

# Clean Air & Safe Routes 4 Schools

A School Travel Plan

Davidson Elementary School



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City of Kelowna  
City of West Kelowna  
District of Lake Country  
District of Peachland  
Westbank First Nation  
Regional District of Central Okanagan



# Clean Air & Safe Routes 4 Schools

A School Travel Plan

Davidson Elementary School



Davidson Elementary **Clean Air & Safe Routes 4 Schools – a School Travel Plan** is delivered in partnership with the District of Lake Country, Regional District of Central Okanagan, School District 23, Interior Health, Royal Canadian Mounted Police (RCMP) and the Sustainable Transportation Partnership of the Central Okanagan (STPCO).

This School Travel Plan was compiled by Nancy Mora Castro, Regional Air Quality Coordinator.  
February 2017

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## **Project Overview**

### **Clean Air and Safe Routes 4 Schools in the Central Okanagan**

In 2016, the Regional District of Central Okanagan (RDCO) and the Sustainable Transportation Partnership of the Central Okanagan (STPCO), in coordination with the District of Lake Country, implemented the Clean Air and Safe Routes 4 Schools program at Davidson Elementary School. The Clean Air and Safe Routes 4 Schools program uses the “School Travel Plan (STP)” toolkit created by Green Communities Canada in combination with the “Cleaner Air 4 Schools” toolkit developed by the City of London, England.

The development of the School Travel Plan combined with the implementation of school programming has shown to reduce vehicle traffic and increase the number of students using active transportation. School Travel Planning involves collaborative work with multiple stakeholders to produce a plan that addresses safety concerns and necessary infrastructure improvements specific to each school. The STP objectives were expanded to include tools to identify areas of poor air quality around the school, promote student understanding of the causes and impacts of air pollution, and provide ideas for engaging staff, students and parents in improving air quality. The STPCO facilitated the development of the plan and coordinated the Municipal Steering Committee. This Committee was made up of numerous stakeholders who assisted in the planning process, including other District of Lake Country departments, Interior Health, RCMP and School District 23. A school committee was also formed with school representatives and parents. By engaging various partners, the program created a greater sense of community, added broader implications for schools and neighborhoods in adopting active transportation habits and, improved air quality.

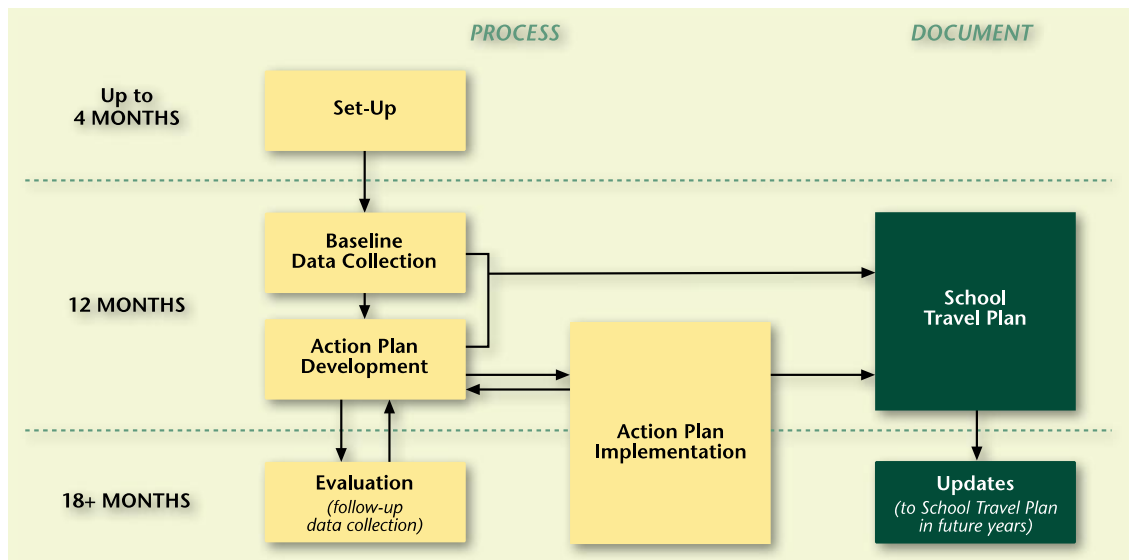
The School Travel Planning program involved baseline research through classroom and family surveys, observations and traffic count to establish the number of students currently using active transportation for school travel, and to identify the real and perceived barriers that prevent students and parents from using active transportation. The Committees were involved in a school walkabout that identified areas of concern. This information was used to develop education and community mobilization programs within the school described in the Action Plan of this document. The School Committee will deliver programming within the school, with assistance from the facilitator and all partners.

## Background

### The School Travel Plan

The School Travel Plan (STP) was developed with guidance from HASTE (Hub for Action on School Transportation Emissions) and the Provincial Coordinators for the School Travel Planning program. The Green Communities Canada toolkit has been developed and fine-tuned based on pilot programs run across Canada over several years. A School Travel Plan is a living document belonging to the school and should be revisited regularly in order to update the status of Action Plan items and to incorporate future evaluation findings. It is part of a complete School Travel Planning process, shown in Figure 1 that has been successfully developed and implemented across Canada since 2007.

*School Travel Planning process*



**Figure 1. School Travel Planning Process**

The national *Children's Health, Mobility and Happiness: A Canadian School Travel Planning Model* project completed in 2012 used Active and Safe Routes to School programming combined with Transportation Demand Management principles to encourage active and sustainable modes of school travel for students, families and staff. The project was designed to address barriers to active travel caused by attitudes and car-dominated design in school neighborhoods in an effort to reduce the health risk to children. Even before many Action Plan items had been fully implemented, by March 2012 some provinces saw a shift towards active travel of up to 6 per cent and some individual schools saw a shift of over 20 per cent.

Safe Routes to School programs are focused on making it safer for more children to walk and bike to school which helps to increase their levels of physical activity. Youth and children who walk or bike to school are more likely to get the 60 minutes per/day of physical activity recommended by the Canadian Physical Activity Guidelines.

Recent research states<sup>1</sup> there has been a dramatic increase in unhealthy weights in children over the past four decades. In 1978, 15% were at an unhealthy weight and in 2007 statistics Canada found that 29% of adolescents had an unhealthy weight.

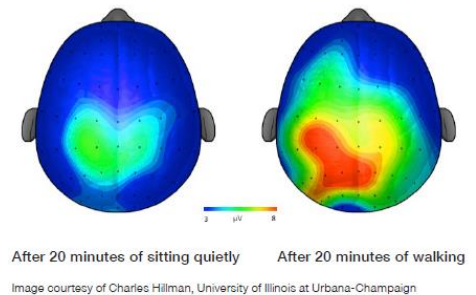
<sup>1</sup> Alberta Health Services <http://www.albertahealthservices.ca/SchoolsTeachers/if-sch-csh-october-2014-active-transport-healthy-halloween.pdf>



- Most adolescents have trouble outgrowing this problem and in fact, many continue to gain weight.
- Children and youth are spending almost eight hours a day in front of screens and 63% of free time, after school and on weekends, is spent being sedentary.
- If current trends continue, by 2040, up to 70% of adults aged 40 years will be either overweight or obese.

There are many benefits to walking or cycling to school:

- Health -Active transportation contributes to children's physical activity participation and improves overall health.
- Social - Time spent walking to school allows students to interact with their parents, siblings or peers.
- Environment: Active trips are environmentally friendly and can contribute to reductions in greenhouse gas emissions.
- Economic - Walking or cycling to school saves money on gas.
- Education- Physical activity before the school day helps to prepare students for learning by increasing concentration and reducing stress. Students arrive to school awake and alert.



**Figure 2. Brain scans of students taking test**

In a recent Study<sup>2</sup>, the effects of physical activity on brain health were analyzed. As can be seen Figure 2, two brain images, taken from the top of the head, represent the average amount of students' neural activity during a test following sitting and walking for 20 minutes. The color blue represents lower neural activity, while the color red denotes higher brain activity in a given region. After 20 minutes at a moderate walking pace, children responded to test questions (in the content areas of reading, spelling, and arithmetic) with greater accuracy, also following physical activity, children completed learning tasks faster and more accurately, and were more likely to read above their grade level.

## Resources

- School Travel Planning (STP) is presented by a coalition of organizations across Canada working together to enable more children to walk and cycle to school. Green Communities' Canada Walks makes coordination of efforts and knowledge transfer between and among these organizations possible. This national website provides a wealth of resources with links to international and provincial/territorial organizations and their curriculum, as well as to campaigns that can benefit and complement a school's efforts for health promotion and environmental awareness: [www.saferoutestoschool.ca](http://www.saferoutestoschool.ca)

Toolkit resources and flexible templates are available to use in every phase of the STP process. Find the toolkit at:

[www.saferoutestoschool.ca/school-travel-planning](http://www.saferoutestoschool.ca/school-travel-planning)

- Cleaner Air 4 Primary Schools Toolkit was developed by the London Sustainability Exchange (LSx). This organization works to support London to become a sustainable city. It provides businesses, government, communities and people with the motivation, knowledge and connections they need to put sustainability into practice. The Toolkit can be found at:

[http://www.london.gov.uk/sites/default/files/CA4S%20Toolkit\[1\].pdf](http://www.london.gov.uk/sites/default/files/CA4S%20Toolkit[1].pdf)

The Central Okanagan used a combination of both toolkits to implement The Clean Air & Safe Routes 4 Schools program at Davidson Elementary School in the District of Lake Country.

<sup>2</sup> Healthy Families BC <https://www.healthyfamiliesbc.ca/home/blog/childhood-obesity-be-aware-take-action>  
[www.smarttrips.ca](http://www.smarttrips.ca)

## Introduction

The Regional District of Central Okanagan (RDCO) and the Sustainable Transportation Partnership of the Central Okanagan (STPCO) in coordination with the District of Lake Country, invited Davidson Elementary School to participate in the Clean Air and Safe Routes 4 Schools program to increase participation in active transportation, reduce the number of motorized vehicles used for travel to and from school and reduce emissions around and from school buildings.

Davidson Elementary School was invited to participate in the process and signed the School Agreement on April 26<sup>th</sup>, 2016. A presentation was delivered by the facilitator to the Parent Advisory Committee (PAC) and administrative personnel to explain the scope of the project and their role in the process on April 13<sup>th</sup>. As well, an introductory document to parents and Terms of Reference of the school committee were presented for their review.

Municipality representatives were invited to participate and a package with an introductory document of the School Travel Planning and the Terms of Reference for the Municipal Stakeholder Committee were sent for their review. All members signed a statement of support; included on *Appendix 1* of this document.

The school and municipal committees were established and a general project timeline was presented to both committees for their approval.

The STPCO, with the help of an GIS collaborator, prepared maps for the Baseline Family survey and the Walkabout route. District personnel, with the support of the school committee, also performed a traffic count, observations around Davidson and analyzed the family baseline surveys. The municipal and school committee members actively participated in the process. They provided feedback on the draft maps, surveys, discussed the walkabout findings and analyzed the graphs and baseline data to develop and implement programs to target specific behaviors and barriers included in the Action Plan.

The following sections include the results of all the baseline information gathered.



## School Profile

The school profile was provided by Davidson's Principal on September 8<sup>th</sup>, 2016 and contains general information, main concerns and issues the school was facing.


**Table 1. Davidson's Profile**

Profile	Description
<b>School Name</b>	Davidson Road Elementary
<b>School Type, e.g. public, separate, private</b>	Public
<b>Age of School / Year Opened</b>	1984
<b>Name of School Board</b>	Central Okanagan School District No. 23
<b>Number of Students</b>	483
<b>Number of Families</b>	317
<b>Grades, e.g. K-6, K-8</b>	K-6 Total 19
<b>School Bell Times</b>	8:25, 8:30, 11:00, 11:32, 11:57. 1:37. 1:52 2:30
<b>Number of Parking Spaces, staff/visitor</b>	60
<b>Description of Location, e.g. District centre/suburban/rural</b>	suburban
<b>Is the school in a Neighbourhood Watch or Block Parent Community?</b>	NA
<b>% Bussed Students</b>	200 approx.
<b>Socio-Economic Description of Families</b>	Middle class
<b>Any local programs e.g. French immersion, fine arts, special needs, before and after-school day care etc.</b>	No
<b>High-Level Description of Any Major School Travel Problems e.g. catchment size, driver behavior, on local or connector road, traffic speed, heavy trucks, bussing wait times</b>	Congested parking lot No parking below school – interferes with Bylaws Shared entrance and exit Too many drivers, very few students walk due to narrow shoulders and limited sidewalks

Profile	Description
Existing Facilities At School Site, e.g. bike rack/storage, kiss 'n ride, school bus drop-off zone, adult or student crossing guards, public transit bus stops serving school, transport arrangements to after school programs	Bike rack, kiss and drop, bus / daycare pick up and drop off, student trained helpers for kiss and drop adult cross walk (but not always)
Existing Safety Policy & Education, e.g. school safety policy and rules, current safety education programs	Safety lessons embedded in BC curriculum
Programs at this school that have goals similar to STP, e.g. environmental, physical activity, mental health	
Types of school/parent committee communications used/available (i.e. newsletter, website, facebook page)	Newsletter, website, texting services, events board, synervoice PAC Facebook
Other Information	

## Davidson Elementary Catchment

Currently, there are 483 students in grades K to 6. The catchment area is shown in Figure 3.

 Davidson Elementary Catchment

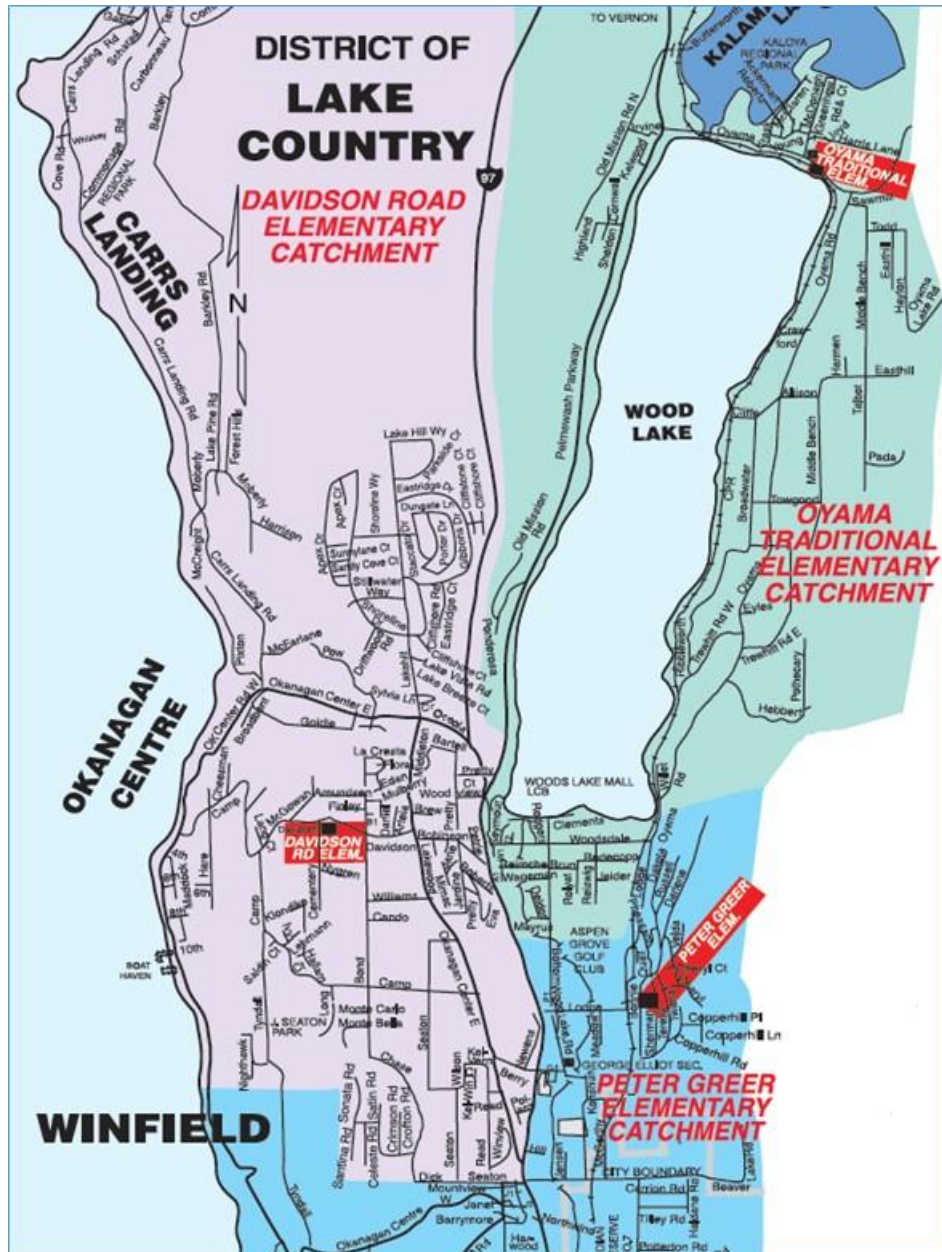
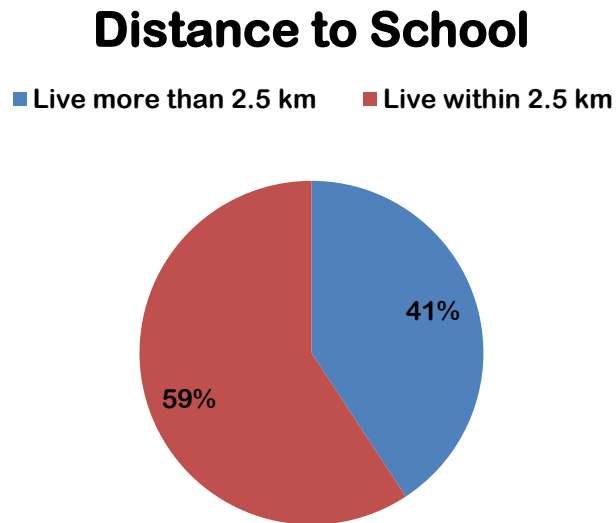


Figure 3. Davidson Elementary Catchment Area

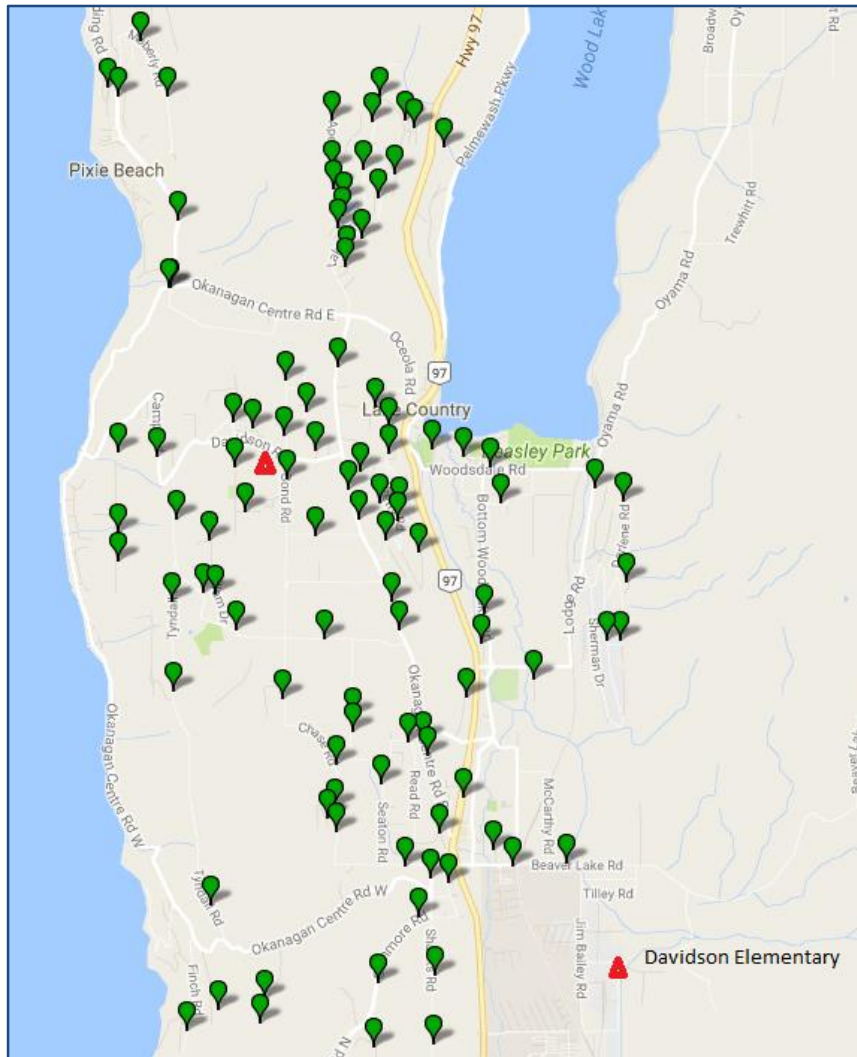
## GIS Analysis - Distance to School

Via the postal codes from all students attending Davidson Elementary School, general information was obtained to support some strategies and actions within the school. A GIS analysis was made using ArcInfo to calculate the distance home-to- school of all students. The following are the results:



**Figure 4. Distance to School**

- 59% of current students live within a 2.5 km from school
- 41% of students require a longer walk/bike ride to reach school as they live more than 2.5 km away



**Figure 5. Students within catchment area by postal codes**

- 17% of the students live within 1 km or



16 min walking

6 min cycling



**CAUTION:** ArcInfo was used to calculate the distance (in meters) from multiple points to one point; in this case to Davidson school. Distances are calculated on straight line to the reference point. Use caution when relating to walk/bike distances, it does not account for walk/cycle paths that might connect roads.

# Timeline of Main Tasks

Table 2. Timeline of Main Tasks

2016												2017											
STP/Project Timeline	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Activity</b>																							
<b>SET-UP</b>																							
<b>Municipal Stakeholder Committee established</b>																							
Coordinate & Follow up activities of the 2 committees and facilitator																							
Schools chosen and invited																							
Send School agreement to be signed																							
School Agreement signed the process has started																							
<b>School STP Committees established</b>																							
Prepare and deliver introduction presentation/documents to PAC and formalized School committee																							
Prepare surveys for data collection to STP Committee																							
Deliver surveys for data collection to STP Committee																							
School Stakeholder Committee meetings																							
Municipal Steering Committee meetings																							
<b>PROJECT PREPARATION AND DATA COLLECTION</b>																							
Complete School Profile																							
Inform school and parents about project																							
Prepare and submit a map to be included in the surveys																							
Conduct Baseline Classroom Surveys over five consecutive days																							





## Baseline Data Collection

Davidson is composed of approximately 317 families and equal amount of surveys were distributed on September 23, 2016. Over the week of September 26 to 30 teachers helped with 19 classrooms “hands-up surveys” and reminded their students to complete and submit the Family surveys. A reminder to fill out the survey was also sent through the school newsletter:

<http://www.dre.sd23.bc.ca/About/Publications/Documents/October%202016%20newsletter.pdf>

To encourage students’ participation, the RDCO provided:

- 19 prizes-packages, one for each classroom. The contents of the prize bags are as follow; one black smart trips bag, ten bicycle spoke reflective stickers, one smart trips stainless steel water bottle, 10 smart trips stickers, two bike bell, five smart trips reflective armband, one pair of socks, one bike sense manual, one bike maintenance book, school zone safety card and one pedometer.
- 1 Grand Prize, which included 1 bicycle, helmet and 1 package (above).

The distribution of these prizes was at the teachers’ discretion and there was a draw for the grand prize. The winner of the bicycle was Josh Reimer from grade 4.



**Figure 6. Facilitator Dave Gibson delivering the bicycle**

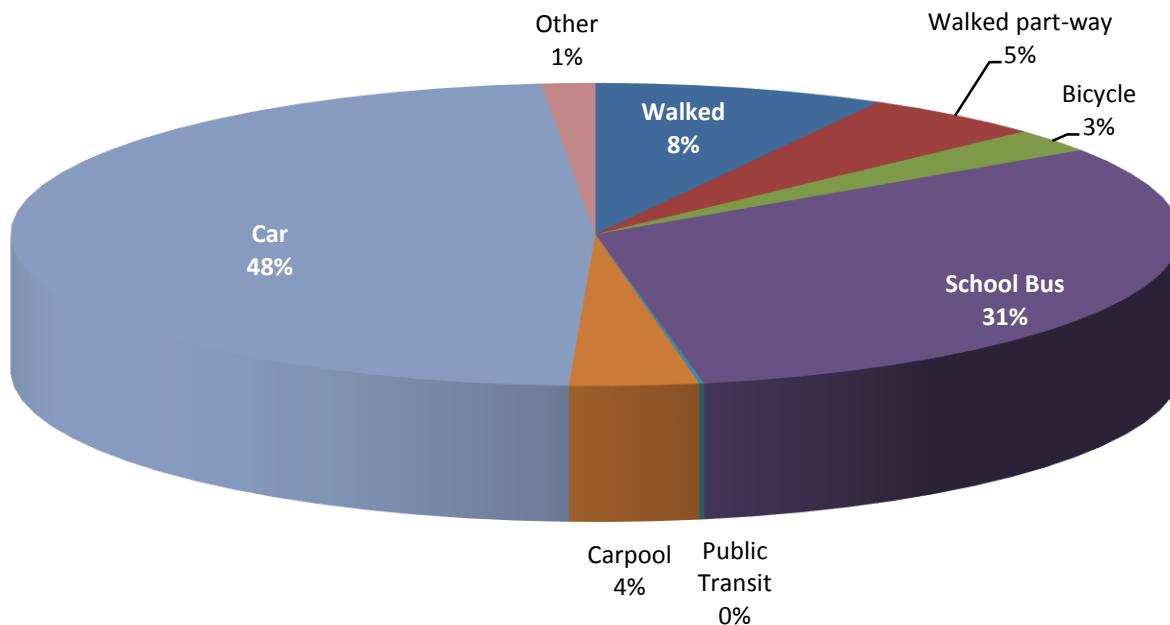
## Student Classroom Survey findings

Davidson Elementary has 19 classrooms and with the teachers' support all classroom surveys were received reflecting travel "to" School of ninety-eight percent of the students, as shown in Figure 7.

**Table 3. Summary - TO School (Frequency)**

	Walked	Walked part-way	Bicycle	School Bus	Public Transit	Carpool	Car	Other	Total
Monday	33	18	11	152	0	13	238	6	471
Tuesday	35	21	10	150	2	20	233	5	476
Wednesday	39	24	14	147	0	20	223	9	476
Thursday	43	26	12	152	0	14	217	7	471
Friday	40	30	12	140	1	17	216	8	464
<b>Total</b>	<b>190</b>	<b>119</b>	<b>59</b>	<b>741</b>	<b>3</b>	<b>84</b>	<b>1127</b>	<b>35</b>	<b>2358</b>
<b>Average</b>	<b>37.5</b>	<b>22.25</b>	<b>11.75</b>	<b>150.25</b>	<b>0.5</b>	<b>16.75</b>	<b>227.75</b>	<b>6.75</b>	<b>473.5</b>

## Student Hands-Up Survey: Total Travel Mode TO School Over a Week



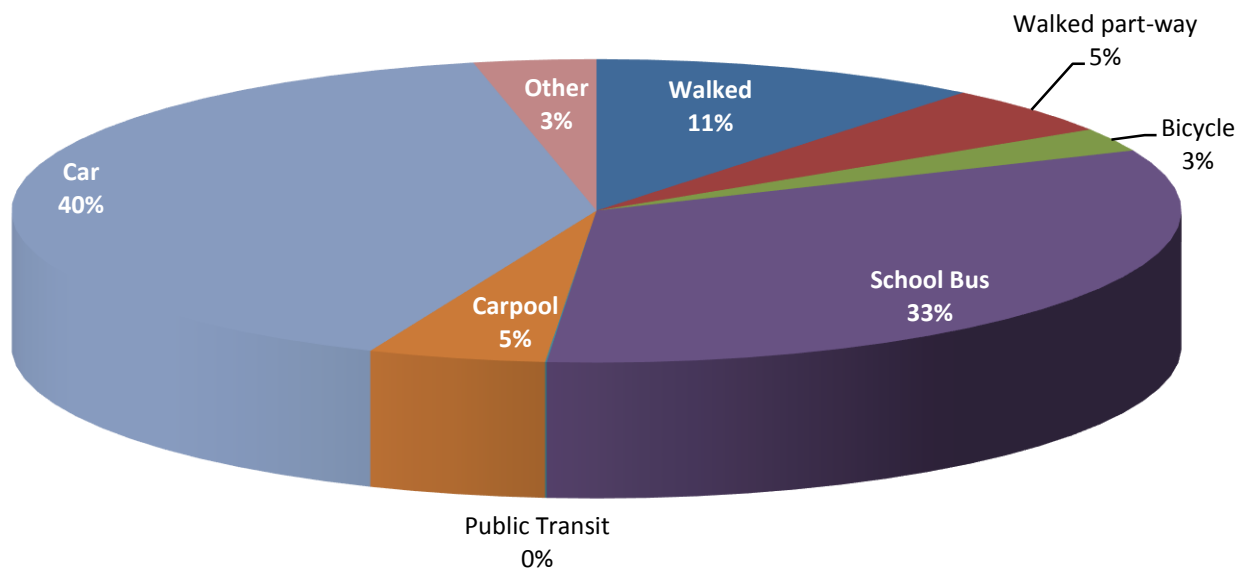
**Figure 7. Total Travel Model to School over a short Week**

We received 19 complete classroom surveys outlining “from” school results. Ninety-eight percent of the 483 students attending Davidson were tracked over one full week. As illustrated in Figure 8, in the afternoon more kids walk from school in comparison to the “to” school results.

**Table 4. Summary - FROM School (Frequency)**

	Walked	Walked part-way	Bicycle	School Bus	Public Transit	Carpool	Car	Other	Total
<b>Monday</b>	50	21	11	167	0	25	189	13	<b>476</b>
<b>Tuesday</b>	50	26	10	167	0	25	183	19	<b>480</b>
<b>Wednesday</b>	53	27	15	156	0	30	181	21	<b>483</b>
<b>Thursday</b>	54	23	12	144	0	15	205	14	<b>467</b>
<b>Friday</b>	48	26	11	142	1	21	194	13	<b>456</b>
<b>Total</b>	<b>207</b>	<b>123</b>	<b>59</b>	<b>776</b>	<b>1</b>	<b>116</b>	<b>952</b>	<b>80</b>	<b>2362</b>
<b>Average</b>	<b>51.75</b>	<b>24.25</b>	<b>12</b>	<b>158.5</b>	<b>0</b>	<b>23.75</b>	<b>189.5</b>	<b>16.75</b>	<b>476.5</b>

## Student Hands-Up Survey: Total Travel Mode FROM School Over a short Week



**Figure 8. Total Travel Model from School over a short Week**

Other includes: afterschool care (by vehicle), boys and girls club.

## Baseline Family Survey Findings

One hundred and seventy family surveys were received out of 317 delivered, which means 54% of Davidson School families provided insightful information to help us understand the issues and barriers that prevent students from using active transportation. The following graphs show the main results of the Family survey. Additional comments from parents are included on Appendix 2:

### How does your child get to/from school?

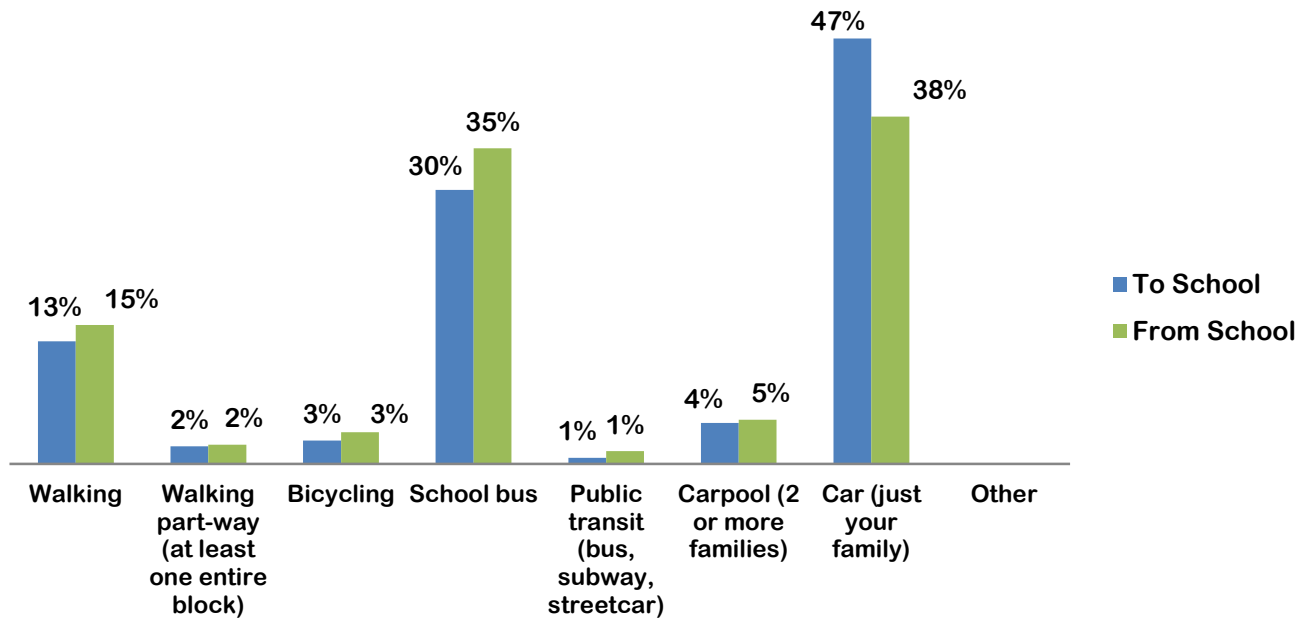


Figure 9. How does your child get to/from school?

### How far away from the school do you live?

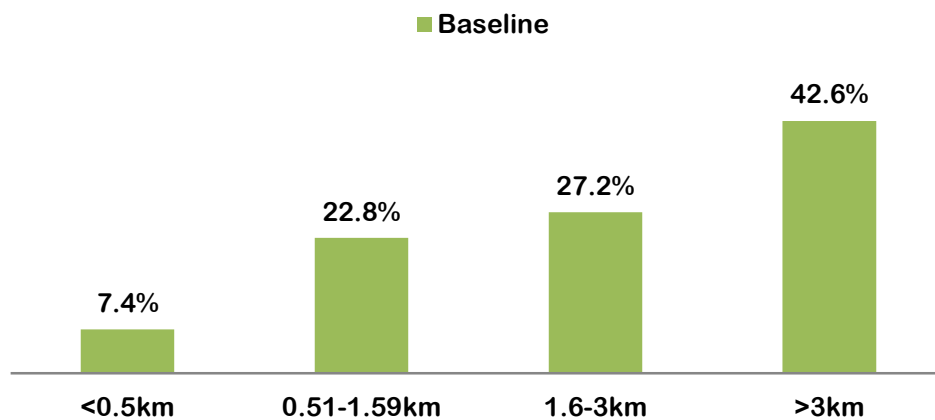


Figure 10. How far away from the school do you live?

## Our neighbourhood is safe for children to walk to and from school

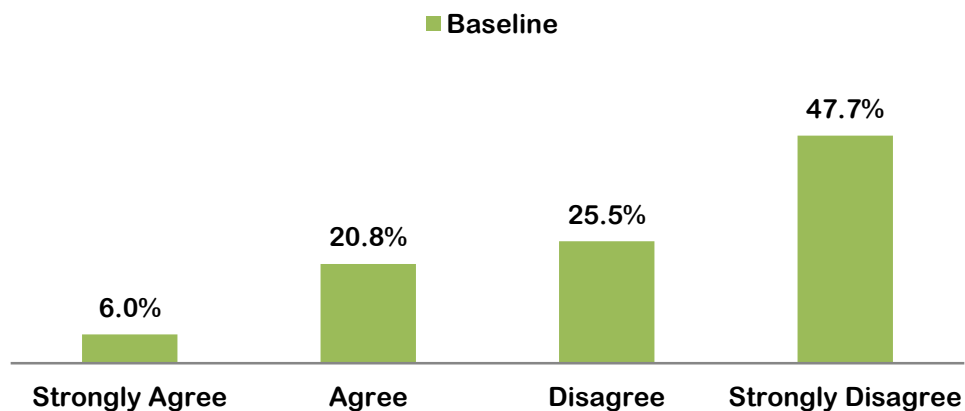


Figure 11. How safe is our neighborhood

## If your child is usually driven to/from school, what are the main reasons why?

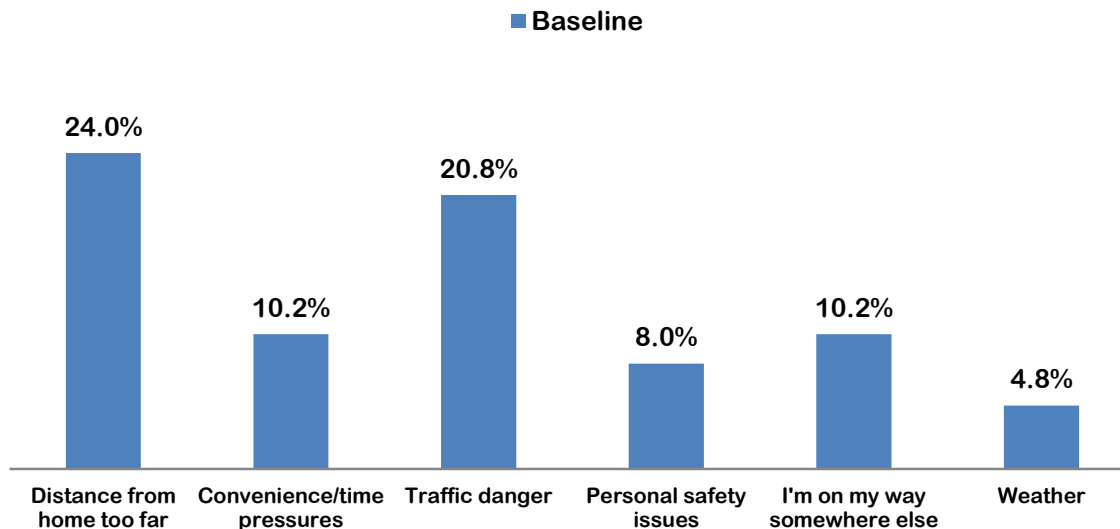


Figure 12. Main reasons given for driving kids to school

## I would allow my child to walk to school if...

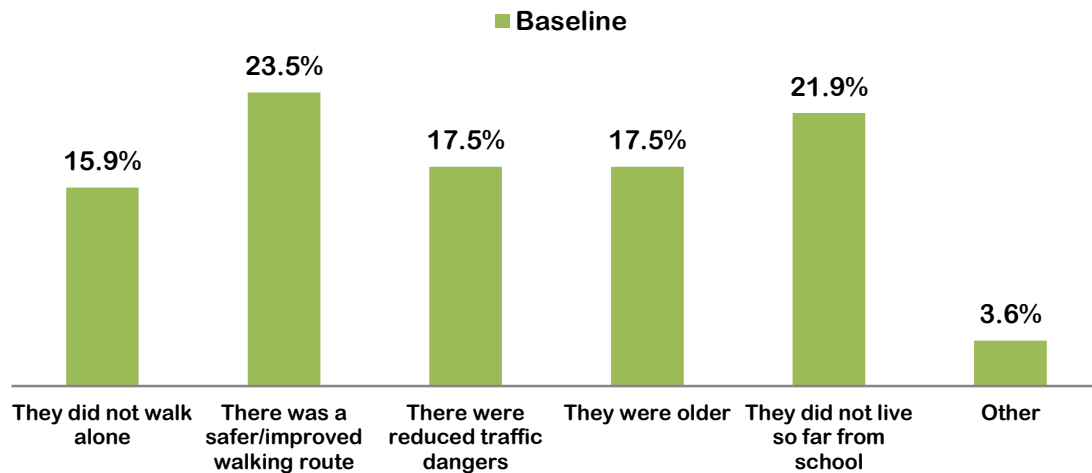


Figure 13. I would allow my child to walk to school if..

The reasons provided in “Other” for Figure 13, were: if there were sidewalks; if distance from home wasn’t too far.

## I would allow my child to cycle to school if...

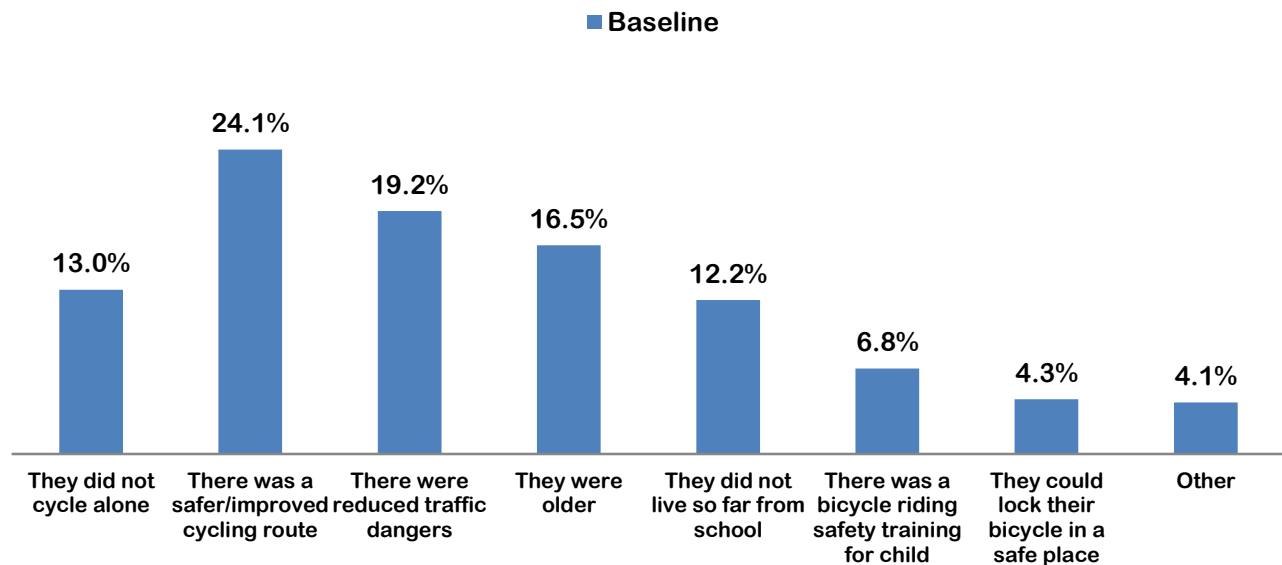


Figure 14. I would allow my child to cycle to school if..

“Other” included: Steep hill on Davidson from Camp Rd to Jackson would make cycling too hard for my kids at this age; bike lane and crosswalks route are unsafe; no safe bike path.

## Age distribution of each family's eldest child at the school

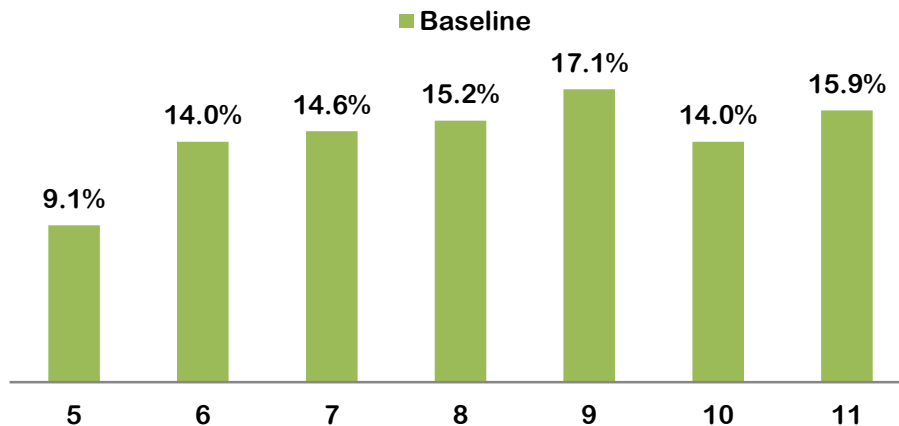


Figure 15. Age distribution of each family's eldest child at the school

## How does the child feel on the trip

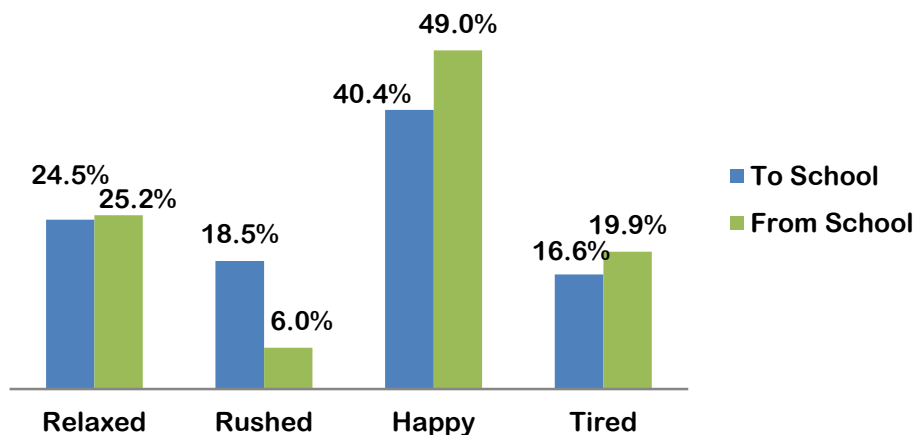


Figure 16. How does the child feel on the trip to and from school?



## Walkabout and Route Map

The Walkabout was performed on October 28, 2016 from 8:00 to 10:30 am. Seven members from the Municipal Committee and five members from the School Committee attended. The following pages show a detailed overview of the walking route and key findings. The Agenda, walkabout route map, and a walkability checklist with important points of observation to consider during the route were provided to every participant prior to the meeting.


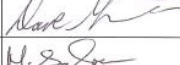
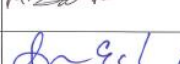
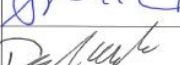



The agenda was as follows:

- 8:00 Arrival
- 8:05 Introductions
- 8:10 Brief summary of issues by PAC president
- 8:15 Group 1 - Observe drop-off area Davidson (point 1 on the map, Fig 17)
- Group 2- Observe drop-off area Davidson (point 2 on the map, Fig, 17)
- 8:40 Start walkabout
- 9:40 Return to the school staff room – refreshments- coffee & cookies
- 9:50 Discussion of findings & next steps
- 10:30 Wrap-up

### School Travel Planning - Davidson Elementary School First STP Municipal and School committee meeting- Walkabout

#### Municipal Committee – Sign-in Sheet



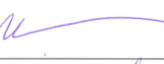
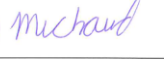


Date: October 28<sup>th</sup>, 2016  
Time: 8:00 am – 10:30 am  
Location: Davidson Elementary School- Library

Name	Institution/ Government	Position	Signature
Jerry Dombowsky	Regional Services (STPCO)	Regional Programs Manager	
Dave Gibson	Regional Services (STPCO)	Regional Traffic Safety Officer STP Facilitator	
Mathew Salmon	District of Lake Country	Engineering Technician Infrastructure Services	
<del>Jayson Lucas</del> Sean Eckhardt	RCMP	Police officer	
David Widdis	School District 23	Planning Manager	
Pam Moore	Interior Health	Healthy Community Environments	
Nancy Mora	Regional Services / RDCO	Regional Air Quality Coordinator/ STP Project Coordinator	

### School Travel Planning - Davidson Elementary School First STP Municipal and School committee meeting- Walkabout

#### School Committee – Sign-in Sheet

Date: October 28<sup>th</sup>, 2016  
Time: 8:00 am – 10:30 am  
Location: Davidson Elementary School- Library

Name	Position	Signature
Janet Slaney	Principal	
Kerri Thomson	PAC -President	
Nicole Goodwin	PAC Parent	
Dori Michaud	PAC Parent	
Brenda Jenn Hopkinson Kalinovich	PAC Parent	
Patrice Hornybrook	PAC Parent	

The Walkabout route was developed by City staff considering the information provided by the school committee.

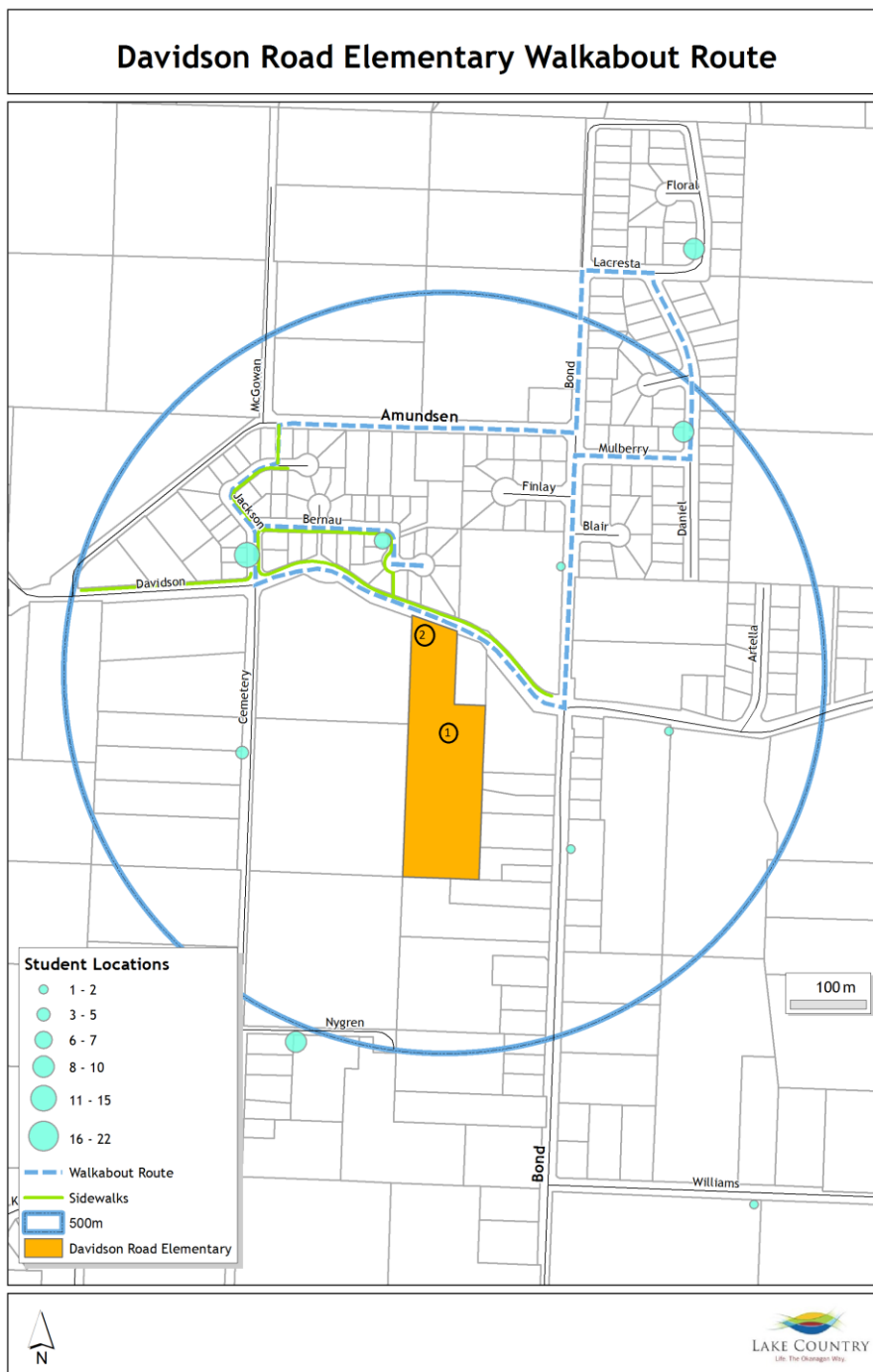


Figure 17. Davidson Walkabout Rout Map

## Walkabout Main Findings

After the Walkabout, the Municipal and School Committee members discussed the main findings and issues Davidson was facing. Attendees provided insightful information to consider in the development of the Action Plan. The following is a summary of the Walkabout findings. The complete list is on *Appendix 2*.

**Table 5. Davidson Walkabout Main Findings**

The Walkability Checklist	General Findings
Parking lot, or on road parking at school	Parent volunteer helps minimize conflict. Kids get dropped off on drivers' side. Formalize crosswalks with flashing lights. Parking lot above is small and congested. Poor visibility. Roadway becomes narrow and congested after school. Education needed on right of way-kiss & drop parked traffic or pedestrians. Parked vehicles on bike lanes, kids cycling need to use sidewalks. Bike lanes parking stacked significantly.
Facilities for walkers on the street next to the school site	Safety patrollers- 2-3. One parent volunteer directing traffic consistently 3 days a week. 2-3 kids as valet parking. Education campaign is needed. Sidewalks south side of Davidson. Issue with plowing in winter, not clear up hill to school.
Walking paths to the school	Sidewalk on Davidson. Maintenance- snow removed on Davidson and Bond should be a priority. Some days sidewalks are not cleaned.
Bicycle facilities	Existent in an open area-nor sheltered.
School Bus/After School Care Loading Zone	Bus has separated areas adjacent to school. Waiting time 2-3 minutes, kids get in straight from school onto bus. Analysis on better use of Bus lane could be performed. Ramps needed by fire zone.
Walking facilities and traffic observations	Only along Davidson Rd and Bond Rd. Speed is always a concern. There's on-street signs, but could be moved or install additional sign before Davidson @Bond 4 way stop.
Alternative safe parking locations	Limited. Possible, but could create congestion in neighborhood. SD23 could analyze options. More buses needed? Implement Car share program (incentive)
Bicycle facilities	One bike lane along Davidson, but bike lanes available are used by parents to park due the lack of space in the parking lot and high volume of cars.
General Comments	Bond Road between Davidson and Camp is a major walking and running route for students and the public. A sidewalk is very badly needed. Drainage on Bond Road is not great and there are large puddles along the sides in our area. Cars travel more than 50km per hour along this road and it is not safe to let children walk or bike alone on. In the winter, the lack of sidewalk and snow piles make it nearly impossible to walk
General Suggestions	Could we consider Rumble strips, speed control, flashing crosswalk?



**Figure 18. Walkabout-Municipal and School Committees**



**Figure 19. Improve Bike lanes signage**



**Figure 20. High volume of vehicles parked on Bike lanes**



**Figure 21. Crossing guard needed**



**Figure 22. Long line up doesn't allow buses to pass**



**Figure 23. Walkway clean up during winter**



**Figure 24. Rolling stops @ Bond**



## Traffic Count Findings

The school committee with support from District of Lake Country's staff performed a three-day traffic count on September 26, 27 and 28, 2016. The observations were made from 8:10 a.m. to 8:40 a.m., and from 2:10 p.m. to 2:40 p.m. at three locations. Location #1 was on Cemetery Rd & Davidson, location #2 was on the Crosswalk on Davidson Rd @ School entrance, location # 3 was on Davidson @ Bond Rd, as shown in the map below.



**Figure 25. Traffic Count Locations**

The following are the average results from the three locations:

**Table 6. Davidson Drop-off Traffic Count and Observations**

September 26-28 2016		Start Time:	8:10 AM	End Time:	8:40 AM
Date:					
Location:	#1 + #2 + #3	Observer:	School Committee-STPCO staff		
Start counting in blocks of 10 min:	8:10 - 8:20 am	8:20 - 8:30 am	8:30 - 8:40 am	Totals	
Vehicles stopping in marked no-stopping or no-parking zones	5	15	10	30	
U and 3-point turns where not permitted or unsafe	2	3	5	9	
Rolling Stops at Intersections	10	8	6	24	
Drivers Failing to yield to walkers	0	1	1	3	
Jaywalking; walking in or crossing traffic lanes	0	0	0	0	
Cyclists riding on the sidewalk	2	2	2	6	
Real or potential conflicts between vehicles, bikes and/or walkers	1	1	2	4	
Visibility/sightline problems (e.g. parked cars, overgrown vegetation etc.)	0	0	0	0	
Presence and behaviour of delivery or maintenance vehicles	1	0	0	1	
Speeding (by appearance)	11	15	24	50	
Idling (more than 60s)	1	1	2	4	
Distracted drivers (using phone, eating etc.)	1	2	2	4	

**Table 7. Davidson Pick-up Traffic Count and Observations**

September 26-28 2016		Start Time:	2:10 PM	End Time:	2:40 PM
Date:					
Location:	#1 + #2 + #3	Observer:	School Committee-STPCO staff		
Start counting in blocks of 10 min:	2:10 - 2:20 pm	2:20 - 2:30 pm	2:30 - 2:40 pm	Totals	
Vehicles stopping in marked no-stopping or no-parking zones	18	18	6	42	
U and 3-point turns where not permitted or unsafe	5	2	2	9	
Rolling Stops at Intersections	2	2	2	6	
Drivers Failing to yield to walkers	0	1	0	1	
Jaywalking; walking in or crossing traffic lanes	1	6	10	1	
Cyclists riding on the sidewalk	0	0	1	1	
Real or potential conflicts between vehicles, bikes and/or walkers	0	0	1	1	
Visibility/sightline problems (e.g. parked cars, overgrown vegetation etc.)	0	0	0	0	
Presence and behaviour of delivery or maintenance vehicles	1	1	0	1	
Speeding (by appearance)	7	4	2	13	
Idling (more than 60s)	0	0	0	0	
Distracted drivers (using phone, eating etc.)	0	0	0	0	



### Davidson Elementary School Traffic Count (Combined averages 3 locations)

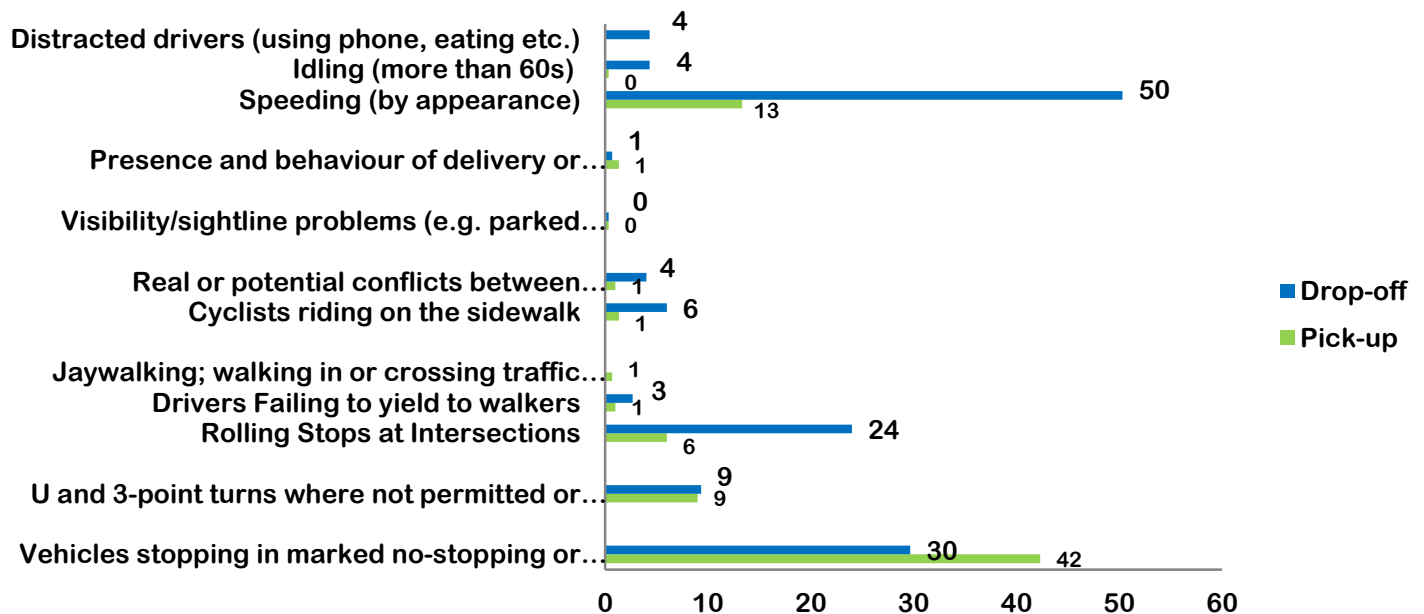


Figure 26. Average Drop-off and Pick-up Traffic Observations

### Davidson Elementary School Traffic Count (Combined averages 3 locations)

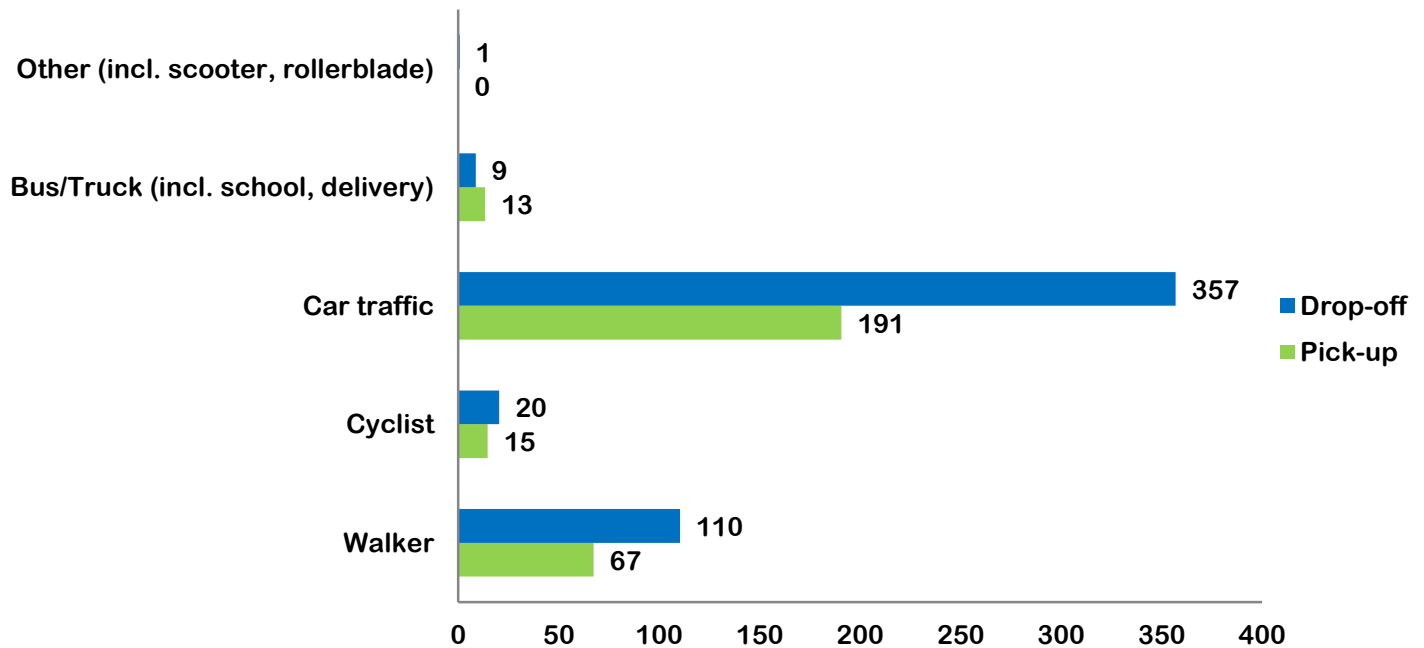
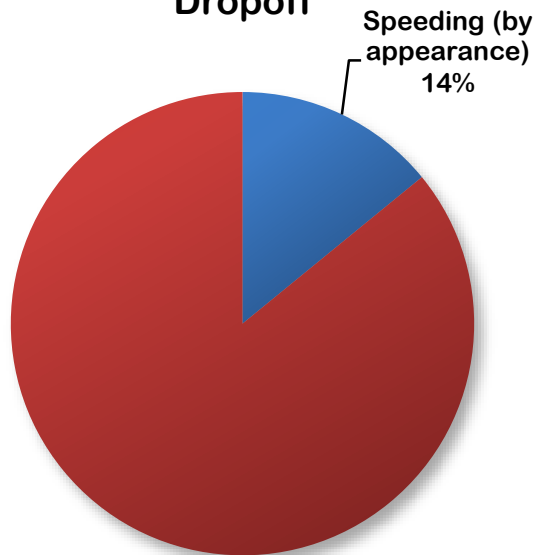


Figure 27. Average Drop-off and Pick-up Traffic Count

**Speeding (by appearance)  
(School area wide)**

**Dropoff**

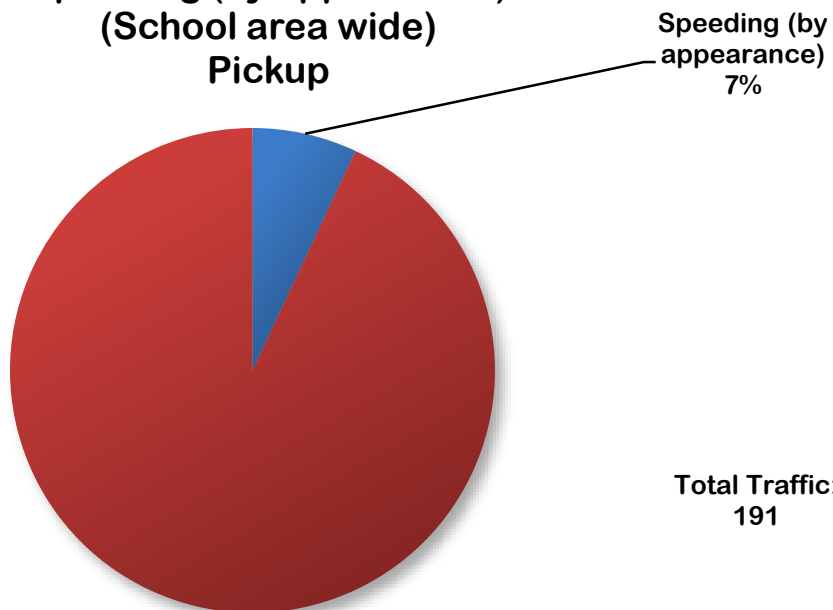


**Total Traffic:  
357**

**Figure 28. Speeding by appearance-Drop-off**

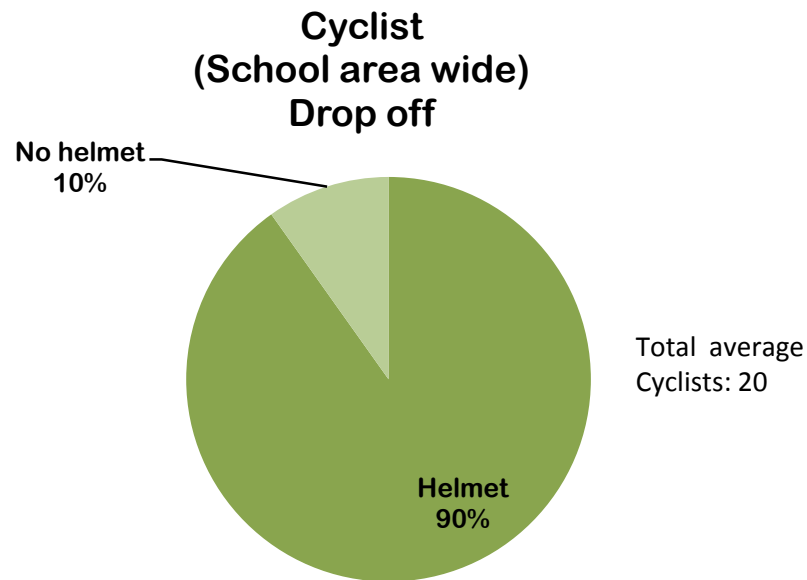
**Speeding (by appearance)  
(School area wide)**

**Pickup**

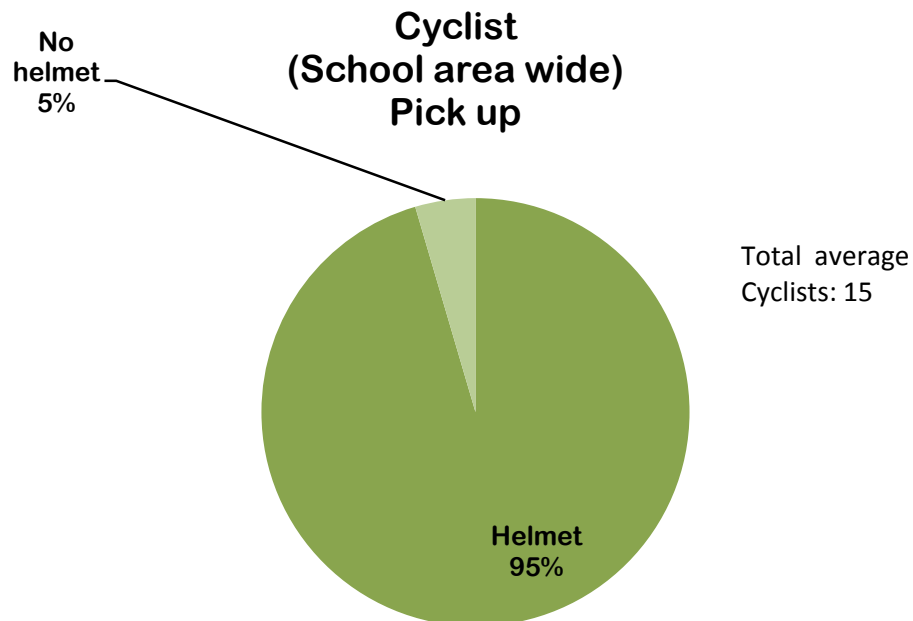


**Total Traffic:  
191**

**Figure 29. . Speeding by appearance-Pick- up**



**Figure 30. Cyclist Drop- off**

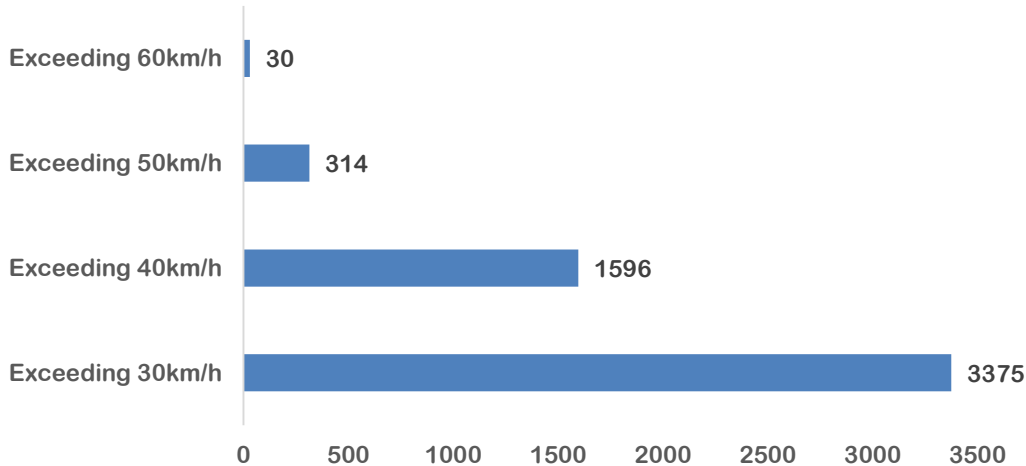


**Figure 31.Cyclist Pick-up**

Approximately 69% of those cyclists were students from Davidson.

District of Lake Country also installed electronic traffic count instrumentation along Davidson Rd WE in the school zone from May 25 to June 01 2015. The following are the speed statistics:

### Speed Statistics May 25-June 01-2015



Posted speed limit is 30 km/h in the school zone, during that period 84.54% of drivers exceeded the speed limit with a mean of 40.48 km/h. 8.6% of the vehicles exceeded 50km/h.

## Reducing Emissions from School Buildings

All but the most efficient buildings release emissions of gaseous pollutants, including nitrogen dioxide, particulate matter and carbon dioxide. These pollutants not only contribute to poor outdoor air quality and climate change, they also give rise to poor indoor air quality. Poor ventilation can lead to concentrations of air pollutants in buildings, which at high levels can cause a risk to health.

This section aims to identify some of the key sources of building-related emissions. By implementing the recommendations set out in the action plan, the school will not only reduce the emissions of pollution from the building, but may be able to reduce energy costs as well. Projects to reduce school buildings emissions also provide an opportunity to influence and educate the school community on the issues of air quality and energy consumption.

### Where do emissions come from?

It is estimated that the energy consumption from school buildings will account for roughly 37% of the school's overall greenhouse gas footprint. The contribution of school buildings to local air pollution is harder to establish, however we know that equipment such as boilers make a significant contribution.

Typical sources of pollution from school buildings include:

- Boilers (combustion of gas releasing nitrogen dioxide)
- Back-up generators (combustion of gas)
- Air conditioning systems
- Kitchens and canteens
- Vehicle: school transport, supplies and deliveries, cars idling
- Garden equipment (lawnmowers, leaf blowers, etc. running off gas)
- Other equipment, such as gas-fired water heaters

## Opportunities for Emission Reduction

In most cases understanding and managing the school energy consumption will also enable you to reduce the levels of pollutant emissions. A number of actions that Davidson can undertake to reduce energy consumption and emissions of pollution have been identified. Those actions are described in the Action Plan.

## School GHG Emissions by Transportation

Using the baseline classroom and family surveys data and some average statistics, the Greenhouse gases (GHG) were estimated for Davidson School, considering:

- The postal codes of all the students attending Davidson; those postal codes were transformed to Geocodes using : <http://www.gpsvisualizer.com/geocoder/>
- Based on the classroom survey an average of 81% of the kids are driven to and from school (driven + carpool + bus) and 19 % walk and/or bike.
- The emission factor of 0.2296 KgCO<sub>2</sub>/km –“Average Emissions and Fuel Consumption for Passenger Cars” <http://www.epa.gov/otaq/consumer/420f08024.pdf>

Description	GHG(Tonnes/year)
Baseline: Davidson School GHG emissions due to kids being driven to and from school. Average 81% (driven + carpool+ bus)	<b>165</b>
GHG that could be saved if reaching the rest of students who live in longer walking / short bike distance (less than 2.5 km, or 3 min drive time).	<b>60.5</b>
GHG already being saved; Baseline: 19% of the students walk and bike to and from school.	<b>2.3</b>
GHG reduction with the Idling reduction pledge-2% parents who idle.	<b>0.5</b>
GHG already being saved; 98% of parents don't idle.	<b>24.5</b>

In addition to the GHG emission reduction from those who can bike or walk to school because they live nearby (less than 2.5 km), the Cleaner Air 4 Schools Program includes an idling campaign which involves the school teachers and parent's collaboration. The traffic count showed that at least 2% of the parents idle around the school. If that program is implemented and assuming:

- 207 families attending Davidson (average drivers) sign the idling reductions pledge
- one car per family – only one parent sign the idling reduction pledge
- Parents drive a light –duty vehicle
- National surveys show Canadians idle between 6 to 8 minutes per day

Estimation results: If **207** driver(s) of light-duty vehicles avoided idling for **6** minute(s) a day, this would\*:

- Reduce the use of **10,518** litres of fuel per year
- Save **\$8,568.05** annually
- Reduce **25,564** kilograms of GHG emissions per year
- Equal to taking **18** vehicle(s) off the road
- Mean each driver would save **50.81** litres of fuel, **\$41.39** in fuel costs, and contribute to reduction of **123** kilograms of GHG emissions, annually
- Equal to having **153** tree(s) planted to absorb GHG emissions

Increasing active school travel by 10% and reducing idling to zero will represent an estimated of 18 tonnes/year in annual GHG not emitted to the atmosphere; this could be set as an initial goal for the school.

Teachers can use the iSchool calculator from HASTE to accurately measure classroom impacts arising from transportation choices to and from school.

\*Source: <http://oee.nrcan.gc.ca/transportation/tools/calculators/Idling/idlingimpact-individual.cfm>

## School Travel Planning and Clean Air Goals

Considering all data from the Family Surveys, traffic count observation, classroom surveys and the GIS analysis, the Municipal and School Committees defined the Goals and Strategies to implement the Clean Air and Safe Routes 4 Davidson. The three main goals were:

- Reduce congestion within school premises and increase safety at the school site;
- Increase active school travel on the school journey; and
- Reduce overall school emissions

## Action Plan

This Action Plan includes short, medium and long-term measures. All measures were identified, as well as who will be responsible for the tasks and target completion dates. When possible, the cost estimates were collected.

**Table 8. Davidson Action Plan**

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost and Source of Funds, or No Cost
<b>Objective 1: Improve the safety of children on the active school journey</b>					
Pedestrian and bike safety presentations	Seek road safety curriculum resources for classroom teaching. ICBC road safety teaching resources: <a href="http://www.icbc.com/road-safety/teaching/Pages/For-educators.aspx">http://www.icbc.com/road-safety/teaching/Pages/For-educators.aspx</a>	Dave Gibson	Feb 2017	Feb 2017	none
Parent role modeling messaging	Provide messages for use in school and parent communications	School Committee	Start Jan 2017	Ongoing	
Road safety/personal safety presentation	Contact community police to present to an assembly	RCMP	Feb 2017	Feb 2017	
Improve vehicle and walker/cyclist/bus separation at and on school site	A site study by school district staff/municipal advisors-review the utilization of the dedicated bus lane in the drop off area. Analysis on demographics/capacity, to advise if an extra school bus is needed.	Dave Gibson SD23 School Committee	2017	2017	\$
Implement Speed Watch at: 1-Okanagan Centre & Davidson 2-Davidson & Bond 3- Woodsdale & Reswig Rd 4-Oceola & Okanagan Centre	Volunteers monitor speeding in specific areas. Using Portable Radar equipment and an electronic sign for instant feedback, drivers are made aware of their speeds as they travel along neighborhood streets. Contact Richard at 250-766-3681 or Bill at 250-540-5231 or leave a message at 250-766-5400. <a href="http://www.okanaganway.ca/article/volunteers-the-unsung-heroes-of-lake-country/">http://www.okanaganway.ca/article/volunteers-the-unsung-heroes-of-lake-country/</a>	School Committee/ District of Lake Country	TBD	TBD	
School Zone Signage enhancement	Replace faded School Zone signs around school. Move or add additional signs between Okanagan Centre and Bond. The District has requested that ICBC conduct a Traffic Sign and Road Markings study in 2017.	District of Lake Country	2017	2017	\$
Pedestrian Flashing Crosswalk-midblock on Davidson Rd (across the school entrance)	Data collection and analysis – subject to budget approval	District of Lake Country	TBD	TBD	\$



Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost and Source of Funds, or No Cost
Road improvement Davidson, Robinson and OK Centre E	The Transportation for Tomorrow 20-year plan for <i>'getting around Lake Country in safe and enjoyable ways'</i> sets the framework for street improvements: Works on Robinson and OK Centre E are currently forecast for 2019. Subject to budget approval. The District will be undertaking some minor works in Spring 2017 to improve the situation.	District of Lake Country	2019	TBD	\$
Bike lanes improvements	The District have existing bike lanes on Davidson Rd marked with painted symbols but temporary removed until an analysis is made to address parking and traffic volume. Longer term plans are devised in conjunction with the School and SD23 to craft solutions to meet various needs (parking, active transportation, mobility, buses and vehicles)	District of Lake Country /SD23	2017	2017	\$
Bike Rodeo	Youth learn basic rules of the road, hand signals, obstacle avoidance and scanning techniques	Dave Gibson	2017	2017	\$
Best Walking Routes Map brochure	Create map showing best routes and distribute to families along with walking safety information	STPCO/ District of Lake Country	Nov 2016	March 2017	\$
<b>Objective 2: Raise the awareness of the environmental and health benefits of active travel</b>					
Implement a Cleaner Air 4 school Program	The program was designed by RDCO, and will be delivered to grades 3-6 by teachers with the school committee support.	Air Quality-Nancy School committee	March of every year	June of every year to 3 <sup>rd</sup> grades.	\$
Have students create artwork for temporary outdoor signage	Identify classes that can make this an art project or run a contest.	School Committee SD23 District of Lake Country	TBD	TBD	\$
Have physical activity benefits messaging in newsletters/Health presentations.	Review information on Public Health Agency of Canada website. <a href="http://www.interiorhealth.ca/YourHealth/SchoolHealth/HealthPromotion/Pages/default.aspx">http://www.interiorhealth.ca/YourHealth/SchoolHealth/HealthPromotion/Pages/default.aspx</a> <a href="http://www.interiorhealth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotionResources.aspx">http://www.interiorhealth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotionResources.aspx</a> <a href="http://www.interiorhealth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotingSchools.aspx">http://www.interiorhealth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotingSchools.aspx</a> <a href="http://www.actionschoolsbc.ca/node/3901">http://www.actionschoolsbc.ca/node/3901</a> <a href="http://www.healthyeatingpei.ca/">http://www.healthyeatingpei.ca/</a>	School Committee Interior Health	TBD	TBD	

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost and Source of Funds, or No Cost
Sustainable Happiness lesson plans	Distribute teacher resources found at <a href="http://sustainablehappiness.ca/teachers/">http://sustainablehappiness.ca/teachers/</a> <a href="http://www.cleanairchampions.ca/programs.php">http://www.cleanairchampions.ca/programs.php</a>	School Committee SD23			\$
<b>Objective 3: To encourage more students to walk to school</b>					
Drop & Go / Walk a Block or Two	Identify suitable locations for students to be dropped off outside the school zone	School Committee/ Dave Gibson	TBD	TBD	\$
Buddy Scheme	Set up scheme to encourage students to walk and cycle with others	School Committee Dave Gibson	TBD	TBD	\$
Neighbourhood Walking School Bus	Identify a route from a suitable neighbourhood to school. Organize WSB.	School Committee Dave Gibson	TBD	TBD	
IWALK (International Walk to School Month – October)	Organize a Walk to School Week	STPCO- School Committee	2017 - October 4 <sup>th</sup>	Every year	\$
Walk to School Days	Detail a challenge and advertise Walking Wednesdays	School Committee	TBD	TBD	\$
Appropriate dress	Organize a fashion show for Be Seen, Be Warm ...	School Committee	TBD	TBD	\$
Celebration	Organize a community walk to school with local dignitaries on Earth Day	School Committee SD23	April 22, 2017	Every year	
Bike and Walk to School Week	Encourage students and their families to walk, scooter, skateboard or ride their bikes to and from school	School Committee/TDM	May 2017	Every year	\$
Commuter challenge	Promotes friendly competition to see who can get the highest percentage of employees out of single occupancy vehicles <a href="http://commuterchallenge.ca">http://commuterchallenge.ca</a>	School Committee	June 4-10, 2017	Every year	\$
Carpool month	Promote Carpooling as a simple way for individuals to take part in the climate change challenge while saving money, reducing congestion and conserving energy along the way. <a href="https://www.carpool.ca/Default.aspx">https://www.carpool.ca/Default.aspx</a>	School Committee	October 2017	Every year	
Clean Air Day	Participate in activities that contribute to cleaner air, healthier communities and a better quality of life for all.	School Committee/ Air Quality	June 2017	Every year	
<b>Objective 4: To facilitate safe bicycling to and from school</b>					
Bike safety training	On-bike training for students	Dave Gibson	October 2015	TBD	No cost
Cycle Storage	Provide adequate bike racks in secure location on school site	SD23	2017	TBD	\$ need to review

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost and Source of Funds, or No Cost
					with school to determine how many and costs
<b>Objective 5: Reducing Emissions from School Buildings</b>					
Understanding Energy Use, and Improving Monitoring and Measurement	Monitor usage over a period of time, e.g. a week, a month. When and how often is the emissions source used? Report on areas of waste, across all spectrums of school (each year groups, staff department etc) • Where possible, establish permanent mechanisms to monitor energy or equipment use (e.g. meter readings, use of smart meters)	SD23	Ongoing		\$
Reducing Energy Demand & Improving Building Efficiency	<ul style="list-style-type: none"> <li>• Reduce energy waste (switching off appliances when not in use, installing occupancy sensors for lights, installing Thermostatic Radiator Valves to control temperature etc.)</li> <li>• Investigate energy efficiency of key building systems (i.e. most efficient boiler in place, investigating more suitable solutions such as Combined Heat and Power CHP)</li> </ul>	SD23	Ongoing		\$
Investigate Opportunities for Renewable Energy Provision	<ul style="list-style-type: none"> <li>• Investigate potential for on-site renewable energy generation, e.g. Photo Voltaic solar panels, wind turbines, ground source heat pumps etc. • If renewable energy options are not possible, ensure energy supplies are from a green provider</li> </ul>	SD23	Ongoing		
Reducing Emissions from Procurement	<ul style="list-style-type: none"> <li>• Source supplies locally where possible - reducing emissions from transport and delivery (e.g. food/stationery supplies)</li> <li>• Use sustainable products (i.e. recycled paper and stationery, cleaning products with low environmental impacts, energy efficient kitchen/office equipment – Energy Star Label)</li> </ul>	SD23	Ongoing		\$
<b>Objective 6: To monitor effectiveness of initiatives and revise School Travel Plan annually</b>					
Monitor transportation mode	Conduct Follow-up Classroom Survey	STPCO/ School	October	October	

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost and Source of Funds, or No Cost
		Committee	2017	2017	
Monitor behaviour changes	Conduct Follow-up Family Survey	STPCO/ School Committee	October 2017	October 2017	\$
Report on implementation of STP and initiatives	Follow-up of first year actions. Revise the plan and compile a final report with recommendations.	STPCO	Nov 2017	January 2018	\$
Oversee the implementation of Action Plan items and track changes over time	The follow-up hands-up classroom survey should be performed at the end of every school year. If possible a family survey should be performed every second year.	School Committee	October 2017	October 2021	\$

## Committee members

Regional Services, in coordination with the District of Lake Country, sent an invitation to all the institutions described below to participate in the Municipal and School Stakeholder Committee. An introductory document of the School Travel Planning and the Terms of Reference of the Municipal and School Stakeholder Committee were sent for their review.

The Municipal and School committee members were aware of their activities in advance and provided their input in the following manner:

- Participated in the Walkabout
- Contributed ideas for the Action Plan
- Participated in education of parents and students regarding health, wellness, air quality and safety benefits
- Agreed with improvements recommended in the Action Plan

**Table 9. Members of the School STP Committee**

Davidson Elementary School		Description	Contact information
School Administration			
	Janet Slaney	Principal	<a href="mailto:Janet.Slaney@sd23.bc.ca">Janet.Slaney@sd23.bc.ca</a>
Parents			
	Kerri Thomson	PAC Vice-President	<a href="mailto:bijoubelle12@gmail.com">bijoubelle12@gmail.com</a>
	Nicole Goodwin	PAC President	<a href="mailto:williamson.nicole@gmail.com">williamson.nicole@gmail.com</a>
	Dori Michaud	PAC Member at large	<a href="mailto:Dorimichaud32@gmail.com">Dorimichaud32@gmail.com</a>
	Jenn Hopkinson	PAC Member at large	<a href="mailto:jennhop24@gmail.com">jennhop24@gmail.com</a>
	Patrice Hornybrook	Parent Volunteer	<a href="mailto:hornibrook@mac.com">hornibrook@mac.com</a>

**Table 10. Members of the Municipal Stakeholder Committee**

	Name	Description	Contact information
<b>Regional Services (STPCO)</b>	Jerry Dombowsky	Regional Programs Manager	<a href="mailto:jdombowsky@kelowna.ca">jdombowsky@kelowna.ca</a>
	Dave Gibson	STP Facilitator	<a href="mailto:Dave.Gibson@sd23.bc.ca">Dave.Gibson@sd23.bc.ca</a>
	Nancy Mora	Project Coordinator	<a href="mailto:nmoracastro@kelowna.ca">nmoracastro@kelowna.ca</a>
	Cindy Anderson	Communications Advisor	As needed basis <a href="mailto:Caanderson@kelowna.ca">Caanderson@kelowna.ca</a>
<b>District of Lake Country Municipal Staff</b>	Matthew Salmon	Engineering Technician	<a href="mailto:msalmon@lakecountry.bc.ca">msalmon@lakecountry.bc.ca</a>
<b>RCMP</b>	Jayson Lucash	Law Enforcement	<a href="mailto:jayson.lucash@rcmp-grc.gc.ca">jayson.lucash@rcmp-grc.gc.ca</a>
<b>School District</b>	David Widdis	Planning Manager	<a href="mailto:david.widdis@sd23.bc.ca">david.widdis@sd23.bc.ca</a>
<b>Interior Health</b>	Pam Moore	Health Officer	<a href="mailto:pam.moore@interiorhealth.ca">pam.moore@interiorhealth.ca</a>

## Acknowledgements


Thanks to the following organizations for their valuable Information:



## Endorsement

The School Travel Plan for Davidson has been endorsed by Principal Janet Slaney of the school, and by one representative of the Municipal Stakeholder Committee.

School Principal: Janet Slaney

Signature: 

Date: February 3, 2017

Lead representative of the  
Municipal Stakeholder Committee: Matthew Salmon

Signature: 

Date: February 3, 2017

## Annual Update

The School Travel Plan will be revisited by the end of 2016 and revised as necessary. Final data collection for the STP will occur in October-November 2016, with the follow-up family and classroom survey. The results will be compared to the baseline data gathered in October 2015.

After the new data has been analyzed and compared to the baseline information, results will be shared with the STP municipal and school Committees by a meeting and/or email. Results will also be shared with parents/caregivers through the school newsletter and/or at school events.

	Principal	Municipal Lead
End of <b>Second</b> Year <Nov 2018>	_____	_____
End of <b>Third</b> Year < Nov 2019>	_____	_____
End of <b>Fourth</b> Year <Nov 2020>	_____	_____
End of <b>Fifth</b> Year < Nov 2021>	_____	_____



## Future Evaluation

Follow up results November 2017

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## Appendix 1. Statement of support

### ***Clean Air and Safe Routes 4 Schools School Travel Planning School Agreement***

I, Janet Slaney, Principal, agree on Davidson Road Elementary School's behalf, that we will participate in the School Travel Planning. I understand that the School Travel Planning process will begin immediately and continue on an ongoing basis—the first year being the most intensive with implementation continuing in year two and beyond. We have secured the support of the Parent Advisory Council to participate in this project.

I understand that our school will have the following responsibilities:

- Participate fully in the five-step School Travel Planning process.
- Contribute in-kind staff time for data collection, meetings and implementation tasks.
- Allow select students to participate in meetings and assist with implementation.
- Provide meeting space as needed.

#### ***School Principal:***

Janet Slaney  
Name

Davidson Road Elementary  
School Name

  
Signature

April 26, 2016  
Date

## ***School Travel Planning***

### ***Municipal Stakeholder Committee***


### ***Statement of Support***

I, David Widdis, representing the Central Okanagan School District No. 23, agree to participate as a member of the Municipal Stakeholder Committee for the District of Lake Country. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at [www.kidsonthemove.ca/documents.htm](http://www.kidsonthemove.ca/documents.htm) when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

David Widdis  
Name

  
Signature

Central Okanagan School District No. 23  
Organization Name

April 29, 2016  
Date

## **School Travel Planning**

### **Municipal Stakeholder Committee**

### **Statement of Support**

I, Jayson Lucash representing the Royal Canadian Mounted Police, agree to participate as a member of the Municipal Stakeholder Committee for the District of Lake Country. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at [www.kidsonthemove.ca/documents.htm](http://www.kidsonthemove.ca/documents.htm) when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

Jayson Lucash  
Name

Sgt. Jayson LUCASH  
Reg # 45456  
Signature

Royal Canadian Mounted Police  
Organization Name

April 27, 2016  
Date

Witness:

Doug Haftner  
Name

Cpl. Doug HAFTNER  
Reg: 45736  
Lake Country RCMP  
Signature

Royal Canadian Mounted Police  
Organization Name

April 27, 2016  
Date

## **School Travel Planning**

### **Municipal Stakeholder Committee**

### **Statement of Support**

I, Jerry Dombowsky, representing the Sustainable Transportation Partnership of the Central Okanagan, agree to participate as a member of the Municipal Stakeholder Committee for the District of Lake Country. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at [www.kidsonthemove.ca/documents.htm](http://www.kidsonthemove.ca/documents.htm) when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

Jerry Dombowsky  
Name

Sustainable Transportation Partnership of the Central Okanagan  
Organization Name



Signature

April 27, 2016  
Date

Witness:

Ron Westlake  
Name

Sustainable Transportation Partnership of the Central Okanagan  
Organization Name



Signature

April 27, 2016  
Date

## ***School Travel Planning Municipal Stakeholder Committee Statement of Support***

I, Matthew Salmon, representing the Infrastructure Services Department of the District of Lake Country, agree to participate as a member of the Municipal Stakeholder Committee. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at [www.kidsonthemove.ca/documents.htm](http://www.kidsonthemove.ca/documents.htm) when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.
- Where possible and appropriate:
  - Contribute funding for changes identified in schools' Action Plans, e.g. painting new lines, putting up new signs.
  - Consider implementation of larger infrastructure changes as prioritized by the community within a reasonable time frame.

Matthew Salmon  
Name

  
Signature

District of Lake Country  
Organization Name

April 25, 2016  
Date

## Appendix 2. Walkabout Findings and Family Survey comments

The Walkability Checklist	Findings by School and Municipal Committees
School Site	
Parking lot, or on road parking at school	
Is there potential for vehicle and pedestrian conflict?	Parent volunteer helps minimize conflict/parking lot area kids get dropped off on drivers' side/absolutely, every day; we try to decrease it/no crossing lights /sidewalk on one side in front of school/crosswalk on O. Centre Rd/formalize crosswalks with flashing lights/parking lot above is small and congested/poor visibility/roadway becomes narrow and congested after school/Not clear who has the right of way-kiss & drop parked traffic or pedestrians
Is traffic flow clearly signed? (on ground and on signs)	Yes/no signage: kiss & drop Vs Drive through/Yes, and common sense should prevail/No
What is the parking and driving behaviour of driving parents and staff?	Cars block the lanes waiting for parking spot/most are good, there are a few trouble makers/Parents park on Bike lanes and walk to school not wanting to waiting to drive in and find parking in the school lot/ Davidson @ Bond-no crosswalk (4 way stop)/education on road rules needed/ some poor drivers but in general the greater percentage of parents know how to maneuver in area-crosswalk-sidewalks/People back out of parking lot/people in Kiss and drop let kids out of driver side
How do children access the school from parked vehicle? (do they use a crosswalk, is one available?)	Most use centre sidewalk in middle of parking lot/crosswalk from parked vehicles on bike lanes/kids cycling need to use sidewalks /Bike lanes parking stacked significantly (10 cars 8:20)
Is there parking lot supervision?	Yes, volunteers not all the time/ kiss and drop has a sign up/A lot of left turn traffic from OC Rd. and not dedicated left turn lane/Education-reminder sessions in Fall and road safety/
Facilities for walkers on the street next to the school site	
Number and position of safety patrollers, adult and/or student, if any. If they are not currently organized, are they needed?	Yes, 2-3/ 1 parent volunteer directing traffic consistently 3 days a week/ Volunteer on Davidson Rd well managed and a necessary component for managing pedestrian-vehicle conflict/yes they definitely assist.2-3 kids opening doors/
What are the sight distances from school crossing to road curves, blind corners, or school and transit bus zones?	At 30Km zone road curves are acceptable/It is difficult to back up when leaving tight spaces/One way stop on one end and couple X curves on west of Davidson/Mostly good visibility until roads overwhelmed with vehicles/blind corner Bond Rd.
How is the placement of the school crossing in relation to driveways and bus loading zones?	School crossing at entrance and driveway/This appears to be a volume issue not an infrastructure one. It wasn't clear what information has been given to parent/Education campaign is needed-
Are there sidewalks?	Yes, south side of Davidson/ on south end of Bond/issue with plowing in winter, not clear up hill to school



Walking paths to the school	
Where are the access points for students?	Sidewalk on Davidson
Is there potential conflict with vehicles?	Walkway to closest subdivision does not access a sidewalk on the subdivision Rd.
Is the lighting adequate along walkways?	No lighting/Yes/No
What is the maintenance of walkways, i.e. snow and ice removal; mud, puddles; holes needing filling?	Acceptable/snow removed on Davidson and Bond should be a priority/unknown-recall some days sidewalks were horrible but road maintenance include many areas/sidewalks not maintained in winter/
Can routes from backfields, adjacent parks, be used year-round?	Most, not all
Bicycle facilities	
Bike racks: do they exist? Are they secure, sheltered?	Yes, open area/not sheltered
Is there potential for conflict with vehicles to access the bike storage area?	No
School Bus/After School Care Loading Zone	
Where do students wait for busses, and for how long?	Bus separated areas adjacent to school/2-3 minutes/ straight from school onto bus/
What type of supervision is employed?	
How many busses, vans and special needs transportation vans/busses access the school?	A few/3-4 buses after -before school care/3 buses-1 boys and girls, 2 after school vans
Are there ramps, any special entrances or accommodations for differently-abled students?	Yes/NO ramps-need some on side by fire zone
Further items to look for	
Emergency vehicle access	Yes/often blocked by waiting cars in the morning and after school/one way in-one-way out
Location of garbage dumpsters and other school maintenance equipment	
No-idling signage	Yes/need more awareness/more signs on usable areas/not enough
For waiting students and families:	
Shelter from inclement weather/shade	No/Small overhang front of school
Play area	Behind school/back side not near parking lot/
Natural landscape	
In Areas Surrounding School Site	
Walking facilities and traffic observations	
How far do sidewalks extend around the school and into the surrounding community?	Only along Davidson Rd and Bond Rd/Bond Rd south of Davidson needed, south side of Davidson needed/main areas have sidewalks but Bond Rd do not/
What is the type, volume, speed, noise and pollution of traffic on surrounding streets—perceived and real (the municipality might have volume and speed counts).	Speed/speed is always a concern, however, general public tend to overestimate speeds-a lady today suggested a car was going 80 km/h( 11 years of service suggests it was more likely 55km/h)
Are there heavy trucks? Are there problem areas where a heavy truck might mount the sidewalk to turn at an	A few/Some large travelers but not concern of/



intersection?	
Are there on-street signs that indicate to drivers they are approaching a school zone? Are they visible?	Yes- Could install additional sign before Davidson @Bond 4 way stop/
Timing of traffic lights? Do they allow enough time for small children to cross safely?	NA
Alternative safe parking locations	
Is there an area away from the school to suggest for distant driving families to safely park to take part in a walk-a-block-or-two scheme?	Possible, but could create congestion in neighborhood/SD23 X space to expand? Commuting distance? Walk, buses/Car share program (incentive)
Bicycle facilities	
Are bike paths or lanes suitable for families?	No/ Yes, but better signage /delineators /no-people park on road in bike zones/
Are best cycle routes identified?	None/the bike lanes available are used by parents to park
Non-traffic related items to consider	
Types of buildings surrounding school: residential, recreational, commercial, industrial	Residences
Location of other public spaces near school: parks, community centres, libraries, churches	
Number of shade trees on streets	none
Green space vs. concrete space	
Graffiti on buildings	none seen on the school at this time
Physical state of the sidewalks	Good
Size of the sidewalks	Good
Garbage along the routes to school	Some/No
Obstructions on the sidewalks	No
Block Parent or Neighbourhood Watch community—if so, where are Block Parents located?	No/ not sure
Potential or known areas where crime, bullying, loitering or intimidation is possible	
General Comments	<p>Bike lanes not clearly marked-not bike lane in opposite side of Davidson/Road improvement works on Davidson, Robinson and OK Centre E are currently forecast for 2019/IH will be happy to help. /Use of HASTE GHG tracking tool/</p> <p>Comment from parent: We live a short walk down Bond Road (Between Davidson Road and Camp Road). We walk or bike to school in most kinds of weather. Bond Road between Davidson and Camp is a major walking and running route for students and the public. A sidewalk is very badly needed. Drainage on Bond Road is not great and there are large puddles along the sides in our area. Cars travel more than 50km per hour along this road and it is not safe to let children walk or bike alone on. In the winter, the lack of sidewalk and snow piles make it nearly impossible to walk. I have two other preschool age children and I worry for all of their safety when we walk and bike.</p>
Suggestions	Rumble strips, speed control, flashing crosswalk

### Additional Comments from Family Surveys

Location 1	Description	Location 2	Description
<b>Davidson &amp; Okanagan Centre Rd</b>	Crosswalk is visible but people travel that Rd fast/ No sidewalks or even a flat shoulder to walk on/ uncontrolled 4 way stop/Cars speed and don't stop at stop sign	<b>Bond/Davidson</b>	winter time dangerous with poorly serviced intersection/ice /snow/cars not able to stop at crosswalk/ rolling stop sign, busy/ 4 Way stop is congested and not used properly
<b>Robinson to Pretty Pretty Rd</b>	No sidewalk lack of shoulder for walking Some blind spots for walkers	<b>Nighthawk Rd</b>	no sidewalks
<b>Corner of Woodsdale &amp; Reswig Rd</b>	Cars speeding along Woodsdale in the morning no crosswalk here.	<b>Bottom of Lake Hill</b>	3 areas of narrow road, sharp corners and blind hill with cars commonly speeding * no sidewalks. dangerous needs crossing light
<b>Seaton Rd</b>	Very steep & difficult for my child to walk, cars drive much faster than speed limit.	<b>Cemetery Rd/Davidson Rd</b>	crossing the street is dangerous
<b>Ok Center Rd E Brew to Davidson Rd</b>	No sidewalk& speeding traffic regularly.	<b>Chase Rd</b>	no sidewalks, speed
<b>Glenmore Rd</b>	Very busy road without and sidewalks no crosswalks	<b>Lake Hill Drive</b>	intersection busy, speed
<b>Carr's landing road</b>	no side walk, no shoulder. Frequent speeding. Not recommended for walking or cycling./ no bus stop signs./ unsafe and too far from school/Crossing to get to the bus stop is dangerous.	<b>Crosswalk at Davidson &amp; entrance to school</b>	On the days when there isn't a crossing guard, the crosswalk can be dangerous, as many drivers are in a hurry & not paying attention/ Drivers on cell phones near school and on school property/Bike lane is occupied by parked cars. We've been biking on the sidewalk.
<b>Oceola @ Lake Hill</b>	no sidewalks, speed, unsafe/lots of traffic, need a roundabout/	<b>Bottom of Lake Hill</b>	dangerous needs crossing light
<b>Hallam Dr</b>	speed sidewalks no shoulders	<b>Lake Hill to Ok Centre</b>	High impact area lots of car accidents
<b>Bond Rd btw Williams and Davidson Rd</b>	Cars drive fast, lack of sidewalks, no bike lane	<b>Robinson Rd</b>	very narrow, no sidewalks
<b>Oceola and Ok Centre</b>	High traffic intersection with no traffic control on Oceola. Only rumble strips/ no pedestrian lights, lots of traffic, speeders/ Speed down/ Too dangerous for your child to cross	<b>Bond/Davidson</b>	winter time dangerous with poorly serviced intersection/ice /snow/cars not able to stop at crosswalk/ rolling stop sign, busy/ 4 Way stop is congested and not used properly
<b>Camp Rd at Bond Rd</b>	Cars drive quickly over the hill and are hidden from view/ poor visibility	<b>Kel Win &amp; Seaton</b>	no sidewalk no shoulder
<b>Bond Rd Chase Rd</b>	No sidewalks/ no sidewalks over 96% route is terrifying	<b>Tyndall</b>	construction/development and no sidewalks or bike lanes
<b>Bond Rd btw Williams and Davidson Rd</b>	Cars drive fast, lack of sidewalks, no bike lane	<b>Path Hallam Dr &amp; Cemetery</b>	to reduce time spent walking we use this path which is pretty isolated for a child walking alone. / partially wooded/secluded area
	Live 14.7 km from school no walking/biking route		