B.E.A.T.

BUILT ENVIRONMENT & ACTIVE TRANSPORTATION

Neighbourhood Assessment

BCRPA
BC RECREATION AND PARKS ASSOCIATION

UNION OF BRITISH COLUMBIA MUNICIPALITIES

This resource has been created for use by communities throughout British Columbia by the British Columbia Recreation and Parks Association with writing and design support from EcoPlan International.

The Built Environment and Active Transportation (BEAT) initiative is a joint project of British Columbia Recreation and Parks Association and the Union of British Columbia Municipalities. It is a program of the BC Healthy Living Alliance, supported by ActNow BC, the provincial government's healthy living initiative. The BEAT project is working to create more supportive environments for physical activity by addressing community design, policy and transportation planning.

Built Environment & Active Transportation
www.bcrpa.bc.ca
www.physicalactivitystrategy.ca

Photos courtesy of John Luton & David Hohenschau

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ActNowBC.ca

An initiative of these BC Healthy Living Alliance members

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HEART & STROKE FOUNDATION OF BC & YUKON
Finding answers. For life.

Public Health Association of BC

UNION OF BRITISH COLUMBIA MUNICIPALITIES

Table of Contents

B.E.A.T. Neighbourhood Assessment

Well-planned communities can achieve a range of positive health impacts, including:

- Promotion of physical activity and more active transportation for a reduction of incidence of obesity and related illness;
- Lowering levels of air pollution and greenhouse gases;
- Improving pedestrian, bicycle and vehicle safety;
- Facilitating independence among dis-advantaged peoples;
- Contributing to a more vibrant community and engaged citizenship;
- Reducing the need to travel by car, by creating areas of mixed residential and commercial uses.

This tool is designed to help local governments, community organizations and individuals understand how the built environment impacts active transportation in their neighbourhoods. It is meant as a starting point for users to begin identifying which elements of more healthy built environments might be present in their communities and which elements might not be. This information can in turn be used to support better decision-making around land use planning, infrastructure investment and programming.

It is important to note that the built environment is impacted by many factors on a range of geographic and time scales. Factors for consideration in a thorough assessment are governance, social behaviour, long term demographic trends and the economy among others as key determinants of how the built form affects community life and activity.

Completing the Assessment

The B.E.A.T. Neighbourhood Assessment tool includes the following four steps:

STEP 1: Choose a sample area. The area should be approximately one square kilometre, or about 7x7 city blocks. Describe the general location of the area in the space provided.

STEP 2: Walk around the sample area with the Sample Area Assessment tables. Read each of the questions in the left column of the table and then read the descriptions in the adjacent columns. Determine which of the three descriptions best describes your sample area and mark the appropriate score.

STEP 3: Evaluate the results of your assessment by plotting section totals on the graph provided.

STEP 4: Answer the optional follow-up questions in Step 4 to determine what additional assessment and action could take place.

In order to get a full understanding of the built environment in your community, it is advisable to conduct the assessment on several distinct sample areas. For instance, you may choose to conduct the assessment on a new development, a suburb, a residential neighbourhood and a commercial hub. This would highlight some common development and settlement patterns and assist you in understanding the reasons why neighbourhoods score differently.

ACTIVE TRANSPORTATION:
Active Transportation refers to all human-powered forms of travel, such as walking, cycling, in-line skating, skateboarding, skiing, kayaking etc. Walking and cycling are the most popular and are often combined with other modes, such as public transit.

BUILT ENVIRONMENT:
Built Environment refers to the human made, physical characteristics of our surroundings - the spaces where we live, work and play. The built environment includes tangible structures, such as buildings, streets, parks, businesses, schools, road systems, transportation networks, and other infrastructure.

STEP 1: Sample Area Description

Choose a sample area. The area should be approximately one square kilometer or about 7x7 city blocks.

ASSESSMENT INFORMATION

Name of Assessor: _____

Date: _____

City/ Town/ Village/ District: _____

_____

Describe the general location (i.e., near the intersection of Main St. and Front St.)

_____

_____

How would you characterize this area? (i.e., city centre, new subdivision, residential neighbourhood, etc.)

_____

_____

STEP 2: Sample Area Assessment

Walk around the sample area with the Sample Area Assessment tables. Read each of the questions in the left column of the table and then read the descriptions in the adjacent columns. Determine which of the three descriptions **best describes** your sample area. Mark the score corresponding to your answer in the 'score' column on the right. Mark down a "**0**" for questions that are either not applicable (e.g., a question about sidewalks in an area where there are no sidewalks), or if you don't know the answer. Tally scores for each assessment area and calculate the total score at the end.

DENSITY + LAND USE – *Neighbourhoods that encourage active transportation are typically denser, with short blocks and include a mix of land use types.*

		1	2	3	Score
1.	How would you characterize the density of the area?	The area is dominated by only a few single businesses or institutions (e.g., big box stores), or large single detached homes with big yards	There are some multi-storey units but mostly detached buildings (residential, commercial, industrial, recreational)	There is a relatively high number of closely constructed and/or multi storey units in the area with little unused space	☐
2.	Does the area include a mix of uses (i.e., residential/ commercial/ industrial/ recreational)?	Not really - the area has little to no mixed-use, it is almost entirely dominated by one use	Somewhat - two or three uses are present but one use dominates	The area includes a high and equal mix of different uses	☐
3.	Are streets in the area well connected?	No - many cul-de-sacs in the area	Somewhat - mix of cul-de-sacs and grid pattern streets	Yes - grid pattern with short blocks	☐

☐ total / 9 ☐ percentage

Cul-de-sacs separate neighbourhoods, reduce connectivity and encourage auto-dependent transportation

Mixed-use communities contain a diversity of building types that can fulfill daily needs within a walking/cycling distance

PEDESTRIAN INFRASTRUCTURE – *Pedestrian friendly communities have well-connected infrastructure including smooth and unobstructed sidewalks/ surfaces that can accommodate strollers, wheelchairs and other mobility considerations and contain safe places for crossing.*

		1	2	3	Score
4.	Are sidewalks present in the area?	No	Yes - one side	Yes - both sides	☐
5.	On average, how wide are the sidewalks (from curb to frontage, including space for furnishings)?	Residential areas: <1.2m Commercial areas: <3m	Residential areas: 1.2 - 1.8m Commercial areas: 3.0 - 3.7m	Residential areas: >1.8m Commercial areas: >3.7m	☐
6.	Is there a buffer between the sidewalk and the road (e.g., a grass strip, trees, on-street parking)?	No	Present in some places	Yes - present in most or all places	☐
7.	Are ramps present at intersections and driveways?	No	Present at some intersections and driveways	Yes - present at all intersections and driveways	☐
8.	Are sidewalks in good condition?	Not really - there are many cracks/ misalignments/ dirt and debris	Somewhat - there are some cracks/ misalignments/ dirt and debris	Yes - there are little to no cracks/ misalignments/ dirt and debris	☐

Grassy areas, on-street parking and bike lanes create a buffer between traffic and pedestrians, creating a more pleasant experience and increasing the feeling of safety on sidewalks

		1	2	3	Score
9.	Are there obstructions on the sidewalks/ walkways that would impede a stroller or wheelchair from passing (e.g., poles, drains, tree grills)?	Yes - there are significant obstructions	Some – there are a few obstructions	No	☐
10.	Are sidewalks cleared after a snowfall?	No	Sometimes and/or only a small path cleared	Yes	☐
11.	Are there adequate convenient and safe places to cross the streets?	No - no crosswalks or crossing signals or crosswalks are poorly designed (e.g., obscured from the view of drivers; crossing distance too far, etc.)	Somewhat - limited number of crosswalks/crossing signals present and/or crossing signal time is too short and/or crossing infrastructure is degraded (e.g., faded crosswalk markings)	Yes - adequate crosswalks/ crossing signals present; safe to cross the street at many locations	☐
12.	Are crossing signals visual as well as auditory?	No crossing signals in the area	Some crossing signals are visual and/or auditory	Yes - all crossing signals are both visual and auditory	☐

☐ total / 27 ☐ percentage

Street furniture and elements such as tree grills should be designed to avoid creating obstructions, keeping in mind the passage of strollers and wheelchairs

BICYCLING INFRASTRUCTURE – *Cyclists need safe, convenient and connected routes to travel within, through and between neighbourhoods. This includes having designated bike routes, adequate signage and secure bike racks.*

		1	2	3	Score
13.	Are there dedicated lanes (marked on the street) or bicycle-priority streets for cycling in the area?	No	Some dedicated bike lanes present in the area	Yes - designated bike lanes or bicycle-priority streets exist throughout the area	☐
14.	If no designated 'bikeway' (bike lane/ bicycle-priority streets) present, where is the closest designated bikeway?	4km+	1 - 3km	0 - 1km	☐
15.	Is it safe to cycle on the road?	No – cars take up entire road and/or traffic is too aggressive for cyclists and/or estimated travel speed on roads is approx. 60km/hr	Somewhat – shoulder is wide enough for cyclists in some locations and/or estimated travel speed on roads is approx. 50 km/hr	Yes - there is ample room to ride on shoulder and/or estimated travel speed on roads is approx. 30km/hr	☐
16.	Where they exist, are bikeways connected to each other and to destinations (e.g., connections to major bike route arterials, paths through cul-de-sacs, service areas)?	No – bikeways end abruptly and/or are cut off by turning cars and/or do not connect to other bike routes leading to arterial routes/ destinations	Somewhat – bikeways end abruptly in some locations and/or are only weakly connected	Yes - lanes/ streets are continuous and well connected	☐

Dedicated bike lanes or bikeways create a safe and comfortable place for cyclists

		1	2	3	Score
17.	Is there adequate signage present to caution for cyclists and mark dedicated bikeways?	No	Some route and caution signage present but in some cases degraded, obscured or insufficient	Yes - all cycling lanes/ streets are marked and/or bike caution signs present (e.g., “share the road”)	☐
18.	Are crossing lights accessible from street level (i.e., without having to dismount)?	No	Accessible in only one or two locations (designed only for walkers in most locations)	Yes - accessible at all bicycle crossings (i.e., at all intersections along designated biking routes)	☐
19.	Are there adequate well-maintained bike racks in the neighbourhood?	No	Some - Bike racks present but they are often full and/or are damaged and/or in an inconvenient/ unsafe location	Yes - bike racks present with enough capacity to meet local demand and are located in convenient/ safe places	☐
20.	Do buses in the area have bike racks?	No	Some	All	☐

☐ total / 24 ☐ percentage

Bike racks with ample space and weather protection can encourage cycling by making it more convenient. Where no bike racks are present, cyclists will use whatever is available

ROADS + PARKING – *Healthy built environments at the neighbourhood scale have narrow roadways and other traffic calming devices that encourage slower traffic flows and safer pedestrian/ bicycle travel.*

		1	2	3	Score
21.	What is traffic flow like in the area?	Fast and aggressive	Moderate to fast speeds and flow	Slow, calm, predictable	☐
22.	How wide is the street?	>3 lanes	2 - 3 lanes	<2 lanes	☐
23.	Is there on-street parking?	No	Yes - along some streets	Yes - along all streets	☐
24.	Are other traffic calming devices present (e.g., pedestrian corner bulges, roundabouts, pedestrian median refuges)?	No	There are one or two traffic calming devices	Yes - there are numerous effectively placed traffic calming devices	☐
25.	Are there any vehicle restriction strategies in effect in the area (e.g., permit parking only, one-way, etc.)?	No	Some, but most are ineffective in promoting walking/ cycling	Yes - there are effective vehicle restriction strategies	☐

☐ total / 15 ☐ percentage

At street corners, bulges can control the flow of traffic and increase safety for pedestrians as they decrease exposure to car traffic by reducing the distance from curb to curb and improve pedestrian site lines/ visibility

TRAILS + OTHER MODES – *Trails create pleasant and safe transportation routes away from car traffic. Other active transportation "modes" such as inline skating, skateboarding and paddling should be encouraged when and where possible.*

		1	2	3	Score
26.	Are there dedicated (off-road) walking/ biking paths in the area?	No	Some trails present but they are inconvenient and/or not well connected	Yes - convenient, interconnected trail network present	☐
27.	Where walking/ biking trails present, are paths separated?	No	In some places	Yes	☐
28.	Are trails safe and attractive to use?	No - trails unsafe and/or there is no signage	Somewhat - trails are unsafe and/or not maintained and/ or there is inadequate signage	Yes - Trails are safe, attractive and well marked	☐
29.	Is the area accessible for skateboarding and inline skating?	No - 'anti-skating' devices are put in place	Somewhat - some surfaces are poor for skating	Yes	☐

☐ total / 12 ☐ percentage

Anti-skate devices, such as metal plates and bolts, disrupt smooth edges and surfaces to deter skateboarding on sidewalks and in other areas

TRANSIT – *Local transit service can facilitate an overall reduction in automobile dependency and encourage multi-modal transportation that often includes walking/ cycling trips.*

		1	2	3	Score
30.	Are there transit stops present in the sample area?	No	1 - 2 transit stops present	3+ transit stops in area	☐
31.	If transit stops are not present in the area, how far is the closest stop?	4km+	1 - 3km	0 - 1km	☐
32.	Do transit stops have shelters and benches?	No	Present at some stops	Yes - present at all stops	☐
33.	Is there route information available at stops?	No	Schedule and route information available at some stops	Yes - schedule and route information available	☐

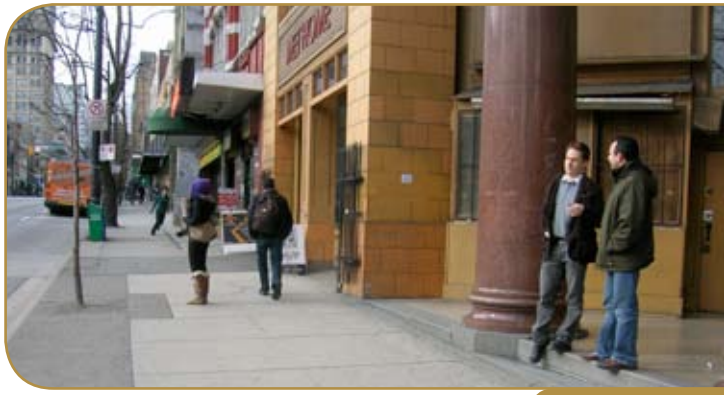
☐ total / 12 ☐ percentage

Weather protection shelters and benches at bus stops increase comfort for transit riders

SAFETY - *A safe environment reduces exposure to traffic accidents, and helps create a more livable neighbourhood by enhancing peoples' sense of comfort.*

		1	2	3	Score
34.	Generally, does the area feel safe and secure at the pedestrian level?	No - I feel threatened when I am in the area	Somewhat - I feel a little uneasy walking in the area	Yes - I feel safe and secure at all times in the area	☐
35.	Are there vacant buildings in the area?	Yes	Some	No	☐
36.	Are there "eyes on the street" in the area (i.e., in the form of people out and about on the street)?	Not at all	Somewhat	Yes	☐

☐ total / 9 ☐ percentage



Street-side gathering places can increase the number of "eyes on the street" and help improve neighbourhood safety

AESTHETICS + CHARACTER – *Pleasant and active neighbourhoods can encourage walking and cycling trips. Public art and design, interesting streetscapes and active street life all enhance community character options.*

		1	2	3	Score
37.	Are there trees and/ or other plants present on streets?	No	Some present but not well-maintained and/or poorly placed	Yes - many well-maintained trees/ plants present	☐
38	What is the quality of street-life?	Few people on the street, little to no social interactions taking place	People on the street only during certain times of day, some social interaction	A vibrant mix of people interacting on the street at most times of day	☐
39.	Do storefronts/ buildings come right up to the sidewalks?	No - many stores separated from the sidewalk by parking lots	Somewhat - there are a few stores separated from the sidewalk by parking lots	Yes - store fronts are immediately adjacent to sidewalks/ roads	☐
40.	Is there any weather protection present (e.g., awnings, tree canopy)?	No	Some weather protection present	Yes - there is ample weather protection	☐
41.	Is there street furniture present and well located (e.g., benches, garbage cans, water fountains)?"	No	Some street furniture present but in degraded shape and/or poorly designed	Yes - area has a variety of street furniture in good condition and well-located	☐
42.	Generally, what is the quality of the "streetscape"?	Weak - streetscape is barren/ dim/ dirty with few visually appealing elements	Mixed - some attractive elements present, but some unclean/ degraded sights present	Rich - lots of colours, public art present, attractive buildings and design, natural elements present	☐

☐ total / 18 ☐ percentage

Well designed and located street furniture and vibrant streetscapes enhance the pedestrian level experience

PROXIMITY TO SERVICES – *Communities that are "complete" contain many of the destinations and services people need in their daily lives. This means that people can get groceries, find a drugstore, mail letters, meet up with friends, and have open/ green spaces all within a reasonable area – ideally one that doesn't require a car to get to.*

		1	2	3	Score
43	Generally, is there access to basic needs/ services in the area (i.e., neighbourhood-scale retail opportunities/ public institutions/ parks)?	No	Somewhat	Yes	☐
44	How far is the closest grocery store, hardware store, restaurant/ café or post office?**	5km+	1 - 5km	0 - 1km	☐
45.	How far is the closest library, school or park?	5km+	1 - 5km	0 - 1km	☐
46.	How far is the closest health care facility (medical, dental, etc.)?	5km+	1 - 5km	0 - 1km	☐

** Go to www.walkscore.com to calculate distances to places in your sample area

☐ total / 12 ☐ percentage

Neighbourhood-scale commercial areas typically contain smaller shops serving a high range of needs (retail, grocery, services, etc.)

PLANNING + ENGAGEMENT – *Decisions regarding transportation and the built environment happen on many levels and involve many people. Planning is an essential step in creating livable communities that encourage active transportation.*

		1	2	3	Score
47.	Does the area's Official Community Plan (OCP) address active transportation and the built environment?	No - the plan does not provide any policy or guidelines to link the built environment to active transportation	Somewhat - the plan vaguely addresses the link between the built environment and active transportation	Yes - the OCP contains specific policy to support land use and active transportation planning	☐
48.	Do any walking/ cycling specific transportation plans exist (i.e., a Pedestrian Master Plan)?	No	Yes - but there is a lack of funding and/or political will to support implementation	Yes	☐
49.	Are there any municipal committees or community groups present with mandates to promote active transportation?	No	Group(s)/ committee(s) present but not active	Yes - groups(s)/ committee(s) present and effective in advancing action on active transportation	☐
50.	Do any events take place in the area to promote active transportation (e.g., bike to work week, walking school bus, etc.)?	No	Some events take place in the area but there is not much participation	Yes - many events and activities take place in the area and/or events are well-attended	☐

☐ total / 12 ☐ percentage

Events promoting walking and cycling raise awareness around the need for good infrastructure and planning, and help build community relationships

BEAT Neighbourhood Assessment Score: "how do you compare"

Put your total section scores in the corresponding boxes above and add them together to generate your final B.E.A.T. score. Check to see how your total score compares below.

DENSITY + LAND USE		PEDESTRIAN INFRASTRUCTURE		BICYCLING INFRASTRUCTURE		ROADS + PARKING		TRAILS + OTHER MODES		TRANSIT		SAFETY		AESTHETICS + CHARACTER		PROXIMITY TO SERVICES		PLANNING + ENGAGEMENT		B.E.A.T. SCORE
☐	+	☐	+	☐	+	☐	+	☐	+	☐	+	☐	+	☐	+	☐	+	☐	=	☐

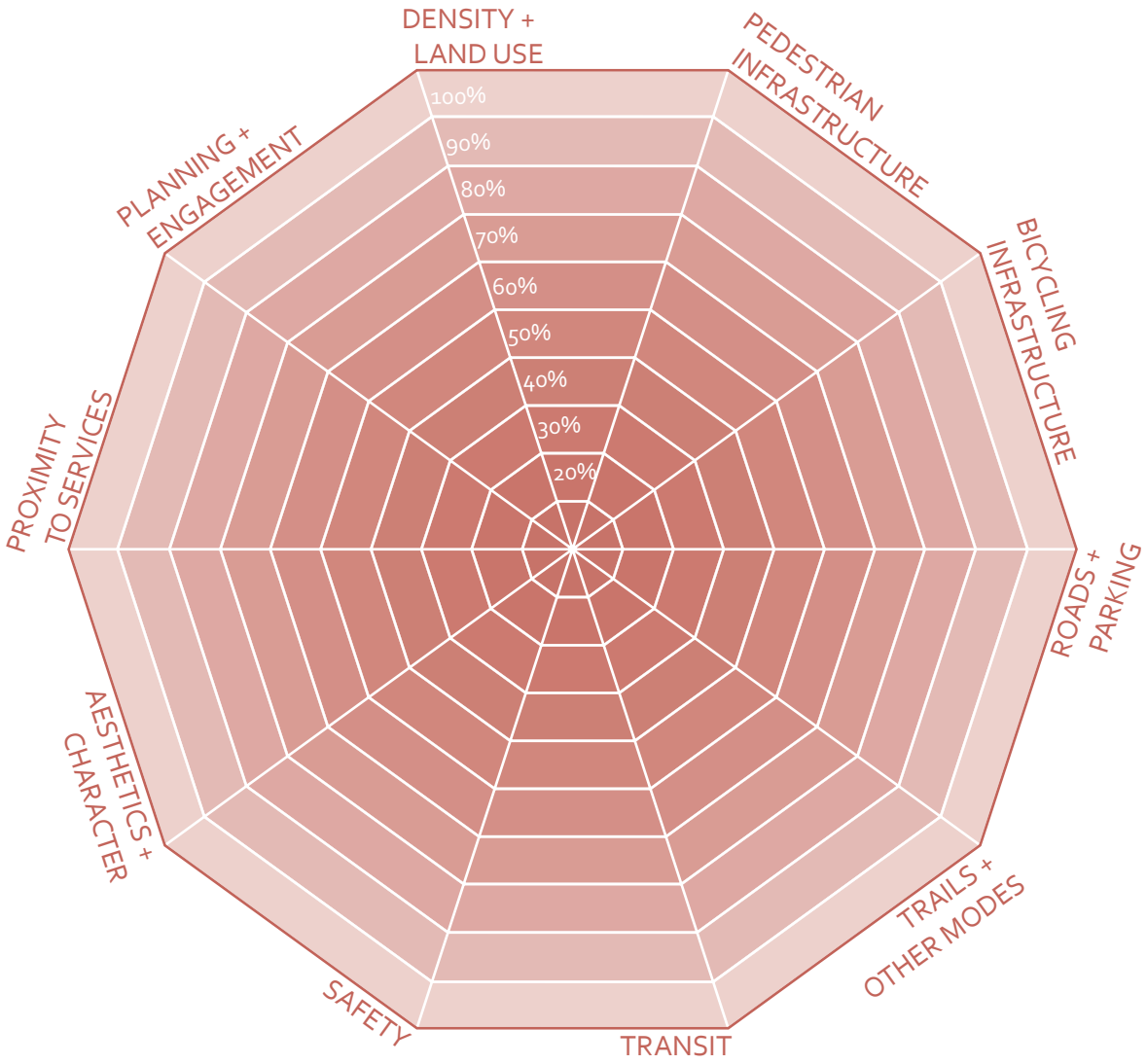
total / 150

0-50 NEEDS WORK	51-100 ROOM FOR IMPROVEMENT	101-150 GETTING ACTIVE
This area may be inconvenient, unattractive or unsafe for walking and cycling. Infrastructure improvements as well as long term land use planning and transit coordination are likely needed to get people out of their cars and choosing more active modes of transportation.	This area has some elements that make walking and cycling easier and more appealing but more could be done. Consider whether the area scored high in some areas and weaker in others, or if it was average across all categories.	This area is an example of a healthy built environment which positively supports walking, cycling and other modes of active transportation. People here are likely on average more physically fit, happier, spend less time in automobiles, and have more time for the things that are important to them.

STEP 3: Understanding Your B.E.A.T. Neighbourhood Assessment

This chart is designed to help you understand your score and to see where the strengths and weaknesses of your community lie. To use this chart, plot the percentage score achieved in each of the checklist sections along the line corresponding to each section. Next connect the individual scores (your data) to create a closed shape. Shade in the area from the centre to your line. The closer the shape is to the outside edge of the chart, the better. Places where there are gaps between the outer edge and your shape correspond to weaknesses related to the built environment and active transportation in your community.

Use this tool to identify priority areas for further assessment and planning steps and to monitor progress over time.



STEP 4: Follow-up

Answer these optional follow-up questions to determine what additional assessment and action could take place.

What general observations can be made based on this assessment? Use the graph you just plotted to assess strengths and weaknesses of the sample area. What are the underlying causes of the weaknesses? What factors are contributing to the strengths?

What additional assessments and measures could be conducted to better understand some of the issues raised in completing this assessment?

What 'quick start' actions (i.e., a small, simple, inexpensive project like installing a bike rack, etc.) could be taken immediately to improve the quality of the built environment for active transportation in this sample area?

Who could you share this information with to help promote better land use and transportation planning needs (i.e., local planners, elected officials)?

How could you get this information to them?

How could you monitor progress on these issues?

Notes:

B.E.A.T. Neighbourhood Assessment

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