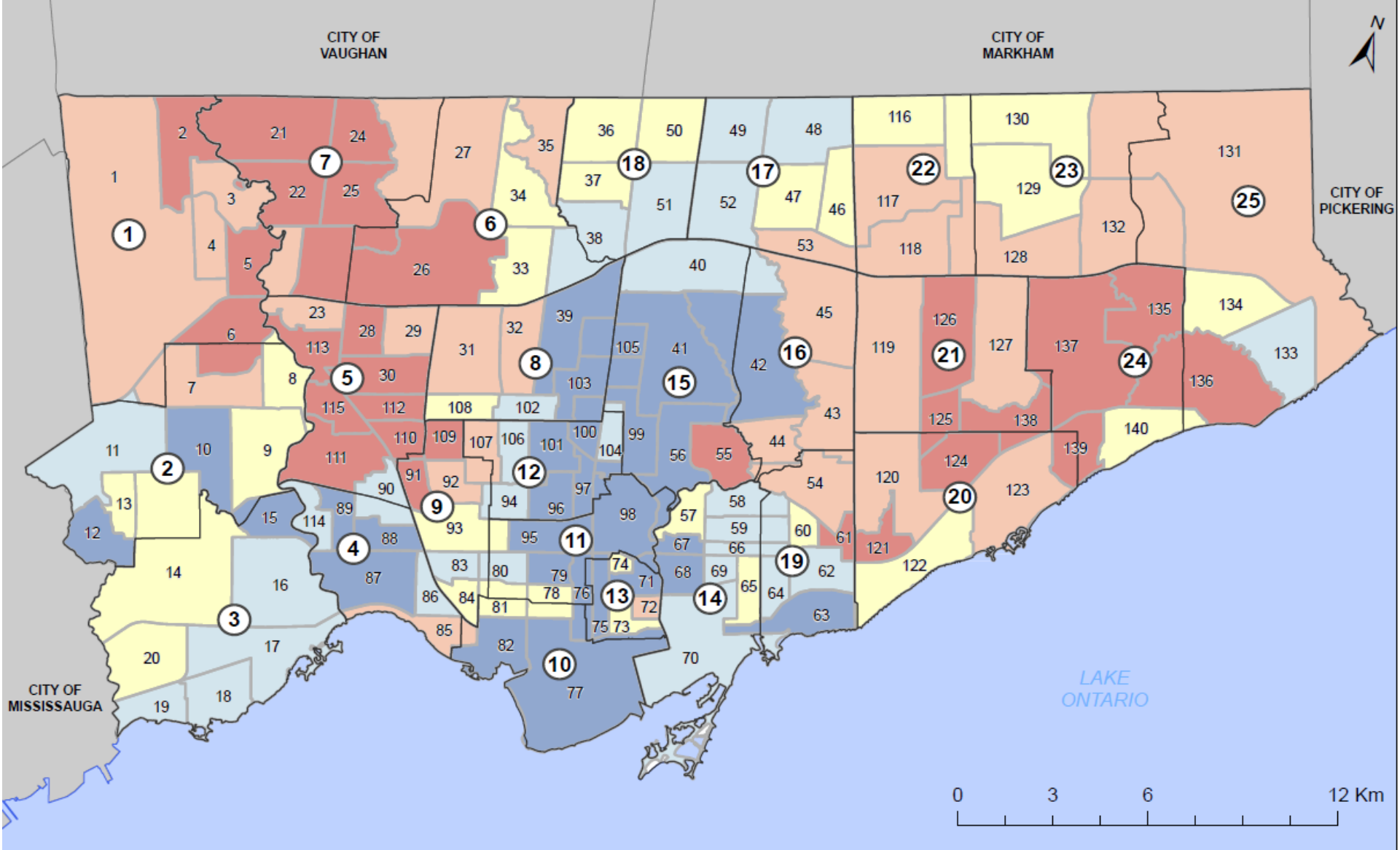
- 36 - 44
- 25 - 35
- 15 - 24
- 1 - 14

Existing Cycling Network

- Trail
- On-Street Cycling Facility
- Context Boundary
- TTC
- GO

Current cycling demand	Potential cycling demand
Trip generators	Transit access
Connectivity	Network coverage
Barrier crossings	Safety
Equity	





Legend

Combined Score of Cycling Service and Equity Index (out of 200)

- 27 - 46
- 47 - 60
- 61 - 70
- 71 - 81
- 82 - 100

City Ward Distribution (From 1 - 25)

Neighbourhood Boundaries

Ward Number

Notes:

1 - Cycling Service is the proportion of street kilometres in the neighbourhood (excluding highways) that have cycling routes (cycle tracks, bike lanes, trails, quiet street sharrows), represented as a percentage (out of 100). The more cycling routes that exist, the higher the score.

2 - Neighbourhood Equity Index Scores (out of 100) are those identified by the City of Toronto Social Development, Finance & Administration Division for the Toronto Strong Neighbourhoods Strategy 2020. The scores are based on five domains: economic opportunities, social development, participation in decision-making, physical surroundings, and healthy lives. The greater the opportunities and services, the higher the score. Details at toronto.ca/neighbourhoods

3 - The combined scores of Cycling Service and Equity Index are out of 200. The lowest scoring neighbourhoods represent those in greatest need of investment.

4 - List of neighbourhood names corresponding to neighbourhood numbers available on page 2.

Combined Cycling Service and Equity Scores by Neighbourhood

Transportation Services Cycling Infrastructure & Programs Unit
Data Source: Contains information licensed under the Open Government License – Toronto
Projection: NAD 1927 MTM 3

Date: July 2019

Divisional Equity Program



Credit: Seattle Department of Transportation

Transportation Equity Working Group

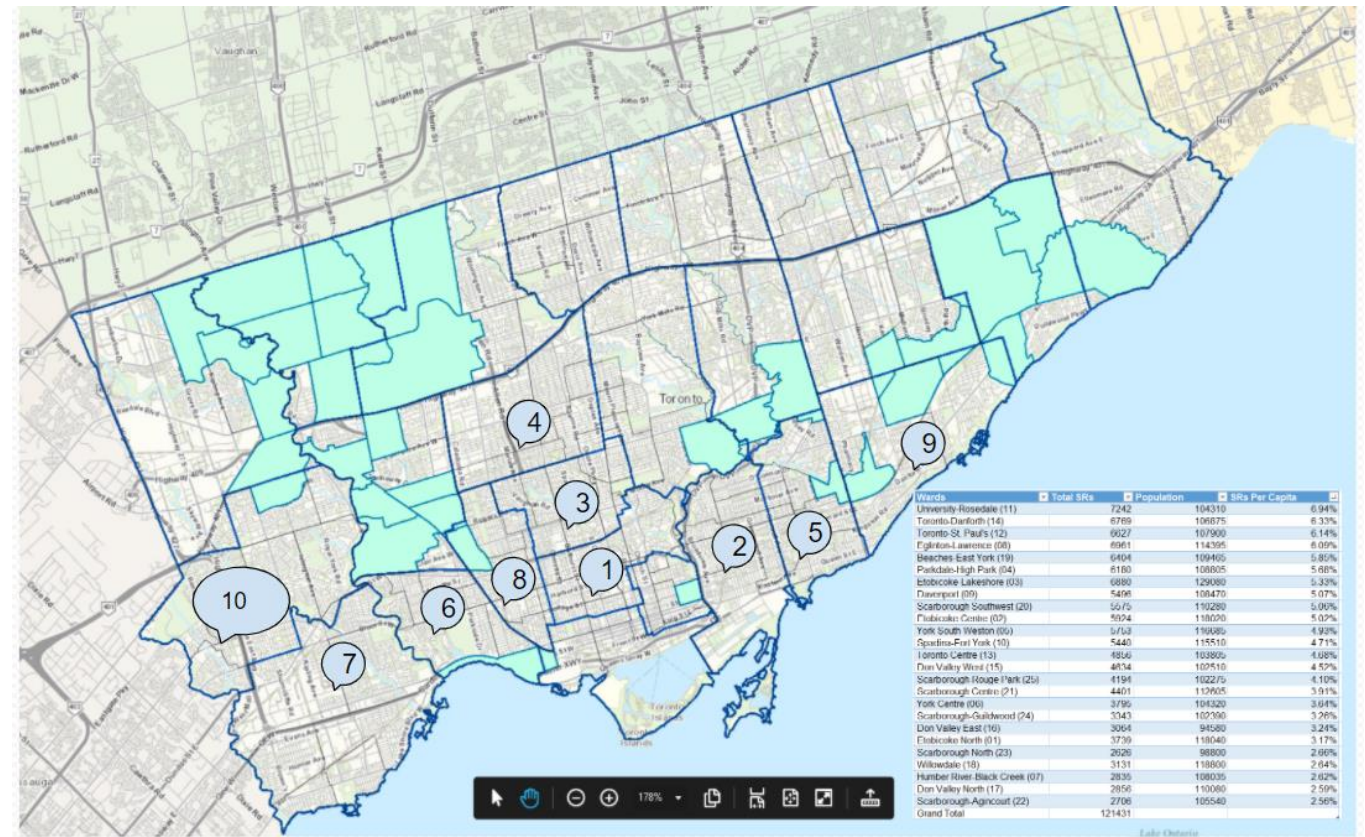
The Transportation Equity Working Group is a cross divisional table aimed at improving Transportation Services' work on equity, inclusion, and accessibility.

- The group aims to ensure equity work through the Division is coordinated with common definitions, assumptions, and expectations.
- Staff are invited to present ongoing projects and ideas related to transportation equity to the group to gain feedback and advice, and to provide a platform for information sharing and best practice review.
- To further enhance the Division's effectiveness, external partners from other divisions, agencies, or organizations may be invited to speak from time to time, as determined by the Chair.



EQUITY

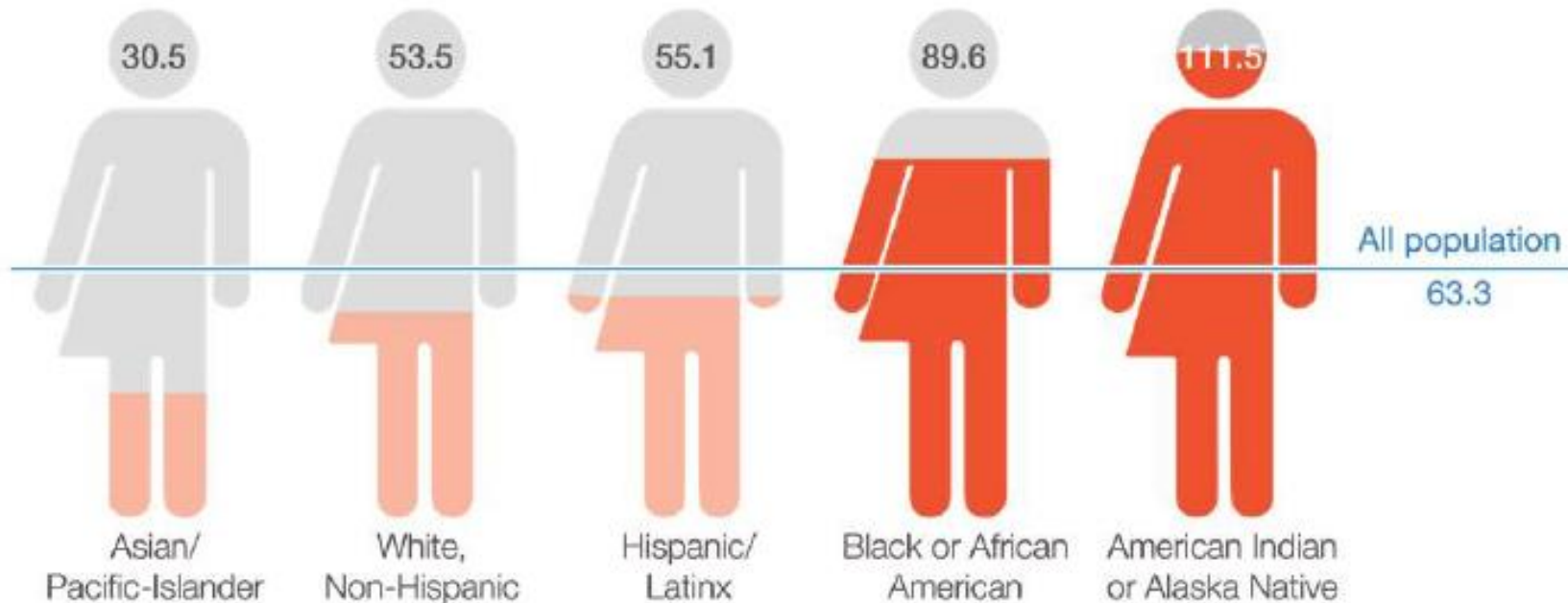
Vision Zero Equity Strategies: Request-Based Programs



Top 10 wards making 311 Service Requests mapped against Neighbourhood Improvement Areas

Vision Zero Equity Strategies: Road Safety Inequities

Relative pedestrian danger by race and ethnicity (2010-2019)



Credit: Dangerous by Design 2021, Smart Growth America

Vision Zero Equity Strategies: Prioritization Framework

Prioritization Framework

High KSI locations

- High risk locations based on historical KSI (past 5 years)
- Identify future high-risk locations using Network Screening

Bundling Opportunities

- Intersection with other capital programs in Transportation Services

Political Inputs

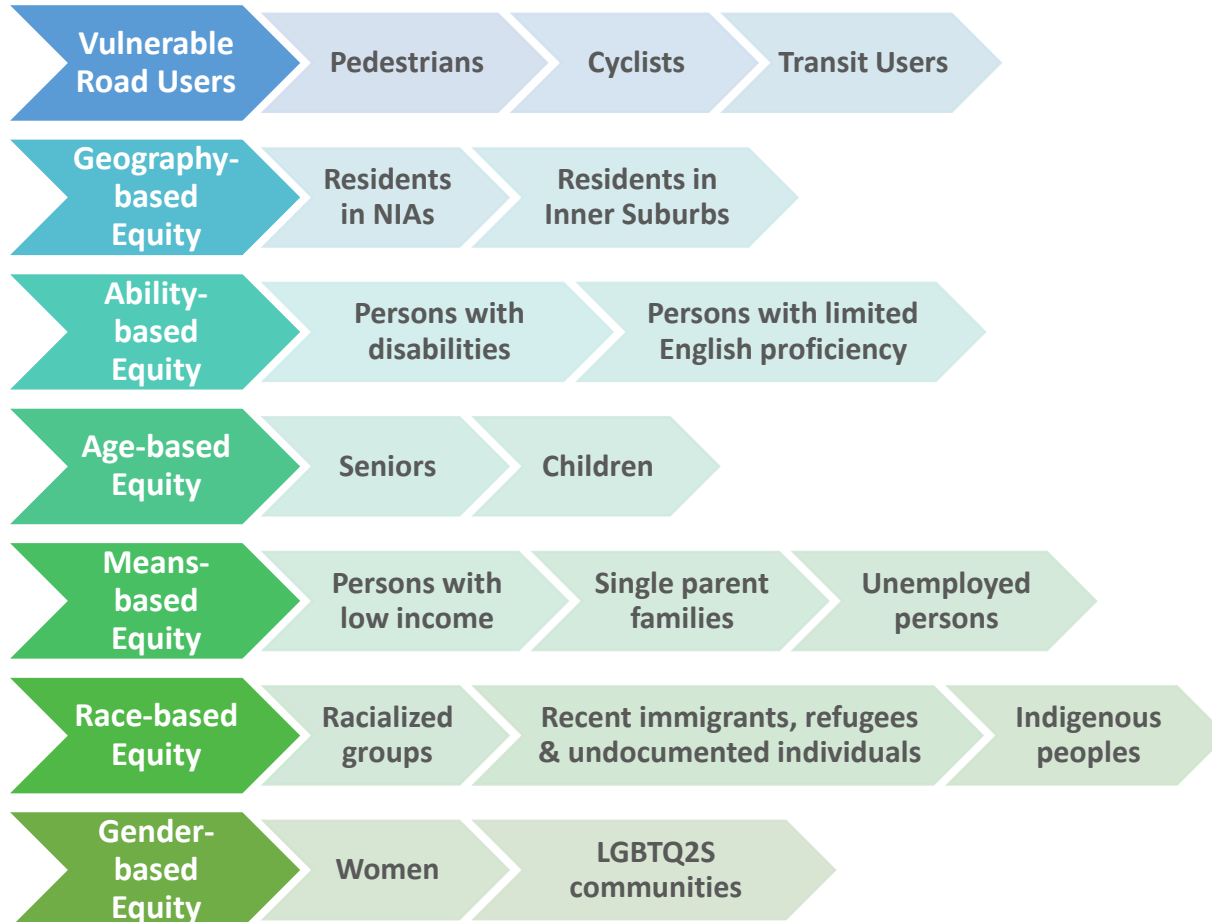
- Service requests from councilors or members of the public

Equity Lens

- An equity index is a composite score derived from multiple indicators of road safety inequity to signal the overall burden of inequities faced by a neighbourhood that requires immediate infrastructure investment.

Capital Program Prioritization Tool

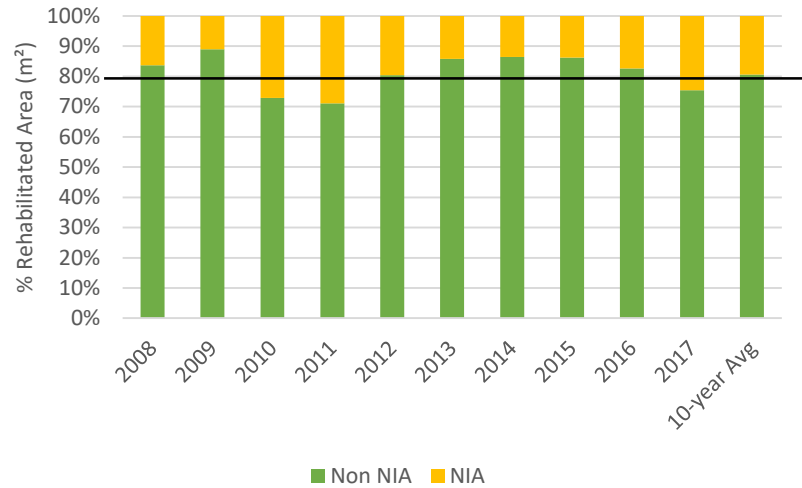
Equity Categories & Equity-Seeking Groups



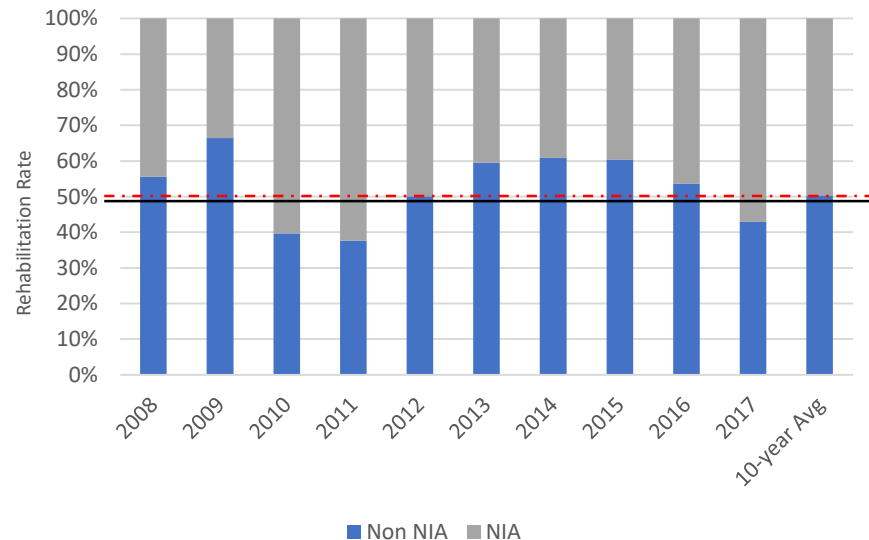
- In 2020, Transportation Services began developing a **Capital Program Prioritization Tool** to guide future decisions on capital investments. Evaluation criteria were used to provide a risk-based assessment of capital programs, identify their potential impacts, and develop an annual budget and program prioritization scheme that reflects the values and achieves the strategic objectives of the division.
- **Evaluation criteria** include Health & Safety, Legislative Compliance, Reputation, Sustainability, Economic Development, and **Equity**.
- The City does not have an established process to evaluate capital programs against equity. In 2020, Transportation Services started the development of the **Transportation Equity Lens** to identify and remove transportation barriers faced by equity-seeking groups to support equitable planning and capital programming practices.
- The **Transportation Equity Lens** considers 17 equity-seeking groups within 7 equity categories.

Capital Program Prioritization & RBA

Major & Local Road Rehabilitated
Between NIAs and Non-NIAs by Area (m²)
(2008-2017)



Major & Local Road Rehabilitation Rates
Between NIAs and Non-NIAs by Area (m²)
(2008-2017)



- In 2020, Transportation Services began establishing equity baselines for each capital program, starting with Local Roads and Major Roads. Preliminary findings of the baselining exercise are presented here.
- From 2008 to 2017, there was equal contribution of road rehabilitation efforts on major and local roads in the Neighbourhood Improvements Areas (NIA) compared to those in non-NIAs. On average, 20% of the rehabilitated roads are located in NIAs and 80% of the rehabilitated roads are located in non-NIAs. This is consistent with ratio of NIAs vs non-NIAs across the City.
- **Major roads in NIAs are in worse condition than those in non-NIAs.** 48% of major roads in NIAs were identified as being in poor condition, compared to 41% of major roads in non-NIAs.
- Road conditions are not equal in NIAs vs non-NIAs. Preliminary findings indicate that Transportation has been contributing equal efforts in rehabilitating roads in both NIAs and non-NIAs, but the **benefits are not equitably translated in terms of the conditions of the road.**
- Further analysis on the equity baseline and development of an Equity Strategy is underway taking into consideration other factors such as needs, coordination, and resource capacity to drive equitable investment.

Transportation Equity Lens Tool

1. Equity-Seeking Category Who will benefit from and/or burdened by your Project/Program? Only check off categories that are applicable.	2. Transportation Needs and Barriers What are the transportation needs and barriers of affected equity-seeking communities?	3. Positive Equity Impacts How does your Project/Program address needs or remove barriers of affected communities?	4. Negative Equity Impacts How does your Project/Program negatively impact equity-seeking communities?	5. Negative Impact Mitigation What are your strategies to mitigate any potential negative consequences of your Project/Program? Please include specific examples related to community engagement etc.
Vulnerable Road Users (e.g. Pedestrian, Cyclist, Motorcyclist, Transit User, Carless household)				
Geography-based Equity (e.g. Residents in Neighbourhood Improvement Areas, Residents in the inner suburbs)				
Ability-based Equity (e.g. Persons with disabilities, Persons with limited English proficiency)				
Age-based Equity (e.g. Senior 65 years or over, Child 0-14 years old)				
Means-based Equity (e.g. Persons with low income , Unemployed persons, Single parent families, Households with disproportional income devoted to transport)				
Race-based Equity (e.g. Racialized groups, Recent immigrants, refugees & undocumented individuals, Indigenous peoples)				
Gender-based Equity (e.g. Women, LGBTQ2S communities)				
Health-based Equity (e.g. Residents living in COVID Impact Zones, data available here https://www.toronto.ca/home/covid-19/covid-19-latest-city-of-toronto-news/covid-19-status-of-cases-in-toronto/)				

2021 Equity Initiatives

Scoring Equity
(CPPT / TEL)

Historical
Underinvestment

Community
Engagement

Equity
Data
Collection

Supplier
Diversity
Acceleration
Project

01

EQUITY-BASED
CAPITAL
ASSESSMENT
FRAMEWORK AND
EQUITY SCORING
TOOL
(PARTNERSHIP
WITH UOFT)

02

EQUITY
BASELINING FOR
VISION ZERO AND
CY&PED
PROGRAMS
(PARTNERSHIP
WITH BIG DATA &
PMU)

03

COMMUNITY
RECONCILIATION
PROJECT

(ACTIVELY
SEEKING
PARTNERS)

04

RACE-BASED DATA
COLLECTION IN
2021TTS & MVA
(PARTNERSHIP
WITH UOFT AND
BIG DATA)

05

DIVERSE
SUPPLIERS FOR TS
(PARTNERSHIP
WITH PMMD AND
BUSINESS
PERFORMANCE
SECTION)

Figure 1: Modelled annual average benzene concentrations across Toronto (based on 2012 data)

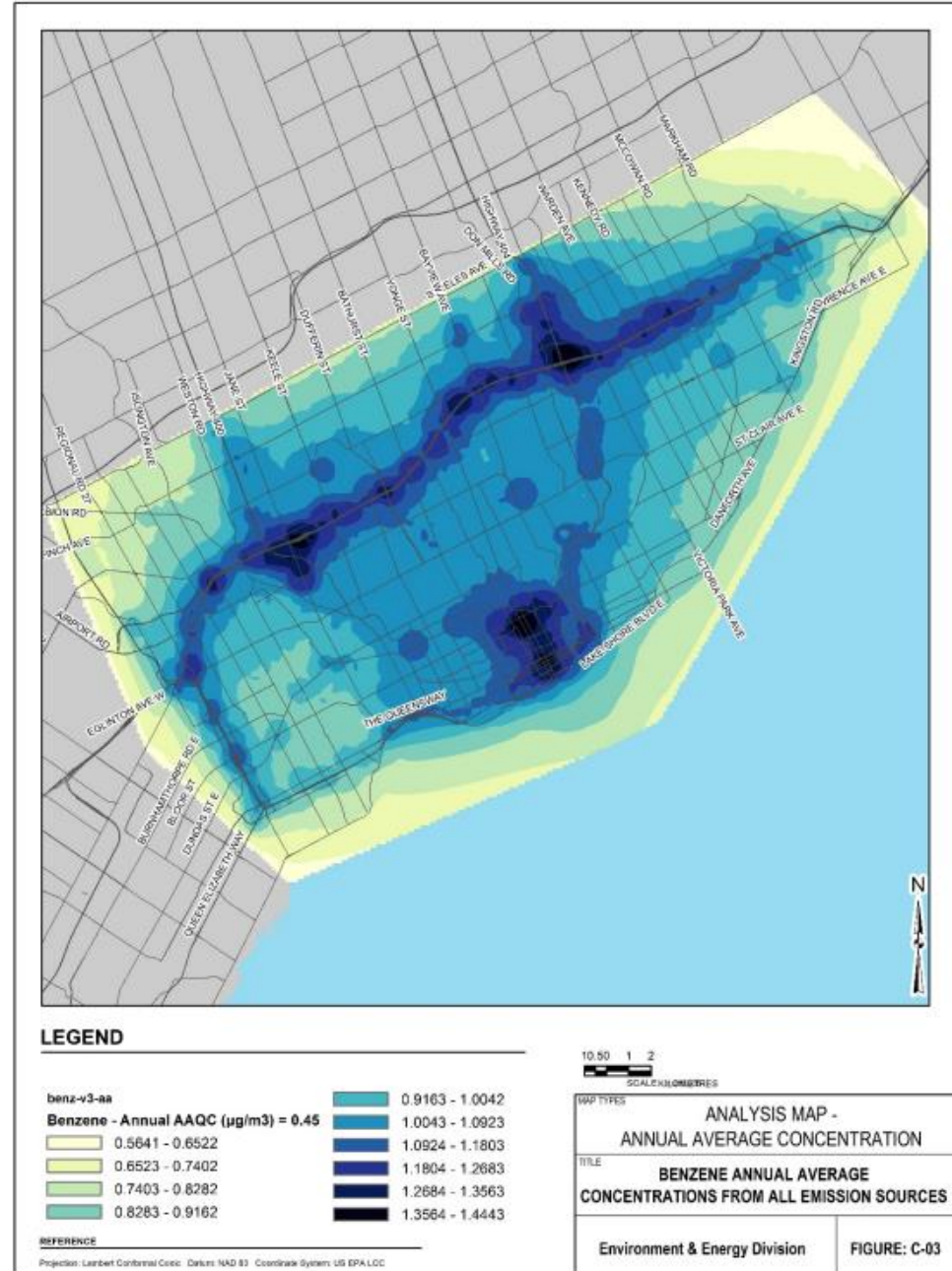
Next Steps for Cycling Program



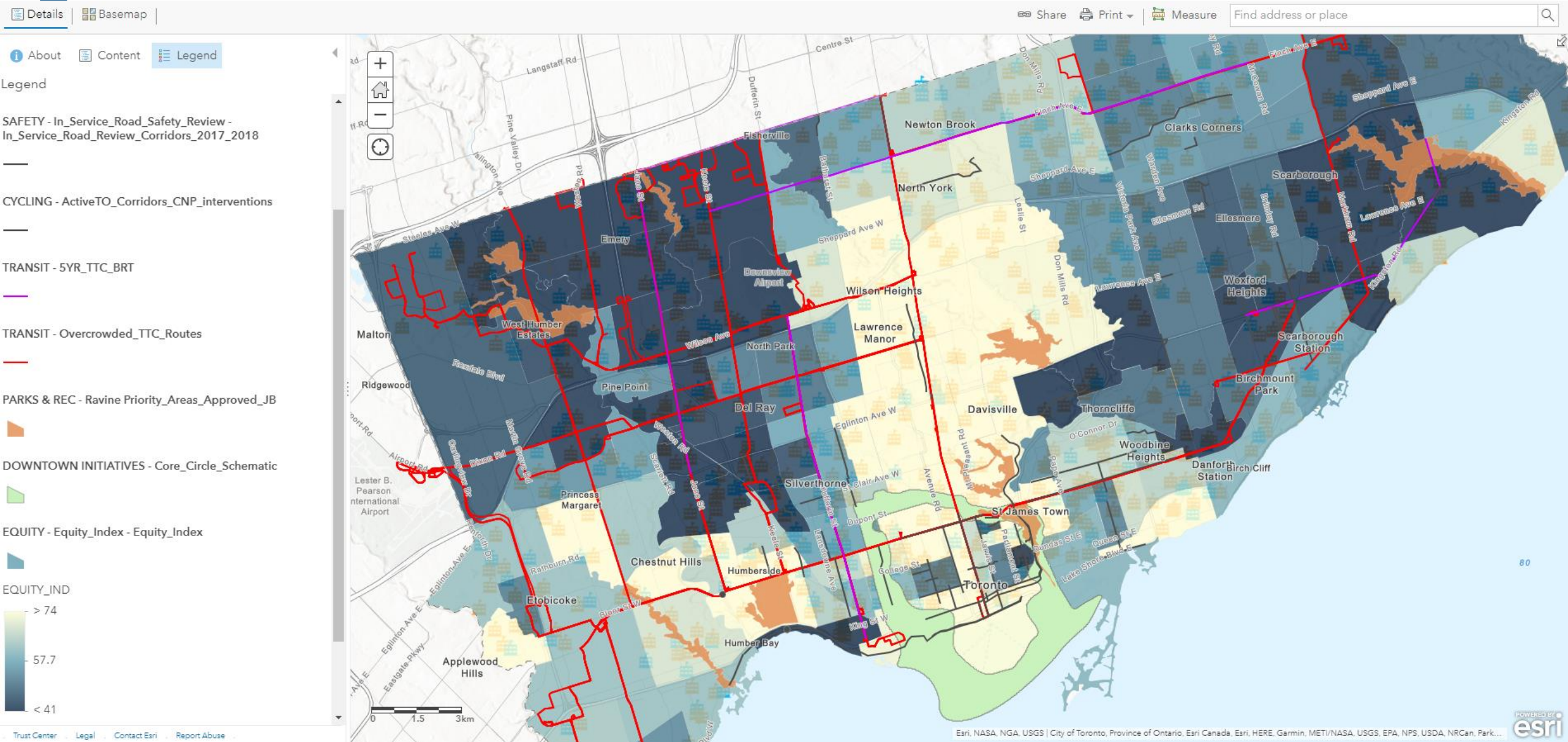
Avoiding the TRAP:

Traffic-Related Air Pollution in Toronto and Options for Reducing Exposure

October 2017



Sample Layers – Capital Program Mapping





Questions?

matthew.davis@toronto.ca

Manager, Capital Projects & Program,
Transportation Services

katie.wittmann@toronto.ca

Project Lead, Capital Projects & Program,
Transportation Services