880 Cities

880 Cities a non-profit organization based in Toronto, Ontario. We bring citizens together to enhance mobility and public space so that together we can create more vibrant, healthy, and equitable communities. We believe that if everything we do in our cities is great for an 8 year old and an 80 year old, then it will be great for all people.

PARTNERS:

The Better Block

The Better Block Foundation: Better Block Foundation is a U.S based nonprofit that educates, equips, and empowers communities and their leaders to reshape and reactivate built environments to promote the growth of healthy and vibrant neighbourhoods.

Eco Kids

Started in 1994, EcoKids offers programs and resources for children, parents, educators, and communities in Canada to engage in environmental education. EcoKids is designed to inspire children to become lifelong environmental stewards through outdoor play and experiences.

LOCAL PARTNERS:

880 Cities

The Better Block

Eco Kids
EXECUTIVE SUMMARY

8 80 Streets Danforth was a tactical urbanism pop-up. For two days we, 8 80 Cities, along with our partners and members of the Danforth community came together to transform a section of Danforth avenue into a human-centered complete street. Our goal was to showcase a design that exemplified the City of Toronto’s vision to reduce traffic collision fatalities down to zero – Vision Zero. Some of the pieces of the installation included: separated bike lanes, extended sidewalks, increased seating space and two parklets.

Leading up to the installation, as well as during, we collected data via a public life study, travel counts, intercept surveys and an engagement hub in order to measure how the street performed.

Recommendations & Next Steps

Moving forward, there is great potential to act on the lessons learned from this project. Listed below are the recommendations we are putting forward to the City of Toronto.

1. Create protected bike lanes
2. Add seating, lighting, and greenery along main streets
3. Co-create street designs, public art, and programmatic elements
4. Install crosswalks that prioritize the wellbeing and safety of people

What we found

There is a demand for safe street infrastructure:
- Human powered travel rose significantly: Pedestrian 78% Cyclist 77% mobility device user 89%

There is a demand for more vibrant age-friendly streets: 95% of people surveyed said they felt good OR great about spending time on Danforth during the installation.

The installation improved feelings of safety: People reported an increased overall sense of safety, as well as feelings of safety while biking and crossing the street, during the installation.

Removing car parking leads to more people not less: A common concern for businesses is that if we remove parking it will lead to fewer customers. However, even though we removed two lanes of car parking, we saw an increase in the number of people on the street.
INTRODUCTION

The 8 80 Streets project starts with a tragedy that is far too common in the City of Toronto. In 2018 forty six people (41 pedestrians and 5 cyclists) were killed on the streets simply trying to get where they needed to go. A close friend of one of those 46 victims decided to act by requesting the expertise and support of 8 80 Cities to accelerate action on reducing pedestrian fatalities.

Together we began planning a series of demonstration projects to highlight the importance of street design in achieving safer streets. We wanted to directly engage Toronto residents from across the city in transforming their streets into safer, more vibrant, and accessible spaces for people.

The three 8 80 Streets Projects were:

**8 80 Streets Danforth**
August 23rd and 24th 2019
Toronto’s first Vision Zero pop-up transformed a major commercial and arterial street from a car-centric road into a complete street. The demonstration included protected bike lanes, a street mural, expanded pedestrian space, additional street furniture, and more!

**8 80 Streets Pineway**
Sept 29th to Oct 4th 2019
8 80 Streets Pineway experimented with alternative traffic calming design interventions consisting of pinch-points, chicanes, and curb extensions in an effort to reduce illegal speeding on an inner-suburban, residential road.

**8 80 Streets Mountview**
Oct 28th to Oct 31st 2019
Toronto’s first School Streets pop-up encouraged children to walk and ride their bikes to school by temporarily closing Mountview Avenue to cars and opening the street up to people during school drop-off and pick-up hours.
WHY ARE SAFE STREETS IMPORTANT TO US?

Streets account for approximately 75% of the public space in the City of Toronto. They should be tremendous assets that can be leveraged to improve quality of life in communities, yet consistently they are places where people are being struck and killed by vehicles.

Road violence represents just one aspect of the kinds of violence and lack of safety people experience on our streets. Racial violence, gender-based violence, and violence directed at some of our most vulnerable residents, including people experiencing homelessness should be addressed as part of a more holistic approach to street safety.

While street design is not a panacea for creating safe streets, we believe human-centered design is one of the most effective tools we have to reduce traffic fatalities and create safer and more accessible streets for people of all ages, abilities, and backgrounds. Children, older adults, economically marginalized, and racialized people are especially vulnerable to road violence. Car-centric street design limits freedom and independent mobility for people who do not drive (all children and youth under 16, a higher proportion of older adults, people with disabilities, people living with low income). That is why 8 80 Cities is committed to taking action to stop these preventable traffic deaths by demonstrating global best practice in street design.
WHAT WERE OUR GOALS?

1. Elevate the conversation on road safety in Toronto
2. Prove that change can happen quickly
3. Demonstrate the design interventions for creating safe streets
4. Show that safe streets are also vibrant, equitable, and healthy streets
5. Engage residents in taking direct action and building solutions in their community
Since 2008, there has been a rising trend in pedestrian and cyclist related injuries and fatalities on Toronto's streets, with a 55% jump in fatal incidents over a 10-year period. This emerging trend sparked a public outcry that urged the city to act. In 2017, the City of Toronto adopted the Vision Zero Road Safety Plan, a 5-year action plan aimed at creating safer roads and reducing the number of serious injuries and fatalities caused by traffic-related events. Despite this plan, the city saw no reduction in pedestrian fatalities or road violence and just two years later, in 2019, the city launched Vision Zero 2.0, a new plan intended to speed up implementation of the action items contained in the earlier report. The jury on this revised Vision Zero plan is still out, but not long after its adoption by City Council, Toronto Police Services admitted that level of traffic enforcement by police have reached a nine year low, even as the numbers of collisions have risen to record highs.

2018 pedestrian deaths

40

10 year upward trend in pedestrian fatalities

55%

2018 alone, 45 pedestrians and cyclists were killed and 194 were severely injured on Toronto’s roadways.

Since 2008, there has been a rising trend in pedestrian and cyclist related injuries and fatalities on Toronto’s streets, with a 55% jump in fatal incidents over a 10-year period.
Pedestrian fatalities by age (2018)

- 0-9: 0
- 10-19: 2
- 20-29: 4
- 30-39: 6
- 40-49: 8
- 50-59: 10
- 60-69: 12
- 70-79: 0
- 80-89: 2
- 90-99: 4

51% of pedestrians killed were 60 years and older.

Light level at time of pedestrian collision (2018)

- LIGHT DEATHS
  - DARK: 12
  - DARK ARTIFICIAL: 6
  - DAWN: 1
  - DAWN ARTIFICIAL: 1
  - DAYLIGHT: 23
  - DUSK ARTIFICIAL: 2

51% of fatal pedestrian collisions occurred in daylight.

Fatal collision by type of road (2018)

- Major Arterial: 71%
- Minor Arterial: 8%
- Expressway: 4%
- Lane way: 2%
- Local: 6%
The Danforth Village, later the East Danforth Neighbourhood, began in the 1800’s around the intersection of Danforth and Dawes, just over one kilometre from where we would install 8 80 Streets Danforth. In the 1910’s the Danforth Avenue developed from a small village into a streetcar suburb with the introduction of the Bloor Streetcar line. As Toronto grew, the neighbourhood was annexed by the city. In 1966 the Bloor-Danforth subway opened underneath Danforth Avenue and the streetcar line was ripped out. The street became a four lane major thoroughfare for cars heading in and out of the downtown core. Anecdotally, people who lived in the neighbourhood before the streetcar was removed remember a less car centric streetscape, more lively business fronts full of people and opportunities to connect with their neighbours. This is one of the main reasons why we chose Danforth Avenue as one of our project sites. This area of Toronto still rejoices from that feeling of being a village within a metropolis and as a result, is a community that cares deeply about their street and their city.

Danforth is iconic

Danforth Avenue is one of Toronto’s busiest streets and is home to thousands of businesses. Many Torontonians have a cherished memory of Danforth Avenue, which ensured this project would capture public attention and imagination. It represents everything Toronto has to offer, from a diverse community and rich history to wide sidewalks and public transportation.
Location, Location, Location

Danforth Avenue passes through several diverse urban neighbourhoods. It is one of the busiest commercial and commuter corridors in Toronto. Danforth was intentionally selected for 8 80 Streets to demonstrate that human-centered streetscapes are possible on busy commercial streets. Major thoroughfares like Danforth can be redesigned to meet the needs of residents, visitors and businesses alike.

Political Champions

8 80 Streets Danforth was in many ways a first for Toronto, and a project like that does not get off the ground without fantastic political champions. Both City Councillors we worked with on this project fit that bill. Councillors Mary Margaret McMahon and Brad Bradford were huge champions of 8 80 Streets Danforth. This political leadership and support were critical to navigating the various approval processes to implementing the project and were a key factor in the selection of Danforth Avenue.

Local leadership

The Danforth East Community Association (DECA) and the Danforth Mosaic BIA are local stewards of public spaces along Danforth Avenue and have a track record of successful public space projects in their community. These neighbourhood champions were on board from the beginning and helped share the goals and vision of 8 80 Streets Danforth to their networks.
Planning for 8 80 streets started in June 2018, when we first started meeting with community members, elected officials and city staff. Our initial goal was to complete the project before municipal elections in November of 2018. We wanted to ensure road safety was a part of the election conversation. The summer of 2018 was spent gathering ideas from the community and conducting site walks with local residents and businesses identifying opportunities and challenges with Danforth Avenue. We settled on a block of Danforth between Woodbine Avenue and Woodmount Avenue. We developed concept plans for the city to review based on these community’s vision for their street. The original plan was to secure city permissions and install the project in early October, prior to the municipal election. Actual implementation took place close to one year later after working closely with multiple city staff and departments as well as the Councillor’s office to design a new process and secure the necessary permissions for a project that was the first of its kind in the city.

May 2018 – Another victim of road violence in Toronto.

June 2018 – Loved one of the victim reaches out to 8 80 Cities to discuss road safety. Decides to fund 8 80 Cities to implement three safe street demonstrations in Toronto.

August 2018 – 8 80 Cities meets with Councillor Mary Margaret McMahon. Danforth Avenue confirmed for site of demonstration, dates set with Transportation department for October 4-6 2018

September 6, 2018 – First community meeting with local Danforth residents. Many site walks, meetings with community and local businesses to follow.

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September 27, 2018 – Transportation department cancels the event 10 days before implementation

October 22, 2018 – Municipal election. Brad Bradford elected as new City Councillor for Beaches-East York (area of the project site).

December 2018 - 8 80 Cities meets with Transportation department, who agree to a new implementation date in May 2019.
February 2019 – Transportation department cancels the event for the second time.

March 2019 – Councillor Bradford introduces motion to Toronto & East York Community Council directing Transportation department to work with 8 80 Cities on implementing the project.

May 2019 – City Council approves the motion, project set for August 7-9 2019

June 2019 – Transportation department requests that the project dates be delayed to August 22-24

August 21, 2019 – 8 80 Cities receives permit to implement Danforth complete streets demonstration

August 22, 2019 – 8 80 Streets Danforth Installation
DURING
We know that road-design is the single most important aspect of creating safer streets. We recognize that not every street is the same. Different streets have different purposes and requirements within the greater ecosystem of a city and the communities that inhabit them have different needs and wants. This is why we partnered with The Better Block Foundation, a not for profit with expertise in street design, and with our local partners, the Danforth Mosaic BIA, Danforth East Community Association, Earth Day Canada and Councillor Brad Bradford. Together through an iterative process of community engagement and discussion with city officials, we collectively developed the design of 8 80 Streets Danforth.
What went into 8 80 Streets Danforth?

**People**

If we want to create safe streets for all, seating is a must. Data has illustrated that without a comfortable place to sit, older adults will not visit public spaces and as a result, will be more socially isolated and less physically active.

**Activities**

Children today spend more time than past generation inside than ever before. As a result they too are not getting enough physical and social activity which impedes on childhood development. Streets are opportunities to engage people in multigenerational activities! Adding some trampolines along the sidewalk for an added step in your day or setting up a simple checkerboard are ways to encourage an active public life.

**Green Spaces**

**Planters**

Physically separated bike lanes create safer streets not just for people riding bikes, but for pedestrians and motorists as well. Domestic plants can also be used to protect users from unruly winds and clearly demarcate the separation of traffic.

**Greenery**

Safer streets are streets where the air is not chock full of exhaust fumes. Biophilia, or the idea that humans possess an innate tendency to seek connection with nature, show that trees and other plants contribute to the vibrancy and health of public spaces.

**Green Parklette**

As cities grow, green spaces are restricted. Often the wellbeing of communities is linked to their proximity to green space, also known as a community’s Park Score. With the dimensions of a single vehicle on street parking lot, green parklettes improve access to green spaces further incubating a vibrant public life. Local business and residents hosted community activities, including a bumping dance party, at the Green Parklette during 8 80 Streets Danforth.

**Community Spaces**

**Parklets**

Parklets give local neighbours and businesses the opportunity to program their streets as they see fit, creating stronger community bonds. Local business and residents hosted community activities, at the Green Parklette while fantastic performers hosted shows at the Performance Parklette during 8 80 Streets: Danforth.

**Human Oriented Infrastructure**

**Street Mural**

The number one factor in the severity of road collisions is the speed of travel. The slower the car is traveling, the higher the likelihood that the collision is non-fatal. Street murals alert the attention of drivers to focus on the road, giving them the visual cue to slow down and drive safe.

**Lighting**

Street lighting in cities is almost always designed to illuminate the street for car travel, while sidewalks are left in the dark (literally). Well lit sidewalks are crucial in creating safer streets that everyone feels comfortable spending time on all day long.

**Pedestrian Space**

The average sidewalk is designed to fit two able-bodied people walking side by side. If you are someone with a mobility aid devise or simply traveling with a group of people, it is likely that pedestrians overflow into the line of traffic. Expanding pedestrian walkways create a safer walking experiences.

**Bike Lanes**

Protected bike lanes bordered by planters, bollards, or a hard curb visibly and physically separates vehicles from cyclists from pedestrians. Without the clear division, the most vulnerable road users are at a higher risk of getting injured.
WHAT DID WE LEARN?

8 80 Streets Danforth was an experiment, a chance for Toronto to test safer street design and try out potential solutions to public space problems. A key aspect of this project was measuring how successful our changes were in creating a safer, more vibrant and dynamic street. We used three research methods to measure the impacts of the pilot:

1) Public Life Study
2) Engagement Hub
3) Surveys

Public Life Study

Public Life Studies provide a snapshot of the daily rhythms and patterns of a public space. This helps us understand who uses this section of Danforth, when they visit and what they do while there. We conducted a study of our project site two weeks before installation to establish a baseline, and then conducted the same study during the project itself. Weather conditions were similar for both studies. This information helps us understand what parts of the project were successful and how it impacted the day to day use of the street. Our study had two major components, Travel Counts and Activity Counts.

Travel Counts
Data Points: 5,067

Travel Counts attempt to quantify the number of people who walk, bike, or use mobility devices passing through the project site. For 8 80 Streets Danforth, travel counts were conducted for 15 minutes every hour. The results were multiplied by four to extrapolate an estimated travel pattern for each hour of the day.

Activity Counts
Data Points: 1,427

Activity Counts identify the number of people who spend time in a specific area of the project site and monitor what they are doing. They are an attempt to quantify the kinds of interactions a street supports or discourages. Activity counts for 8 80 Streets Dafnroth were conducted for 15 minutes every hour.
Engagement Hub
Data points: 1,000 +

During the event, we hosted an engagement booth at the project site to gather feedback about the street makeovers from passersby. We used colourful, eye-catching poster boards and asked participants to place sticky dots under their answers and to write feedback on sticky notes.

Surveys
125 Surveys Filled out

Surveys were available both online before the installation and in print form collected during the two day 80 Streets Danforth installation. The questions asked in the survey were consistent with the questions posed to people in the engagement hub. This ensured that we gathered feedback not only from those who had the time to stop and chat with us, but also those who did not encounter our team during the installation. Our goal was to make the process of giving feedback as accessible as possible.
FINDINGS

Creating streets that are great for a variety of transportation modes

During 8 80 Streets Danforth we saw a significant increase in the volume of pedestrians, cyclists, and people who use mobility devices. By providing a safer street design for people to ride their bikes on the street or travel comfortably along sidewalks, there was a notable increase in the way people traveled along Danforth. During the pop-up demonstration, pedestrians, cyclists, and mobility devise uses increased by more than double compared to when Danforth did not have a safer street design. This growth of volume in the number of vulnerable road users during the installation clearly shows that there is a greater demand for safer streets and more active transportation.

A safer street is a more age friendly

During the installation we saw up to 10 times more children and 3 times more older adults spending time on Danforth. The increase of these demographics mirrored the increase of people sitting, as well as the increase of people engaging in social, cultural and physical activities. The infrastructure and programming efforts directly translated to an increased presence. All of this indicates that there is a demand for design elements like benches, parklets, lighting, play features and other human-centered design features.

Mode of transportation (Total count: 5,067)

<table>
<thead>
<tr>
<th>Mode of Transportation</th>
<th>Before</th>
<th>During</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrians</td>
<td>77 % increase</td>
<td>78 % increase</td>
</tr>
<tr>
<td>Cyclists</td>
<td></td>
<td>89 % increase</td>
</tr>
<tr>
<td>Mobility Device Users</td>
<td></td>
<td>933 % Increase</td>
</tr>
</tbody>
</table>

Age (Total count: 6,494)

<table>
<thead>
<tr>
<th>Age</th>
<th>Before</th>
<th>During</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 14</td>
<td></td>
<td>200 % Increase</td>
</tr>
<tr>
<td>65+</td>
<td></td>
<td>277 % Increase</td>
</tr>
</tbody>
</table>
During the installation:

- 151% Increase in people standing
- 263% Increase of social/cultural and physical activities
- 247% Increase in people sitting

Removing car parking leads to more people, not less.

A big concern for businesses is that removing parking will lead to a decline of people on the street. 80 Streets Danforth would indicate the opposite is true. Even though we removed two lanes of car parking, we saw an increase in the number of people on the street.

A “sticky street” is one that people linger on rather than just move through. People centered design elements like benches, lighting and parklets were ranked as the most important aspect of getting visitors to the Danforth to return in the future, while programmatic elements were ranked relatively low in comparison.

There is community support for these changes

Community groups like the Danforth Mosaic BIA, the Danforth East Community Association, and The Workaround provided tremendous support and were champions of 80 Streets Danforth from day 1. We were never short of community volunteers at every stage of set-up and teardown in everything from painting bike lanes to planting flowers.
The installation improved people’s perceptions of safety

Feeling safe affects how people engage with their surroundings and with one another. Across the board people reported feeling safer walking, biking and crossing the street during the installation. Infrastructure like protected bike lanes, expanded pedestrian space, and street murals can account for some of this as well as human-oriented lighting.

Feelings of safety when biking

Feelings of safety when crossing the street

Overall feelings of safety
RECOMMENDATIONS
For future safe streets

1. Create protected bike lanes
There was a 77% increase in volume of cyclists during 80 Streets Danforth. Clearly there is a demand for permanent biking infrastructure along the Danforth. It is not enough to paint bike lanes; there must also be a physical separation from other types of traffic to ensure the bike lanes are accessible to children and older adults.

2. Add seating, lighting, and greenery along main streets
A lot of the infrastructure in our streets, from the overall layout, to crossing signal times, to lighting, is geared towards the movement of cars. It is clear that when you install human-centered infrastructure, streets come to life. By installing benches, we saw an increase of 247% of people sitting. This infrastructure has a myriad of benefits for the city, from fostering a sense of belonging, improving community cohesion, creating a lively streetscape, benefiting small businesses and creating an overall greater sense of safety.

3. Co-create street designs, public art, and programmatic elements
Public art and programming contribute to a community’s livelihood, creativity, knowledge, history, traditions and vitality. The city can capitalize on the fantastic work already being lead and championed by the existing community leadership and work together on creating cultural assets for the city of Toronto.

4. Install crosswalks that prioritize the wellbeing and safety of people
In 2018, 33% of all fatal pedestrian collisions occurred mid-block. There are many reasons why someone might choose to cross mid-block. For someone using a mobility device walking 333 feet (distance from Moberly to closest crosswalk) can take a significant amount of energy and time, particularly if there are no benches to rest. Installing crosswalk at Moberly and Danforth would ensure that vulnerable road users can cross the street safely and make the most of their street and neighbourhood.
Special thanks to our volunteers
There is no existing process for this kind of community led initiative

8 80 Streets Danforth was delayed or cancelled three separate times, due to difficulty in finding the right permitting process, concerns about political fallout, and conflict with other street events. Political leadership from Councillor Bradford and direction from City Council was a necessary ingredient of 8 80 Streets Danforth moving forward.

Our expertise and resources allowed us to navigate these logistical challenges, however it would present a huge barrier for community organizations wishing to do the same.

To this end, a new process can be created to further enable communities opportunities to actively design and pilot safe street initiatives.
A new process, or a new kind of street event permit that allows for tactical urbanism and gives communities great control of their streets

Support from City of Toronto Transportation and Street Events staff were essential ingredients in all three 8 80 Streets projects. We had the pleasure of working with talented, passionate, and dedicated civil servants without whom this initiative would not have been a success. However, the existing permitting process in Toronto is based on the assumption that all street events will be full road closures like marathons, food festivals, or block parties. The overwhelming community support for 8 80 Streets Danforth made it clear that Torontonians want to lead the change necessary to make their streets safer and more livable. However, the current permitting options that allowed 8 80 Streets Danforth to become a reality is not accessible to the average citizen or community group. We recommend that the city of Toronto creates a specific permit for Vision-Zero pop-up projects and works with different city departments to reduce the barriers that might impede citizens and community groups from carrying out a vision-zero pop up.

Permit

- This new City of Toronto vision-zero permit should be open to projects that include: traffic calming measures, school-streets, complete streets, protected bike-lanes and other initiatives that align with vision-zero.

- The permit should be able to extend for up to 7 (seven) days so as to allow sufficient time for collecting data and so as to not rush the setup and teardown process.

Cost

We incurred over $4,000 in municipal fees alone in order to make 8 80 Streets Danforth possible. In order to make this process accessible to citizens and community groups, and considering the value that these types of pop-ups bring to the city, we recommend that:

- The City create a non-profit or community group rate for permitting fees. Even better, the City should waive all permitting fees for non-profit and community organizers.

- The City should remove the requirement for non-profit and community groups applicants to pay street parking-revenue offsets.

- Where possible, the City find an alternative to lengthy and costly police involvement in vision zero pop-ups. Police are not traffic engineers, and should not be setting standards for safe road infrastructure and costly barricades. Police presence during vision zero pop-ups should be limited exclusively to setup and tear down of the event.

- The City of Toronto should work with Toronto Water to identify a type of paint that is both safe for Toronto’s water system and allows people to paint bike-lanes, street murals and crosswalks as part of their vision-zero pop up projects, removing the necessity of hiring expensive professional power washers.
Appendix 2

8 80 STREET DANFORTH RESOURCES

- Video recapping 8 80 Streets Danforth: https://www.youtube.com/watch?v=ORa9SwzKefI&t=7s
- Wiki block furniture inventory: https://www.betterblock.org/wikiblock