

DATE: February 24, 2023
TO: Brian Hackwood, Assistant Director of Planning and Operations at School District SD68
CC: Pete Sabo, Director of Planning and Operations at School District SD68
FROM: Beth Hurford, Transportation Planner, Urban Systems
FILE: 4649.0003.02
SUBJECT: Randerson Ridge School Travel, Phase 1 Summary

1.0 PROJECT PURPOSE & BACKGROUND

In 2018, Randerson Ridge Elementary School approved its Active School Travel Plan (AST). The Plan looked to improve safety and comfort for children and parents travelling to school by active means. Since the approval of the plan, several factors have continued to impact the school community and its willingness to travel to Randerson Ridge by active means. Some continued and emerging factors include growth in the school community by over 100 students, development to the west of the school, and the installation of two roundabouts which parents have expressed concerns about related to student safety. Further, since the completion of Randerson Ridge's AST, the City of Nanaimo and School District 68 (SD68) have adopted a shared *Active School Travel Guide* (2021) which establishes a formal process for school travel planning.

Despite efforts to incorporate and promote Randerson Ridge's AST Plan, driving is still a popular mode choice by parents which has resulted in congestion and voiced safety concerns, particularly at and within the school parking lot. To document and share this concern, a sub-committee of the school PAC prepared a report with a "Safer Schools Drop Off Zone" focus. This report provides recommendations to improve the pick-up and drop-off process for students and parents, as well as describing perceived benefits for the safety of students and caregivers arriving and departing school by foot or bike.

The School District's Business Committee has directed staff to review and explore the recommendations provided by the parent committee. SD68 has retained Urban Systems Ltd. to conduct this review. This report provides a summary of the work completed in Phase 1 – Information Gathering.

2.0 BACKGROUND REVIEW

To understand the current conditions at Randerson Ridge Elementary, a number of tasks were conducted and summarized in this section.

2.1 KEY CONTRIBUTOR KICKOFF

On December 13th, 2022 Urban Systems Ltd. facilitated a discussion with key contacts from SD68, City of Nanaimo and Randerson Ridge administration. The purpose of this discussion was to understand the current conditions and challenges related to peak periods, as well as the status of the 2018 School Travel Plan action items and any experienced challenges or barriers related to its implementation.

A summary of key takeaways from the discussion include:

- SD68 and the City of Nanaimo are aiming to promote active school travel and discourage car usage for trips to and from school
- New development in the area has changed conditions with further development planned on Nelson Road directly adjacent to the school creating some concerns for the school community

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- The roundabout on Turner and Rutherford has been installed since school travel plan was adopted and caregivers have concerns related to students safely navigating this.
- School has grown by approximately 150 students since 2018
- Complaints that Drive to Five + locations are farther than 5 minutes away and therefore do not provide realistic alternative drop off options
- The half hour in the afternoon (pick up) is the greatest challenge, especially in poor weather as caregivers queue well in advance of the end of the school day, with vehicles double parking on site

2.2 CURRENT CONDITIONS



2.3 ACTION PLAN STATUS

The 2018 AST Plan action items have been reviewed to provide updated status of the action items. The status of items has been informed by the key partners of those identified as “responsible” within the AST Plan.

The Gap Analysis provides high-level considerations to address challenges and opportunities to progress actions that are outstanding.

Location	Action	Description	Timing	Priority	Responsibility	Status (as of 2022)	Gap Analysis
Drive to Five Plus Program	Assist PAC/Active Travel Committee in creating a Drive to Five Plus campaign	Provide resources such as Best Routes Map and communications pieces to ATC and Administration to promote locations to families. Work with stakeholders to ensure use of space is allowed.	Nov-18	High	STP Facilitator, School Administration/PAC, City of Nanaimo	Complete	Consider new Drive to Five locations in closer proximity to school (potential for location along Rutherford Road)
Active Travel Mural	Create wheat paste mural	Facilitate TD Artist in School program between program, school and other stakeholders.	Nov-18	High	STP Facilitator; School Administration/PAC	Outstanding	PAC to identify if this is still a desirable action
North-south crosswalk on Nelson St east of drop loop exit	Crossing guard	Request a crossing guard for the identified crossing location	Nov-18	Medium	School Administration/PAC	Incomplete	Application denied. Consider other opportunities for providing supervision and guidance at this location. (Note: During observation periods school-based volunteers posted pylons and signage at this location to improve student visibility).

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Location	Action	Description	Timing	Priority	Responsibility	Status (as of 2022)	Gap Analysis
North-south crosswalk on Nelson St east of drop loop exit	Student safety patrol	Consider implementation of the Student Safety Patrol program to facilitate safe crossings at North-south crosswalk on Nelson St east of drop loop exit	Dec-18	Medium	School Administration/PAC	Incomplete	See above. (Note: During observation periods school staff were present to support students at this location)
Bonavista Place	Improve pedestrian facilities	Determine whether the pedestrian pathway between Bonavista Pl. to the south and Bradbury Rd. to the north can be improved and formalized.	Sep-18	Medium	City of Nanaimo	Not yet initiated	Due to walking distance from this location to Randerson Ridge Elementary (approximately 1.5km) this may be a lower priority action item.
Carlton Rd between Rutherford Park and Nelson St	Improve pedestrian facilities	Install sidewalk where possible as part of land re-development or other capital project on Carlton Rd.	Long term	Medium	City of Nanaimo	Not yet initiated	Recommendation to consider pedestrian infrastructure as part of City's sidewalk priority list. Carlton Road observed as high utilization for parking and walking to school (east).
Intersection of Kenwill Dr and Butcher Rd	Improve pedestrian crossing facilities	Review intersection to determine whether an east-west crosswalk on the south side of Kenwill Dr and Butcher Rd is warranted.	Sep-18	Medium	City of Nanaimo	Outstanding	

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Location	Action	Description	Timing	Priority	Responsibility	Status (as of 2022)	Gap Analysis
Intersection of Carrington Rd and Butcher Rd	Improve pedestrian crossing facilities	Review intersection to determine whether a north-south crosswalk on the east side of Carrington Rd and Butcher Rd is warranted.	Sep-18	Medium	City of Nanaimo	Outstanding	
Intersection of Rutherford Rd and Nelson St	Improve pedestrian crossing facilities	Monitor pedestrian safety conditions at the newly installed roundabout and consider enhancements, such as pedestrian activated beacons, if warranted.	Ongoing	High	City of Nanaimo	Outstanding	City of Nanaimo has been monitoring speeds and volumes, as well as pedestrian safety concerns. RRFB is not warranted. Yield to pedestrians' signage have been installed since.
Rutherford Rd at the Linley Valley Drive Park trailhead	Improve pedestrian crossing facilities	Monitor pedestrian safety conditions at the newly installed mid-blockcrosswalk	Ongoing	Medium	City of Nanaimo	Ongoing	Monitoring is ongoing.
Intersection of Nelson St and Turner Rd	Improve pedestrian crossing facilities	Improve the safety and comfort of pedestrians crossing north-south at this intersection by improving the curb and or sidewalk on the east side of the intersection as part of other capital projects at this location	Long term	Medium	City of Nanaimo	Outstanding	Consider pedestrian crossing upgrades following completion of, or as part of, new development on Nelson Road west of to Randerson Ridge.

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Location	Action	Description	Timing	Priority	Responsibility	Status (as of 2022)	Gap Analysis
North-south crosswalk on Nelson St east of drop loop exit	Improve pedestrian crossing facilities	Conduct a traffic count and explore means of improving driver compliance with yielding to pedestrians in crosswalk.	Sep-18	Medium	City of Nanaimo	Complete	City of Nanaimo has completed data collection, which shows that there is good compliance of 30km/hour during school pick up/drop off hours after the raised crosswalk were installed. The City is also currently exploring installing "Yield to Ped" plastic yellow on-street sign at the two raised crossings in-front of the school.

3.0 SAFER SCHOOLS DROP OFF ZONE REPORT

Despite efforts to incorporate and promote Randerson Ridge’s AST Plan, driving is still a popular mode choice by parents which has resulted in congestion and safety concerns at the school parking lot. In reaction to this concern, a sub-committee of the school PAC prepared a report for a “Safer Schools Drop Off Zone.” The report provides a recommendation to improve the pick-up and drop-off process for students and parents within the parking lot with the goal of improving student safety for students arriving in vehicles as well as those arriving by active means.

This section provides a summary of the proposed parking layout and findings from a technical review of the recommendations.

3.1 REPORT SUMMARY

The proposed improvements by the PAC sub-committee for pick-up and drop-off largely rely on temporary measures such as cones, communication and signage, and ongoing volunteer presence. Each of these components would be required daily at peak periods to realize the benefits as outlined within the report.

The PAC sub-committee report recommends designating sections of the existing parking for set user groups. This is shown in **Figure 1** as purple for teachers and guests, and green for Kindergarten and Grade 1 parents and/or guardians.

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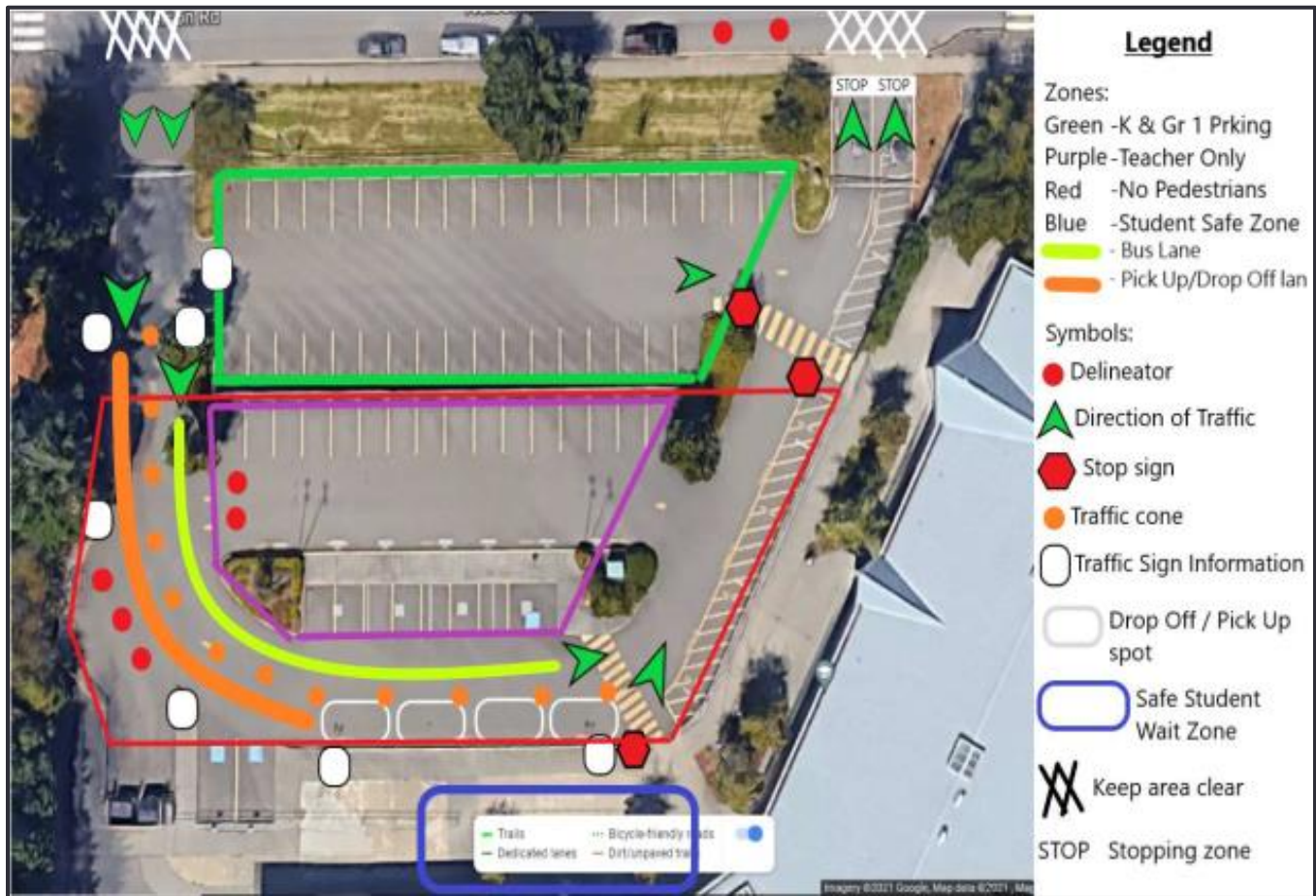


FIGURE 1. OVERVIEW OF PROPOSED CHANGES FROM PAC SUB-COMMITTEE

3.2 TECHNICAL REVIEW FINDINGS

A technical review of the report and of the existing parking lot was undertaken with regards to engineering safety standards and best practices. Findings are summarized below:

- Monitoring and enforcing designated parking spaces for pick-up / drop-off of Kindergarten and Grade 1 students will require daily commitment during these periods.
- Designated “teacher” parking spaces are likely to have two walking trips between a vehicle and the school each day (AM, PM) and will remain parked the whole day. These trips may also not fall within peak periods. Designated “student” spaces may have multiple walking trips in one pick-up or drop-off period, assuming several vehicles may occupy the same space one after another during pick-up / drop-off periods. For this reason, placing the “student” spaces nearer to the entrance (e.g., the purple lot), could help to improve student safety.
- It is unclear in the PAC sub-committee report whether accessible parking spaces are proposed to be moved to the green lot in **Figure 1**. Accessible parking stalls should be located nearest the entrance and adjacent to a curb ramp, and therefore should not be moved. However, the number of accessible parking

stalls required could be reassessed, potentially opening another space for student drop-off. Accessible parking should be in accordance with the City of Nanaimo Off-Street Parking Regulations Bylaw 2018 No. 7266¹ (see section 7.5)

- The turning radius of school busses (inside of orange cones) would conflict with the proposed drop-off lane (on school side, outside orange cones), as shown below in **Figures 2 and 3**. A medium single unit (MSU) design vehicle was used to understand required turning radius movements to reflect the observed bus style on site during peak periods.
- Cone placement should be thought through relative to the turning radius (e.g., no cones placed in the apex of the corner, as they may impede bus movement). If any pilot initiative is undertaken, this is recommended to be tested in advance while the parking lot is empty.



FIGURE 2. SHUTTLE BUS TURNING MOVEMENT



FIGURE 3. PROPOSED PICK-UP / DROP-OFF ZONE

- The “Safer Schools Drop Off Zone” report suggests stop signs, however according to MUTCDC and the TAC Pedestrian Crossing Control Guide, stop signs should not be installed at crosswalk locations.

School crosswalk signs may be installed at crossings within the parking lot (see **Figure 4**). It is noted that one School Crosswalk sign is currently located on the west side of the crosswalk at the lower lot.

¹ <https://www.nanaimo.ca/bylaws/ViewBylaw/7266.pdf>



FIGURE 4. SCHOOL CROSSWALK SIGN

- It should be noted that some existing pavement markings in the parking lot are non-standard. If SD68 intends to undertake any improvements to the parking lot, these could also be addressed. Standardizing the internal crosswalks could include:his includes:
 - Removing yellow crosswalk bars and including white crossing bars
 - Painted arrows are typically white, and the number of arrows should indicate the number of lanes. This may confuse drivers if only a single queue of vehicles is intended where two arrows are present (see **Figure 5**). This was also flagged by the PAC sub-committee at the parking lot entrance.



FIGURE 5. NON-STANDARD PAVEMENT MARKINGS

Further parking lot improvements to explore could include:

- Curb letdowns at all entrances to sidewalks. This is a standard design principle for universal access to pedestrian facilities. **Figure 6** below shows existing conditions.
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FIGURE 6. CURB LETDOWNS TO CROSSWALK MISSING

4.0 DATA COLLECTION

The project team completed two days of data and traffic observations during pick-up and drop-off periods. Information that was gathered included travel mode, parking utilization, compliance issues (illegal parking, idling, etc.), queuing periods, and conflicts between modes (if any). On observations days, the project team also reviewed and assessed the current Drive to Five + locations.

4.1 DATA COLLECTION FINDINGS

Data was collected during site visits on Monday, January 9, 2023 and Monday, February 13, 2023. Findings are summarized below.

Travel Mode:

- Travel mode data was reviewed through recorded observations. The predominant mode of choice that was observed was by private vehicle. While many caregivers used the parking lot for pick up and drop off, it was observed that many caregivers park their vehicles along Nelson Road and Carlton Road and walk with students to the entrance. Drive to Five + locations were not observed during pick up and drop off as on-site concerns were the identified priority and use of the Drive to 5+ locations has been described as low to no use.
- Walking was observed as the secondary mode choice for the school community. Many students were observed walking to school independently, with other students or with their caregivers. While some students were observed crossing the street beyond the crosswalks, most students complied with the crosswalks and demonstrated safe travel behavior and awareness.
- Other modes observed included cycling and shuttle buses from private care providers. Cycling uptake was observed to be low (two students observed cycling), however it is recognized that observations were conducted in the winter.

Parking Utilization:

- Morning Peak Period: upper and centre parking areas reach 100% capacity at approximately 8:15AM. All lots reach capacity by 8:25AM, with the lower lot opening nearly 90% of spaces by 8:45AM and on-street activities in front of the school have largely cleared by 8:37am
 - Drop-off parking on Nelson Road adjacent to the school begins around 8:10AM.
- Afternoon Peak Period: between 1:55pm and 2:10PM the school parking lot and Nelson Road parking are beyond capacity, with vehicles double queuing on site and parked along both sides of Nelson Road this congestion was observed as clear by approximately 2:20PM.
 - During afternoon pick-up, vehicles observed parking from the school frontage along Nelson Road to Nelsonwoods Place (approximately 215m) with caregivers primarily walking with students to return to the parked vehicles. Few vehicles observed parking west along Nelson Road towards Turner Road.
- Up to 8 vehicles (AM) and 15-20 vehicles (PM) observed parking on Carlton Road and walking students to / from school.

Compliance Challenges

- Non-compliance was observed in the following areas, (see **Figure 7**, below) despite there being available parking stalls in some instances:

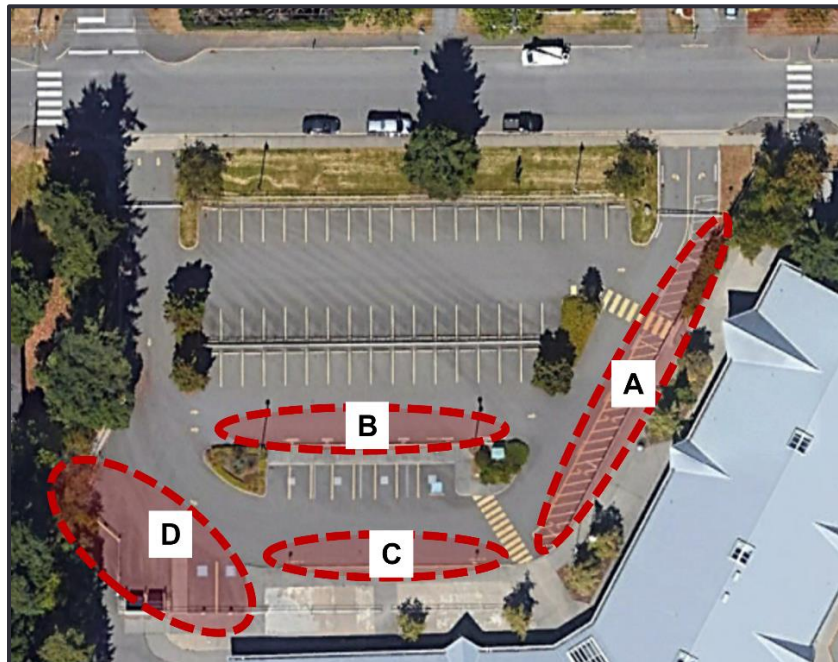


FIGURE 7. OBSERVED PARKING COMPLIANCE CHALLENGES

- **School bus zone (A)** – This zone is intended for bus parking. It was observed that vehicles use this space despite clear paint markings and signage. This space was also observed being used as a queuing area for right-hand turning vehicles (lanes split for right- and left-hand movements).
- **Centre row of lot (B)** – The centre lot only has parking stalls on one side. The extra space in this section of the lot is intended for two travel lanes. It was observed that vehicles parked here to queue for pickup, and in some cases may park in both lanes (intended travel lanes), impeding any vehicle movements even once students have been picked up.
- **Drop zone (C)** – This area is directly in front of the school and is intended for pickup/drop off only, with no stopping. Vehicles were observed to be queuing here throughout observation periods which limits movements within the parking lot and may impede emergency access.
- **(D)** – Parking in front of garbage and utilizing accessible parking spaces, including up to two vehicles parked perpendicular to traffic in the fire lane curb extension near the garbage and recycling area and within the fire lane also inhibiting emergency access.

General Observations:

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- On both days of observation, a volunteer, assumed to be a representative PAC, placed pylons at the western crosswalk daily. It is assumed this happens daily.
- Left hand turning movements into school parking lot from Nelson Road can create delays, however confusion was observed with vehicles failing to yield at the parking entrance.
- Left turns from Nelson Road to Turner Road creates queuing.
- Generally vehicles were observed yielding to pedestrians within school parking lot and along Nelson Road. However, vehicles were observed to roll directly through sidewalk. There is no stop sign at parking lot exit.
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- The average duration of congestion to exit parking lot at afternoon pick-up was observed as 5 minutes (2:15 – 2:20pm)

5.0 DEVELOPMENT REVIEW

There is development activity in the surrounding community, including a proposed development site east of the school along Nelson Road. The project team reviewed the development plans to understand future growth and any pedestrian or cycling facilities being implemented as part of the developments (sidewalks, crosswalks, trail connections, bike lanes, etc.).

The property directly adjacent to the school, 6033 and 6053 Nelson Road, is proposing multi-family developments with 140 units total. The proposed concept is shown below in **Figure 8**. The development proposes a pedestrian trail through the site that would connect to Randerson Ridge Elementary. The Traffic Impact Assessment report submitted by the developer through its rezoning application provided two key recommendations related to the traffic generated from the development site

- Restrict left turns from Nelson Road onto Turner Road from 7:00am to 9:00am using signage
- Install a sidewalk along the north property frontage

Both these recommendations may be beneficial to promoting active school travel to Randerson Ridge by diverting traffic and accommodating pedestrians travelling along Nelson Road where there is currently sidewalk available only on the north side of the road.



FIGURE 8. 6033 AND 6053 NELSON ROAD DEVELOPMENT CONCEPT PLAN (Retrieved January, 2023 from: RA000453 – 6033 and 6053 Nelson Road | City of Nanaimo)

6.0 PAC MEETING – FEBRUARY 13, 7PM

Urban Systems led an approximately 40-minute discussion with the Randerson Ridge PAC on Monday, February 13. The presentation summarized actions from the 2018 AST Plan, and to inform the PAC of the work being undertaken to review the AST and school parking lot functionality based on the report received from the PAC subcommittee, and to discuss and gather input from PAC members on observed challenges and potential solutions. Alannah Rodgers and Max Therrien from Urban Systems led a presentation and discussion.

Summary of PAC Discussion:

- Attendance: 12-15 parents, the school Principal, Brian Hackwood (SD68).
- PAC members have not been involved in implementing the 2018 AST, as they were not previously aware of it. There was interest in undertaking a process to develop an AST for Randerson Ridge however, the PAC members were now aware of the plan. Urban Systems advised the PAC of the new *Active School Travel Guide*.
- Key concerns identified by the PAC included:
 - Lack of Rapid Rectangular Flashing Beacons (RRFB) at Rutherford Road crosswalks (roundabout, crossing to Linley Valley Trail which is along a Drive to 5+ route)
 - Many families come from the Lost Lake area and. lack of sidewalk infrastructure and lighting make this an uncomfortable environment for students to walk. Speeding and safety concerns are a community issue and students are unlikely to walk. These concerns, combined with the distance make active transportation a challenge for many families.
 - Current identified Drive to 5+ locations far exceed five-minute walking distances for students. Members mentioned that some students currently walk in groups from Parkwood location (900m from school) and mentioned a formalized “walking school bus” program could be a good solution.
 - School zone boundary is too short. Signage indicating the presence of a school zone does not extend over a far enough distance on either end of the school. PAC members indicated that the school zone should be extended to allow for drivers more space to slow down and to increase awareness of the presence of students.
 - Concern that emergency vehicles would not be able to access the school during congestion due to vehicles queuing for extended periods on site.
 - The configuration of the parking lot through lanes is currently unclear (one vs two through lanes)
 - PAC mentioned effectiveness of active transportation improvements near school if “end destination” is unsafe or acts as a barrier on its own (e.g., congestion in parking lot and higher volumes during peak periods)
 - Discussed around active transportation facilities surrounding school are generally supportive and allow most student active travel to avoid conflict zones with vehicles (sidewalk / trail on either side of parking lot are separated from vehicles and generally well used by caregivers and students).

- Proximity of crosswalks to school exits were identified as a concern as they create congestion when vehicles are unable to turn out of lot due to yielding to pedestrians crossing at these locations
 - This was later discussed as a safety benefit to students who are travelling by active means to exit the school property.
- Solutions identified:
 - “Kiss’n’go” initiative recommended as an opportunity as well as the use of crossing lights (interpreted to be RRFBs)
 - Similarly, parents mentioned that in other jurisdictions parents are not allowed in the parking lot. PAC member mentioned how this idea was brought forward at a previous PAC meeting but was not well supported.
 - - Note: The City of Kingston’s Kiss & Go program is available here. This reference includes instructions and may help clarify recommendations found within the PAC Subcommittees report: [kiss-and-go-flyer-families_fa_web.pdf](https://www.kingston.vic.gov.au/kiss-and-go-flyer-families_fa_web.pdf) (kingston.vic.gov.au)
 - Some caregivers and students do park and walk from other locations. Closer Drive to Five + locations could encourage this more frequently.
 - Many students also walk from new developments along Linley Valley Drive / Stillwater Way (west of school, off Turner Road roundabout)
 - PAC members mentioned potential upcoming changes to the school catchment. due to development activity.
 - Expression of interest by PAC member for Randerson to partake in the BCAA School Safety Patrol program: <https://www.bcaa.com/community/school-safety-patrol>

7.0 NEXT STEPS

The work undertaken as described above has documented the current state of transportation needs in response to the PAC subcommittee’s “Safer Schools Drop Off Zone” and has documented the status of the schools existing AST Plan. This phase of work has focused on gathering information and understanding the current conditions at Randerson Ridge Elementary through various perspectives and observations.

Key considerations identified through this process have been included below. Further interventions may include:

- Update paint and signage in the school parking lot to define no parking zones, travel lanes, pedestrian crossing improvements and install stop signs at parking lot exit.
- Identify new Drive to Five + locations in closer proximity to the school and encourage Walking School Bus programs. There may be potential to celebrate the groups currently walking (identified as group departing from Parkwood Drive) and build momentum from there.

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- Note: TransLink, in Metro Vancouver, has recently launched a walking school bus pilot program which may offer valuable reference materials should the school community be interested in pursuing this. This program is in partnership with Dedicated Action for School Health (DASH). Reference is here: [Walking school bus program gets students moving | TransLink](#)
- Update the existing AST Plan to reflect current areas of concern as notes throughout this process to raise awareness and adapt to new facilities within the neighborhoods (roundabouts, RRFB's, etc and update the Best Routes to School map to reflect new Drive to 5+ locations. action items to gain support and awareness from the current school community.
- Work with the City of Nanaimo to explore potential to extend school zone area and add bollards at pedestrian crossings on Nelson Road.

Should the School District be interested in further exploring the above considerations or exploring options outlined within the "Safer School Drop-Off" zone or understanding trade-offs of other approaches we would certainly be happy to support this effort.

Sincerely,

URBAN SYSTEMS LTD.

Beth Hurford
Transportation Planner

cc: Alannah Rodgers, Maxime Therrien, Urban Systems

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Enclosure