

“How To”: Road Safety Audit

Step One - Identify Target Risky Behaviours

What are the main problem behaviours to target? Can they be observed and measured in a consistent way?

Our initial concern was drivers travelling the wrong way on one-way streets in our maze. This was easy to observe and count with enough volunteers and monitoring time. Our second concern was rolling stops – vehicles that did not stop at stop signs. To determine whether their wheels actually stopped turning is not difficult, but to take it further and determine whether rolling stops were unsafe is more problematic, as it requires that criteria be established and observers trained to make judgment calls. Deciding what we could reliably measure using observation by volunteers was very important.

Step Two – Decide How, Who, When and Where to Measure Them

We chose to use community volunteers to observe, count and record instances of the target risky behaviours (driving the wrong way on one-way streets, failing to make complete stops at stop signs). We wanted to know what percentage of drivers were involved, so we recorded all traffic passing through the intersections. We also wanted to look at busier times of day, so chose to collect data from 7 to 10 am and from 3 to 7 pm on a weekday during the school year.

Our concern was primarily risk to pedestrians at intersections of residential streets in the neighbourhood, at the intersections of residential streets with Harbord, a through commuter street, and at a busy crosswalk on Harbord. The number of intersections was limited by the availability of volunteers.

Volunteers were recruited at the HVRA spring meeting and through eblasts. Most attended an organizational meeting the week before the designated day. This would be the opportunity for training, if volunteers would be expected to make judgment calls. A team leader was designated to oversee each of the eight intersections. On the designated day, each volunteer completed a record sheet for each hour (see attached).

Step Three – Reporting out

One or more volunteers needs to be charged with collecting the recording sheets from the observers, collating the data, and writing a report. Thinking about the report before designing the study may help refine what risks are to be assessed and how they are to be measured.

For more details of our process, please keep reading.

HVRA Road Safety Audit

To respond to community concerns about the safety of roads in the Harbord Village, the Transportation Committee (TC), a subcommittee of the Harbord Village Residents' Association (HVRA) Board undertook on June 12, 2018 a community-led road safety audit conducted with the help of 30 volunteers from the community. The findings of the audit were shocking. The HVRA drafted a letter to Toronto City Council highlighting our findings and concerns. This document provides an overview of the process used to conduct the study and some additional background.

How Did We Do It?

Volunteer Recruitment & Assignment

- A meeting was held for the initial group of volunteers (15) to decide on a plan of action for the study.
- At the meeting, various ideas and approaches were discussed.
- A decision was made to count all the cars entering the intersections being monitored, the number of cars going the wrong way and to count the number of drivers who did not stop at stop signs.
- During the meeting, a draft data collection template was designed.
- Together the volunteers decided to observe as many intersections as possible internal to Harbord Village, and to do so from 7am to 10am and 3pm to 7pm based on knowledge of road usage patterns in the community. June 12th was selected as the date for the count.
- A subsequent call for additional volunteers was made to the HVRA membership through a weekly e-mail eblast. Another 15 volunteers signed up as a result of the e-mail blast and through neighbour word-of-mouth.
- A member of the TC drew up a schedule, assigning a Team Leader and volunteers to each of the 8 intersections chosen for observation. The schedule was sent to the Team Leaders and their volunteers by email.
- Ideally, the Team Leader was to take the lead in making sure sufficient volunteers were recruited to cover all the shifts at their corner.
- The Team Leaders were also expected to ensure that their volunteers understood the template, and most importantly to clarify how to identify a “stop” versus a “non-stop”. In general, the criterion applied was “did the driver slow down, look both directions, before going through the intersection?”. In other words, the guiding question was “how safe was the stop, even if it was a ‘rolling stop?’”
 - In retrospect, more training could have been provided to volunteers to ensure consistency in the evaluation of a stop versus a non-stop.

Corner Identification

- 8 corners were identified for monitoring – mainly due to the perceived risk to safety at these intersections.
- The TC had hoped to cover a greater number of intersections but did not have sufficient resources to cover all the intersections of interest.
- In some cases, volunteers were specific about the intersections they wanted to cover and in most cases their requests were accommodated. It was felt that there would be a greater sense of ownership in the activity the closer the person was to “their own backyard”.

- Volunteers were assigned to one corner in one-hour to two-hour shifts; some volunteers signed up for multiple one-hour shifts. Some worked alone, while others preferred to work in pairs.
- Where pairs worked together, it was possible to have one person observing driver behaviour and the other person observing cyclist behaviour.
 - Generally, cyclists were excluded from formal observation due to the volume of interactions during the periods of observation.
 - It would have been overwhelming for the resources available in the Harbord Village study had cyclists been included in the formal observations.
- Team Leaders were expected to participate in the count although not all did.

Study Timeframe

- To make the count manageable for volunteers, observations were conducted over one day, Tuesday, June 12th. The day was picked to correspond to a mini-study conducted on Robert St. in 2000.
- We believed it was important for the study to be conducted before school let out so that the data were representative of a regular weekday in Harbord Village.
- Two shifts were identified – Morning: 7am to 10am (which we felt would capture the morning rush) and Afternoon: 3pm to 7pm (which we felt would capture the evening rush).

Monitoring & Study Template

- The group decided to track:
 - All cars entering the intersection
 - Cars going the wrong way down a one-way street
 - Cars not coming to a complete stop at a stop sign (see comments above)
- There was some debate as to whether the study should also track the behaviour of cyclists at the intersections under observation. It was decided that adding cyclists would overwhelm the volunteers and make accurate tracking difficult (due to the sheer volume of bike traffic and infractions during these peak times).
 - However, if observers are working in pairs, one person can use the template for cars; the other for cyclists.
- A simple data collection template (available on the Harbord Village website) was created to log incidents at corners. The template was distributed by email to Team Leaders and volunteers. Most volunteers printed out their own templates.
- Volunteers were also asked to make notes of anything else that was noteworthy on their corner (e.g. condition of the corner, signage hidden by foliage, graffiti on signage, particular incidents such as near misses, speeding, etc.).

Data Collection & Analysis

- Team Leaders were responsible for collecting the data sheets from their volunteers. The sheets were then handed or scanned and emailed to a point person on the TC.
- Data were compiled so that summary level conclusions could be made.

- The results were used to write a letter to Toronto City Council. The letter was also shared widely with neighbouring RAs, published on Twitter, and emailed to various other advocacy groups and interested parties.

Reporting

- Once the data have been fully analyzed, a report will be produced summarizing the study and its findings.
- The report will be shared with the Councillor and others as indicated above.

Background

- To respond to ongoing resident concerns and complaints about road safety in the Harbord Village, a Transportation Committee (TC), a subcommittee of the HVRA Board, was formed in the fall of 2017.
- The TC initially consisted of four Board members and has added members of the community with an interest in the topic.
- The TC has a member that overlaps with the Parent Consultation Committee who regularly discuss road safety issues relating to the safety of children in the neighbourhood.
- In the winter, the HVRA was approached by the U of T School of Engineering to see if it was interested in supervising a group of first year students who were required to conduct a project with an outside client.

U of T School of Engineering Project

- The TC committee submitted a proposal to Engineering which related to the prevention of wrong way drivers in Harbord Village. The proposal was accepted and a group of 6 students were assigned to work with the TC.
- Two members of the TC supervised these students, tasked with developing solutions to the pervasive problem of drivers going the wrong way down one-way streets.
- In total, the two TC members each spent approximately 20 hours in their supervisory role meeting with the students and reading their work, providing feedback, and attending their final oral presentation to their professors.
- The students delivered a report which consisted of several recommendations including increased community involvement in reporting wrong way drivers. (The report is available on the Harbord Village web site.)
- The report was presented by the TC to the HVRA Board.

Community Engagement

- The Board decided to take some of the ideas in the Engineering report to its annual Spring meeting in May.
- At the meeting, members were asked to consider the question: "What can we do to address the issue of wrong way drivers?"
- Members were divided into groups by geography and were asked to brainstorm potential solutions and actions that could be undertaken by the community to address the issue.

- The TC collected names of 15 members of the community interested in pursuing the question further and willing to meet to discuss a study to collect relevant data.

Please see additional references on HVRA website: <https://harbordvillage.com/>

- U of T Engineering student study
- Road Safety Template
- Letter to Toronto City Council