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SUBJECT ALLOCATION OF UNALLOCATED PEDESTRIAN FUNDS – PART 1

## **OVERVIEW**

### **Purpose of Report**

To provide Council with options for a portion of the 2021 Pedestrian Unallocated Budget, along with background information on pedestrian safety improvements.

### **Recommendation**

That Council allocate \$505,000 of the Pedestrian Unallocated Funds to all projects listed under Intersection Upgrades and Sidewalk Item (1) Needham Street north.

## **BACKGROUND**

Beginning in 2018, an annual unallocated budget of \$300,000 was added to the Financial Plan for pedestrian enhancements. These funds were envisioned to be used to address pedestrian mobility issues that arise during the year and are more urgent than could be dealt with through the financial planning process. Council increased this amount to \$1,000,000 for the 2021 Provisional Budget. To deliver projects effectively, Staff propose to approach the work in two parts. Part 1, approximately \$505,000, is proposed to address traditional pedestrian facilities of sidewalks and crossings, and is presented in this report. In a subsequent report, Part 2 is proposed to address more systemic deficiencies in Nanaimo's walking network, such as, accessibility needs at transit stops, pedestrian-focused enhancements at traffic signals, and intersections not meeting standards for accessibility.

## **DISCUSSION**

Citizens file requests regularly for sidewalks and pedestrian crossing enhancements throughout the City. Using an evaluation process, locations are prioritized annually for improvements based on observed traffic and pedestrian volumes, adjacent land use, and other factors. The result is two lists of potential projects, one for sidewalks and one for pedestrian crossing improvements. These prioritized lists help establish the recommended projects in this report. Unused funds from Part 1 would be shifted to accessibility projects in Part 2.

In recent years, complaints about speeding have risen steadily. When the pandemic arose in 2020, vehicular traffic volumes diminished, which allowed speeds to increase further. This has affected pedestrians' real and perceived level of risk while using City streets. The relationship between speed and safety risk has been studied and well documented.

Staff continue to examine options that address both pedestrian needs and, more holistically, network safety in response to this issue of speeding. Federal traffic calming guidelines suggest vertical deflections can have a substantial positive effect on travel speeds. Vertical deflections include infrastructure such as speed humps, speed cushions, raised intersections, and raised crosswalks. The literature indicates these measures reduce 85<sup>th</sup> percentile speeds by 5 km/h to 13 km/h. An example would be a street where the 85<sup>th</sup> percentile speed is 63 km/h. With correctly designed vertical deflections, traffic calming can reduce the 85<sup>th</sup> percentile speed to 50 km/h. The post-traffic calming speed depends on the original state of traffic speeds, as well as the traffic calming features which can be made sharper or milder by design. The installation of raised crosswalks and raised intersections will likely lead to better pedestrian experiences and safer roadway operation. These features will be incorporated in future pedestrian treatments; exact locations have not been confirmed yet.

Beyond the priority of making walking safer and more comfortable, key components in recommending projects for Council's consideration are construction cost and development potential. Wherever possible, pedestrian projects are combined with utility improvements to maximize funding efficacy. Where development is likely to proceed in the short term horizon, pedestrian projects are usually deferred. The sidewalks and crossing improvements presented here have been chosen after taking all these factors into account.

### Intersection Upgrades

The following eight intersection upgrades are recommended in order of priority based on the pedestrian crossing evaluation matrix. Photos of each site are shown in Appendix A – Photos of Pedestrian Crossings.

1. Bruce Avenue at Sixth Street – Rectangular Rapid Flash Beacons, Curb Modifications and Street Lighting  
Class D Estimate: \$75,000

At this location, Bruce Avenue has the right-of-way and Sixth Street has stop signs. This operation does not compel Bruce Avenue drivers to give way to pedestrians crossing Bruce Avenue. Recent data collection shows this intersection has some speeding, moderate traffic volumes, and moderate pedestrian volumes. This crossing is close to neighbourhood amenities, schools, and parks, thus creating a localized desire line. This, coupled with the observed driver behaviour, make this location an ideal candidate for flashing beacons.

2. Hammond Bay Road at Tiki Way/Shores Drive – Rectangular Rapid Flash Beacons and Curb Extensions  
Class D Estimate: \$50,000

Hammond Bay Road is a major road that was constructed prior to being incorporated into the City and was built to a rural standard. Citizens continue to express concerns about walking and biking on Hammond Bay. In an effort to provide support to pedestrians in the area, Staff have focused on crossings at strategic locations such as connections between neighbourhoods or transit stops. Tiki Way is near transit stops and Hammond Bay Elementary School, and this crossing connects neighbourhood pedestrian desire lines.

3. Dufferin Crescent at Seafield Crescent – Rectangular Rapid Flash Beacons  
Class D Estimate: \$20,000

The intersection is located within the Nanaimo Regional General Hospital (NRGH) Mobility Hub. Pedestrian crossing numbers here are high, and as part of the mobility hub designation, pedestrian connections are of primary importance. Providing flashing beacons here would improve driver compliance and facilitate access to the hospital from nearby residences, parking areas, and adjacent medical services.

4. Labieux Road at Shenton Road – Rectangular Rapid Flash Beacons  
Class D Estimate: \$20,000

Labieux Road has high volumes compared to other two-lane roads within the city. This crossing connects a residential area on the north side of Labieux to the road network which accesses Coal Tyee School. In the reverse direction, the crossing connects a residential area to the business district along Shenton Road. Providing flashing beacons here should increase driver awareness and crossing opportunities for families walking to and from the school, and connections to nearby transit stops on Labieux Road.

5. Bruce Avenue at Albion Street – Raised Crosswalk, Rectangular Rapid Flash Beacons and Lighting Enhancements  
Class D Estimate: \$75,000

This crossing of Bruce Avenue at Albion Street has been the location of two serious pedestrian collisions within the past five years. The proposal for this crossing includes a raised crosswalk, flashing beacons, and a review of overhead lighting. If warranted, lighting upgrades could be carried out within the estimate provided in this report. If not warranted, the unused funds would be reallocated to other approved projects including accessibility improvements contained in future Part 2. The raised crosswalk will help address speeding downhill at Bruce Avenue.

6. East Wellington Road at Westwood Road – Rectangular Rapid Flash Beacons  
Class D Estimate: \$20,000

This crosswalk connects the E&N Trail where it crosses East Wellington Road beside Westwood Road. It is well used by both pedestrians and cyclists year-round. Staff are aware that new development is expected in the area. However, this is likely more than five years out and it is advantageous to address pedestrian crossing needs this year.

7. Departure Bay Road at Departure Bay Eco School – Rectangular Rapid Flash Beacons  
Class D Estimate: \$20,000

Parents of children attending Departure Bay Eco School have raised concerns about the safety of both the neighbourhood's pedestrian network, and this crossing. The pedestrian network near Departure Bay Eco School serves families walking to and from school. It also connects citizens to transit stops near the school, Wardropper Park, and Departure Bay Beach. Providing flashing beacons at the crossing would improve access to the school, as well as recreational amenities.

8. Uplands Drive at Mexicana Road – Rectangular Rapid Flash Beacons, Curb Extensions and Lighting Enhancements  
Class D Estimate: \$75,000

This crossing of Uplands Drive at Mexicana Road has a high number of pedestrians in the peak hour. High school students use this crossing and Mexicana Road to walk to Wellington Secondary School. There are currently BC Hydro lease lights at this crossing. The adequacy of these lights will be evaluated and if warranted, updated to current standards within the cost estimate provided.

### Sidewalks

There are five sidewalk projects presented for consideration. Of the five, Item (1), Needham Street north is recommended for 2021; design for a utility upgrade project is underway and incorporating the sidewalk in partnership with Snuneymuxw would be a cost effective way to complete the work.

1. Needham Street north – Haliburton Street to Irwin Street  
Class D Estimate: \$150,000

Needham Street is located within one of the oldest areas of Nanaimo and the vast majority of this neighbourhood has sidewalks that date back to the creation of the City. Sewer utility upgrades are planned for this section of Needham Street during 2021 which makes this sidewalk project viable. This sidewalk was a casualty of early budget reduction efforts. Snuneymuxw First Nation is conducting work on IR No. 1 which would coincide well. The Nation and local community have requested improvements to make their neighbourhood more walkable. Tying the sidewalk installation to the utility project would be a cost-effective way to achieve both asset renewal and community mobility goals.

2. Departure Bay Road south – Alan-A-Dale Place to Little John Way  
Class D Estimate: \$500,000

This sidewalk is a linkage identified through the Departure Bay Eco School Active Route to School Plan, as a particularly concerning area for students to walk. Through this process, parents indicated that this was one of the key barriers to allowing children to walk to and from school. This location is especially challenging to construct because of the topography. There is opportunity to construct the sidewalk in 2026 as part of a planned utility upgrade. More examination would be required to determine whether the sidewalk can be installed early and not interfere with future utility upgrades. However, carrying it out this year would accelerate its installation and improve neighbourhood walkability earlier.

3. Sixth Street north – Wakesiah Avenue to Howard Avenue  
Class D Estimate: \$800,000

Sixth Street in the south end of Nanaimo is a key east-west roadway connecting a growing residential area to the university precinct. As this area is densifying, the need for dedicated pedestrian facilities is increasing. The proposed classification of Urban Collector would ultimately include separate bicycle and pedestrian facilities. Completing a sidewalk on the north side would be the first step to realizing the Complete Street vision for Sixth Street. A utility upgrade project is planned for this area in 2029. More examination would be required to determine whether the sidewalk can be installed early and not interfere with future utility

upgrades. While this linkage is a priority, it could be carried out, cost effectively, as part of the utility project.

4. Haliburton Street – Woodhouse Street to Robins Street  
Class D Estimate: \$554,000

Similar to Needham Street, Haliburton Street goes through one of the oldest areas of Nanaimo. This area includes many of the first streets completed in Nanaimo. The sidewalk along the 700 block appears to have been missed during the growth of the City and leaves a gap between the City and Chase River Communities. This linkage is a priority and is currently in the plan for 2025. Completing it this year would be an acceleration of a planned project.

### Next Steps

Through discussions with ICBC, Staff anticipate the Road Improvement Program will contribute partial project funding. Contribution values are only estimates at this point; the actual contribution will be confirmed after each project's detailed design and cost estimate are finalized. The very high-level estimate of ICBC's total contribution is \$85,000.

Staff continue to look to the future by monitoring existing crosswalks, reviewing the possibility of enhanced protection for crossings, and, updating how evaluations and monitoring are carried out. One location that is being monitored closely is Dufferin Crescent at Grant Avenue. This crossing is part of the NRGH neighbourhood and pedestrian volumes are significant. Also, on the near-term list, is Albert Street at Selby Street. This location will be evaluated, and if warranted, flashing beacons could be installed as part of the Albert Street cycling lane project scheduled for construction in 2022.

Staff are reviewing enhanced crossing protection in the form of three-colour pedestrian-controlled traffic signals, commonly called "half signals". Half signals show red, yellow, and green lights for vehicles on the main road, and when actuated by pedestrians, bring vehicles to a stop with a red light before giving the "walk" signal to pedestrians. The safety benefits of this operation are proven and also make sense intuitively. However, half signals cost approximately \$500,000 per installation and their application needs careful consideration because of financial implications.

Finally, Staff engaged a consultant in 2020 to review the City's current evaluation and monitoring practises regarding pedestrian facilities. Ultimately, the study will provide recommendations for updates to our systems based on current best practises and sized for our needs. This study is still underway and will be finalized as part of the Active Transportation component of **REIMAGINE NANAIMO**.

### **Summary**

Pedestrians spend most of their journeys on corridors, and if not comfortable, they are less likely to walk. When considering which locations represent the best investment to support community walkability, it is worth noting that pedestrian collisions rarely occur along corridors. They typically occur at crossings. The key is to strike a balance between strategic efforts to generate mode shift versus necessary investments to support pedestrian safety. For 2021, Staff recommend applying funds to one sidewalk which can be completed as part of a utility upgrade, Needham Street north, and all Intersection Upgrades listed here. A follow-up report will cover the Part 2 recommendations.

## **OPTIONS**

1. That Council allocate \$505,000 of the Pedestrian Unallocated Funds to all projects listed under Intersection Upgrades and Sidewalk Item (1) Needham Street north.
  - An advantage of this option is that it balances corridor improvements and safety enhancements for pedestrian mobility.
  - Another advantage of this option that it is primarily based on requests or feedback from the community, while still being mindful of strategically supporting walkability in our most pedestrian dominant areas.
  - Financial Implications – funding for the project is included in the approved Provisional 2021 – 2025 Financial Plan.
  
2. That Council approve the alternate recommendation to use \$650,000 Pedestrian Unallocated Funds to complete two sidewalk projects: Needham Street north – Haliburton Street to Irwin Street, and Departure Bay Road between Alan-A-Dale Place and Little John Way.
  - The advantage of this option is that it provides focused improvements that have been identified by specific stakeholders in the community; construction will serve to reduce barriers to walking for two walking-centric neighbourhoods.
  - The disadvantage of this option is that these are location-specific projects and have a limited impact on the community as a whole.
  - Financial Implications – funding for the project is included in the approved Provisional 2021 – 2025 Financial Plan.
  
3. That Council provide direction to Staff to defer a decision on this Budget item until the presentation of recommendations for Allocation of Pedestrian Unallocated Funding – Part 2 is brought forward.
  - The advantage of this option is that it allows the City to defer a decision, and potentially enables these projects to be considered as part of the whole funding allocation.
  - The disadvantage of this option is that a deferral will likely impede any of these projects being built within a year.
  - Financial Implications, none.
  
4. That Council provide alternative direction to Staff.

### **SUMMARY POINTS**

- The recommended projects take a safety-focused approach at multiple locations across the City to provide a community-wide benefit.
- Each location has both safety and connectivity benefits which serve to balance strategic and operational needs.
- These projects support a broad spectrum of neighbourhoods and stakeholders within the City.

**ATTACHMENTS:**

Appendix A – Photos of Pedestrian Crossings |

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