



COVID-19 EXPOSURE PREVENTION				
IN-CLASS INSTRUCTION RISK ASSESSMENT – RENR Fieldwork and Transportation				
Assessment Date:	August 4, 2020	Room(s):	Various outdoor locations throughout British Columbia	Class Type: <input type="checkbox"/> Classroom <input type="checkbox"/> Lecture Hall <input type="checkbox"/> Laboratory <input type="checkbox"/> Shop Floor Outdoor locations
Assessor(s):	Steve Finn, Faculty, SOCE; Brett Favaro, Associate Dean, SOCE; Wayne Hand, Dean, SOCE; Anna Matheson, Manager, OHS		Hand Washing Location(s):	Not applicable
Use Description:	<p>Renewable Natural Resources Program (RENr), in the School of Health Sciences. During the fall 2020, field activities for RENr can be grouped into two main categories: Unsupervised Student Field Activities and Class Field Activities. Risks for these two broad categories will be identified if they are unique to one or the other group in this risk assessment. Activities in both categories will take place in the Lower Mainland of British Columbia. Specific sites include: Various outdoor locations on campus (e.g. Guichon Creek), the BCIT woodlot, Stanley Park, Widgeon Marsh Regional Park, and various parks on the North Shore. Instructors have identified which courses must have field components to achieve essential learning outcomes. Field trips and number of students per field trip have been reduced in number. Modes of transport to field trip locations can be by: public transit, personal vehicle, BCIT fleet vehicle (F150 crew cab trucks), BCIT van (maximum occupancy 15), charter bus or school bus. The personal vehicle can either have a single occupant or a carpool can be established. Employees would use a BCIT fleet vehicle (designated single occupancy), and students would use other forms of transportation. Where possible, field activities are being conducted on the BCIT campus. Activities in the field can include:</p> <ul style="list-style-type: none"> - soil sampling - vegetation ID and plant surveys - timber and forest health assessments - stream surveys and water quality sampling - site tours - field navigation and mapping - bird or other wildlife surveys - wetland design, construction, and monitoring <p>Note: All travel must be approved on a per field trip basis by the Director, SSEM.</p> <p>Note also that this document refers to a “RENr COVID 19 Safety Plan.” This plan was prepared before the current format for COVID planning was established. We attach it in its entirety as a supplement to this. If there is disagreement between that plan and the present document, this document takes precedence.</p>			

GENERAL TRANSMISSION PREVENTION GUIDELINES	
EDUCATION	Post infection control practices and physical distancing posters. <i>Posters available on OHS ShareSpace.</i>
	Identify the nearest handwashing location to students and ensure it is stocked with soap and paper towel.
	Frequently remind students to avoid face touching during class and to wash hands before and after class (and during when possible).
	Advise staff and students to stay home if sick. Develop and communicate accommodations for students in isolation/quarantine.



GENERAL TRANSMISSION PREVENTION GUIDELINES	
	Promote no eating during classes/in class rooms.
	Ensure all staff have completed the online BCIT Pandemic Exposure Control Plan Training .
PHYSICAL DISTANCING	Ensure that class rooms are set up to allow 2-metre physical distancing between all occupants, unless controls in place.
	Determine and implement class/room capacities in order to maintain 2-metre physical distancing.
	Set up demonstration/instruction areas to allow for students and staff to maintain 2-metre physical distancing. <i>With tape, chalk, etc.</i>
	Set up physical distancing (with tape, etc.) for the use of any shared tools/equipment for the class.
CONTROLLING COMMON TOUCH POINTS	Do not provide students with physical handout papers/forms, pens, and other common writing/learning tools unless controls in place.
	Remove any unnecessary common touch points, objects, or self-serve items (i.e. hearing protection, gloves).
	For any class-provided tools/equipment – if possible ensure each student has their own dedicated items.
	Identify all tools/equipment that must be shared be all students.
	Develop and post transmission prevention and/or sanitization procedures for all shared items and common classroom touchpoints.
	Ensure that cleaning supplies are provided and students are instructed on how to correctly clean/sanitize, if applicable.
PERSONAL PROTECTIVE EQUIPEMENT (PPE)	<p>Instruct students on how to safely use, remove, and dispose/clean (as applicable) any required PPE for the class.</p> <p><i>Note: PPE (gloves, respirators, face shields, etc.) should only be recommended/required for pandemic exposure control if best practices (physical distancing, hand washing) are impossible to maintain. Please contact ssemohs@bcit.ca for further guidance regarding PPE.</i></p>

SECTION A: To be completed by assessors.

Table 1 – Common Tasks/Situations

Directions for assessors:

1. List and assess common tasks/situations encountered in the instructional setting.
2. Identify potential hazardous conditions taking into account modes of transmission: **a.** Droplet (if within 2 metres), generally from coughing or sneezing, contacting eyes, nose and mouth **b.** Indirect contact: through touching contaminated surfaces, then touching eyes, nose, or mouth before washing/sanitizing hands. **c.** Direct contact: skin to skin touching, such as shaking hands, then touching eyes, nose or mouth before washing/sanitizing hands.
3. Refer to the [BCIT Risk Assessment Matrix](#) for further instructions.
4. Assign Exposure Likelihood (**Rare, Unlikely, Possible, Likely, Very Likely**), Severity (**Catastrophic, Major, Moderate, Minor, Insignificant**) and Risk Level (**Extreme, High, Medium, Low**) for the task/situation without controls (W/out) and with controls (With). In reference to COVID-19, the Severity has been assessed as **Major**.
5. State possible control measures for the task/situation in the final column.



6. Controls must be implemented for such that the risk level with controls (With) is Low.
7. Use Appendix A to attach any relevant photos.

	Lists of potential tasks/situations during instruction.	Potential hazardous conditions associated with the task/situation.	Likelihood		Severity		Risk Level		Possible Controls <i>See Table 2 for implemented control measures.</i>
			W/out	With	W/out	With	W/out	With	
1.	Faculty travelling to student field location.	Within to 2 metres of another person e.g. public transit, BCIT supplied van or bus, ferry or when visiting restroom/taking a break, fueling vehicle.	Li	R	Ma	Ma	H	L	Faculty will travel in their own vehicle or fleet vehicle to student field site. There will be only one person, the faculty, in the vehicle. Faculty are informed by the RENR BCIT COVID-19 Safety Plan , that only the driver (faculty) is permitted in the vehicle during work purposes and that they are to maintain 2 metre physical distancing from others when outside the vehicle. Any safety rules aboard ferries must be followed, such as wearing face coverings. If Faculty travel on a chartered or school bus, or the BCIT van, safety requirements for those vehicles must be followed. Occupancy limits established and posted, where applicable.
2.	Students travelling to student field location.	Students within 2 metres of each other.	Li	R	Ma	Ma	H	L	The students are advised if carpooling, good practice is to maximize distance between occupants, such as limiting carpooling to two occupants, that the other person sits in the back seat and both occupants wear face coverings. If riding public transportation, students advised to abide by applicable rules. If riding BCIT provided transportation, requirements as outlined in the RENR BCIT COVID-19 Safety Plan must be followed. Occupancy limits established and posted, where applicable.
3.	Faculty and students travelling to student field location in BCIT supplied vehicles.	Touching common touch points.	P	R	Ma	Ma	H	L	Follow cleaning protocols as outlined in the RENR BCIT COVID-19 Safety Plan and in Appendix IV of the BCIT COVID-19 Go-Forward Plan . Hand wash or sanitize before entering the vehicle and hand wash or sanitize after leaving the vehicle. Reminder to hand wash/sanitize posted. Hand sanitizer made available at front of vehicle, where applicable. Personal items are to be stowed by the owner, such as under the seat, and only to be handled by that person. Designate a seat for each person, to use travelling to and from the field trip and indicate which seats are not to be used. Load vehicle from back to front to minimize movement adjacent to people. Refer to Appendix B and C for

	Lists of potential tasks/situations during instruction.	Potential hazardous conditions associated with the task/situation.	Likelihood		Severity		Risk Level		Possible Controls <i>See Table 2 for implemented control measures.</i>
			W/out	With	W/out	With	W/out	With	
									occupancy limits and seating arrangement for 15 seat van and International Stagelines 54 seat bus.
4.	Faculty fueling vehicle.	Touching common touch points	P	R	Ma	Ma	H	L	Hand sanitize before and after fueling.
5.	Faculty or students are ill.	The faculty or student exposing the other person to illness, or become ill during the field trip.	Li	R	Ma	Ma	H	L	Maintain 2 metres physical distance. Faculty or students will not touch objects touched by the other. Students and Faculty are informed of the expectations outlined in the REN R COVID-19 Safety Plan , to not attend the field trip if ill or exhibit COVID-19 symptoms . Faculty to take the online Pandemic Exposure Control Plan training before the field trip and students to take the online COVID-19 Pandemic On-Campus Guidelines Tutorial training . If students or Faculty become ill during the field trip, follow the REN R COVID-19 Safety Plan , for emergency procedures. If a supervised field trip, during a tool box talk before the field trip begins, a check in with students is conducted to determine if ill or has COVID-19 symptoms. A single informed consent form that pertains to all field trips will be provided digitally to students at the start of each course that will cover activities associated with each field trip. Students will digitally sign this form, which will include agreement that the student Pandemic course has been taken, and that they will follow safety procedures.
6.	Faculty observing student's work.	Faculty within 2 metres of the student.	Li	R	Ma	Ma	H	L	Student's step away from work being observed by faculty to maintain 2 metre distance. Student and faculty to stay 2 metres distance as directed by the REN R COVID-19 Safety Plan , before the visit. Reminder about physical distancing during tool box talk before field trip begins.
7.	Faculty providing instruction.	Faculty within 2 metres of the student.	Li	R	Ma	Ma	H	L	Faculty and students maintaining 2 metres distance, as directed by the REN R COVID-19 Safety Plan . A reminder during the tool box talk about physical distancing before field trip begins.
8.	Students working closely together at field location.	Students within 2 metres of other students.	Li	R	Ma	Ma	H	L	Students to maintain 2 metre physical distancing at field locations as directed by the REN R COVID-19 Safety Plan . A reminder during the tool box talk about physical distancing before field trip begins.

	Lists of potential tasks/situations during instruction.	Potential hazardous conditions associated with the task/situation.	Likelihood		Severity		Risk Level		Possible Controls <i>See Table 2 for implemented control measures.</i>
			W/out	With	W/out	With	W/out	With	
9.	Students sharing equipment, ppe or paper.	Common touch points between students and students.	Li	R	Ma	Ma	H	L	To the extent possible, students will have their own dedicated equipment. They will have their own personal protective equipment, and there will be no sharing of paper documents.
10.	Faculty manipulating student's equipment.	Common touch points between students and Faculty	Li	R	Ma	Ma	H	L	Faculty and students do not touch each others items except where essential to complete fieldwork, as directed by the RENR COVID-19 Safety Plan. Students and faculty must each have their own personal protective equipment, and to the extent possible, avoid sharing equipment.
11.	Faculty and students working closely to other persons.	Faculty and students within 2 metres of others.	Li	R	Ma	Ma	H	L	Faculty and students to maintain 2 metre physical distance from others, as directed by the RENR COVID-19 Safety Plan . Signs posted in the area that BCIT students are working and public to not get within 2 metres.
12.	Faculty and students exchanging information by paper.	Common touch points.	Li	R	Ma	Ma	H	L	Paper will be minimized. Where it is necessary (e.g. to do quizzes in the field, complete plant ID projects, and so on): <ul style="list-style-type: none"> - Students will pick up their handouts along with field equipment at the start of the day -A receptacle (such as a large bag or envelope) will be provided for students to touchlessly drop completed documents into at the conclusion of the day in the field. Documents will be kept in this bag for several days before being evaluated by instructors. - Instructors will wash hands before and after handling documents.
13.	Faculty and students stopping to eat or drink while travelling to the field location or at the field location.	Touching food after touching common touch points in restaurant, rest area or at field location.	Li	R	Ma	Ma	H	L	Wash hands or hand sanitize before eating and drinking, as directed by the RENR COVID-19 Safety Plan . No food or beverages are shared.
14.	Donning, doffing and disposal of BCIT supplied disposable face masks.	Incorrect donning, doffing and disposal leading to the spread of contamination.	P	R	Ma	Ma	H	L	Provide training and instruction to students and Faculty as to how to don, doff and dispose face masks. Face mask poster and standard operating procedure available, where applicable. Use a new mask for every trip. Provide a used face mask garbage bag, where applicable.

	Lists of potential tasks/situations during instruction.	Potential hazardous conditions associated with the task/situation.	Likelihood		Severity		Risk Level		Possible Controls <i>See Table 2 for implemented control measures.</i>
			W/out	With	W/out	With	W/out	With	
15.	Cleaning of BCIT vehicles	Common touchpoints	P	R	Ma	Ma	H	L	Assigned person to use approved wipes or cleaning product* and read the applicable safety data sheet (SDS)**. General vehicle cleaning procedure found in Appendix IV of the BCIT COVID-19 Go-Forward Plan .
16.	Cleaning of car pool vehicles	Common touch points	P	R	Ma	Ma	H	L	Advise students of good practice to clean vehicles after car pooling and that a procedure is located in Appendix IV of the BCIT COVID-19 Go-Forward Plan .
17.	Cleaning of rental vehicles	Common touch points							Assigned person to clean before and after use approved wipes or cleaning product* and read the applicable safety data sheet (SDS)**. General vehicle cleaning procedure found in Appendix IV of the BCIT COVID-19 Go-Forward Plan .

*Note: approved wipe or cleaning product – identified on [Health Canada hard surface disinfectant cleaner list](#) or contains ingredients found to be effective against coronavirus identified on the [BCCDC \(BC Centre for Disease Control\) website](#) with [procedures](#) for safe use. **Note: Refer to [ShareSpace](#) for Safety Data Sheets.

SECTION B: To be completed by the department (must include front-line staff and supervisor/chief instructor/manager).

Table 2 – Implementing Control Measures

Directions:

1. Refer to the General Transmission Prevention Guidelines above for standard pandemic control measures.
2. List each control measure implemented, a description on how the control measure is being implemented, and state each applicable task number for the listed control.
3. Indicate if a control requires the use of Personal Protective Equipment (PPE).
4. If applicable, state how any materials needed to implement the control will be procured.

NOTE: Supplies such as PPE (gloves, face masks, N95 respirators) and sanitizing products (hand sanitizer) are in short supply and high demand, with most being sent to healthcare settings. Please keep that in consideration when implementing control measures.

Control Measure	Control Description	Tasks Controlled	PPE?		Material Procurement Details
			Yes	No	
<i>State control measure title.</i>	<i>Provide a brief description of what is the control measure.</i>	<i>List applicable task #s.</i>	Yes	No	<i>State how each item will be procured and by whom.</i>
Education	Faculty to take the online Pandemic Exposure Control Plan Training before attending the field location. Students to take the online COVID-19 Pandemic On-Campus Guidelines Tutorial training before the field trip.	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Steve Finn, FNAM Program Head, to email information to Instructors about the need to take the online Pandemic Exposure Control Plan Training. Faculty to email Steve Finn that they have completed the training.

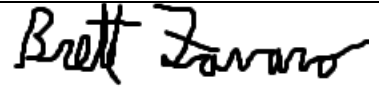


					Steve Finn, FNAM Program Head, to email first and second year students to take the online COVID-19 Pandemic On-Campus Guidelines Tutorial before classes commence. Students to email Steve Finn, confirmation that they have completed the training tutorial.
Safety rules/Communication	RENr COVID-19 Safety Plan is communicated to students and Faculty before the field trip starts. Hand hygiene poster available, where applicable. Physical distance poster available, where applicable. Face mask donning, doffing and disposal poster available, where applicable. Key information covered during tool box talk before field trip (supervised), such as physical distancing, correct use of face masks, hand hygiene, procedure when feeling ill or injured, and other applicable emergency procedures.	1,2,3,4,5, 6, 14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Faculty and staff will be sent a link by Steve Finn, FNAM Program Head, to the RENr COVID-19 Safety Plan prior to the start of classes in September. Key points in this plan will form parts of the daily “tailgate” session for each field activity. Where applicable, posters will be located at strategic areas in the field and room locations. Key information covered during “tailgate” talk before field trip (supervised), such as physical distancing, correct use of face masks, hand hygiene, procedure when feeling ill or injured, and other applicable emergency procedures.
Maintaining 2 metres physical distance	2 metre physical distance to be maintained between faculty, students and others. Reminder during tool box talk before field trip (supervised). A designated seat for each person, to be maintained to and from the field trip location, and seats to not be used are indicated. Load transport vehicles back to front.	1,2,6,7,8,11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Where BCIT or Rental Vehicles (buses and/or vans) are used, vehicles will be only loaded to the recommended capacity. Students and faculty will have designated seats to be maintained to and from the field trip location. Seats on the vehicles not to be used will be marked. Capacity and seating will be monitored by the faculty and staff involved in the field trip. If applicable, vehicle will be loaded back to front, and unloaded front to back. Occupants will be required to use a 3-ply face mask supplied by BCIT.
No common touch points	No shared equipment or documents passed between faculty and students, or between students.	9,10,12,13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Documents will be minimized, but those that are necessary will be distributed with field equipment at the start of the day. Documents will not be shared between students. A receptacle such as a box or bag will be available at the end of the day in the field for students to deposit documents. Documents will be left in the receptacle for several days between collection and grading. Instructors will wash hands before and after touching documents submitted by students.
Not attending field trip due to illness	Faculty or students are not to attend the field trip if ill. Before the field trip starts, there is a check in with students (supervised) to determine health.	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Faculty and students self assess each day as outlined in the BCIT COVID-19 Go-Forward Plan. Faculty or student exhibiting any cold or flu-like symptoms to stay at home and self-isolate, and also contact Steve Finn, Program



					Head, and Giti Abouhamzeh, Program Assistant, to notify the program of their absence. Tail gate sessions will cover a COVID-19 Self Check.
Hand hygiene	Wash hands or use hand sanitizer before and after eating or drinking, and entering and leaving vehicle, when traveling and in the field, as a minimum. Provide hand sanitizer for each BCIT vehicle or BCIT hired vehicle to be used before entering and when exiting the vehicle.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hand sanitizer will be provided for each BCIT vehicle or BCIT hired vehicle to be used before entering and when exiting the vehicle. Faculty will also provide hand sanitizer for field exercises.
Cleaning	Use approved cleaners and those designated to clean have received training.	15,16,17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Assigned person to use approved wipes or cleaning product* and read the applicable safety data sheet (SDS)**. General vehicle cleaning procedure found in Appendix IV of the BCIT COVID-19 Go-Forward Plan .
Education and training for donning, doffing and disposal of face masks	Face mask poster is available or reviewed and training provided to Faculty and students.	14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The usage of face masks will be reviewed with the faculty and students prior to boarding any BCIT or Rental Vehicle. Garbage bags will be available for the disposal of face masks.
Face masks	Face masks provided by BCIT for vehicle travel as outlined in the REN R BCIT COVID-19 Safety Plan .	1,2	<input checked="" type="checkbox"/>		Faculty and staff to ensure that they have enough supply for each BCIT or Rental vehicle so that each occupant has a face mask. Extra masks to be carried by the faculty and staff.
Emergency procedures	For injury, illness and COVID-19 symptoms follow the REN R BCIT COVID-19 Safety Plan, emergency procedures.	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Upon Assessment Completion: Supervisor/Manager

<ol style="list-style-type: none"> Upon the completion of Tables 1 and 2, the approving supervisor/manager signs or types name in the adjacent space. If you need any assistance to complete this assessment, contact BCIT OHS (ssemohs@bcit.ca). Please submit a copy to BCIT OHS (ssemohs@bcit.ca) for final approval. <p>Note: when you have completed implementing your controls, complete the Common Control Measures Checklist.</p>	Supervisor/Manager Name:	
	Approval Date:	Aug 11, 2020

Approval: *Glen Magel*

EOC Director

September 14, 2020

Appendix A Photographs



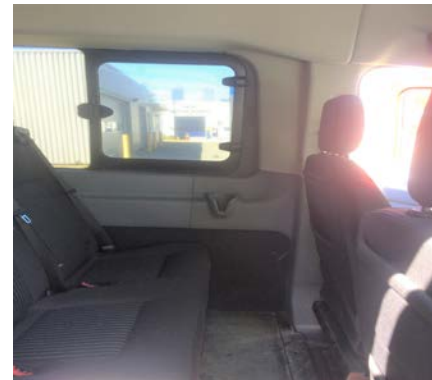
BCIT Van – Seats 15



BCIT Ford: F150 – Occupancy limit 1



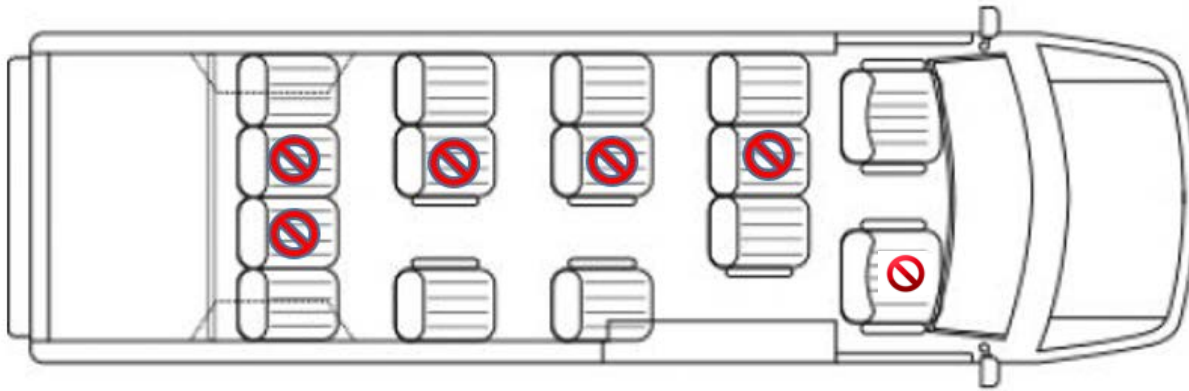
BCIT Van - Interior



BCIT Van – Interior, behind driver seat

Appendix B Van Seating Plan

A barrier will be installed behind the driver's seat of the van. This seating plan allows for eight passengers and one driver. All vehicle occupants must wear masks during transportation. The vehicle should be loaded back-to-front (i.e. passengers seated in rear enter first) and then unloaded front-to-back.



Appendix C 54 Passenger Bus Seating Plan

Below, in the International Stagelines, it states that for groups of 12 or more face masks are required. BCIT requires all passengers (including the driver) wear 3-ply face masks.



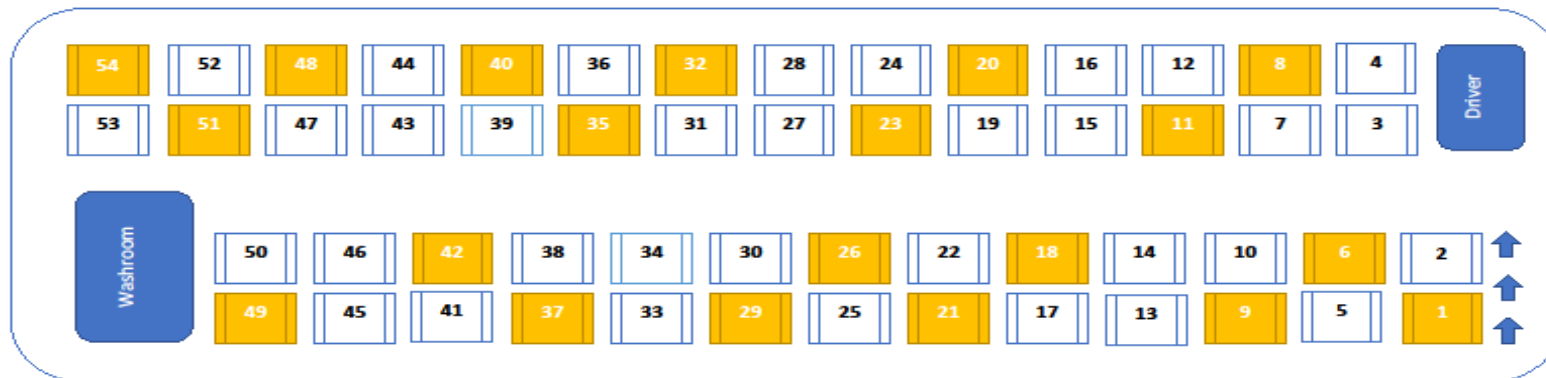
54 Passenger Coach Seating Plan

Suggested seating configuration for 20 passengers traveling aboard our 54 seat coach, to maximize physical distancing on the coach. The below seating is based on our coach # 5418.

Suggested Maximum Passenger Count: **20 Passengers**

Face Masks: Required for groups of 12 or more

Group Leader: Please ensure passengers are traveling with and are wearing masks & face coverings. As well, please screen passengers prior to boarding to ensure they meet health & safety regulations as required by Health Canada & Transport Canada.



Appendix D School Buses

Capacity for all school buses will be limited to 22 students for medium-sized buses and 26 for large. Seats adjacent to and immediately behind the driver will be left vacant. Seating will be staggered in the same pattern as Appendix C.



MEDIUM BUS

Most common size for use for mid-size parties.

- 46 Adults or 70 Children
- Available with Tinted Windows
- Available with Luggage Bays



LARGE BUS

Our largest bus, for when you need extra space.

- 54 Adults or 82 Children
- Available with Tinted Windows
- Available with Luggage Bays



A seating chart follows, where X represents an occupied seat and O represents a vacant seat. This chart was provided by Lynch Bus Lines – and we note that it erroneously shows the row behind the driver as being occupied – in fact that row would be left vacant.

X - 0	NO SEAT		X - 0	NO SEAT
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
X - 0	0 - X		X - 0	0 - X
DOOR	DRIVER		X - 0	0 - X
			X - 0	0 - X
Medium Bus - 23 Maximum			DOOR	DRIVER
			Large Bus - 27 Maximum	