APPENDIX A

PRACTICAL GUIDE

FOR

SAFE SCHOOL BUS STOPS

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1.0 INTRODUCTION

Many factors must be considered when determining a safe location for a school bus stop. Every situation is unique in relation to traffic patterns, road layout, proximity to other stops, geography of the area, etc. Even after considering these elements, a decision to establish a school bus stop at a specific location may still be a judgment call on the part of the transportation supervisor.

This document discusses safety and industry concepts to provide guidelines for Public Schools Branch (PSB) transportation supervisors in determining safe and effective school bus stops. It should be noted that these are guidelines and may be adapted to local situations and requirements.

In any such evaluation, feedback from the school bus driver is essential. Transportation supervisors should and must confer with the bus driver(s) servicing the stop for their input, including potential dangers and overall suitability.

2.0 GETTING TO THE BUS STOP

The Public Schools Branch is not required to provide a protected corridor from a student's residence to the bus stop, nor for students who walk to school. Student safety and supervision during this time is the responsibility of the parent/guardian. However, in response to parental concern for the safety of their children while walking to a bus stop or school, the Public Schools Branch may provide basic safety instructions to students.

3.0 FREQUENCY OF BUS STOPS

There are a number of factors to consider when determining the number of school bus stops along a single route:

- Difficulty of getting to a bus stop when there are no sidewalks, high snow banks, narrow roads, high volume traffic, high traffic speeds, etc.;
- Behaviour problems and the risk of property damage may be reduced with fewer students at a stop;
- An increase in the number of bus stops increases the time it takes to travel the route;
- Excessive stopping and starting creates traffic hazards, delays, potentially frustrated drivers, and may also result in greater vehicle maintenance costs;
- The risk of an accident increases with an increase in the number of stops as many school bus accidents occur when the bus comes to a stop to load or unload students.
- The risk of a motorist driving through the flashing red lights of a school bus increases with an increase in the number of stops.

4.0 BUS STOP CHARACTERISTICS

A school bus stop must meet certain standards – both practically and from a safety standpoint – to protect students waiting at that location and to allow the school bus driver to load and unload passengers.

There must be sufficient space at the bus stop for students to move away from the bus and off the road or onto a sidewalk after they disembark. To avoid the possibility of students walking alongside the bus and falling under its rear wheels, students should only cross in front of the bus (never behind) or wait along the side of the road until the bus has pulled away from the bus stop.

This standard also requires that there be sufficient space for all students assigned to the stop to wait safely.

School bus stops should not be located near known hazards such as cliffs, rivers, intersections, or along certain highways. Many bus stops are established where students can wait in a driveway or at a safe location and move safely to the bus when it arrives.

While PSB school buses do not travel on private lanes or roadways, if it is desirable to locate a bus stop near or on private property, the cooperation of the property owner must be sought in advance. It is helpful to solve problems before they materialize by asking permission and establishing rules for students to follow. It is also important to know the boundaries of the private property. Generally, sidewalks are public rather than private property. Provide the property owner with the name and phone number of a PSB contact person to whom they may report any problems or work with to find solutions.

5.0 VISIBILITIES AND BRAKING DISTANCE

In order for a school bus to safely execute a stop and for traffic to respond appropriately, there must be adequate visibility in all directions. Weather conditions such as fog, rain, or snow can decrease visibility or negatively impact stopping distances. Extra caution must be exercised in such conditions.

Visibility distance means the distance at which a motorist can see the eight-light warning system and the top third of the school bus. Certain characteristics such as road slope, surface, large vehicle traffic, and speed must all be considered when evaluating the safety of a school bus stop. As a bus driver approaches the stop, there should be clear visibility. Buildings, trees, shrubs, and parked vehicles may obstruct the driver's view of students who could dash out in front of the bus as it approaches. If the obstruction is on public property, the municipality may be contacted to seek resolution. If on private property, the owner may be willing to help out, especially if the safety of the children is emphasized.

Motorists must have sufficient distance to react in a controlled manner to a stopping school bus. Based on recommendations for posted speed limits, motorists need between 150 to 300 metres of visibility (depending on speed) to adequately react to a stopped school bus. Actual braking distances range from 150 to 190 metres for trucks going 90 kilometres per hour under ideal conditions. Rather than establishing a sight distance for every speed, it is recommended that there be a minimum of 150 metres of visibility for roads with posted speeds of 50 kilometres per hour or lower, and 300 metres of visibility for speeds greater that 50 kilometres per hour. In addition to distance, other factors which affect the ability of a vehicle to stop include speed, a steep incline, excessive sunlight, or slippery road conditions.

6.0 SIGNAGE FOR A BUS STOP

If is not possible to meet the suggested distance for visibility, the Department of Transportation, Infrastructure and Energy may be consulted to provide appropriate signage to warn motorists of a school bus stop ahead. Signage is to be used to identify locations where school buses are not visible for the recommended visibility distance when loading or unloading students. The *School Bus Stop Ahead* sign is not intended for general use. Such warning signs are to be used where terrain and/or road layout limits sight distance and it is not practical to move the bus stop to another location.

7.0 BUS STOPS AT INTERSECTIONS

Research reveals that assigning a bus stop at intersections can be cause for safety concerns. The warning light system of a school bus alerts traffic in only two directions – behind and in front of the bus. If students are required to cross at one of the two roads perpendicular to the bus, motorists cannot see the school bus flashing lights.

Placing a bus stop at an intersection must be carefully evaluated. If there is no other way, it is recommended that the stop be placed at least 30 metres from the intersection.

If the bus is making a turn at an intersection and then stopping at a bus stop, the stop should be established on the road with the lesser traffic. If similar traffic flow exists on both roads, generally speaking, establishing a bus stop after the driver has made the turn provides a higher degree of safety.

8.0 BUS STOPS AT A CURVE

Road characteristics such as curves require particular attention. A stop must ensure reasonable safety for students and therefore must be carefully studied. Crossing the road at a bus stop on a curve should be avoided because of the added danger. Establishing a bus stop located at the point of curve maximizes visibility in both directions.

The outside point of a curve, where motorists have the greater visibility, would be in the path of a vehicle losing control. That relative danger must be weighed against moving the bus stop along the road to a safer location.

9.0 BUS STOPS ON A HILL

A vehicle cresting a hill needs sufficient time to react to the presence of a school bus stop. A bus stop must not be near the crest of a blind hill.

A bus stopping on the downgrade of a hill presents two particular dangers:

- the bus driver could lose control in poor weather conditions and slide into waiting students; or
- another vehicle could slide into the back of the bus.

Caution must also be exercised when establishing a bus stop on an upgrade:

- vehicles coming down the hill could lose control when trying to stop
- In icy weather it may be difficult to proceed up the hill following a stop.

10.0 NUMBER OF STUDENTS AT A BUS STOP

As a general rule, the number of students at a bus stop should not exceed ten. However, in highly populated areas such as mobile home parks, housing developments, or apartment buildings it may not be practical to maintain that number. Exceptions may be approved by the transportation supervisor.

11.0 BUS STOP REVIEW

It is a sound safety practice for the Public Schools Branch to periodically review school bus routes and bus stops. School bus drivers can help to evaluate and detect potential dangers at school bus stops. A driver's sound judgement and input are critical in determining safe stopping locations for our students.