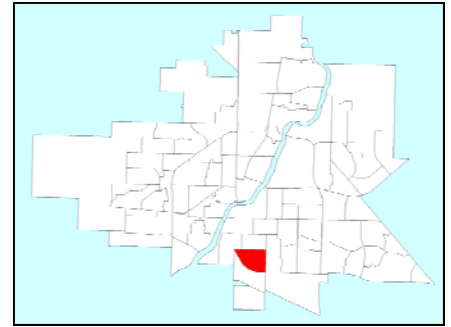


Avalon



The **Smart Cities, Healthy Kids** research project looks for solutions to childhood obesity by investigating how neighbourhood design affects children's ability to be physically active. Research suggests that safety from traffic and crime, the presence of destinations and built features supporting an active lifestyle (eg. parks, playgrounds, and bike lanes), a neighbourhood's attractiveness, and its accessibility are all very important in determining whether people will be active there. To determine which Saskatoon neighbourhood designs are the most supportive of active living, researchers walked each neighbourhood in Saskatoon in the summer months of 2009/2010, collecting data on these areas using two research surveys: the Neighbourhood Active Living Potential (NALP) and the Irvine-Minnesota Inventory (IMI).

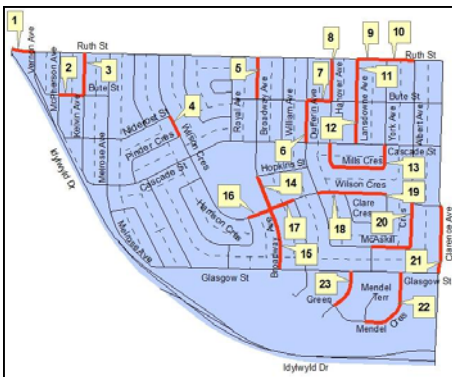


Avalon in Saskatoon



NALP Route Map

NALP consists of 22 items within four areas: Activity Friendliness, Safety, Density of Destinations, and Universal Accessibility. Using this method, observers rated each item on a 6-point scale after walking a pre-defined route in each neighbourhood that connected 10 randomly-selected street segments. The route, typically 4 to 5 kilometres in length, is shown in red on the map.



IMI Segments Map

IMI consists of a 229-item inventory of neighbourhood features within five areas: Attractiveness, Diversity of Destinations, Pedestrian Access, Safety from Traffic, and Safety from Crime. Twenty percent of street segments in each neighbourhood were randomly selected and observed. Each segment is the two facing sides of a street block and is indicated by a numbered flag on the map.

The NALP tool is more subjective in nature and takes into account the impression of the entire neighbourhood based on the systematic observations of the researchers. In contrast, the IMI is more objective in nature and is based on observations of each individual segment. The following report will discuss how the characteristics of Avalon compare to Saskatoon neighbourhoods in general.

Smart Cities Healthy Kids

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Avalon Overview

The Avalon neighbourhood is bordered by Ruth Street, Clarence Avenue, and Idylwyld Drive. Avalon was designed under the First Zoning Bylaw, which was in effect from 1930—1966. This Bylaw marked the beginning of a formal land use classification system that separated land use types into more defined categories for the purposes of controlling land uses and protecting property values. This Bylaw also marked the beginning of a street classification system that separated volumes of traffic into classes (local, collector, and arterial). Neighbourhoods developed under the First Zoning Bylaw include early forms of curvilinear streets, where grid patterns give way to crescents linked by a collector street. Indeed, Avalon consists of a blend of grid and crescent-style street patterns. Most of the neighbourhood has 1960-70s era single-unit residential housing served by rear alleyways. Many of these streets are lined with trees and other mature landscaping, with the exception of one section in the southeast corner that was constructed more recently. This portion noticeably differs from the main neighbourhood aesthetic with wide, garage-dominated streetscapes. Although most streets have sidewalks, some intersections do not have curb cuts, making the neighbourhood less accessible for members of the community with reduced mobility.



Typical street in Avalon

Safety



Well marked pedestrian crossing

We rated each neighbourhood according to the presence or absence of certain neighbourhood elements that increase or detract from a feeling of personal security. Observing both the physical and social characteristics of the neighbourhood, security was measured both in terms of traffic and crime. These ratings suggest whether safety concerns affect an individual's related active living decisions in their neighbourhood.

- Out of a possible highest rating of 10, Avalon rated **6.56** for Safety from Traffic, above Saskatoon's average rating of **6.06**. (IMI)
- Out of a possible highest rating of 10, Avalon rated **9.45** for Safety from Crime, above Saskatoon's average rating of **8.46**. (IMI)
- Out of a possible highest rating of 6, Avalon rated **4.00** for Safety, above Saskatoon's average rating of **3.81**. (NALP)

Avalon's high safety ratings suggest that pedestrian and vehicular travel areas are well defined and easy to safely navigate and that there are only a few elements that reduce feelings of personal security. For example, although traffic along Clarence Avenue has increased with the construction of Stonebridge, the interior of Avalon has few busy streets or hazardous intersections. The intersections with the most traffic and areas around the schools include safety measures for pedestrians, such as clearly-marked school zone crosswalks. Further, well maintained homes, an absence of concealed spaces for lurking, plenty of opportunities for casual surveillance of the street by home owners, and minimal graffiti all contribute to the perception of personal security.



School Zone crosswalk

Destinations

We rated each neighbourhood according to the number, diversity, and density of its destinations. These ratings suggest whether destinations in a neighbourhood can motivate deliberate, localized active living choices by providing a place to go and a means to interact with others.



Gas Station and Neighbourhood Pub

- Out of a possible highest rating of 10, Avalon rated **6.00** for Diversity of Destinations, below Saskatoon's average rating of **6.26**. (IMI)
- Out of a possible highest rating of 6, Avalon rated **3.88** for Density of Destinations, below Saskatoon's average rating of **3.92**. (NALP)

Avalon's destination ratings suggest that there are a moderate number and variety of destinations. For example, Avalon contains parks, two schools, an off-leash dog area, and a neighbourhood centre with a recycling depot, a pub, shops and a gas station.



Playground and Park

Activity Friendliness

We rated the activity friendliness of each neighbourhood based on specific features that encourage or present barriers to an active lifestyle. These ratings suggest whether a neighbourhood assists or limits the opportunities for physical activities such as walking, cycling, or skateboarding.

- Out of a possible highest rating of 10, Avalon rated **5.25** for Pedestrian Access, above Saskatoon's average rating of **5.08**. (IMI)
- Out of a possible highest rating of 6, Avalon rated **4.42** for Activity Friendliness, above Saskatoon's average rating of **3.67**. (NALP)



Bike Parking



Rear alleyways can increase route choice

These activity friendliness ratings suggest that Avalon has good supports and few obstructions for pedestrians. For example, most streets have wide, well-maintained sidewalks on both sides of the street. However, with a blend of grid and crescent styles, the street design can be confusing and difficult to navigate. Alleyways are present across the neighbourhood, which can join disconnected streets and increase route choice for pedestrians and cyclists. Bike parking located at the schools considerably increases the bike friendliness.

Attractiveness

We rated each neighbourhood based on specific features that could potentially increase or decrease the attractiveness of the neighbourhood. This rating suggests whether the level of attractiveness for each neighbourhood itself can encourage or discourage individuals to participate in an active lifestyle.

- Out of a possible highest rating of 10, Avalon rated **4.99** for Attractiveness, above Saskatoon's average rating of **4.80**. (IMI)



Well landscaped park

Avalon's attractiveness rating suggests that both attractive and unattractive features are present in the neighbourhood. For example, sidewalk amenities, such as benches and well-kept garbage cans, were absent from all observed streets. Visible overhead electrical wiring was observed on most streets. However, the street trees observed on several streets provide partial shade for some of the sidewalks. Further, well maintained homes, some architectural variety, and pleasant landscaping considerably increase the attractiveness of the neighbourhood.

Universal Access

We rated the universal accessibility of each neighbourhood according to the presence or absence of specific features that help or prevent safe movement for those with mobility, visual, or hearing impairments. These ratings suggest whether people with reduced mobility are able to travel in the neighbourhood safely without assistance.

- Out of a possible highest rating of 6, Avalon rated **2.33** for Universal Accessibility, above Saskatoon's average rating of **2.19**. (NALP)



Unmountable curb

This universal accessibility rating indicates that Avalon has some elements that enable safe movement for those with reduced mobility. For example, few sidewalks in Avalon are mountable, and several intersections do not have graded curb cuts. Further, none of the observed pedestrian crossings are adapted for individuals with visual or hearing impairments. However, wide sidewalks provide ample room for wheelchair users or for those pushing a stroller.

The principal investigator for this project is Nazeem Muhajarine, PhD. For a complete list of contributing researchers, partner organizations, project staff, and more information, please visit our website: www.smartcitieshealthykids.com

If you have any further questions about the project, please contact our research co-ordinator tracy.ridalls@usask.ca or call 966-2237.