DANFORTHSTUDY

RP&C

BIKE LANES, ON-STREET PARKING, AND BUSINESS

A STUDY OF DANFORTH AVENUE IN TORONTO DANFORTH NEIGHBOURHOOD

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EXECUTIVE SUMMARY

The following report has been prepared for the Toronto Centre for Active Transportation by the Ryerson University Urban and Regional Planning studio group Ryerson Planning and Consulting. The purpose of this study is to understand the current perceptions of visitors and merchants on Danforth Avenue regarding the presence of on-street parking as it relates to businesses. The study examines visitors' and merchants' opinions about potential changes to street use allocation, including implementation of active transit.

The study – conducted in March 2014 – includes responses from 62 merchants and 152 visitors to the Danforth. Some of the key findings are:

- Less than 1 out of 5 visitors to Danforth Avenue claimed a personal vehicle as their chosen mode of transportation to the area;
- Those that drove to the Danforth spent less money than people who used other modes of transportation;
- Visitors to the Danforth would prefer to see widened sidewalks, bike lanes, less on-street parking and an increase in off-street parking. Merchants, however, generally preferred no changes to the current street allocation, or an increase in parking.

The results from this study will be made publicly available through the website for the Toronto Centre for Active Transportation (TCAT). It is hoped that the study will be used to inform further discussion of the relationship between parking, active transportation and business.

1 INTRODUCTION

This report has been prepared based on surveys conducted by the Ryerson Planning Studio Group *Ryerson Planning & Consulting*. We have been presented with the challenge of undertaking a comprehensive survey along the "Greektown" stretch of Danforth Avenue in Toronto. The general boundaries of the study area fall between Broadview Avenue at the Westernmost point to Pape Avenue at the Easternmost point. This commercial strip is widely considered to contain the heart of Greektown, a lively cultural hub for visitors and residents alike. High levels of pedestrian activity on the strip has encouraged investigation into the possibility of developing infrastructure geared towards pedestrians and cyclists.

Our study has been modeled after two surveys previously conducted by the Toronto Centre for Active Transportation (TCAT), one on Bloor Street in the Annex, and the other in Bloor West Village. Their purpose, as outlined by TCAT director Nancy Smith Lea is to gather information in order to understand current pedestrian and merchant perceptions surrounding the presence of on-street parking. Specifically, the survey explores how on-street parking was perceived to affect business in the area. The question is raised if converting this parking into bike lanes and/or widened sidewalks will have a perceived negative, neutral, or positive impact on the success of local businesses. The methodology for this survey is modeled after previous studies of a similar subject matter undertaken by TCAT (TCAT, 2009, 2010). To illustrate the relevance of active transportation in planning practice, Ontario's Places to Grow Act: Growth Plan for the Greater Golden emphasizes that municipalities must:

"Ensure that pedestrian and bicycle networks are integrated into transportation planning to

a) provide safe, comfortable travel for pedestrians and bicyclists within existing communities and new development

b) provide linkages between intensification areas, adjacent neighbourhoods, and transit stations, including dedicated lane space for bicyclists on the major street network where feasible (Places to Grow, 2005)."

This goal of providing safe, comfortable travel networks for pedestrians and cyclists served as a guiding principle for undertaking surveys surrounding issues of active transportation along Danforth Avenue. The surveys were completed and presented from an unbiased, objective standpoint. Special attention was given to survey methods and content to ensure that they were conducted in an ethical manner.

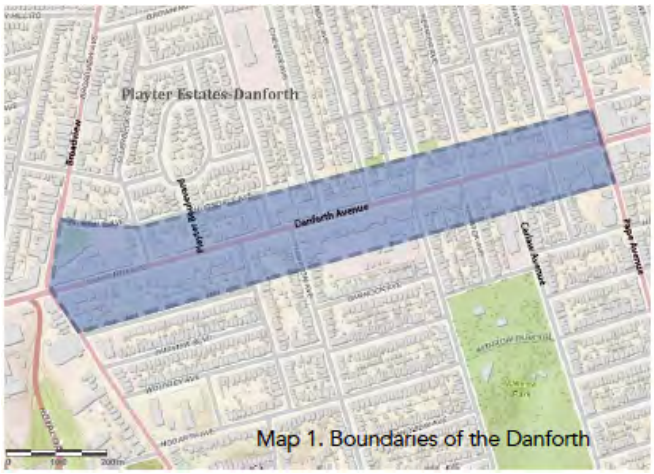
1.1 STUDY PURPOSE

The purpose of the study is to understand the current perception of visitors and merchants regarding the presence of on-street parking as it relates to businesses in the Bloor-Danforth area. The potential economic impacts of replacing on street parking with bike lanes and widened sidewalk will be further explored in this study. Five scenarios were created with the purpose of determining the change that is the most desirable for both visitor's and merchants. Merchants and a random sample of pedestrians were to choose one of the following options for improvement that they would like to see be implemented on the Danforth Avenue:

a) Widened sidewalks on Danforth Avenue even if that means less on-street parking;
b) A bike lane on Danforth Avenue even if that means less on-street parking;
c) More off-street parking, less on-street parking; widened sidewalks, and bike lane;
d) More off-street parking, no change in on-street parking, widened sidewalks and bike lane;
e) No change.

This study utilized two surveys to determine: a) current perceptions of merchants regarding the existing streetscape and how they believe changes to the street would affect their business and b) how important on street-parking is to visitors of the area, and how they perceive potential changes to the allocation of space of the existing streetscape. For this purpose, data were collected using two different sources, merchant surveys as well as visitor surveys.

Through surveying merchants and pedestrians, we have gained insight on their perceptions of the existing streetscape and proposed changes for the area. While merchants may be concerned about the changes negatively affecting their business, pedestrians may have a different perception and may want to see different changes be made to the area. The study also determines a relationship between travel modes and spending behaviour. This study will help determine whether opposition towards bike lanes reflects the opinions of the majority and whether skepticism surrounding the loss of business deriving from reduction of on street parking is justifiable. For the purpose of this Study, the study area will be defined by a five block area between Playter Boulevard to the West and Carlaw Avenue to the East.



Map 1. Boundaries of the Danforth

1.2 EXISTING LITERATURE

Most existing studies and reports on the subject of parking, transportation and business focus on the relationship between transportation mode of visitors/pedestrians to an area, the importance of parking to commercial areas, and the perceptions of merchants surrounding travel choices. Many reports are reinforced by common findings, which are relevant to our study on Danforth Avenue. Notably, it has been found that cyclists, pedestrians, and transit riders are competitive customers who tend to spend more money on average than those who drive. Pedestrians who use transit, walk or ride a bike reportedly visit more often, and spend more money than those who drive (Arancibia, 2013; Clean Air Partnership, 2009, 2010; New York Department of Transportation, 2013; OTREC, 2013). This point is illustrated well by D Arancibia in a report titled *Cyclists, Bike Lanes and On-Street Parking: Economic Impacts.* In this report, the author states that cyclists "are skilled, selective, loyal, and spend more money where they shop than their driving counterparts. Cycling infrastructure is important to them, and therefore important for businesses who want to attract them (both as customers and as employees). Bicycle lanes and bicycle parking can increase the capacity of roads and the ability of people to shop simultaneously, all while improving various social and environmental aspects of a neighbourhood"(Arancibia, 2013).

With this in mind, an important factor to consider when planning for cyclists and pedestrians is the availability and accessibility of appropriate infrastructure. It has been found that if the streetscape is built to accommodate alternative transportation (bike lanes, bike parking, transit stops) there is a higher likelihood of visitors using non-automobile modes, and a likely increase in the number of new users attracted by said amenities. (Cervero & Kockelman, 1997; Clean Air Partnership, 2009, OTREC, 2013). A 1999 survey of Toronto cyclists found that only 18% of cyclists reported feeling comfortable biking on major roads without bike lanes, whereas 53% reported feeling comfortable cycling on major roads with bike lanes (Decima Research, 2000).

From a driver's perspective, parking availability is an important factor in determining whether or not to make a trip to a given area. It has been found that having only curbside parking lessens the number of trips to an area based on the amount of parking available. Garages and off-street parking create balance and efficiency by accommodating more vehicles without congesting streets (Rowse & Arnott, 2009).From the perspective of local merchants, studies have indicated that many believe added bike lanes or widened sidewalks would make no difference to their level of business, or would actually increase business. In cases where bike lanes have already been implemented, merchants report increased business, or no significant change to business (Clean Air Partnership, 2009; Drennen 2003; Forkes, Smith Lea & Sztabinski, 2010).

A smaller portion of merchants surveyed are hesitant to support the construction of bike lanes and removal of on-street parking, as they feel it will negatively affect business/sales (Clean Air Partnership, 2009). By examining the literature surrounding active transportation, parking, and business, it can be seen that there is opportunity to become informed about public perceptions, and facilitate an educated dialogue about lifestyle and transportation choices. Evidence-based research made publicly available may be used to inform future policy and change attitudes about the optimal uses of streets and the public realm.

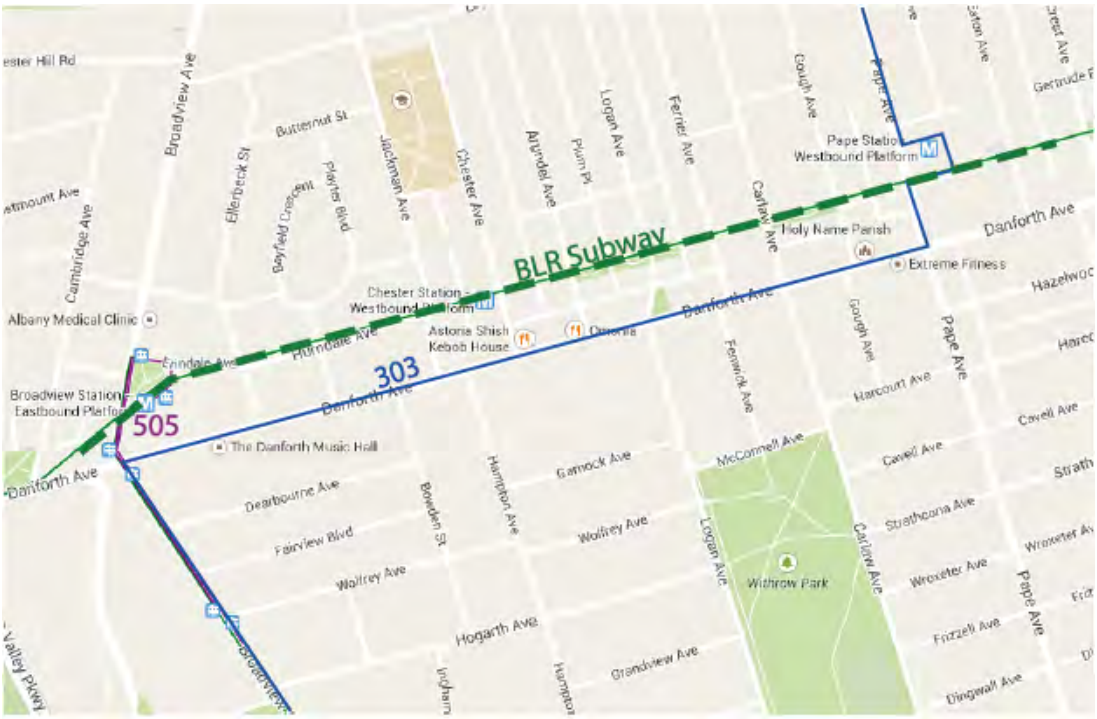
2 CONTEXT

2.1 BACKGROUND

The Danforth Avenue is a vibrant neighbourhood consisting of a diverse population of students, lone parents, and families with children (City of Toronto, 2014). According to the City of Toronto Zoning By-law, the Danforth Avenue is allocated to residential and commercial residential land uses (City of Toronto, 2013). The Danforth is composed of hundreds of shops, restaurants and services. This is a destination neighbourhood, a cultural hub with a wide variety of food, unique shopping, cafes, bars and theatres. The wide sidewalks of the Danforth provide ample room for visitors, facilitating a high level of pedestrian activity. The street layout is symmetrical along the avenue, with both sides of the street relatively similar with street level businesses, and residential units on the top floors of those businesses.

Figure 1. Pedestrian Realm

There are many ways to get to the Danforth Avenue which include driving, public transportation or using any active mode such as walking or cycling. There are subway stations that are in close proximity to the heart of the Danforth Avenue, most notable the Bloor-Danforth line that runs east to west on Danforth Avenue. These subway stations allow the Danforth neighbourhood to be connected with the rest of Toronto and allows for an alternative mode of transportation. For those who drive, there are two options available for parking: either on-street parking or the Green P Parking lots.



Map 2. Existing Transit Routes

The Green P is Toronto's Parking Authority, which exists to provide safe and convenient off-street and on-street public parking (Toronto Parking Authority, 2014). Metered on-street parallel parking is available on both sides of the street at set times throughout the day to prevent congestion during peak hours.


Figure 2. Current Danforth Streetscape

Map 3. Green P's (Off Street Parking)

The schedule for on-street parking with ticket purchase fluctuates. The schedule permits a 2 or 3-hour maximum parking period during certain hours, which change every day of the week. There are seven 'Green P' parking lots along the length of the study area from Broadview to Pape, as well as on-street parking spaces provided on both sides of the street. The map below shows the Green P parking lots and their locations along the Danforth Avenue.

2.2 BIKE PLAN

As this is a study on parking and potential for active transportation and adding a bike lane is a proposed option in the report it is important to study the City of Toronto's Bike Plan to know what it entails. The Toronto Bike Plan initiative has the vision of creating a safe, comfortable and bicycle friendly environment with the emphasis on doubling the number of bike lanes in the city and reducing the number of collisions and injuries (Bike Plan,2001). With the proposed option of adding a bike lane it is important to note that this will reduce a lane of traffic or on-street parking along the Danforth which is an issue of interest to the merchants concerned with customer accessibility to their businesses. With accessibility remaining the major issue, the Bike Plan wants to better integrate public transit and cycling. This process could be achieved by adding a sufficient number of bike parking facilities to most major transit hubs and ensuring that most modes of public transportation; subways, busses and streetcars, are fitted to allow bikes (Bike Plan, 2001). At this time there are no plans of adding bike lanes along the Danforth however some advocates and city hall representatives are striving to find the best options for implementing an entire bicycle corridor along the Bloor-Danforth arterial. Ferrier Avenue and Gough Avenue are the closest bike lanes by Danforth Avenue, but they do not maintain connectivity.

3 METHODOLOGY

3.1 EXISTING PRECEDENT

The methodology for this report was based off the two previous reports conducted by The Clean Air Partnership and TCAT in 2008 and 2009 (TCAT, 2008, 2009). The two study's focus was to "determine the public acceptability and economic impact of reallocating road space." (TCAT, 2009). Although there can be many limitations to a study focused on merchant "perceptions" of visitor travel patterns, like the previous studies done by TCAT, we endeavour to critically analyze the behaviour patterns and interpret findings of this study.

3.2 SURVEYS

Data collection for the Danforth study area was conducted over 7 days during a two-week period from March 6 to March 21, 2014 by a group of 11 student surveyors. The study area is the portion of Danforth Avenue between Playter Boulevard and Carlaw Avenue. We chose this portion of the Danforth as we felt it characterizes the "heart" of the neighbourhood. A merchant survey was conducted of ground level businesses in the study area of Danforth Avenue as well as a survey of visitors to the area

3.2.1 MERCHANT SURVEYS

Merchants were asked what their perceived customer count was per weekdays and weekends; what is the typical modal share of their customers; what their own travel mode was, and what they would prefer in terms of potential changes. They were given a variety of options each focusing on different transportation options, i.e. widened pedestrian realm, cycling, or auto-centricity. These options were used to understand current perceptions that merchants may have regarding the existing streetscape. This information will give insight to what changes they would like to see on the Avenue.

During the surveying process, all merchants located between Carlaw and Playter were surveyed (n=116). They were approached on the north and south side of Danforth Avenue. Merchants were visited at least twice if they were unavailable in the first visit. Some merchants had to be called at a later date to complete their survey.

The studio group conducted the surveys on a door-to-door basis over the two-week period. In total, 62 out of the 116 merchants (53%) responded to the survey. Out of all the businesses located within the boundaries, 40% of those who responded were retailers. One reason why more respondents were retailers as opposed to restaurants could be due to the fact that restaurants tended to be much busier, presumably with less time available to be surveyed (Figure 3 &4).

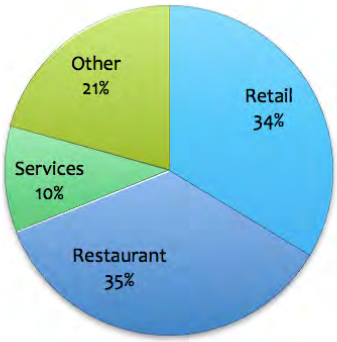


Figure 3. Types of Businesses on Danforth

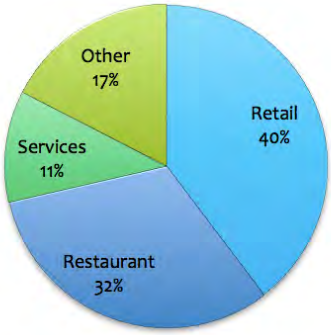


Figure 4. Types of Businesses that responded

3.2.2 VISITORS SURVEYS

Surveyors randomly selected people walking along Danforth Avenue between the times of 10:00am and 5:00pm on different days of the week. A total of 152 people completed the visitor survey. The area was divided into four 'quadrants' labeled A,B,C and D (See Map 4). This was done to keep track of where pedestrian surveys were collected to ensure that respondents were intercepted throughout the study area and not too concentrated in one section. Surveys conducted in quadrant C accounted for the lowest proportion (9%) while quadrant B had the highest (41%) (See Appendix for the complete Survey).

Map 4. Survey Quadrants

Distribution of survey respondents by survey location		
Quadrant A	39	26%
Quadrant B	62	41%
Quadrant C	14	9%
Quadrant D	37	24%
Total	152	100%

Table 1. Survey Response by Quadrant

Surveying was done on a Monday, Tuesday, Thursday, Friday and Saturday with varying rates of information collected (See Table 1.) The goal was to collect data during different days of the week to account for different behaviours that could be attributed to them (i.e. weekends vs. weekdays).

3.3 LIMITATIONS OF STUDY

Several limitations were found while conducting the survey. The first was that the study was conducted within a two week time period that took place during a very cold winter season, which left some days too cold or windy to survey successfully (between -15 degrees celsius and 0 degrees celsius). During these winter months the modes of transportation a person takes may be different than in the summer months. The short period of time to conduct the surveys was another limitation. If there was more time, then we may have had a better response rate. Because only two cyclists were surveyed, the results presented in this report do not necessarily represent the perceptions or preferences of cyclists.

4 FINDINGS

4.1 INTRODUCTION TO MERCHANT

The main focus of this merchant survey is to investigate what the current perception and preferences is towards reallocating existing parking space to widen sidewalks or additional bike lanes. Through collected results it is apparent that merchants were more in favour of auto-centricity versus improving the active transportation environment.

4.2 MERCHANT'S PERCEIVED CUSTOMER TRAVEL HABITS

Danforth Avenue is a diverse and vibrant avenue that acts as a social hub for the City of Toronto. High concentration of retail and restaurants provide a draw for many visitors, and there is a high level of pedestrian activity at street-level. Out of the merchants we surveyed, 40% of the respondents were retailers. One reason why more respondents were retailers could be due to the fact that restaurants tended to be much busier, presumably with less time available to be surveyed. In reflecting on the results collected, an observation arose regarding merchant's perception on their estimated customer count per weekend and weekday. 46% of businesses serve more than 50 customers per weekday, and 71% of businesses serve more than 50 customers per weekend day. This illustrates a 25% increase in customer activities on the weekend.

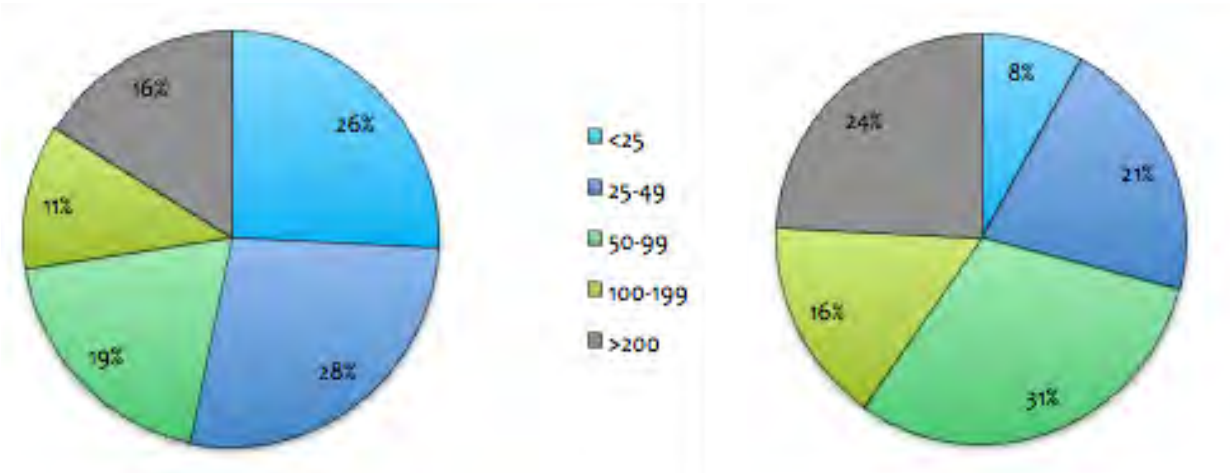


Figure 6. Merchant's Perceived Customers - Weekend

In conducting the survey, merchants were asked to give an estimation of what percentage of their customers use which travel mode. I.e In their opinion, what percentage of their customers drive to visit their establishment. Responses indicated a large majority of merchants believe that less than 24% of their customers are cyclists. This is reflective of what the current attitude is towards cyclists. Many merchants are not receptive to the possibility of adding more bicycle lanes. Surprisingly almost half of the merchants surveyed believe that less than 24% of their customers are drivers. This finding contrasts to the widely held assumption that business owners generally believe that a large portion of their customers "are likely to arrive by car in dense urban areas...even if other travel modes have firmly established themselves as the most popular" (Arancibia, 2013).

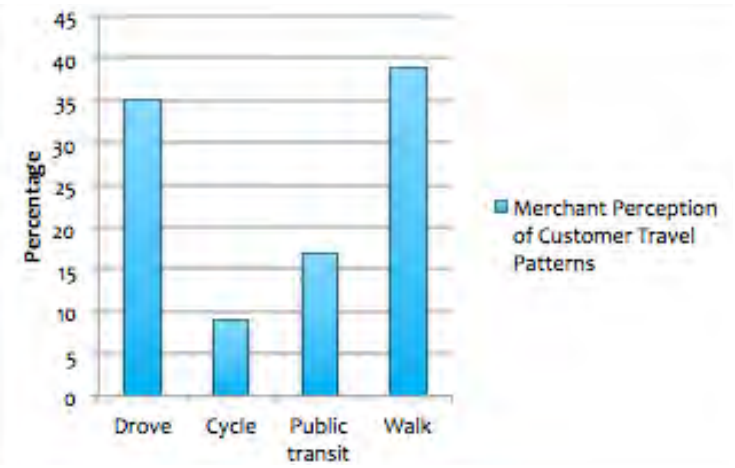


Figure 7. Merchant's Perception of Customer Travel Mode

By finding the average of perceived customer travel patterns from all 62 merchant surveys, we found that on average merchants believed that 35% of their customers drove, 9 % of their customers cycled, 17% took public transit and 39% of their customers walked.

4.3 MERCHANT'S PERSONAL TRAVEL HABITS

A majority of business owners drive to the Danforth, with 44% of the merchants being drivers. Perhaps this is reflected in the auto-centric view/mindset of many of the merchants surveyed. The survey also asked if the merchant's travel mode would change during the summer time. 77% of merchants responded that they would remain using the same travel mode, i.e. answering yes in response to would (merchant's) travel mode change in the summer? This shows that many of the merchants are regular drivers at all times of the year.

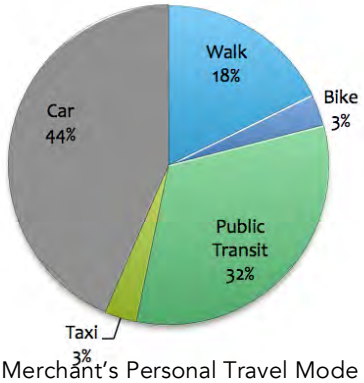


Figure 8. Merchant's Personal Travel Mode

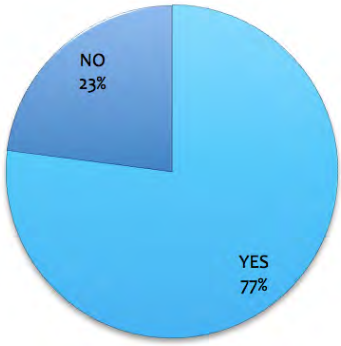


Figure 9. Would merchant's Travel Mode stay the same in Summer?

4.4 MERCHANT'S PREFERENCES IN POTENTIAL CHANGES

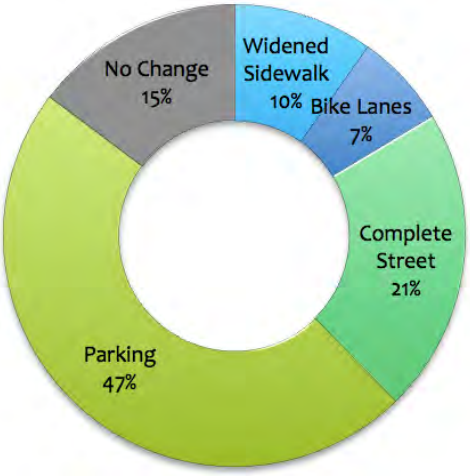


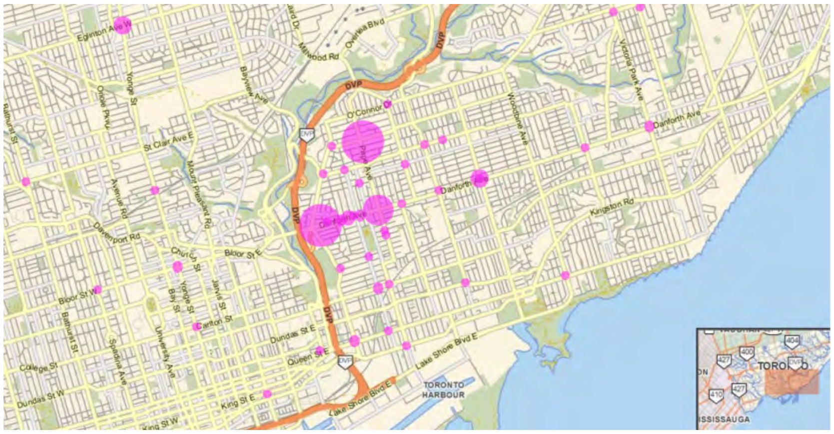
Figure 10. Merchant's Preferred Potential Street Changes

The last question of the survey is about potential changes that can be implemented on the Danforth. These potential options will be address in the final chapter. In the questionnaire, the merchants were asked which of four of five options (Appendix) they preferred the most regarding on-street design. Option A includes wider sidewalks, even if it meant reduced on-street parking. Option B included a bike lane, even if it means fewer on-street parking. Option C was for more off street parking, fewer on-street parking spaces, widened sidewalks, and a bike lane. The most popular option was D, which describes Danforth Avenue as it currently looks, plus *additional off street parking.*

4.5 VISITORS SURVEY RESPONDENTS

The purpose of the visitor survey is to collect data about the behavior and preferences among visitors to the Danforth.

Respondents were asked specifically where they live (either nearest intersection and/or postal code). The map below (map 5) shows where survey respondents live and illustrates that the majority of respondents live fairly near to the Danforth. However, there were also several respondents that came from outside of Toronto, from as far away as Oakville and Pickering.



Map 5. Visitor residence locations within the surrounding Danforth area

4.6 VISITOR HABITS AND CONSUMPTION

Survey respondents were asked how they usually get to the Danforth area, to better understand the significance of the various modes of transportation. Most visitors walk to the Danforth (46%), followed by public transit (32%), and then car (19%). Of those who live or work in the area, 68% walk, 19% take public transit, and 10% drive. Of the visitors who do not live or work in the area, 56% take public transit, 35% drive, and 7% walk (Figure 11).

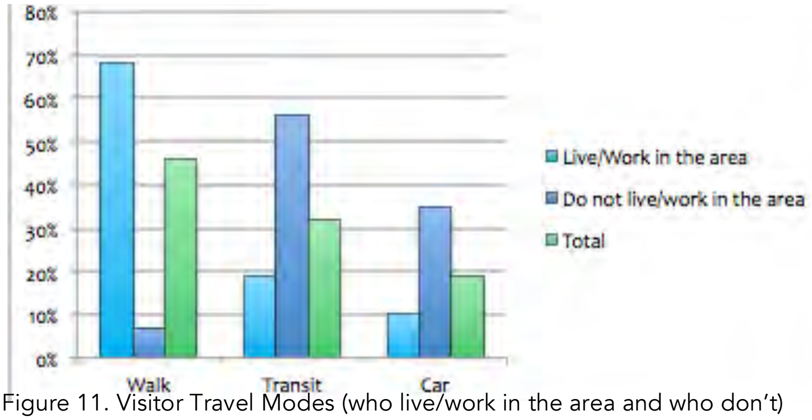


Figure 11. Visitor Travel Modes (who live/work in the area and who don't)

Respondents were also asked if their mode of transportation to the Danforth would be different if it was summer rather than winter. Of the respondents that said they would use a different mode of transportation in the summer, 45% would walk, 24% would take public transit, 17% would cycle and 13% would drive (Figure 12). Therefore the proportion of people who walk to the area would remain largely the same, though more people will likely cycle to the area in summer, as opposed to winter.

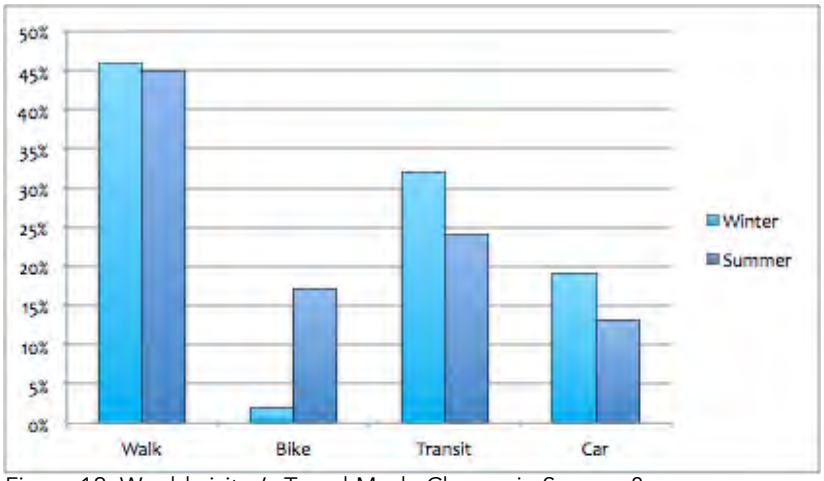


Figure 12. Would visitor's Travel Mode Change in Summer?

Survey respondents were also asked the number of days they visited the Danforth area in a typical month. Half of the respondents visit the Danforth frequently, with 50% reporting that they visit more than ten times per month. Only 18% visit less than two times per month. The home or work locations of the respondents were directly correlated with the visit frequency data, and this outcome was expected. Those who live or work in the area visit the Danforth much more frequently than those who do not. For example, 78% of those who live or work in the area visit more than five times per month; whereas only 23% of those who do not live or work in the area visit more than five times per month. Conversely, 76% of those who do not live or work in the area visit five or fewer times per month; compared to only 21% of those who do live or work in the area.

Overall, pedestrians visit the area most often, with 79% visiting more than 5 times per month; followed by drivers, 48% of whom visit more than 5 times per month; and public transit users, 34% of people who visit more than 5 times per month. On the contrary, 66% of public transit users and 52% of drivers visit five or fewer times per month; compared to only 21% of walkers (Table 2).

Number of days per month visiting the Danforth						
Number of Days	Live or Work in the Area (97)	Do Not Live or Work in the Area (55)	Walk (70)	Transit (49)	Car (29)	Total (152)
0 to 1	7%	38%	11%	23%	28%	18%
2 to 5	14%	38%	10%	43%	24%	23%
6 to 10	8%	9%	6%	10%	14%	9%
11 to 20	13%	7%	10%	12%	10%	11%
21 to 31	57%	7%	63%	12%	24%	39

Table 2. Visitor's Number of days per month visiting Danforth

Half of the visitor respondents stated that their purpose for visiting the Danforth was to shop (28%) and/or go to a restaurant (22%). The other categories of purposes all shared similar percentages, with the category of people who live there being slightly higher at 14% (Figure 13).

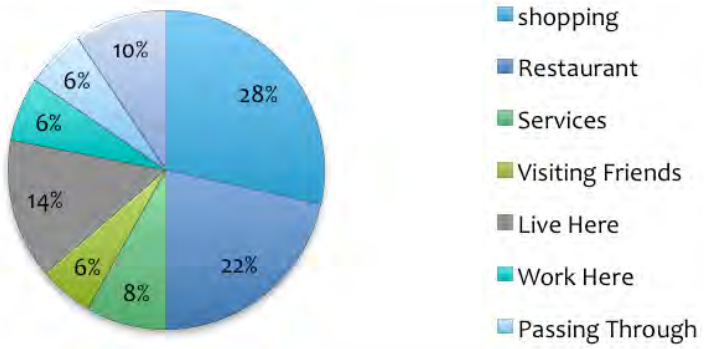


Figure 13. Visitor's purpose for visiting the Danforth

Survey respondents were also asked how much money they spend in the Danforth area in a typical month, with six spending ranges provided as options (Table 3). Overall, the greatest percentage of respondents report spending between $25 and $75 (26%). Among those who live or work in the area, 62% report spending over $100 per month, compared to 9% of those who do not live or work in the area. Instead, the greatest percentage of those who do not live or work in the area, spend between $0 and $25 (40%).

MONEY SPENT IN THE AREA PER MONTH						
Money Spent	Live or work in area (97)	Live and work outside of the area (55)	Walk (70)	Public Transit (49)	Car (29)	Total (152)
0-25	4%	40%	6%	33%	21%	17%
25-75	21%	35%	16%	37%	35%	26%
75-100	12%	16%	10%	16%	14%	14%
100-200	22%	6%	21%	6%	17%	16%
200-300	14%	4%	19%	6%	0%	11%
300+	26%	0%	27%	2%	14%	17%
NA	1%	0%	1%	0%	0%	0%

Table 3. Money spent in the area per month (for visitors)

Looking at spending categorized by the respondent's mode of travel, walkers tend to spend the most (defined as the greatest percentage spending more than $100 per month), followed by drivers, then public transit users. The spending habits of car drivers and public transit users are similar, while walkers seem to spend considerably more than car drivers and public transit users.

	Live in area		Do not live in area		Walk		Car		Public Transit		Total	
Widened sidewalks & less on-street parking	13	13%	6	11%	9	13%	4	14%	6	12%	19	13%
Bike lanes & less -on street parking	22	23%	9	16%	17	24%	4	14%	10	20%	31	20%
More off-street parking, less on-street parking, widened sidewalks, bike lanes	35	36%	23	42%	25	36%	9	31%	22	45%	58	38%
Subtotal (support for changes to the streetscape)	**70**	**72%**	**38**	**69%**	**51**	**73%**	**17**	**59%**	**38**	**78%**	**108**	**71%**
More off-street parking, no other changes	10	10%	7	13%	5	7%	7	24%	5	10%	17	11%
No change	17	18%	10	18%	14	20%	5	17%	6	12%	27	18%
Subtotal (support for no changes to the streetscape)	**27**	**28%**	**17**	**31%**	**19**	**27%**	**12**	**41%**	**11**	**22%**	**44**	**29%**
Total	**97**	**100%**	**55**	**100%**	**70**	**100%**	**29**	**100%**	**49**	**100%**	**152**	**100%**

Table 4. Preference in Change to Street Use Allocation by Transportation Mode and Residence

The researchers also wanted to know what possible changes to the street survey respondents would prefer, with no change as an option (Table 4). As in TCAT's previous studies, this study revealed some differences in survey respondents' preferences for changes to the street based on whether or not they live in the area and how they travel to the Danforth.

The highest percentage of the total sample of survey respondents (38%) were in favour of option three: "both an additional bike lane and wider sidewalks, as well as more off-street parking and less on-street parking". Responses were similar for both those who live and those who do not live in the area. While public transit users were most in favour of the above option (45%), all groups favoured this option the most including drivers (31%), and walkers (36%).

Of the five options provided to the respondents, three require a change to the streetscape, and two do not. So, in table 4 we divided the responses into two groups; those who prefer a change to the street in the first, and those who do not prefer changes in the second. Overall the majority of people surveyed (71%) preferred to see street use reallocated for widened sidewalks or a bike lane. Support was only slightly higher for those who live in the area (72%) than those who don't (69%). Looking at preference by mode of transportation, the highest support for change was found amongst people who take public transit to the Danforth (77%), followed by those who walk to the area (72%). Interestingly, even the majority of drivers (59%) would prefer streetscape changes.

We also compared the amount of money respondents spent in a typical month with their preferences in changes to the street (Figure 14). We found that option three (more off-street parking, less on-street parking, widened sidewalks and a bike lane), which was the dominant option overall, was especially desired in comparison to the other options amongst those who spent $25-$200 per month (43%). In addition, those who spent over $300 per month favoured option two: bike lanes and less on-street parking, more than any other options at 36%.

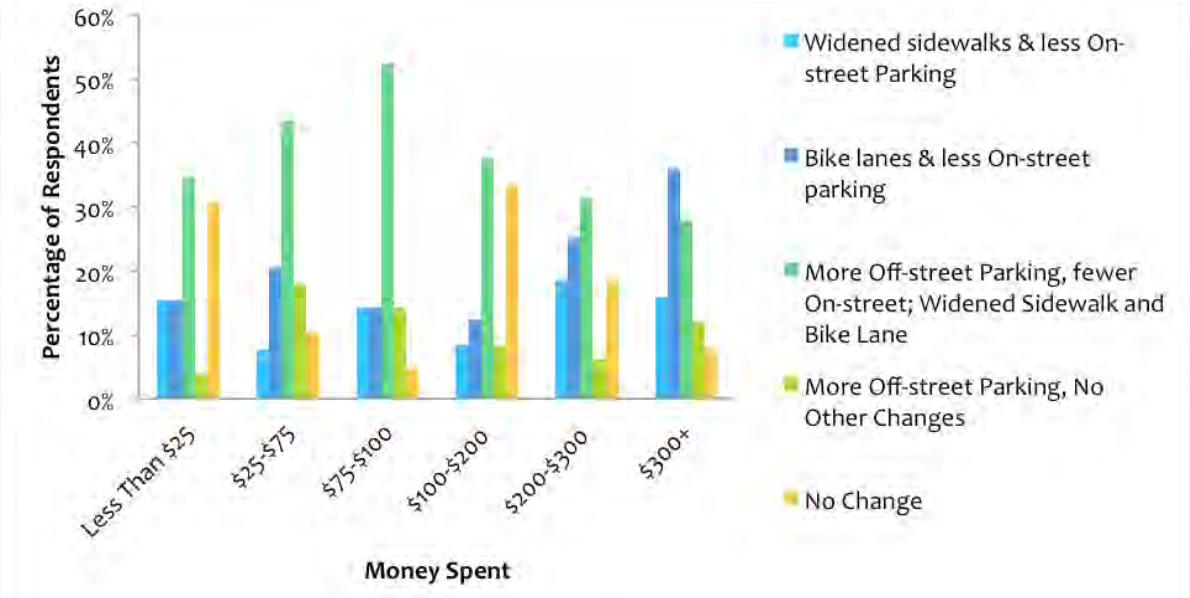


Figure 14. Visitors preferred street change compared to money spent

The final question in the visitor survey asked for respondents' prospective frequency based on the following changes: wider sidewalks, an additional bike lane, more off-street parking, and no change (Figure 15). The majority of respondents stated that they would visit the Danforth area the same frequency no matter what the street change (80%). The bike lane option resulted in the highest percentage (27%) of visitor responses saying that they would come more frequently to the Danforth if a bike lane was implemented.

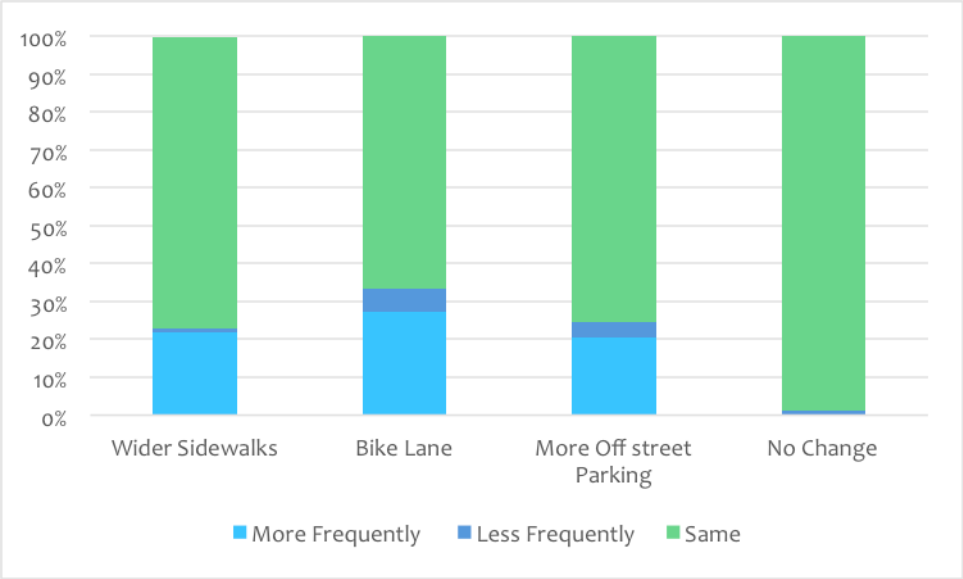


Figure 15. Visitor's change in travel mode based on potential street changes

5 DISCUSSION

The main purpose of this study is to better understand merchant and pedestrian perceptions surrounding the presence and importance of on street parking as it relates to business on Danforth Avenue. There are potential economic impacts of replacing on-street parking by widened sidewalks and a bike lane. The information gained in this study helps in understanding the spending habits of visitors to Danforth Avenue, and what types of changes to the street would be desired by residents, visitors and merchants in the area. With the information gathered and presented in this report, there is greater opportunity for educated dialogue surrounding the issues involved. This understanding may in turn lead to new policy directives and active transportation planning for the City of Toronto.

The results from the completed surveys show that in comparison with the main methods of transportation to the area (driving, public transit, walking), only 19% of visitors actually drive to get to the Danforth (Figure 11). On average, Merchants perceive that 34% of the customers drive to their establishment, as seen in figure 16. Therefore, implying that merchants overestimate their perception on the number of customers who drive. This was confirmed by the responses we got from visitors. Very few respondents who completed the visitor survey said that they drive to the area, with a total of 10% for those who either live or work in the area, and a total of 36% for those who do not live or work in the (Figure 11). Based on this knowledge, the presence of on street parking should not greatly impact the businesses of merchants on Danforth Avenue.

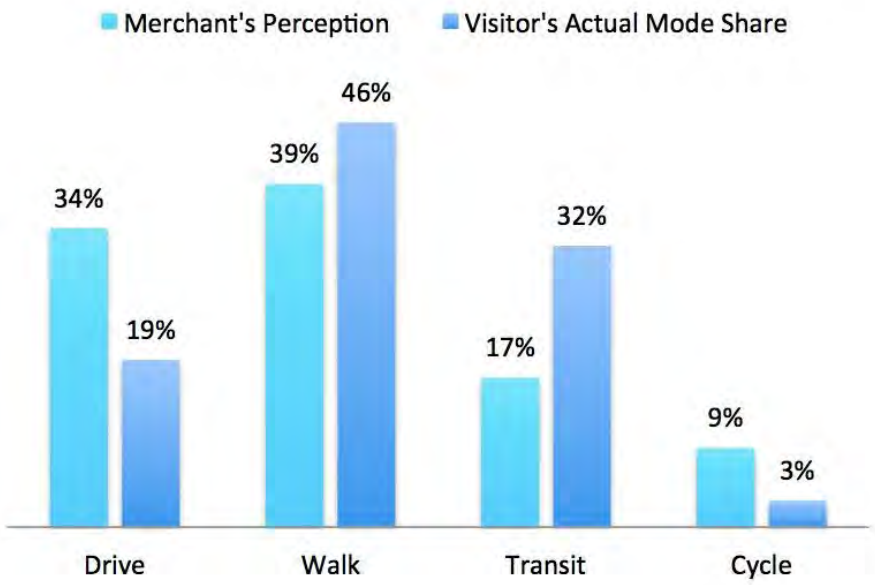


Figure 16. Merchant perception verses real visitors travel modes

Visitors who drive to the study area spend significantly less money and frequent the area less than pedestrians do. The largest portion of visitors (27%) who drive to get to Danforth Avenue spend an average of 0 to 1 day per month in the area, 24% of drivers spend 21-31 days on average per month in the area (Table 2).

The majority of visitors (63%) who walk to get to Danforth Avenue spend 21-31 days on average per month in the area, and 11% spend 0-1 day on average per month in the area, as seen in (Table 2).

From this, we can see that the percentage of visitors who spend the most days per month on Danforth Avenue are pedestrians. Pedestrians, on average, are on Danforth Avenue between 21 and 31 days per month 36% more than drivers are. 35% of drivers to the Danforth area spend an average of $25-$75 in the area monthly, followed by 20.7%, who only spend between $0 and $25 in the area per month (Table 3). In contrast, the average amount of money spent by 27% of visitors who walk to the area is above $300, followed by 21.4% who spend a total of between $100 and $200 on average per month in the area (see Table 3).

The largest portion of merchants on Danforth Avenue drive to get to their place of employment (44%, as seen in Figure 8), and the largest portion of visitors are pedestrians, meaning they walk to get there (46%, as seen in Figure 11). It is interesting to note that merchant, on average, responded that they believe that 34% of their clients or customers' primary mode of transportation is walking; despite this, a lot of merchants chose Option D) in Question 5 of the merchant survey, which calls for not changing the layout of the street, while providing additional off-street parking, as seen in Figure 10. Merchants preferred the option of the survey that provides for the most amount of parking (Option D), whereas pedestrians preferred the option with widened sidewalks, bike lanes, reduced on street-parking and additional off-street parking (Option C).

Figure 10 (see above). Merchant's Preferred Potential Street Changes

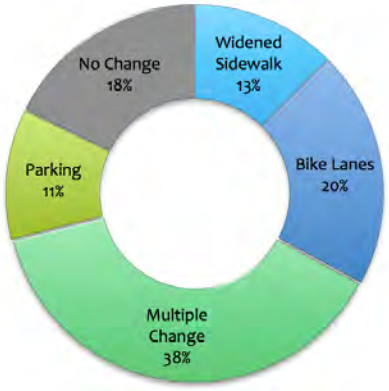


Figure 17. Visitor's Preferred Potential Street Changes

Merchants' choice of the optimal parking option may be due to their over-estimation of driving mode share among their customers. Figure 16 depicts the difference between merchant's estimation of their customer's travel patterns, compared to the findings of mode share from visitor survey respondents. It can be seen that merchants over-estimate the proportion of customers who drive and cycle to the Danforth, and underestimate the proportion of customers who walk and take transit. These perceptions could be based on the current assumption held by many business owners that more on-street parking is highly important for the convenience of patrons to an area, and is therefore vital for the success of the business (Arancibia, 2013).

In order to maximize the economic profit of merchants on Danforth Avenue it is important to understand and accommodate the needs and preferences of the residents and visitors who spend the most time and money in the area. The allocation of space on the street may be best determined by using this information, combined with the known travel modes used by visitors. Different transportation modes reported in our survey give an indication as to the preference of visitors to the area, and the modes of transportation that they use.

5.1 TCAT STUDY COMPARISON

TCAT previously conducted two parking and active transportation surveys along Toronto's main street neighbourhoods: Bloor-Annex Neighbourhood, and the Bloor-West Village. This was a similar survey was conducted in this study along Danforth Avenue, also known as Greektown. The three study areas are somewhat similar in terms of streetscape and characteristics of the local population. In Bloor West Village, the width of Bloor Street is approximately 16.5 metres, this includes on-street parking in the curb side travel lane on the north side during off-peak hours (TCAT Bloor-West Report). In the Bloor Annex Neighbourhood, the width of Bloor street is typically 12.2 metres, and on-street parking is provided during off-peak hours and in the off-peak direction at peak hours in the curb side travel lane (Cleanairpartnership.org). However, Danforth Avenue, is a major arterial road with a width of approximately 14.5 metres (Danforth Avenue, The City of Toronto), including on-street parking in the curbside travel lane during off-peak hours on the south side. The typical road width for arterial roads is of 12m according to (FHWA). This means that similar to Bloor-west, Danforth Avenue has the opportunity to create bike lanes or widen sidewalks without changing the current amount of on-street parking.

The population characteristics of the Annex (Ward 20), Bloor-West Village (Ward 13), and Danforth Avenue (Ward 29), are relatively different.

The average household income is the highest in Bloor-West Village ($97,091), then the Annex ($81,301), and the lowest in the area surrounding Danforth Avenue ($71,326). Table 5 shows that Bloor-West Village and the Danforth Avenue area, have a higher number of respondents that use their automobile for work trips whereas the Annex has the least amount of respondents that use their automobile for work trips. A total of 71% non-work trips are made by automobile in Bloor-West Village, and 67% around Danforth Avenue, and only 45% in the Annex. It is assumed that households with higher income tend to have higher car ownership. This is revealed through the high numbers of respondents who depend on their automobile for work and non-work trips in Bloor-West Village (City of Toronto, 2006a,b,c).

One of the most interesting findings that emerged in comparing these studies was the difference between the merchants' perception of their customers travel modes and the actual travel modes reported by the visitors. In the Annex study, results show that nearly 75% of business owners/managers believe that less than 25% of customers drive to get to their business. Results of the Annex visitor's survey shows that only 10% of the respondents drove to the Annex (TCAT Annex Report). Bloor-West Village survey results show that 69% of the merchants surveyed believed that more than 20% of their customers drove. In actuality, according to their visitor survey data, 21% of visitors surveyed reported they do usually drive to Bloor West Village (TCAT Bloor-West Report).

Compared to our survey results, almost half of the merchants believed that less than 24% of their customers drive to get to their business. According to our visitor results, 19% of the respondents drove to Danforth Avenue. In all three studies merchants consented around an approximate margin that 20% of their customers drove to their businesses. In two of the three cases, the results showed that lower than 20% of visitors drove to area.

Another interesting finding is the visitor consumption patterns of the studies. For the Bloor-West Village study, results show that 88% of visitors came to the area for goods and services. As for the Danforth area, we found that 58% of survey respondents visited for goods and services. The Danforth results are 30% less than those of the Bloor-West Village, this could be justified by the fact that some visitors were residents of the area, and stated that they were at the Danforth simply because they lived there. The Annex study cannot be included in this category of comparison because they did not include this survey question in their report summary.

A summary of comparisons between merchant and visitor survey results of all three studies is displayed in Table 5 below. Visitors of the Danforth Avenue were more comprised of individuals who lived or worked in the area, compared to the results of the Annex Study and

the Bloor-West study. In terms of the Danforth study, 82% of visitors reported that they lived or worked in the area, while for the Bloor-West Village study it was 70% and the Annex was 55%. When comparing the marginal difference between visitors who reported they lived or worked in the area versus those who reported that the do not, the Danforth avenue has the biggest marginal difference between visitor responses. This shows that the majority of visitors in the Danforth area are people who live or work in the area, compared to the smaller percentage that do not.

To coincide with the data TCAT reported, we will only compare the percentages of people who work or live in the area, merchants and visitors' modes of travel, and their preferences in terms of proposed changes to street use allocation. It is important to note that our study added more proposed changes to street use allocations, as well as a taxi as an option for a mode of travel in the survey questions, which were not in the other two TCAT study surveys. According to the results of the mode of travel to the locations, the highest percentages are from respondents who walk to the locations which shows that majority of them are locals. Motor vehicle use is the second highest percentage in the Bloor West Village, and the third highest percentage in Danforth, but in the Annex it is the least used mode of travel. Transit is the second most used mode of travel in the Annex whereas it is the second most used mode of travel in Bloor West Village and the third most used mode of travel in Danforth. The Annex has the most cyclists compared to Bloor West Village and Danforth where it is the least. The additional mode of travel we added to our survey is taxi use which results show as the lowest used mode of travel next to cycling. Our data was collected during the winter, which could explain the low cycling rate.

	Annex	Bloor West Village	Danforth
Total Combined Number of Surveys	538	510	214
Live/Work in Area			
Yes	55%	70%	82%
No	45%	30%	18%
Mode of Travel to the Location(s)			
Walk	46%	46%	43%
Bicycle	12%	5%	2%
Transit	32%	24%	26%
Car	10%	21%	27%
Taxi	N/A	N/A	2%
Preferences in Changes to Street Use Allocation			
Widened sidewalks & less On-street Parking	16%	15%	11%
Bike lanes & less On-street parking	62%	43%	13%
More Off-street Parking, less On-street; Widened Sidewalk and additional Bike Lane	N/A	N/A	30%
More Off-street Parking, No Other Changes	N/A	N/A	29%
No Change	22%	42%	17%

Table 5. Summary of TCAT comparison

In terms of preferences in street allocation changes, both the Annex and Bloor West Village surveys by TCAT show that majority of respondents prefer bike lanes rather than widened sidewalks or having no changes at all. Danforth Avenue results show that the majority of people prefer no changes to street use on Danforth Avenue in comparison to TCAT's studies. We also added other options for preferences in changes to street use allocation such as: increased off-street parking which 29% of respondents preferred, and the option of having widened sidewalks, bike lane, more off street parking, and less on-street parking which 30% of respondents preferred. In general, a proposed change in street use allocation that would allow more walking and cycling infrastructure were received more positively in the Bloor Annex neighbourhood than in Bloor West Village and the Danforth Avenue.

6 SCENARIOS

CURRENT SITUATION

Danforth Avenue is composed of hundreds of shops, restaurants and services. This is a destination neighbourhood for all to enjoy delicious and cultural food, shopping, cafes, bars and theatres. At the moment, the area of the Danforth extending from Broadview Avenue to Pape Avenue is characterized by an abundance of on-street parking. This was confirmed during multiple field visits, where parking was found on both sides of the street at most hours of the day. This excludes certain peak hours during which parking is prohibited on certain sides of the street to allow traffic flow. There are four lanes of traffic as well as a centre median. Two of the lanes are currently being used mostly for on street parking, the median is used as a left turn lane, leaving two lanes for moving traffic. Pedestrians fill the sidewalks located on both sides of the street. Though there are no bike lanes, there are many bicycle locking rings placed by the city of Toronto, allowing people to lock their bicycles. Many restaurants have patios encroaching onto the sidewalks, narrowing the walking space for pedestrians at times. The current state of the Danforth is such that residents, visitors and businesses may benefit from a greater focus on catering to pedestrian and cycling traffic as opposed to only vehicular traffic

SCENARIOS

It is important to understand that initially, when creating our survey questions, we based our potential street change options on the options given in the two previous TCAT study surveys. The three potential street change options that merchants and the patrons could choose from in the previous TCAT surveys were: "Widened sidewalks", "Bike lanes", and "No change" (Clean Air Partnership, 2009). However, in our surveys, we added two options to make sure that all grounds were covered. We added an option which suggested; More off-street parking and fewer on-street parking; widened sidewalks, and a bike lane, as well as an option which suggested; More off-street parking and no change in the number of on-street parking, sidewalks or bike lanes.

We based the creation of our scenarios on these five survey options, which represent options for potential future change that were discussed with the survey respondents. The combination of the resultant findings of this study, examples of current successful streetscapes worldwide, and of good planning practices is what allowed us to come up with six different scenarios, which are graphically represented below. These six scenarios were created to inform our recommendation.

6.1 SCENARIO A: WIDENED SIDEWALKS ON DANFORTH

This scenario relates to the survey option:

a) Widened sidewalks on Danforth Avenue even if that means less on-street parking

The first scenario proposes the integration of widened sidewalks on Danforth Avenue. This would entail reducing the amount of on street parking, and using one lane to widen the sidewalks on either side of the street. There are many benefits to widening sidewalks such as: "They not only encourage more pedestrian use, but also improve safety, calm traffic, and have the potential to revitalize the economy of the street" (Lowber, 2013).

Figure 18.Scenario A

6.2 SCENARIO B: BIKE LANES INTRODUCED

This scenario relates to the survey option:

b) A bike lane on Danforth Avenue even if that means less on-street parking

The second scenario proposes the integration of bike lanes onto the major street of Danforth Avenue. This would involve creating bike paths which would be separated from vehicular traffic by a buffer space. Cyclists have reported feeling uncomfortable biking between fast moving traffic and the zone where parked cars open their doors. This could cause cyclists to have to dodge into traffic unpredictably, something that is both unsafe for motorists and bicyclists. In fact, according to TCAT (2010), cyclists getting hit by car doors being suddenly opened in their path is a very common type of collision on Bloor-Danforth, resulting in serious injuries. It is for this reason that buffered bike lanes are the optimal choice for Danforth Avenue. This buffer space would give adequate spacing separating the bicycle lane from the adjacent vehicular traffic (UBDG, 2014). However, in order to implement bike lanes on either side of the street the removal of one current road lane would be necessary.

Figure 19. Scenario B

6.3 SCENARIO C: MORE OFF STREET PARKING AND LESS ON STREET PARKING; WIDENED SIDEWALKS, AND BICYCLE LANE

This scenario relates to the survey option:

c) More off-street parking and less on-street parking; widened sidewalks, and a bike lane.

This rendering represents option c) of the survey which calls for more off-street parking and fewer on-street parking; widened sidewalks, and a bike lane. This scenario requires that a more in depth analysis be done on emerging on-street parking strategies across North America. Using San Francisco (NSIMDA, 2012) as a guideline, the third scenario considers the importance of keeping a considerable amount of on street parking while taking into account the importance of Active Transportation. This strategy will implement the idea of "pocket"parking, which consists of space being allocated for parking in infrequent intervals and gaps along the sides of the street. This will allow for an increased pedestrian realm, widening sidewalks in the areas where parking it not, white still maintaining some existing on street parking. The implementation of a bike lane would involve creating bike paths, which would be separated from vehicular traffic by a buffer space. Cyclists have reported feeling uncomfortable biking between fast moving traffic and the zone where parked cars open their doors. This could cause cyclists to have to dodge into traffic unpredictably, something that is both unsafe for motorists and bicyclists. It is for this reason that buffered bike lanes are the optimal choice for Danforth avenue. This buffer space would give adequate spacing separating the bicycle lane from the adjacent vehicular traffic. (UBDG, 2014) The drawback for such a strategy is that if not properly implemented, it may be an inefficient use of space. (NSIMDA, 2012)

Figure 20. Scenario C

6.4 SCENARIO D: NO CHANGE IN EXISTING STREET SCAPE

This scenario relates to the survey option:

d) More off street parking and no change in the amount of on-street parking, sidewalks or bike lanes

This scenario represents there being no changes made to the current layout of the street as suggested by option d) of the survey, but adding additional off street parking. This may be done by increasing the amount of Green P parking lots near-by, or by intensifying existing Green P parking lots. The current state of Danforth Avenue is such that it is mainly geared towards the automobile as the main method of transportation, making the neighbourhood surrounding Danforth Avenue a very auto-centric one. Local retailers are strongly opposed to the elimination of on street parking as they believe that this will lead to a loss of accessibility for their customers, which in turn will result in less business. (de Jong) Despite the fact that this is the typical belief of merchants, there is little to no evidence and literature supporting this hypothesis. In fact, surveys have proven that there is little to no perceived impact on businesses after the elimination of on street parking (de Jong). The drawback in making no change to the current layout of the street is that we are not moving towards "Green Transportation" or promoting healthier neighbourhoods. Conditions will remain the same.

Figure 21. Scenario D/E

6.5 SCENARIO E: NO CHANGE

This scenario relates to the survey option:

d) No change

This same rendering could be used to illustrate option e) which entails there being no change at all to the current state of Danforth Avenue. This answer would be most-likely chosen by merchants for the above-mentioned reasons.

Figure 22. Scenario D/E

6.6 SCENARIO F: ELIMINATES ON STREET PARKING COMPLETELY, INCORPORATE WIDENED SIDEWALKS, AND BIKE LANES ADDITIONAL OFF-STREET PARKING IS PROVIDED

* This was not an option provided on the surveys, however, this may be an optimal option that we can strive for and hope that could be implemented one day.

This scenario encourages more transportation modes through parking reform. The plan is to completely eliminate the use of on-street parking, adding bike lanes/racks for cyclists, and widen sidewalks to enhance the quality of life and extend the pedestrian realm. Eliminating on-street parking will make the area a more accommodating place for pedestrians. Additional bike lanes will be implemented on both side of the existing streetscape following the direction of the automobiles. A wider sidewalk will provide more space for street furniture, which will enhance community engagement. Therefore, these design strategies will cater to the needs of the pedestrians and cyclists and encourage active living. In order to permit drivers access to Danforth avenue, additional off-street parking could be added in the form of more Green P parking lots, or more intensified existing Green P parking lots.

Figure 23. Scenario F

7 CONCLUSION AND RECOMMENDATION

The largest proportion (47%) of merchants chose option D, the *optimal parking* option (no change in the current layout of the street, with additional off-street parking), as their first choice of changes they would prefer to see made to Danforth Ave. This, we believe is due to the current assumption that many merchants have that more on-street parking would mean more business. (Arancibia, 2013). Our study, however, has shown that the majority (81%) of the visitors to Danforth Avenue use public transit, walk, cycle or take taxicabs. For this reason, we feel that the prioritization of additional parking by business owners is not justified by our findings.

The largest proportion of visitors (38%) who frequented the area the most, and who spent the most money in the area chose option C (widened sidewalks, a bike lane, reduced on-street parking with additional off-street parking) as their optimal choice for changes they would like to see made to Danforth Avenue. It seems as though the visitors showed a strong preference toward walking/cycling infrastructure, while trying to maintain the current parking supply.

If the merchants concern is in relation to a shortage of parking in the Danforth area, this would be addressed in option c) by adding additional off-street parking either by intensifying current Green P parking lots or by adding additional Green P parking lots to current vacant lots in the surrounding area.

Only 2 cyclists were surveyed over the course of our fieldwork. It is important to note that the number of cyclist respondents is very low, and consequently almost insignificant in our results. This lack of representation in our results is heavily affected by the time of the year during which this survey was conducted. The windy and cold weather conditions taking place at the time of the survey are certainly not optimal for cyclists. Results may well have been very different during the summertime, as shown by our findings. Visitor survey responses indicated an increase in bicycle mode share during warmer months. One existing survey on this topic states that if cycling infrastructure and amenities are built, there will be a definitive increase in the number of users of the service (Cervero & Kockelman, 1997). This position is further reinforced by our findings: the largest proportion of visitor survey respondents chose option C, the option which provides for more off street parking, fewer on-street parking, widened sidewalks, and a bicycle lane. This indicates a clear interest in active transportation investment.

Drivers make up only 19% of the visitors on Danforth Avenue. Pedestrians, public transportation users, cyclists and taxi users make up 81% of visitors and all these modes of transportation do not require parking. Conceivably, more cyclists will visit the area in the summer regardless of bike lane implementation. The data shows that over 15% of respondents said that they would bike to the area in summer and providing bike lanes may support this mode of travel, as well as improve safety. The widened sidewalks would make room for additional space to walk around restaurant patios and would be the perfect opportunity to incorporate more trees, benches, and other street furniture that would make the street more pedestrian friendly. Most importantly, both of these changes would improve accessibility to Danforth Avenue. It is therefore beneficial to all to accommodate the types of visitors that are on Danforth Avenue the most. This will not only be economically profitable for merchants, but will also entice current visitors to want to come to the area more, and will attract larger numbers of people.

We feel that it is advisable to accommodate the types of visitors that frequent Danforth Avenue, especially those who visit the most often. The addition of a bike lane and widened sidewalks would improve accessibility to Danforth Avenue for the reported 81% of visitors who do not arrive by a motor vehicle. This will not only be economically profitable for merchants, but will also entice current visitors to visit the area more often, and will attract larger numbers of people.

The removal of one lane of on-street parking, in order to make room for the widened sidewalks and bike lanes would reduce on street parking by approximately half. However this would be compensated for by providing additional off-street parking in the form of more Green P lots, or by intensifying existing Green P lots. It is important to note that survey data shows that the loss of business associated with the loss of on street parking would most likely be more than made up for by the amount of non-driving visitors that would be attracted to come to the area as a result of the new street changes that improve the bicycling and pedestrian environment.

Based on best planning principles, option C seems to incorporate several important components to building a healthy and vibrant community. Bike lanes and widened sidewalks, help to encourage a physically active population, with increased mobility and connectivity of transportation modes. Aside from this, beautifying elements such as greenery, street furniture, and improved lighting encourage greater leisure time spent at the street level, encouraging more community interaction and increased levels of safety on the street through natural surveillance. Before recommending this option, however, we wanted to support the choice with evidence from the field. Survey results indicate that many people are in fact interested in the incorporation of bicycle lanes and improved pedestrian realm. By interpreting these results in conjunction with principles of good planning, it seems clear to us that the option for bike lanes, improved aesthetic and streetscape, and increased walkability would contribute to a healthy, vibrant community along Danforth Avenue.

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APPENDIX

APPENDIX A: MERCHANT SURVEY

1. On average, about how many customers do you serve per day? (Choose one option per column)

Weekday	Weekend
a) Less than 25	a) Less than 25
b) 25-49	b) 25-49
c) 50-99	c) 50-99
d) 100-199	d) 100-199
e) 200 or more	e) 200 or more

For the purpose of this survey, the Danforth neighborhood is defined as the area along Danforth Avenue between Pape Avenue and Broadview Avenue

2. What percentage of your customers or clients would you estimate used the following modes to get to the Danforth Area?

____ % drove to the Danforth Area

____% Biked to the Danforth Area

____% Used Public Transportation to get to the Danforth Area

3. How do you usually get to the Danforth area? (Choose one)

a) Walk

b) Bicycle

c) Public Transit

d) Taxi

e) Car: Where did you park? (intersection/block or Green P lot) _____

f) Other _____

4. Would your usual travel mode be the same during the summertime as it is now? If not, what mode would you opt to use?

a) Yes

b) No : Other mode_____

5. If the City of Toronto was considering changes to the street, which of the following would you prefer? (Choose one only)

a) Widened sidewalks on Danforth Avenue even if that means fewer on-street parking;

b) A bike lane on Danforth Avenue even if that means fewer on-street parking

c) More off street parking and fewer on-street parking; widened sidewalks, and a bike lane.

d) More off street parking and no change in the number of on-street parking, sidewalks or bike lanes

e) No change

Date: _____, 2014

Day of the week:

Time: ___:___

Name of business & property number: _____

Type of Business: Circle an option

a) Retail b) Restaurant/Bar c) Services d) Other (Specify: _____)

Interviewer(s): _____

APPENDIX B: VISTIORS SURVEY

1. Do you live or work in the area?

a) Yes

b) No

2. In a month, how many days approximately do you visit the Danforth Avenue?

_____

3. On average, approximately how much money do you spend in a month in the Danforth area?

a) Less than $25

b) $25-$75

c) $75-$100

d) $100-200

e) $200-300

f) $300 or more

4. What is the purpose of your trip to the Danforth today? (Circle all the options that apply)

a) Shopping

b) Restaurant/Bar

c) Services (e.g., copy centre, medical or legal)

d) Visiting friends

e) I live here

f) I work here

g) I'm just passing through

h) Other _____

5. How do you usually get to the Danforth area? (Choose one)

a) Walk

b) Bicycle

c) Public Transit

d) Taxi

e) Car: Where did you park? (intersection/block or Green P lot) _____

f) Other _____

6. Would your travel mode be the same during the summertime as it is now? If not, what mode would you opt to use?

a) Yes

b) No : Other mode_____

7. If the City of Toronto was considering changes to the street, which of the following would you prefer? (Choose one only)

a) Widened sidewalks on Danforth Avenue even if that means fewer on-street parking;

b) A bike lane on Danforth Avenue even if that means fewer on-street parking

c) More off street parking and fewer on-street parking; widened sidewalks, and a bike lane.

d) More off street parking and no change in the number of on-street parking, sidewalks or bike lanes

e) No change

8. Would you expect to come to the Danforth more frequently, less frequently, or the same based on these possible changes: (Check the applicable box)

Possible Change	**More Frequently**	**Less Frequently**	**Same**
Wider Sidewalks			
An addition of a bike lane			
More off street parking			
No change			

9. Where do you live?

a) Nearest intersection: _____

b) Postal Code _____

Date: _____, 2014

Day of the week

Time: ___:___

Survey Location: _____

Interviewer: _____