Construction Mitigation Yearly Report: How-to-read

**Introduction**

The yearly report is an in-depth look at the community’s overall urban form, infrastructure, demographics, and visitor patterns, all compared to a spatial or temporal benchmark. In this document, we explain the data and methodology behind the report output and how to interpret the results of the metrics and data visualizations.

**Data**

**Business and Civic Location Data**

Business and civic location data from Environics Analytics provides the spatial location of all business and civic infrastructure tracked by InfoCanada. The data includes the name, address, NAICS code and a unique identifier for over 1.1 million businesses. The business data is used to derive the presence and composition of two primary infrastructure types, using their respective four and six-digit NAICS codes:

* Main Street businesses
  + Retail
  + Food and drink
  + Local services, i.e. post office, barber shop, etc.
* Civic Infrastructure
  + Arts and culture
  + Education
  + Government and community services
  + Healthcare
  + Recreation facilities.

The business and civic data is used in three different scales within the case study to provide a relative analysis: the defined study area, a ten-minute walkshed around the study area, and the city average, which serves as the primary control.

**Demographic Data**

The demographic data combines proprietary data from Environics Analytics demostats that are updated yearly and open-source data from the 2021 census where the equivalent Environics Data is unavailable. This data is used in the housing and demographic outlook of the case study. The demographic data used for the case study is the weighted average of all Dissemination Areas, the lowest scale of census data, within 1 kilometre of the study area.

**Mobile Foot Traffic Data**

Foot traffic data is derived using Environics Analytics Mobilescapes data, a mobile movement database developed from permission-based data collected using location-enabled mobile applications. The mobilescapes data is only taken for the buildings within the study area, providing accurate visitor numbers for the time of day, day of the week and month. In addition, the mobile data also provides visitors' Common daytime (work) and evening (home) locations to analyze visitor types, distances, and changes in spatial patterns over time. The mobilescapes data for the purpose of our analysis is defined in two ways.

* **Visits – Anytime an individual enters a building within the study area, they can be counted more than once.**
* **Visitor – A unique individual entering any building within the study area. Can only be counted once.**

**Reading the Case Study**

**Section 1: Summary**

The section 1 acts as a high-level overview of the study area. The slide is broken up into four primary components.

* A general map of the study area.
* A high-level summary of the study area's demographics (number of residents, dwellings, and employees), infrastructure (the density of the main street businesses and civic infrastructure defined earlier) and commuting mode share.
* **Main Street Composition:** The percentage difference, between main street businesses and civic infrastructure relative to the city average. Bars to the right indicate that the study area has more of this type of infrastructure than the city average, while bars to the left indicate the study area has less of this infrastructure than the city average.
* **Yearly Foot Traffic:** The percentage of yearly total visits relative to 2019.

**Section 2: Local Business Profile**

Section 2 provides the spatial location of local main street businesses such as retail, food and drink and local services as defined earlier and the percentage breakdown of these businesses compared to the ten-minute walkshed and city average.

**Section 3: Civic Infrastructure**

Section three provides a map of the spatial location of civic infrastructure identified earlier (arts and culture, education, government and community services, healthcare, and recreation facilities). Section 3 also contains the percentage of each type of civic infrastructure in the study area, compared to the ten-minute walkshed and city average.

**Section 4: Housing**

Section four provides an overview of housing in the study area based on annual demostats and census data, all compared to the city average.

* **Housing Tenure:** The percentage breakdown of owners compared to renters in the study area.
* **Housing Construction Year:** The percentage breakdown of housing stock built within a pre-defined time window compared to the city average.
* **Housing Structure:** The percentage breakdown of different housing types within the study area compared to the city average.
* **Housing value:** The average dwelling value and monthly rent in the study area compared to the city average.

**Section 5: Local Demographics**

Section five provides insight into the area using a combination of demostats and 2021 census data where applicable.

* **Population Pyramid:** The percentage breakdown of males (left) and females (right) based on pre-defined age bands within the study area (blue bars) compared to the city average (red bars).
* **Income Deciles:** The percentage breakdown of residents within the nationally defined income deciles within the study area compared to the city average.
* **Employment Status:** The percentage breakdown of employment status of individuals in the study area compared to the city average.
* **Family Structure:** The percentage breakdown of family structure for individuals in the study area compared to the city average.
* **Highest Degree Attained:** The percentage breakdown of residents based on their highest educational degree attained in the study area compared to the city average.
* **Generation Status:** Percentage of first, second, or third or more generation Canadians in the study area compared to the city average.

**Section 6: Visitor Levels**

Section six utilizes the mobilescapes mobile data to analyze visitor patterns across several metrics. It is important to remember that visitors were defined as individuals who entered a building within the defined study area. Individuals travelling through the area will not be counted.

* **Visit heatmap:** This map looks at the number of daily visits based on the spatial location of visitors' home location (the common evening location as described by Environics).
* **Visit Count by Type of Visitor:**This chart utilizes the attached common location data to group different types of visits based on the time and frequency of visits to the study area. Visits are grouped into three distinct visitor categories.
  + - * Resident: A visit made by someone whose common evening location (home) is within 1km of the study area
      * Recurring: A visit made by someone whose common daytime location is within 1km of the study area
      * Infrequent: A visit made by someone whose common evening and day location is not within 1km of the study area.

**Section 7: Visitor Characteristics**

Section seven builds on the overview of section six, providing a more detailed analysis of visits within the study area.

* **Visit Levels:** The visit levels chart tracks monthly visitor traffic from 2020 to 2022 as a percentage of visits compared to 2019. For example, the percentage of foot traffic relative to 2019 for May 2021 is the total visits of May 2021 divided by the total visits of May 2019. This allows the ability to examine the fall and recovery of visitor levels over the COVID-19 pandemic compared to pre-pandemic levels without the factor of seasonality.
* **Visit % by Time of Day:** This chart provides a percentage breakdown of visits by pre-defined time blocks provided by Environics. It is important to note that all bins are three-hour blocks except for the early morning, which is six hours (12 am to 6 am).

* **Visit % by Day of Week:** This chart provides a percentage breakdown of visits for each day of the week.
* **Percentage of Visits compared to the Percentage of Unique Visitors:** This chart provides a percentage breakdown of visits for the study area at certain distance thresholds (represented as the bars) while also displaying the percentage breakdown of unique visitors for the study area. This gives the ability to analyze the catchment area of the study area (local vs city) and the frequency of visits per individual. This chart is also compared to 2019 to analyze the shift in visitor patterns pre and post pandemic.