Community Action Plan for Life
Iroquois Ridge High School
Walk and Bike for Life is a not-for-profit organization dedicated to improving awareness of the benefits of walking and cycling as activities, and of urban parks and trails as great places. Walk and Bike for Life is committed to empowering communities through community participation and education. Currently, Walk and Bike for Life is working with 10 communities in the Hamilton, Halton and Peel regions as part of the Community Action Plan for Life project, funded by the Ministry of Health Promotion's Communities In Action Fund. This project provides these 10 communities with the tools to advocate for improved public spaces and pedestrian and bicycling facilities. It engages local citizens through a series of public meetings and workshops, culminating in the creation of local Community Action Groups (CAGs) who will take on the implementation of their individualized action plan with Walk and Bike for Life's continuing support.

Biography: Gil Penalosa, Executive Director, Walk & Bike for Life

The Community Action Plan for Life project is the brainchild of Walk & Bike for Life Executive Director, Gil Penalosa. A leading executive and urban strategist with years of public and private sector senior managerial experience, Gil is celebrated around the world for his ability to create walkable, bike-able cities with healthier, happier residents.

Gil is perhaps most famous for his achievements during his tenure as Commissioner of Parks, Sport and Recreation for the city of Bogotá, Colombia. In Bogotá, a metropolis of 7 million people, Gil led his team to design and build over 200 parks, of which the best known is the Simon Bolivar (360 hectares/899 acres).

Under Gil’s leadership, Bogotá was revolutionized through the opening of 91 kilometres of car-free city roads on Sundays. These Sundays are now known as the Ciclovia, where over 1.5 m people come out weekly to walk, run, skate and bike. The Ciclovia model has captured imaginations globally and is emulated in cities large and small.

Because of his uniquely effective blend of pragmatism and passion, Gil’s leadership has been sought out by many organizations. Gil works as Director of Healthy Places Initiatives with NYC’s Project for Public Spaces and as Senior Consultant for the renowned Danish firm Gehl Architects. He serves on the Boards of Directors of American Trails, City Parks Alliance, International Sport and Culture Association, as well as on Advisory Committees of America Walks, Green GTA and WalkON.

Gil is a much sought after international speaker and consultant. In his presentations and workshops on creating better communities, Gil demonstrates how walking and bicycling, and parks and trails, can promote economic development, environmental sustainability, public health, efficient transportation, and recreational opportunities for all people, regardless of social status or physical ability. The Community Action Plan for Life project makes Gil’s expertise and flair for innovation available to communities throughout Southern Ontario as they attempt to build great places and become vibrant cities with happy, healthier residents.

Gil holds a Master in Business Administration degree from UCLA’s Management School. He lives in Ontario, Canada and enjoys outdoor activities with his wife and their three children.
Iroquois Ridge High School

The Ridge is guided by a tradition of excellence and motivated by a commitment to innovation. Our teachers and administration are dedicated to the students and the broader school community. Our students, in turn, are known for their academic and co-curricular achievement, not to mention their school spirit and strong friendships. We are proud of our school, and happy to extend a warm welcome to you.

Ministry of Health Promotion - Active 2010

The Ministry of Health Promotion was created in 2005 with a mandate to support and deliver programs promoting healthy lifestyles and healthy choices in the province of Ontario. The Ministry focuses on a number of key priority areas including active living, healthy eating, injury prevention, Ontario’s smoke-free strategy, and mental health. As part of its work the Ministry of Health Promotion has established the Communities in Action Fund, a $5 million fund established to support the projects of over 100 not-for-profit organizations that are dedicated to increasing levels of physical activity and sport participation in Ontario.

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The life of a teenager in a town of just over 200,000 people would seem to many a perfect hub for things to do and keep a restless teenager busy, however many teens in Oakville seem to sing the same song, “There is nothing to do in Oakville.” For me, however, I see a small town that is tight knit where everyone knows everyone and the community creates the town not the town creating the community. Now, can Toronto do that? Sure we don’t have Queen Street, but we have Lakeshore, we don’t have events like Luminato, the Pride Parade or the Carabana, but we have the Waterfront Festival, Midnight madness and the Jazz Festival. These small, but community-based, events are what Oakville is made up of, we work together to create a great place to live and enjoy, and a place that is safe and meets the needs of the public.

With that being said, the workshop provided by the Walk and Bike for Life organization was dedicated to improving awareness of the benefits of walking and cycling as activities and their impact on creating healthier communities where its residents live happier. This common goal between Walk and Bike for Life and IRHS allows us to work together to achieve a more walkable community.

Since Oakville is a small town, it only takes a short drive to get around, however what about biking and walking? These common methods of transportation tend to be overlooked and as a result many of the businesses, residential buildings and roads in Oakville were built for the use of driving. This of course is a problem for those who prefer the use of bikes, walking or another method of transportation aside from driving.

As a result, Iroquois Ridge High School was one of the many buildings victim to a driving system. Initially IRHS was built and meant to be a walkable school with no school buses. However, sooner or later students and faculty needed to find a way to get to school, and the main choice was driving, this needed to change once we saw approximately how many cars, 500 to be exact, came in every morning dropping off students. The need to create a more healthy and safe environment fueled my cause to make IRHS more walkable. However this would require the school and communities involvement, with students from the grade nine and ten classes at IRHS, we worked together to pinpoint places in Oakville and at IRHS where more attention to detail was needed. As a result, working together with the school and community, Walk and Bike for Life, the teens of IRHS established an understanding of what a safe and walkable town, and school, looks like.

The importance of having the community and school involved with the workshop provided by Walk and Bike for Life, gives students the opportunity to speak out, develop leadership skills, and help make IRHS and the community a better place for them and others to live. The community involvement with the workshop is equally valuable, as the community is what the town of Oakville is made of, with the community contributing their time and opinions into the workshop we are able to create an even greater town that fits the public’s needs.

The community can benefit so much from this experience because we are able to make our voice heard and have a positive impact on how our community continues to unfold in the years to come. As well, through this workshop we have been able to continue the tradition of keeping the community involved with the town, and to back up the implementation of the recent Active Transportation Master Plan by the Town of Oakville “…that will identify links and extensions of existing bikeways, sidewalks and trails, as well as create new walking and cycling connections throughout the town.” By continuing to look towards the community and schools, we can help to develop a healthier and more environmentally sound community, and follow the idea that the community creates the town not the town creating the community.

Odessa Cohen
Iroquois Ridge High School Student
Executive Summary

Iroquois Ridge High School is located in the north east end of Oakville. Its current population is 1,366 students making it the fourth largest high school in the city. Like many GTHA cities, the Town of Oakville will be experiencing an unprecedented rate of population growth over the next 22 years. The Region of Halton in which Oakville lies is expected to grow by 63%, this would bring the population of Oakville from 165,613 to approximately 269,464 people by 2031.

With the introduction of new provincial growth standards promoting densification, established ‘urban growth centres’ such as Oakville have the potential to truly re-envision how they want to build and live within their communities.

A city is only a means to a way of life. If we choose to plan and design our cities for people, we must do it in a way that maximizes people’s happiness and quality of life. For decades, city planning has been focused on cars’ mobility. A human-scaled approach to planning recognizes the benefits to providing safe and convenient facilities for people to walk and bike as a means of transportation and recreation. This approach also emphasizes the importance of parks, trails, and public spaces as great places for interaction and community cohesion.

Walk & Bike for Life initiated the Community Action Plan for Life (CAP) project to address these emerging issues in southern Ontario. The Oakville community was chosen as one of the 10 pilot communities of the CAP project, the goal of which is to engage citizens in local active transportation issues and empower them with tools and resources to promote walking and bicycling in their community.

On Thursday, March 26th, 2009 members of the Walk and Bike for Life team facilitated a 3-hour workshop to gather ideas from students on how to improve the overall walkability, bike-ability, and quality of life in Iroquois Ridge High School in Oakville. A total of over 200 students attended the presentation. It began with the “Walking, Cycling and Public Spaces” presentation by Gil Penalosa. Participants were split into groups of 4-6 people and each group was given a Group Activity Sheet to fill out concerning their long and short-term recommendations for making Iroquois Ridge and Oakville more pedestrian friendly, cycling-friendly and an overall great place. Each group then presented their recommendations to the room, discussing and comparing their ideas with those of other groups. Participants also filled out Individual Surveys. Recommendations distilled from the discussions, surveys, Group Activities Sheets and group presentations are compiled and summarized in the “What You Said” section of this report.

Key recommendations from the students included programming initiatives such as incentive programs to encourage students to walk and bike to school; policy changes such as sidewalk maintenance in terms of snow clearing; infrastructural improvements such as a higher quantity and security of bike racks, wider and physically separated bike lanes, more varied recreational areas such as beach volleyball courts and off-road biking trails and traffic calming throughout the neighbourhood.
Iroquois Ridge High School and surrounding Oakville community

Iroquois Ridge High School is located in the north east end of Oakville. Its current population is 1,366 students making it the fourth largest high school in the city. Like many GTHA cities, the Town of Oakville will be experiencing an unprecedented rate of population growth over the next 22 years. The Region of Halton in which Oakville lies is expected to grow by 63%, this would bring the population of Oakville from 165,613 to approximately 269,464 people by 2031. With the introduction of new provincial growth standards promoting densification, established 'urban growth centres' such as Oakville have the potential to truly re-envision how they want to build and live within their communities.

Three major highways intersect the town (QEW, 403, 407) and the town has two major GO train stations: Oakville GO and Bronte GO which transport a large number of commuters heading toward the urban areas of Toronto to the east, and Hamilton to the west. The city is also served by Oakville Transit, which operates approximately 27 bus routes across the city.

Oakville is ideally located along the Toronto-Niagara corridor on the northern waterfront of Lake Ontario. This is one of the many reasons why it has one of the highest median household incomes in Canada. Additionally, Oakville has a higher than average youth population with the percentage of youth 4% higher than the national average. Both of these factors make the development of a walkable, bikeable, more vibrant Oakville not just nice, but necessary.

Oakville has shown recent progress with regards to recognizing the importance of pedestrian and cycling infrastructure. The town recently underwent an Active Transportation Master Plan study to ‘identify necessary changes and additions to its cycling, sidewalk and trail network throughout Oakville’. This plan aims to improve connections with transit and destination points in order to encourage walking and cycling as everyday transportation modes.

Walk & Bike for Life encourages Iroquois Ridge High School to use this plan to push forward their initiatives to make Iroquois Ridge more walkable, bikeable, and an overall great place. While Oakville has been taking recent strides to broaden its view of transportation, the city continues to be car-oriented and this plan still lacks the bold changes necessary to truly transform the physical and cultural landscape of the town.

Since the 1950's the predominant type of development has been low-density, spreading outward from the downtown. This land use pattern outside the downtown area has encouraged a dependency on cars. This is supported by Canadian census data from 2006, which reveals that 81% of Oakville residents commute by car while only 14% use public transit and 4% walk or bike. Given the present modal split in Oakville, it is important that decisions are made and actions taken to significantly increase the presence of walking and cycling while reducing car dependency.

Based on the immense growth projected for the area, high population of youth and strong financial stability, Iroquois Ridge High School has a fantastic opportunity to help build a school, neighbourhood and town that is great for all ages to walk, bike, and live a great life.
Chapter 1
Walking and Bicycling: More than just fun and games
Walking and bicycling: More than just fun and games

It would be easy to write a laundry list of the perfect conditions needed to make the case for active transportation. These could include; increased public concern and awareness about environmental degradation, climate change, a global economic crisis, an obesity epidemic, and worsening traffic congestion. Today, all of these conditions exist, creating a perfect storm of challenges that make investing in safe and convenient walking and bicycling facilities relevant solutions to many of today’s problems.

Walk & Bike for Life has developed the EARTH umbrella concept, which represents a shelter from the storm of challenges we are facing today and describes the numerous benefits of walking and bicycling in detail.

The EARTH concept

Environment

Only a few years ago scientists questioned the very existence of human-induced climate change. Now there is general agreement within the scientific community that global atmospheric concentrations of greenhouse gases such as carbon dioxide have increased markedly as a result of human activities, particularly through the use of fossil fuels and land use change. In 2004, emissions from the transportation sector accounted for 25 per cent of all the greenhouse gases emitted in Canada. Private vehicles alone (passenger cars and trucks) account for over 11 per cent of total GHG emissions. With such a significant portion of our emissions released through transportation, moving toward more sustainable transportation options such as public transit, bicycling, and walking could drastically reduce Canada’s carbon footprint.

Shifting away from private car use and toward non-motorized forms of transportation is less daunting than one might think. Research shows that a large percentage of trips made by car are within walking and bicycling distance. Metrolinx, the regional transportation authority in the Greater Toronto and Hamilton Area, reported in 2008 that 40 per cent of the total trips taken across the GTHA were within biking distance (under 5 km) and 17 per cent were within walking distance (under 2 km).

Calculations based on data from Environment Canada’s greenhouse gas inventory, population statistics from Statistics Canada, and Transport Canada’s urban transportation emission calculator reveal that if each Oakville driver walked or biked to work one week in a year, the neighbourhood could reduce its annual emissions by 813.08 tonnes (see Appendix C for calculations).
Economic Activity

In the 19th century, wealth was measured in terms of land, making land the most valuable of any asset. By the 20th century the market’s focus had shifted to capital. Today, people are at the heart of the economy. Attracting and retaining highly educated, creative people is the greatest challenge facing cities in the 21st century.

In an ever-more globalized world, the most skilled people – be they carpenters, artists or doctors – can live anywhere they choose. Why live in Mississauga and not Vancouver, Paris or Sao Paulo? A walkable, bikeable community is a critical factor in creating lively, attractive neighbourhoods, and quality of life has become a main element of economic competitiveness.

Mercer’s Quality of Living survey, used by thousands of companies to decide where to locate their offices, recognizes the importance of active transportation. Pedestrian and bicycling facilities positively influence 5 of the 10 categories used in the survey to determine the best places to set up a business.¹

Vibrant commercial districts, and the small businesses which populate them, rely heavily on foot traffic. Walkable, bikeable neighbourhoods are safer, more attractive, and more pleasant to shop in. Traffic calming is so good for business that business owners in affected areas often go from initial fear over the loss of parking to passionate support for further traffic calming, both in their own neighbourhood and others.²

Have you ever heard anyone return from a vacation in Paris and talk about how beautiful the highways were?

Great public spaces, pedestrian plazas, parks and trails attract tourists and generate economic activity. Tourism is a billion dollar industry. In 2007, tourism in Canada generated $19.7 billion in government revenue alone.³ The cities making the most of this service industry are inclusive of all types of people. Crucially, these cities recognize that tourists are primarily pedestrians. Increased investment in the unique beauty of Canadian cities through well-placed trails, parks and public spaces will add to the appeal – and bank accounts – of our neighbourhoods.

¹ Categories positively affected by high quality pedestrian and bicycle infrastructure: Medical and Health Considerations (Air Pollution), Natural Environment (Climate), Public Services and Transit, Recreation (Sport and Leisure Activities), Socio-Cultural Environment (Limitation on Personal Freedom).
Recreation

In the year 1700, most physical activity took place in the workplace. In North America in 2008, only about five per cent of our physical activity takes place in the workplace, while recreational activities account for 30 per cent (Figure 2).

Walking, bicycling, and running are now some of the most popular forms of physical activities in the world.

In addition, current trends show that people are turning increasingly to unscheduled and unorganized activities such as walking and bicycling as a form of daily exercise. According to Statistics Canada’s 2005 Community Health Survey walking is by far the most popular form of physical activity in Canada, with bicycling placing in the top five.

These activities are free of charge, enjoyable in groups or alone, and accessible to all ages.

In order to build communities that facilitate participation in these activities, it is important to provide city dwellers with the facilities that encourage spending time outdoors. Well-maintained and managed trails, urban parks and public spaces allow residents to enjoy, relax and take pride in their city.

In addition, more localized recreational facilities encourage more frequent use by community members because people have both a physical and mental connection to them. That is, these facilities are physically accessible to users through a short walk or bike ride and mentally connected to them as a result of frequent events, festivals and promotions. For example, you are probably more inclined to take your dog for a walk on a Thursday evening if you can walk to the nearby neighbourhood trail or park as opposed to driving to it. You may even be more inclined to take that walk if you can grab a coffee on your way, or if there are interesting things happening in and around the trails or park.

Recreation is something more than what people do on the weekend.

by building and improving upon community trails, parks, greenways, and public spaces it can become part of people’s daily routine and serve as a way to unwind, connect with nature, and to just have fun.

A functional and inviting public space provides a number of opportunities for different activities to take place; Portland, Oregon

Wading Pool; Portland, Oregon
Transportation

Transportation is about moving people, not about moving cars. Yet the way some North American cities are built, it would appear the opposite is true. Thirty six per cent of Greater Toronto and Hamilton area residents do not have a driver’s license. To live up to the Canadian principles of equity and accessibility, our cities must be built to allow the mobility of those who cannot - or choose not – to drive.

Furthermore, providing safe, extensive infrastructure for cyclists and pedestrians has been proven to alleviate congestion. Such infrastructure paves the way for affordable, convenient transportation, which in turn can have a profound impact on the economy. Traffic congestion contributes to delays in moving goods, lost productivity and higher fuel costs. Congestion costs Ontario over $5 billion in lost GDP every year.

Health

Many Canadians today find themselves driving to the gym to walk on a treadmill. Meanwhile, 23 per cent of Canadians over the age of 18 are obese. Obesity is at the root of a myriad of diseases and health problems, and inactivity is one of the major contributing factors to obesity. Sedentary living is creating a huge strain on our healthcare system and our wallets.

Today, health experts agree that 30 minutes of moderate physical exercise can halve vulnerability to heart disease, control blood pressure and reduce cholesterol. Experts say that exercise also increases energy levels and improves moods, sleeping habits and digestion.

Figure 3: Obesity rates fall sharply with increased walking, bicycling and public.
Characteristics of a Great Place

Public spaces have both “Emotional” and “Quantifiable” benefits. The “Emotional” benefits greatly increase the quality of life of its residents. They are social equalizers and sources of happiness for community members. They also strengthen communities and improve safety in neighbourhoods. The “Quantifiable” benefits of public spaces are ones that can be calculated in terms of several different criteria. They provide benefits that increase property values, increase tourism, increase economic activity, lower health care costs, and create greener more environmentally sound cities by reducing greenhouse gas emissions. xv

Creating great public places is one of the main characteristics of a successful city. One challenge that many cities face is the lack of such places and poor connections to surrounding neighbourhoods. It is difficult to define what exactly makes a great place, it is a subjective topic. Although each great place will be different to almost anyone, there are some common symptoms of great public spaces. xv

GOOD PLACES TO SIT

It is simple but often overlooked. Seating is critical to creating an inviting space for people to rest, people-watch and/or interact.

SOCIABILITY/PEOPLE IN GROUPS

People meeting in groups and being social with one another is an indicator of a great public space.
Creating a Great Place

DIVERSITY

A place with a diversity of ages, ethnicities, and abilities is another indicator of a great public space that is accessible and inviting to all.

HIGH PROPORTION OF WOMEN

Women are much more discerning when it comes to choosing a place. If there is a high proportion of women in a place it usually means the area is safer, cleaner and more aesthetically pleasing.

AFFECTION

People are generally affectionate when they feel comfortable in a place.

In a general sense, these symptoms paint the image of a safe, socially active, comfortable and happy place. The place can either be a neighbourhood corner, a park, an entire community, a district, or a whole city. A variety of these places connected by a great active transportation system can create a city that has so many great places in it that it eventually becomes one great city. This is the goal of many cities, but cities as big as they are, tend to forget that city life blooms on the street corner.
Community Action Plan for Life
Methodology

At Walk & Bike for Life we recognize that citizens hold the greatest expertise when it comes to the communities in which they live. Walk & Bike for Life’s Community Action Plan for Life project uses this idea as the basis for its approach with engaging communities in promoting more walking and bicycling-friendly places. Walk and Bike for Life spent an afternoon at Iroquois Ridge High School in Oakville where we conducted a presentation, workshop and discussion period.

Community workshop

On March 26th, members of the Walk and Bike for Life team facilitated a 3-hour workshop to gather ideas from students on how to improve the overall walkability, bikeability, and connectivity of their school, Oakville and its surrounding communities. It began with the “Walking, Cycling and Public Spaces” presentation by Gil Penalosa. Participants were split into groups of 3-4 people and each group was given a Group Activity Sheet to fill out concerning their long and short-term recommendations for making Oakville more pedestrian friendly, cycling-friendly and an overall great place. Each group then presented their recommendations discussing and comparing their ideas with other groups. Students also filled out Individual Surveys. The results of the discussions, surveys, Group Activities Sheets and group presentations are compiled and summarized in the “What You Said” section of this report.
**Question 1:** Please rate the importance of active transportation for the following:

**Graph 1:** Students rate the contribution of Walking and Bicycling in regards to the environment, economic development, recreation, transportation, personal health, public health, happiness and the creation of great communities.

*Graph 1* shows that students see walking and biking make the greatest contribution to the ‘environment’ (79%) and ‘personal health’ (76%). Students were most sceptical about the contribution walking and biking has to ‘economic development’, with 34% of respondents rating this aspect as low or somewhat low.

**Question 2:** How would you rate Iroquois Ridge as a great place to:

**Graph 2:** Students rate Iroquois Ridge High School as a great place to walk for recreation, walk for transportation, bicycle for recreation, and bicycle for transportation.

*Graph 2* shows that a narrow majority of students rated this area positively or somewhat positively as a place to walk or bicycle for either transportation or recreation. Note however that responses were somewhat negative on walking for transportation, with a significant minority of 46% rating it negatively.
**Question 3:** How would you rate the need for the following programs and facilities in Iroquois Ridge to increase the number of people walking on a regular basis?

**Graph 3:**

Graph 3 shows that infrastructural concerns dominated, with ‘cross-walks’ ‘sidewalks’, and ‘pedestrian-bike bridges’ were rated as high needs by 44%, 42%, and 39% of respondents respectively. ‘Off-road trails near natural areas’ and ‘off-road trails next to side-walks’ were also prioritized, rated as high need or somewhat high need by 73% and 70% respectively.

**Question 4:** How would you rate the need for the following programs and facilities in the Oakville community in order to increase the number of people bicycling on a regular basis?

**Graph 4:**

Graph 4 shows that in terms of bicycling, the most pressing need identified by students was ‘bike lanes with physical separation’ (83%). A range of other facilities and programs were also rated as high need, including ‘better integration with public transit’ (74%), ‘pedestrian-bike bridges’ (70%), ‘bicycle parking’ (65%), ‘promotion at schools’ (65%), and ‘promotion at places of work’ (57%).
**Question 5:** How would you rate the level of connectivity between existing active transportation networks (bikeways, trails, walking paths) to Iroquois Ridge High School?

![Graph 5](image)

Graph 5: Students rate the current level of connectivity of existing transportation corridors to Iroquois Ridge High School.

Graph 5 shows that in terms of connectivity of active transportation corridors to Iroquois Ridge High School, the students believe it is fairly good. 66% of the students gave connectivity a positive rating.

**Question 6:** How often do you walk or bike to and from the school?

![Graph 6](image)

Graph 6: Students rate how often they use active transportation to get to and from school.

Graph 6 shows that almost half, 42% of the students walk or bike to school every day, and another 30% walk or bike once a week or more.
Community Recommendations

Recommendations from the Community Workshop

Each group was asked to discuss possible ways to make the community more pedestrian-friendly, bicycling-friendly, and a great place. The following recommendations were of highest importance for the groups and most in alignment with the results of the individual surveys. The full transcript of all ideas can be found in Appendix A.

YEAR 1 – Low cost, high benefit, good visibility and easy to implement actions that could be taken right away to make Oakville and Iroquois Ridge High School more:

PEDESTRIAN FRIENDLY

- Put traffic lights at the 4-way intersection in front of Iroquois Ridge High School, improve current crosswalks and ensure that all new crosswalks are made more visible; well coloured and textured, well maintained, accessible and safe for pedestrians, cyclists, and transit users.

- Increase snow clearance on sidewalks and popular paths to ensure that the neighbourhood remains walkable throughout the winter for those that walk or bike to school.

- Create an incentive program/promotion for students to use active forms of transportation (ie. receive a free lunch if you are an active walker or receive community hours if you participate in a walk to school program)

- Beautify the sidewalks and public spaces with more trees, flowers, and public art. We could utilize the talents of students to take these projects on.

- Create more safe crosswalks and sidewalks around IRHS and the rest of Oakville to give pedestrians and cyclists more opportunities to cross safely along the local roads.

- Maintain sidewalks and bike trails during the winter times allows people to walk and bicycle.
BICYCLING - FRIENDLY:

- Make existing bike lanes around Oakville and IRHS wider and more visible. This could be done by painting the entire lane a solid colour (green, blue etc.) or creating larger, more visible on street signage.

- Develop more visible, easy to understand signage to alert drivers of young cyclists.

Parking facilities at Abbey Park High School in Oakville. A great example of well placed and highly visible bike parking that is less susceptible to theft and vandalism.

- Take action with security by putting bike racks in safe, secure, and highly visible areas around the school in order to reduce vandalism and encourage biking to IRHS.

- Put bike racks on all local buses to give students who live farther the option to bike the rest of the way.

Bicycle parking at IRHS falls short on security and proximity to the school.

- When building separated bikeways use creative, visually appealing barriers between cars and bike lanes such as flower beds.

Flowers were placed as a physical barrier in The Queen’s Quay pilot project as a great way to introduce a new concept to Torontonians.

- Create more trails and direct physically separated routes to the school in order to get more students to bike and walk to school.

Create more trails and direct physically separated routes to the school in order to get more students to bike and walk to school.
A GREAT PLACE:

- Bring back former dirt jumps as they provided a form of recreation as well as a meeting place for those that used them.
- Add more recreational areas in public parks such as basketball courts, soccer fields, hockey arenas, and bike trails to liven up Oakville's green spaces and provide an active meeting space for young community members. Build upon these spaces by providing food vendors along with other activities.

Build an outdoor sand court for volleyball at IRHS

- More outdoor seating and areas for students to relax and socialize. Make it open, accessible, visible and inviting!

Skate parks act as sources of recreation as well as social gathering spots for youth.

An example of an innovative approach to public seating and pedestrian space.
Excellent public spaces with outdoor patios and aesthetically pleasing streetscapes bring people of all ages out of their homes to socialize and enjoy the street.

- Lower speed limits on popular bike routes that lead to the school
- Upgrade bus stops to be more visible, safe, and well lit
- Hold a contest where ideas and recommendations are taken from residents to create a great community

- Implement a beautification process of the streets in Oakville by providing more parks and urban gardens; planting more flowers and shrubs in public spaces; planting street trees to provide shade for pedestrians; and encouraging the installation of green roofs on buildings.

Bus shelters in London, England that provide real-time digital scheduling

Excellent public spaces with outdoor patios and aesthetically pleasing streetscapes bring people of all ages out of their homes to socialize and enjoy the street.
PEDESTRIAN FRIENDLY

- Create more small and local commercial areas (corner stores, cafes, juice bars) around Iroquois Ridge and spread throughout Oakville that are not just centred at malls and plazas which require a car to drive to.

- Improve the quality and quantity of all pedestrian facilities in the neighbourhood and distinguish sidewalks, crosswalks, bike lanes and car lanes from each other by painting them different colours.

- Widen and repair damaged sidewalks. This should be a priority for road maintenance.

- Build a dedicated lane or bridge for pedestrians and cyclists over the Trafalgar/QEW bridge.

- Create more walking paths through natural areas around Oakville.

Minneapolis trail system has clear signage with clear separation of users.

A physically separated bike lane with proper signage and visible bike parking in Copenhagen, Denmark.
BICYCLING - FRIENDLY:

- Plan and construct a network of high quality bicycle facilities in Oakville which are well connected to Iroquois Ridge. Most, if not all, streets in the area should be safely navigable by bicycle. On-street facilities should be separated from car traffic on arterial streets, and have differently coloured pavement or painted lanes and support at intersections on quieter streets. Off-road facilities should be continuous and well connected to other on and off road routes.
- Create more local off road biking areas (ie. single track bike trails through forests or jumps for BMX bikers)

A GREAT PLACE:

- Build a skate park, which acts as both a source of recreation but also an area for socializing and getting people outdoors.
- Hold more events and festivals outside on Oakville’s streets and sidewalks and at Iroquois Ridge High School. These could be geared toward a younger audience such as a music or art event. This could be piggy-backed with a car-free day event with a variety of activities.
- Build more recreational infrastructure with the aim of bringing life to the parks around Oakville. There should be multiple activity options in each space.

Off-road biking is a popular recreational activity that is under represented in many urban areas.

Place bicycle traffic lights at intersections that prioritize bicyclists ahead of cars. This could be done by having an advanced green for the bicyclist light.

Better integration between biking and public transportation. This could be done by providing bike lanes connecting all transit stations and creating high quality, very visible bike parking at these stations.

Soccer field creatively integrated into the urban landscape in Copenhagen, Denmark.

Attract outdoor cafes and restaurants with patios to the area and around Oakville as a whole.
During the workshop process the students of Iroquois Ridge High School presented many important ideas and valuable recommendations that would make their school, the surrounding community and Oakville a great place to walk, bike and live. Considering that a majority of students walk and bike to school, it is not surprising that students can provide a breadth of information about making walking and biking more safe and accessible.

In terms of making Oakville and IRHS more pedestrian friendly the students proposed several short term initiatives. These proposals included making local crosswalks safer and more abundant, beautifying the streets, snow clearing of sidewalks, and implementing an incentive program to encourage students to walk and bike to school. In the long term, students proposed widening and repairing sidewalks around Oakville, decentralizing commercial areas and making them more accessible by foot or bike, and painting sidewalks/crosswalks to differentiate them from the bike lanes and streets.

Recommendations for improving biking were very extensive. In the short term there was a heavy emphasis on creating more safe and secure bike parking around the school. Other recommendations included better signage towards cyclists, wider bike lanes, bike racks on buses and a proposal to separate cyclists and cars with a variety of barriers such as flower beds. Long term recommendations included building physically separated bike lanes, creating more off-road bike paths (mountain biking and BMX), integrating biking with public transportation, and implementing bicycle traffic lights.

Many recreational and leisure activities were seen as driving forces behind creating great places around IRHS and Oakville. Short term, low cost initiatives included a beautification program in Oakville, traffic calming measures, more visible bus stops and more community involvement in city planning. The participants also outlined the need to create more cafes with outdoor seating as areas where students can go, relax and study as well as street festivals and outdoor events. The students also believe that a variety of recreational activities are needed in order to create great places. One of the more popular concerns was the removal of dirt jumps for bikers in the area, with many students wanting to see them brought back. In addition students also recommended an outdoor beach volleyball court, a skate park and more recreation infrastructure in parks all around Oakville.
Chapter 3

Next Steps
Harnessing this form of people-oriented planning can help cities become world class destinations. But how do we turn these ideas into action? Gil Penalosa, Executive Director of Walk & Bike for Life, has spent many years working on walking and bicycling in cities. After reflecting on his successes, Gil has identified the following: five elements which are necessary in order to stop talking and start doing.

**Leadership**

Every movement needs a leader. Having passionate, committed, and knowledgeable leaders can inspire people to not only understand these issues but act upon them as well. It’s not about knowing everything; it’s about motivating others and making them understand the importance of your work. It is understood that planning and transportation issues can be incredibly complex and controversial. However, by having leaders who are more focused on doing the right things rather than doing things ‘right’, cities can begin to develop on a human-focused scale. Leaders often occupy positions of power but this is not always necessary. You can become a leader in your community by gathering the knowledge and resources necessary to inspire and create action. Getting involved in relevant community events is a great way to get yourself connected to other actors within your community. Nevertheless, whether it is you who is leading or not, it is imperative that you make your voice heard by those who are. This can be done through, emails, letters, petitions, or events.

Although having passionate, progressive leaders in your area makes it much easier to implement change, don’t give up if this is not the case. There are still four more factors that can turn talking into doing.

**Political Will**

When it comes to building infrastructure in our city, community members can only do so much. The plans and proposals for new roads, trails, public spaces, and parks need to come from our politicians. It takes guts to take an innovative idea and move forward with it – but the rewards of being that person are considerable and long-lasting. In Copenhagen, the first steps towards improved public spaces were met with intense backlash on multiple fronts. Not only were business owners worried about the impact upon their profits, but drivers were also worried about decreased car mobility. Despite this reaction, leaders in office had a long term vision which they stuck with – and now residents are grateful for their politicians’ foresight. With the improved economic activity and decreased congestion brought on by their plans, Copenhagen’s placemakers proved that great politicians with the courage to create real change can build world class cities.

That being said, politicians work for the people, and if there is no visible support for an issue coming from constituents, then politicians will be much less likely to fight for it. With so many matters on their minds, we cannot expect politicians to focus on the issues that are not being brought to their attention. Local groups and citizens must work together to make these topics visible to politicians as well as encouraging them to make the gutsy decisions necessary to create real change.
“Doers” in the public sector

It’s not enough for politicians to talk about their goals and ideas; someone needs to do the work to follow through upon those promises. Janette Sadik-Khan, Transportation Commissioner for New York City was inspired by the cycling facilities that she saw around the world. Thirty days after she announced New York City’s new bike plan, a physically separated bicycle lane was set up on 9th Avenue. Sadik-Khan is now transforming the meaning of transportation in New York City and being hailed as a visionary for her actions.

It is a common theme within the public sector to find different departments, who often work on similar or neighbouring infrastructure, to lack communication or cohesion. Often you will find work being duplicated because certain departments don’t think to, or prefer not to work together. Local organizations, citizens, and politicians must work to bring these departments together in order to improve co-operation and efficiency. For example, many municipal, regional, and provincial transportation, public works departments build infrastructure without consulting each other. This often leads to different areas of the same road or public space to be worked on at different times or with different characteristics. This is not only a waste of time, but a massive waste of money. Promoting a more cohesive communication system will help to align departments in both principle and practice. This alignment will in turn lead to more efficient and effective action.

Community Engagement

It takes the work of a strong and active community to make change in our cities. Everyone has their own cause, so if you aren’t writing letters and making calls to city officials, then someone else is. If city representatives are not hearing about an issue, they have no way of knowing that it is a priority to their constituents. So citizens need to speak up, speak to their elected officials and make known that transportation is an important issue in this community – politicians are paid to listen.

Sense of Urgency

With carbon emissions pushing the globe’s temperature to rise at record rates, and unpredictable fuel prices making it difficult for households and public agencies alike to budget from one year to the next - transportation is one of the most urgent issues facing us today. Why aren’t we feeling the pressure to invest in active transportation? The connections are not being made concerning the important role that transportation will play in meeting the great challenges of this generation. A lack of urgency permits complacency and procrastination – attitudes that cities cannot afford. The importance of this issue must be made clear so that all stakeholders pay attention and to begin taking action now.
What is a Community Action Group?

The Community Action Plan for Life program aims to transform ideas into action, and to prompt real, tangible change by harnessing the energy and capability that exists within communities. Walk and Bike for Life acknowledges that the members of every community understand their unique challenges and solutions better than any outside organization. Therefore, the key actor in this process will be the Community Action Group (CAG), a locally driven coalition of individuals and organizations with the passion and capacity to advance initiatives for walkability, bike-ability, and the creation of great public spaces in a given jurisdiction. CAGs will include representation from any and every interested party: members of the public, government agencies, business leaders, environmental groups, school groups, and any other concerned community members. The Community Action Plan for Life program will generate action within a number of promising communities across Ontario through the development of each CAG. Our Walk and Bike for Life Community Action Groups will be given the opportunity and resources to work at a grassroots level to implement unique and localized solutions in their neighbourhoods.

When working with Community Action Groups, Walk and Bike for Life will serve a centrally supporting role, providing assistance with administration, public relations, media and advocacy strategy, and research. As the groups develop, Walk and Bike for Life will facilitate discussion and contact among CAGs throughout Ontario to create a mutually supportive network for information and resource sharing on walkability, bike-ability, and quality of life issues in the province.
When it comes to dedicating time and money to the creation of parks, trails, and people-friendly infrastructure, naysayers tend to raise the same objections time and again. Here we will take some time to put these common misconceptions and misunderstandings to rest. This will allow us to focus our time and energy on finding solutions to the challenges faced by our neighbourhoods and on overcoming real, rather than imagined, obstacles.

**Myth:** Walking and bicycling are not safe modes of transportation.

**Fact:** Activities become safe when appropriate infrastructure and safety measures are implemented.

Statistics in Canada show that more and more people are choosing to use their cars as their main means of transport – and who can blame them? An average of 7 pedestrians and 1 cyclist are killed in motor vehicle accidents every week in Canada. To put that in perspective – each year almost twice as many Canadians are killed by cars while walking and cycling than are killed by firearm violence.

While there are dangers to walking and cycling in Canadian neighbourhoods, there is no reason to throw out walking and cycling as legitimate modes of transportation. Think about it - when water is contaminated, we don't tell people to start drinking juice, we clean up the water! In the same way, we need to clean up our streets by implementing the infrastructure that makes them safe for cyclists and pedestrians. Only through the construction of such infrastructure will pedestrian and cyclist deaths decrease.

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**Figure 4** shows that cyclist and pedestrian fatality rates decline in direct proportion to the quality of infrastructure in a city. The reasons behind this decline are multilayered. As infrastructure improves, more people cycle. As more people use their bicycles, cyclists become a common sight on the road, making drivers much more aware of, and reactive to, their presence. Conversely, drivers who are not used to seeing cyclists tend to be less respectful, aware and comfortable driving alongside them. In fact, Figures 5 and 6 show that cyclist and pedestrian fatality rates also decline in direct proportion to the number of pedestrians and cyclists using the sidewalks and roads. In the U.S., cycling and walking levels are only about 1% and 5% respectively, with death rates at about:

- 7 deaths/100 km travelled for cyclists, and
- 14 deaths/100 km travelled for pedestrians.

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In the Netherlands, where cycling and walking levels are more than 4 times higher than those in the US, death rates drop dramatically to 2.5 cyclists/100 km travel and only 2 pedestrians/100 km travelled.

So, yes, walking and cycling are dangerous without the proper infrastructure in place. Once that infrastructure is in place, more people will use non-motorized transportation, cars will become more used to sharing the roads, and less pedestrians and cyclists will be killed – making our roads safer for all.
Myth: Creating walkable, bikeable communities, trails and parks is too expensive.

Fact: Building healthier communities is a matter of priorities.

From 1995 – 2001 Bogota Colombia, a city with approximately one eighth the per capita income of Canada, built over 850 parks, including 5 parks located in city centers. In 3 years, an 899 acre park with a 280 km separated bicycle path network was built in the heart of the city. Furthermore, the city’s bike share program increased to 300 000 users from 28 000. The point is...

changing our cities is a matter of doers, not dollars.

With a cohesive long term plan, short term attainable goals and most importantly, a serious desire to make change, our cities’ wealth can be used to reflect our priorities. Of course, cities cannot fund everything proposed, but to say that this infrastructure is too expensive is simply not the case. Pedestrian and cycling infrastructure is much cheaper and serves many more people per dollar than does infrastructure for motorized vehicles. Funding is dependent on how high these issues are on decision makers’ list of priorities. Therefore, if they choose to make it a priority, they will always have the funding.

Myth: The people in this city love their cars, this will not transform into a city of cyclists.

Fact: Bicycle infrastructure increases bicycle commuting.

In 1990 Portland, Oregon had a disjointed and minimal trail network made up of bikeways which were often disconnected from one another. The city’s residents were not interested in biking, and the majority of trips made to the city centre were by car, with only 2-7% made by bicycle in most places. All that changed when in 2000 a Transportation Master Plan was implemented that included an extensive, accessible and cohesive cycling network (Figure 7). A large part of the city now boasts ridership of over 10% with most of the surrounding areas at 6-10%. In other words, Portland officials doubled their city’s ridership just by increasing the extent and integration of their bike trails.

Figure 7: Portland’s cycling trails moved from disconnected in 1990 (left) to cohesive and extensive in 2000 (right). Ridership doubled as a result of the change.
Myth: Winter makes active transportation impossible in Oakville.

Fact: Winter is a challenge that can be met. With proper maintenance of sidewalks and well-designed trails, all residents can enjoy active mobility all year round.

Average annual snowfall in Oakville is 82.8 cm. That is less than nearby Toronto (133 cm) and Montreal (217), or even Calgary (126 cm), and not really that much more than Canada’s cycling haven, Vancouver (47 cm). Winter makes it even more important to implement measures which prevent residents from being stranded once the snow begins to fall. With proper year-round maintenance, including ploughing and salting of sidewalks, walking can remain viable and safe throughout the winter – and remember that every trip includes at least a short walk, even if it’s just a dash from the parking lot. Bike lanes should be cleared through the fall and spring seasons. With careful design of off-road trails, snowshoeing, cross-country skiing, and snow biking can be substituted for bicycling in winter months. With proper support, Oakville community members can enjoy an active outdoor lifestyle and good personal mobility all year round.

Myth: Canadian people want more cars and more highways.

Fact: When citizens become engaged, cities focus on people.

In the Economist’s 2007 ranking of the world’s cities, Vancouver was rated the number 1 most liveable city in the world. When asked, the Economist Intelligence Unit cited low crime rates, little threat from terrorism, and advanced communications and transportation infrastructure as the reasoning behind Vancouver’s rank. The city’s award winning transportation isn’t car focused. In fact, city staff, politicians and citizens haven’t allowed new highways into Vancouver’s city centres in 30 years! No one group is dictating these decisions – Vancouver prides itself on extensive citizen engagement and has actively chosen a people-centred way of life.
**Myth:** European cities can’t be used as a guide to make this city more walkable and bike-able. They were built to be people-centred hundreds of years ago.

**Fact:** Many European cities have seen drastic turnarounds in the last 20 years by taking risks and making the tough decisions during their urban planning development.

Fifteen years ago citizens of Copenhagen, Denmark thought that a vibrant public life based around walking and bicycling was impossible – residents were too dependent on cars, the city’s weather was too harsh, and extensive walking and biking was not part of Danish culture. Today, residents know better.

Figure 8 shows that in 25 years the number of people using bicycles as their primary vehicle in Copenhagen has doubled. In those 25 years the number of bicycles entering Copenhagen during the morning rush hour has increased from 8 000 to over 20 000, while the number of cars entering the city has decreased from 23 000 to only 18 000.

Copenhagen’s planners made a choice and took the necessary measures to create a walkable, bikeable city. The result has been citizens who are proud, happy and comfortable in their community- no wonder outsiders think that life has always been this way.
Myth: Walking and cycling infrastructure is about painting lines on the pavement.

Fact: Designing proper infrastructure is about re-evaluating our priorities.

A survey in Portland showed 65% of cyclists to be male and 70% of cyclists aged between 25 and 50. xxvi This gender and age imbalance in the cycling community is a direct result of the design of our streets. A prevalent attitude among decision makers seems to be that if there is enough money left over, a bike lane might be painted onto the road. The result is roadways that are great for cars, but intimidating and unusable for most cyclists, and dangerous for those who do cycle.

Transportation, just like all other government matters, must be inclusive, and must reflect the needs of all citizens, especially the most vulnerable. Riding a bike beside a large transport truck when separated by only a painted line makes even experienced cyclists feel threatened. So, if you wouldn’t feel comfortable putting your 80 year old grandparents out on a bike in your city, consider it a sign that you’ve still got work to do.

Building better infrastructure requires the recognition that all means of transportation are equally important and, therefore, need to be given equal consideration in planning. That means investing money in physically separated bike lanes, wider sidewalks, clearly marked intersections, and coherent trail systems. It means making the transportation of people, rather than cars, into the primary consideration of road design.

Figure 9: A study of cyclists in Portland shows that 62% of riders fall into the “interested but concerned” category. To make a real difference in the habits of residents, planners must satisfy the concerns of this group. A bikeway should not be considered finished until it is safe enough for the most vulnerable commuters—namely children and elderly.
People Are Doing It! Case Studies in Walkable, Bikeable Communities

Sometimes you need to see it to believe it. Each of the following cities had hurdles to overcome similar to those faced in Oakville. Taking inspiration from their innovation and experiences can help us to work towards building our cities into unique, healthy, and happy communities.

Chain of Lakes – Minneapolis

Putting their beautiful waterfront scenery to good use, Minneapolis created their famous “Chain of Lakes.” With parks and trails located along the lakeshore and 21.4 kilometres of walking/jogging/biking friendly pathways the Chain of Lakes provides a safe and accessible opportunity for residents to actively transport and enjoy themselves. It also draws over 14 million visitors a year. With the purchase of food, services and accommodations that those visitors make, the trails are generating millions of dollars in revenue for the city.

Winter Cycling- Copenhagen, Denmark

In light of Ontario's winters, some might say that cycling infrastructure is a waste of time and money, claiming that even if bikeways were cleared and salted, no person would want to leave the comfort of their car for the cold of winter. In fact, a number of cities with cold, snowy winters have looked past this perceived impediment and found such perceptions to be unfounded. In Copenhagen, Denmark 30% of residents cycle to work and 70% of those cyclists continue to bike even during Copenhagen's cold, snowy winters.

Minneapolis residents and visitors making the most of their waterfront location

Commuters make their way to work during a Copenhagen winter. 70% of cyclists continue to ride during Copenhagen’s winters.
World Class Streets – New York

New York’s World Class Streets program is developing several new streetscape projects across the city to enhance public spaces. The World Class Streets initiative is incorporating several methods in enhancing public spaces. It includes: a public plaza program, Broadway boulevard project, complete street projects and design standards, safe streets for seniors and students, public art program, coordinated street furniture, and weekend pedestrian and cycling streets. New York is committed to achieving its goal of having a public open space for every resident within 10 minutes of walking for every resident. To do this, the city is creating or enhancing a public plaza in every community. In June 2008, New York launched the NYC Plaza Program that established long-term partnerships between the NYC Department of Small Business Services and community groups in order to maintain and program the plazas so they continue to be well managed and active destinations. One of the great accomplishments of the project is the revamping of 9th avenue. The before and after photos show the extensive transformation the street went through.

Madison Square after DOT pilot project  9th Avenue Before  9th Avenue After
Car Free Sunday – Ottawa, Canada

Every Sunday from Victoria Day to Labour Day, Ottawa closes its streets to cars and opens them to people. Over 50 km of roadways are shut down each week allowing citizens and tourists to actively enjoy the city’s streets. Car free Sundays are a great way to foster a community atmosphere – not only do they keep people active, but they change our perceptions by presenting our well paved, wide and comfortable roads as public places for all citizens.

Multi-Modal Transportation Centre – Meridian Mississippi

In 1997 Meridian Mississippi, a city of only 38,314 people transformed their central railway station into a community hub and money maker. After consulting with architects, engineers, specialists and, most importantly, the local community, Meridian made a decision to capitalize on the potential of their transit station. Today the Station hosts a railway museum and conference room and is surrounded by a farmer’s market, public park, restaurants and a designated festival and events area – all largely supported by the local Business Development Corporation. Local citizens love the station’s integration into the community and have shown their financial support. The station offers a patron’s program which allows citizens to donate anywhere between $40 and $2500 to dedicate plaques around the station. These plaques have been placed on anything from bricks to lampposts. Tourists are also showing their support for the transformation as the local industry has been stimulated and the station now regularly hosts events such as weddings, conferences and private parties.
The 8/80 Rule
When roads are built, planners do not build one road for new drivers and a separate road for experienced drivers. When creating sidewalks and bikeways, we cannot make them only accessible to experienced cyclists and agile pedestrians. Walk & Bike for Life has created a rule of thumb to help individuals when they are evaluating bicycling and pedestrian infrastructure, we have dubbed it the 8/80 rule.

**Step 1:**
Think of a child that you love and care for who is approximately 8 years of age. This could be a child, grandchild, sister, brother, cousin etc.

**Step 2:**
Think of an older adult, approximately 80 years of age who you love and care for. This could be a parent, grandparent, friend etc.

**Step 3:**
Ask yourself: Would you send that 8 year old along with the 80 year old on a walk, or a bike ride on that infrastructure? If you would, then it is safe enough, if you would not, then it is not safe enough.

This rule may seem simple but it holds many implications. Interestingly, when you are forced to think of the ability of most cycling and pedestrian infrastructure to safely serve all citizens, they often fail.
Helpful Groups and Websites:

Walk and Bike for Life: www.walkandbikeforlife.org
WalkON: www.walkon.ca
Ministry of Health Promotion: www.mhp.gov.on.ca
Canada Walks www.canadawalks.org
Green Communities Canada www.gca.ca
Waterfront Regeneration Trust www.waterfrontrail.org
Ontario Trails Council www.ontariotrails.on.ca
Complete the Streets: www.completestreets.org
Project for Public Spaces: www.pps.org
Transportation Alternatives: www.transalt.org
Gehl Architects: www.gehlarchitects.com
Footnotes

i Oakville Active Transportation Master Plan 2009

ii Burlington Official Plan, Section 2.6

iii “2006 Community Profiles”

iv IPCC, page 2


x Nelson et al., 2007, p. 9.

xi Unknown author (b).

xii Statistics Canada, 2005.

xiii Heart and Stroke Foundation of Ontario, 2008.


xv Ontario Trails Council

xvi Project for Public Spaces

xvii Ontario Ministry of Public Infrastructure Renewal, 2006, p. 3.


xix Transport Canada, 2008.

xx Statistics Canada, 2008b.


xxiii Environment Canada, 2008.

xxiv Environment Canada. (Date unavailable).


xxvii Minneapolis Board of Parks and Recreation.

xxviii Unknown author (a), 2007.


33. Unknown Author (b). (Date unavailable) “Presentation: Copenhagen Cycling Facilities and Design Approaches: Transportation without pollution.” Accessed online 2/20/09
1. Figure 1: Human Activity and the Environment
2. Figure 2: Pan-American Health Organization
3. Figure 3: John Pucher, Rutgers University
4. Figure 4: Organization for Economic Cooperation and Development (2005), European Union (2003), and U.S. Department of Transportation (2003 and 2005)
5. Figure 5: Complete the Streets
6. Figure 6: Complete the Streets
7. Figure 7: Portland Department of Transportation
8. Figure 8: Gehl Architects
9. Figure 9: Portland Department of Transportation
10. Graphs 1-6: Data from individual survey answers analyzed and compiled by Walk and Bike for Life
12. Map 1: “Places to Grow”, p.2
Group Activity Sheet

1. PETUNIAS: List at least two actions that are low cost, have high benefit, good visibility and are easy to implement that would make Iroquois Ridge Secondary School more:
   (Note- these recommendations can include physical improvements, programming, events, promotion, education, etc.)
   
   Bicycling-friendly
   Pedestrian-friendly
   A Great Place

2. PETUNIAS: List at least two actions that are low cost, have high benefit, good visibility and are easy to implement that would make North Oakville more:
   (Note- these recommendations can include physical improvements, programming, events, promotion, education, etc.)
   
   Bicycling-friendly
   Pedestrian-friendly
   A Great Place

3. What local partnerships or talent, including the school itself, can you identify that could help implement some of your proposed improvements?
   Please be as specific as possible.
Appendix A

Group Activity Sheets

Walking, Cycling, & Public Spaces
Iroquois Ridge Workshop

Group Activity Sheet

1. **ORCHIDS**: List at least two actions that would create the biggest impact with the greatest results and are higher cost, that would make Iroquois Ridge Secondary School more:
   (Note- these recommendations can include physical improvements, programming, events, promotion, education, etc.)
   - Bicycling-friendly
   - Pedestrian-friendly
   - A Great Place

2. **ORCHIDS**: List at least two actions that would create the biggest impact with the greatest results and are higher cost, that would make North Oakville more:
   (Note- these recommendations can include physical improvements, programming, events, promotion, education, etc.)
   - Bicycling-friendly
   - Pedestrian-friendly
   - A Great Place

3. **What local partnerships or talent, including the school itself, can you identify that could help implement some of your proposed improvements?**
   **Please be as specific as possible.**
Group Activity Sheet  Iroquois Ridge Workshop

1: PETUNIAS: List at least two actions that are low cost, have benefit, good visibility and are easy to implement that would make Iroquois Ridge High School more: (Note-These recommendations can include physical improvements, programming, events, promotion, education, etc.)

Pedestrian-Friendly

- Better traffic control
- Better crossing in front of school
- Repave sidewalks
- Safe crosswalks
- Different cross-walks textures
- Walk to school promotion- if you walk to and from school for a certain amount of days in a year, you can get community service hours. If walk to and from school everyday of the week you get a free lunch on Friday.
- Cross walks and stop signs at exits
- Path through the forests
- Walk to school day
- More entrances, more traffic lights
- More sidewalks and bike paths
- School zones
- Plowing sidewalks
- Stop signs by the intersections
- Stop lights
- Decoration on sidewalks
- Plow sidewalks
- Make the roads more diverse (lines and separations)
- More-friendly walkways, separated from bikes and cars
- More greenery
- Bring back the dirt jumps
- They should make more friendly walkways with greenery
- Cross guard

- More routes to school
- More crossing guards around the school
- Plow the sidewalks/ paths around this area for kids who walk to school (in the winter)
- Physical separation of lanes (pedestrian)
- Promote walking through activities
- Have direct transportation/ bus to school (ex: Velib in Paris, France. It is a bike service where you can get the bikes on almost every corner and they only cost about once a day.
- Bigger sidewalks
- Sidewalks plowed before roads.
- Bigger sidewalks
- Sidewalks plowed before roads.
- Safe crosswalks
- Bigger sidewalks
- Sidewalks and bridges over highways and rivers, so anywhere is accessible
- Sidewalks where there is a lot of flowers and trees and nice sights to see.
- Walk to school days
- Wider/ more sidewalks
- More sidewalks
- More recreation
- More routes to the school
- Safe route to the community centre (barriers etc)
- Traffic control (markings, signs etc.)
- More sidewalks
- More recreational places
- Put up stoplights in the 4-way intersection in front of the school
- Walk to school day
- Wider sidewalks
- Well built and maintained sidewalks
- Promote walking
- Physical separation of sidewalks
- No drops offs within 50 m of school radius
- Promotes walking
- Physical separation
- Sidewalks
- More signs, painted lines on road
- More chairs and tables (sitting areas)
- More shops for teenagers
- Plow snow
- More stores closer to houses, so you don’t have to drive
- More short cuts so the walking time is shorter
- Less time to wait at intersections
- More biking lanes separate from sidewalks
- More off-road shortcuts/ trails

**Bicycle-Friendly**

- Bigger bike lanes
- Better bike racks
- Side-walks plowed during the winter
- Bike lane
- Bike lock areas
- Wide sidewalks
- Have bike rentals
- Better parking
- Flowers or things to divide the road into bicycle and pedestrian lanes to car users
- Maps of bike paths on roads
- Widen roads to make more cycle paths
- Provide safer biking racks to prevent vandalism
- Make bikes attractions
- More bike accessibility from the west
- More bike facilities around the school
- Rid of on-road bicycle paths, make wider sidewalks with bike paths on them
- Able to take bicycles on the GO train for people to commute to other cities
- Widen roads to make more cycle paths
- Cycle paths medians
- Add a bike lane
- Add more bike parking
  - Better paths, Better roads to school, better crosswalks
  - Better paths that lead to school
- Better crosswalks “I almost got hit by cars when going to school”
- Better biking areas
- More bike racks
- More ramps
- Put more bike racks at the back of the school
- Security cameras near the bike racks (prevents theft)
- Physical separation of lanes (biking)
- More trails to school
- Bike trails
Appendix B

Group Activity Sheet Answers

-Streets that are only for bikes
-Plow snow
-Broader between roads and bike roads locker of water system for with bike lock
-Safe places to put bike
-Buy bicycles (Advertising)
-Bike paths that have direct routes to destinations
-Bike racks on the back of buses
-Bicycle paths plowed before roads
-Bike paths that are on bridges that go over rivers
-Physical barrier
-Bigger bike path smaller road
-Different trails and paths so you can bike without worrying about getting hit by cars
-A sidewalk/ path for biking that is designed as a road with speed bumps and traffic lights and parking spaces and the roads go into the plaza so you can go to the stores
-Bike racks closer to school
-Separation from roads
-Separate bike paths
-More bike racks
-Move bike racks closer to the school
-Resurface bike paths leading to the school
-More bike racks
-Put more bike racks closer to the school
-Separate bike paths/ lanes
-More bike stands/ lanes
-Increased security to prevent theft vandalism
-Separate physical bike lanes
-Get more bike parking areas
-Physical separation between car road and bike lanes
-More trails to school
-Put barriers between bike and car lanes
-Raise bike lanes

-More room for bike parking
-More signs to alert others of cyclists
-Separate bike lanes so it doesn’t interferes with pedestrians
-More places to park bikes
-More biking lanes around the community
-More signs and crosswalks
-Lower speed limits

A Great Place

-Benches/ chairs
-Music/ radio
-Free food
-When the students acquire a certain amount of walking to and from school they get an extended lunch.
-Skate parks
-More community park.
-Have bands play
-Build the skate park sooner
-More youth-centered activities
-More park benches and picnic tables outside
-More events, like concerts and music festivals
-Green bins at school
-Skateboarding parks
-Bike paths around the schools
-Bike rack security cameras
-Hockey arenas
-More community parks
-Path through the forest
-more bike racks
-More fundraisers
-Make Upper shopping centre more teen-oriented bleachers on football field, pep rallies, more notice to sport events, cheer leaders
-To enrich the park areas and add basketball/soccer areas
- To add dirt jumps
- Bring back our dirt jumps - the school should leave a spot for jumps
- Make some bike school trips
- Oakville should have good meeting places for kids (they should not have taken away our dirt jumps)
- Free stuff
- Benches/ patches of grass/trees/plants outside for us to sit on during lunch hour
- Have outside activities/ music on at lunch
- Student discounts at the upper Oakville shopping centre
- Spring/summer dances outside
- Class time outside
- Make an outdoor volleyball/ sandpit
- Plant colourful plants/ trees/ flowers outside to make students go outside
- No drop offs during school hours
- More places to hang out/plaza
- Smaller distances between
- More buses
- More bus rounds
- More nature (vegetation)
- More public seating
- A place where people can sit and relax, without feeling unsafe
- A place around stores such as “Starbucks” that is accessible and has a lot of seating and even umbrellas above tables for rainy or really sunny days.

- Promotes and within school
- No drop offs during school hours unnecessarily
- Promote and have ads within school
- Plant flowers and shrubbery
- Make the bus stop more visible (i.e. signs)
- An outdoor pool
- Beach volleyball court
- Patio with chairs and umbrellas
- More soccer fields
- Put more corner stores in the area
- Keep fewer cars in high populated areas, and more on the highways.
- More stores, pharmacies and public places around residential areas so people can walk or bike to whenever they need to go.
- More promotion of walking and biking in the community.
- More bike racks and parking in public places.
2. Orchids:

Pedestrian-Friendly

- Repair and widen sidewalks
- Plenty of benches on sidewalks
- Repave sidewalks
- Safe crosswalks
- Closer destinations
- Bigger sidewalks
- Traffic calming
- Moving sidewalks
- Resurface north eighth line
- Plow the snow on the sidewalks
- More greenery, trails and streets, less roads for cars, more for people and bikes.
- Create a park
- Wider sidewalks
- More stores close by (everything is too far to walk)
- More interesting shops on streets not all just grouped at malls and plazas
- Separate the walking paths from the roads
- Wider sidewalks
- Sidewalks to downtown Oakville
- More free space
- More street signs
- Plant lots of trees and flowers
- Sidewalks should be painted nicely and a different colour than bike paths and roads.
- More pedestrian roads, so they don’t die for cars
- Bigger sidewalks with more seating
- Separation from bike and car paths
- Sitting areas/ benches

- More sidewalks
- Longer time to cross street
- Separate lanes for pedestrians and cyclists on Trafalgar/QEW bridge
- More of a local community (stores, schools, community centres)
- More sidewalks
- Longer time to cross street
- Put bridges over long intersections so pedestrians can cross without slowing traffic
- Wide sidewalks
- Well built sidewalks and well maintained
- Sidewalks in downtown Oakville
- More space
- Sidewalks in downtown Oakville
- More free space
- Outdoor patios
- Social interacting places
- More sidewalks
- More parks and corner stores
- Stores closer to people’s homes
- Designated hours for pedestrians and cyclists only
- More sidewalks
- Have better bike lanes that are safe for those that bike
- Making the bike lane big so you can feel safer
- Providing more bike racks
Bicycle-Friendly

- Better bike lanes
- Bike traffic lights
- Lock shelters
- Wide sidewalks
- Ways to go from the bike to public transit
- More bike paths on and off the road in forests
- Bike stop lights - certain time for bikes to go certain time for cars to go.
- More mountain bike areas (outdoor fitness)
- To add dirt jumps
- Bring back dirt jumps they were our only meeting place and it was safe and open
- Separate the bicycle lanes from the streets
- More places to park your bike
- Separation of bike lanes and cars
- Have fun paths with speed bumps and traffic lights.
- Have paths that go into plazas so the stores are accessible.
- More bike roads, so people don’t get hit
- Bike parking
- Underground parking
- More recreation
- Discourage car use by lowering speed limits
- Barriers from sidewalks and streets
- Safe crosswalks by stop sign use
- “bike” park or trail through woods
- Bicycle safety groups
- More bike lanes

- Less highway
- Separation of bike paths and roads
- Better and more bike paths
- More bike racks everywhere
- Bike racks
- Separate bike paths/lanes
- Increased security to prevent theft or vandalism
- Bike lanes
- Bike lane physically separated
- Bike parking places
- Get parking area in open places
- More parking space
- Separation between bike lane, car lanes
- Bike paths
- Mini-bike marathons for charity
- Barriers between cars and bikes
- Cyclist signs
- More garbage cans for people to put their garbage
A Great Place

-Outdoor café
-Free food
-Mist stations
-Public pool-Free
-If everyone was together outside to create a community effect
-Colour coded pedestrian places
-More places to loiter
-More flowers and trees
-More booster juice
-More bikeable, walkable, accessible place
-Allow skateboards, skate at recreation centres
-Concerts in parks so local bands can play and it can be like a seasonal event or tradition in Oakville
-To add dirt jumps
-Bring back our dirt jumps (they were our only meeting place and now we have to ride in the middle of the street)
-Recreation centre closer to Lake Oak Plaza
-Outdoor events on the sidewalks
-More parks and recreation
-More movie theatres close by (walking distance).
-Place with sand and sun umbrellas, place where there is lots of stores that sell hot and cold drinks
-Place where you can relax and hang out with friends where there are stores for lunch.
-Put flowers in the grass, pave pathways
-Add flowers and other plants as physical separators

-Better transit systems better stops for buses
-Separated or well marked lanes
-More trails.
-Meeting places
-Put more bike lanes near roads
-Put Spencer’s back in Oakville Place
-Well-planned development with community services involved
-Community events
-Events and activities (on sidewalks and streets)
-Doesn’t have to be free, side ads and sales produces and promotes economy)
-More parks (recreational)
-Sidewalk events and activities
-More recreation/ space (parks)
-Outdoor concerts, talent shows, sporting events for all, family tournaments, kids parades
-More altering signs, flowers, landscaping
-A contest for who can design the best community
-More colourful environment to walk or bike in
-Having a skate board park
-Have more benches to sit on and relax for those of every age.
3. What local partnerships or talent, including the school itself, can you identify that could help implement some of your proposed improvements? Please be as specific as possible.

- Good leadership
- Community centres help promote things
- IRHS could give us good free food.
- Oakville needs to bring back our dirt jumps- Kids go to Burlington and Mississauga to ride dirt jumps
- As Oakville grows bigger it does not care about the people, it only cares about the money , they just want to increase the population.
- Fundraising
- Donating
- Iroquois Ridge school as a community
- We could get the community involved with helping conquer these issues.
- Community Centre
- Young people
- Leave some parks, rather than use it all for development.
- Charity raise money within school-ask student to bring in stuff to sell or donate
- Donates goods (cookies etc.)
- Fundraising to raise money to support improvement
- Donating
- Students could plant flowers and organize parades/ events
### Appendix C

#### Environmental and Health Impact Calculations

**Canada GHG Emission Baselines**

<table>
<thead>
<tr>
<th>GHG Factors (carbon equivalent kg/L)</th>
<th>LDGV</th>
<th>LDGT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Efficiency (L/100km)</td>
<td>2.479</td>
<td>2.556</td>
</tr>
<tr>
<td>LDGV</td>
<td>9.8</td>
<td></td>
</tr>
<tr>
<td>LDGT</td>
<td>12.6</td>
<td></td>
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</tbody>
</table>

**Canadian GHG Emissions 2006**

<table>
<thead>
<tr>
<th>Absolute (in Megatons)</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>721000</td>
</tr>
<tr>
<td>Transport</td>
<td>190000</td>
</tr>
<tr>
<td>Light Duty Gas Vehicles (LDGV)</td>
<td>38900</td>
</tr>
<tr>
<td>Light Duty Gas Trucks (LDGT)</td>
<td>44800</td>
</tr>
<tr>
<td>Passenger</td>
<td>83700</td>
</tr>
</tbody>
</table>

**GHG Emission Factors for Oakville**

*Assumptions: Fleet Split*

<table>
<thead>
<tr>
<th></th>
<th>LDPV</th>
<th>LDPT</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Annual Workdays (50 weeks x 5 days)</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Annual Worktrips (250 x There N Back)</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

*Therefore: Fleet Fuel Efficiency*

<table>
<thead>
<tr>
<th></th>
<th>L/100km</th>
<th>L/km</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.92</td>
<td>0.1092</td>
</tr>
</tbody>
</table>

**Fleet Emissions**

| Carbon equivalent (CO2e) kg/L | 2.5098 |

**Oakville GHG Emission Factor**

| Carbon equivalent (CO2e) kg/km | 0.274 |

**Oakville Background Information**

<table>
<thead>
<tr>
<th>Population</th>
<th>159,700</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour Force Participants</td>
<td>80,383</td>
</tr>
</tbody>
</table>

*Journey to Work by Mode Number %*

| Total Commuting | 89900 | 100.00 |
| Population     | 899   | 1.00   |
| Car, truck van as driver | 59,334 | 66.00 |
| Car, truck, van as passenger | 12586 | 14.00 |
| Public transit | 8990  | 10.00  |
| Walked or biked | 7192  | 8.00   |
| Other          | 2697  | 3.00   |

**Oakville Trip Statistics**

| C, t, v, as driver | 5 |
| C, t, v, as passenger | 3.8 |
**Potential GHG Emissions Reductions in Oakville (CO2e)**

- **Annually, for each driver that switches to active modes**
  \[ \text{kg/km} \times \text{km/trip} \times \text{Annual worktrips} \]  
  [Kg]

- **Annually, for each 1% of trips shifted from driving to active modes**
  \[ \text{kg/km} \times \text{km/trip} \times \text{worktrips} \times 1\% \text{ of commuting population} \]  
  [Kg]

- **Annually, if each driver biked or walked to work one week a year**
  \[ \text{kg/km} \times \text{km/trip} \times 10 \text{ trips} \times \text{total drivers} \]  
  [Kg]

### Potential Weight Loss in Oakville

#### Assumptions:
- Calories per pound of body fat: 3500
- Average cycling speed: 17 km/h, 0.28 km/minute
- Calories burned by cycling per hour: 500
- Calories burned by cycling per minute: 8.33

#### Therefore:
- Average duration of work trip (minutes): 18
- Calories burned during average worktrip: 147
- Pounds burned per trip: 0.042

#### Annually, each driver that switches to cycling
- Lbs. burned per trip \times Annual worktrips: 21.01

#### Annually, for each 1% of population that switches from driving to biking
- Annual worktrips \times 1\% of commuters \times Lbs./trip: 18886.55

#### Annually, if each driver biked one week per year
- Total drivers \times 10 trips \times Lbs./trip: 24930.25