

Meeting December 4, 2023 COMMITTEE COVER REPORT

TRANSPORTATION COMMITTEE

TO: MAYOR AND COUNCILLORS

SUBJECT: BURNABY ELEMENTARY SCHOOL TRAFFIC AND SAFETY STUDY UPDATE

RECOMMENDATION:

THAT the report titled "Burnaby Elementary School Traffic and Safety Study Update" dated November 22, 2023, be received for information.

REPORT

The Transportation Committee, at its meeting held on November 22, 2023, received and adopted the <u>attached</u> report providing an update on the Burnaby Elementary School Traffic and Safety Study.

On behalf of the Transportation Committee,

Councillor Richard T. Lee Chair

Councillor Daniel Tetrault Vice Chair



TO: TRANSPORTATION COMMITTEE

FROM: GENERAL MANAGER ENGINEERING

SUBJECT: BURNABY ELEMENTARY SCHOOL TRAFFIC AND SAFETY STUDY UPDATE

PURPOSE: To present an update on the Burnaby Elementary School Traffic and Safety Study.

RECOMMENDATION

THAT the report titled "Burnaby Elementary School Traffic and Safety Study Update" dated November 22, 2023, be received for information.

1.0 POLICY SECTION

The Burnaby Elementary School Traffic and Safety Study supports the City of Burnaby's Corporate Strategic Plan and goals for a safe, connected, healthy, and dynamic community. The study is also aligned with Council-adopted policies, plans, and strategies within Burnaby's Transportation Plan that supports a sustainable, safe, and accessible transportation system.

2.0 BACKGROUND

The prevalence of multimodal activities that occur in the vicinity of elementary schools, particularly around school pick-up and drop-off periods, can create potential safety issues and conflicts between vulnerable road users, including parents and students and vehicle drivers. The City initiated the Burnaby Elementary School Traffic and Safety Study in 2022 to review existing traffic conditions and to identify improvement measures to address operational and safety concerns within the vicinity of each school. A total of 43 elementary schools (41 public and 2 private) was part of this review. The study included on-site observations and a review of current traffic volumes and historical ICBC collision data to help understand existing vehicle and pedestrian traffic and/or conflicts. As part of this study, school principals, Parent Advisory Committee (PAC) members, and school crossing guards at each elementary school were also engaged for further inputs to the project team.

3.0 GENERAL INFORMATION

The study has been completed, and staff, considering the technical data and public input gathered, have identified several potential traffic measures to improve school safety and operations.

3.1. Study Recommendations

The study recommendations align with the City's Traffic and Speed Management Policy and will help address the unique issues for each respective elementary school. An overview of the transportation improvements measures is provided in the following **Table 1** below.

| Improvement Measures | Examples |
|--|--|
| New Pedestrian Crossing Facilities | New crossing opportunities at intersections and locations that are warranted. |
| Existing Pedestrian Crossing Improvements | Crosswalk restriping, crosswalk upgrades, curb letdowns, new signalization, signal timing changes, and Rectangular Rapid Flashing Beacon (RRFB) sequence updates |
| Traffic Calming | Raised crosswalk, curb extension locations, speed humps, and speed reader boards |
| Sidewalk/Roadway Improvements | Improving the condition of existing sidewalks and roadways |
| Streetlighting | New streetlights through technical analysis |
| Signage | Standardizing and designating pick-up/drop-off (PUDO) locations, signage location changes, new traffic operation signs, and new curbside regulations |
| Other | Including flex delineators along curbs, trimming vegetation to improve sightlines, and mountable roundabouts. |

 Table 1: Recommended Transportation Improvement Measures

A methodology using injury-involved collisions through ICBC collision data (2010-2020) was developed to prioritize all improvements implemented at each school location. The overall implementation as detailed in **Attachment 1**, includes five phases with approximately ten elementary schools per phase. Funding for all phases is integrated in the Transportation 5-year capital plan program and includes both short-term and long-term recommendations for each school. The recommended improvements will be completed on a rolling basis. Further details on the timeline are provided in **Attachment 2**.

3.2. Current Progress

Phase 1 short-term improvements included the top ten priority elementary schools and have been completed during the summer of 2023 through in-house design and construction. Phase 1 long-term improvements require further detailed design and are

expected to be implemented in 2024 - 2025. City staff is currently reviewing and finalizing the design for the remaining phases.

3.3. Monitoring

Following the implementation of the recommended traffic and safety improvement measures, the City will monitor the impacts, and reassess the opportunity for future improvements or design modifications, if needed.

4.0 COMMUNICATION AND COMMUNITY ENGAGEMENT

School principals, Parent Advisory Committee (PAC) members, and school crossing guards at each elementary school were engaged during the study to better understand existing safety challenges, identify opportunities for improvements, and develop potential mitigation measures. The recommended improvements and phased implementation approach (**Attachment 1**) and the proposed recommendations for the Phase 1 elementary schools (**Attachment 2**) was shared with the School District for reference in Spring 2023.

5.0 FINANCIAL CONSIDERATIONS

The proposed short-term and long-term improvements from this study for all phases of implementation have been included in the Transportation 5-year capital plan.

Respectfully submitted,

Jozsef Dioszeghy, P.Eng., General Manager Engineering

ATTACHMENTS

Attachment 1 – Recommended Improvement Summary and Phasing Attachment 2 – Proposed Phasing Timeline

REPORT CONTRIBUTORS

This report was prepared by Po Sun, M.Sc., AICP, Transportation Planner, and reviewed Kathy Ho, P.Eng., PTOE, Senior Manager, Transportation, and Amy Choh, P.Eng., PMP, Director Engineering Transportation.

ATTACHMENT 1 - Recommended Improvement Summary and Phasing

| | SCHOOL NAME | | RECOMMENDED TRANSPORTATION IMPROVEMENTS | | | | | | | | |
|---------|------------------------------------|---|--|------------------------------|---------------------------------------|--------------------|----------------------|---------------------------------|---|--|--|
| No. | | New Pedestrian Crossings Facilities ¹ | Existing Pedestrian Crossing Improvements ² | Traffic Calming ³ | Sidewalk / Roadway Improvements | Street Lighting | Signage ⁴ | Traffic Operations ⁵ | Other | | |
| PHASE 1 | PHASE 1 | | | | | | | | | | |
| 1 | Windsor Elementary | Y | Y | Y | | | Y | | Flex delineators | | |
| 2 | Nelson Elementary | | Y | Y | | Y | Y | | | | |
| 3 | Second Street Community Elementary | Y | Y | Y | | | Y | | | | |
| 4 | Ecole Marlborough Elementary | | Y | Y | | | Y | | Trim vegetation | | |
| 5 | Maywood Community Elementary | | Y | | | | | | | | |
| 6 | Kitchener Elementary | Y | Y | Y | | | Y | | | | |
| 7 | Taylor Park Elementary | | Y | Y | | | Y | | Mountable roundabout | | |
| 8 | Ecole Inman Elementary | | | Y | | Y | Y | | Improved ped access to school on Price St | | |
| 9 | Morley Elementary | | | Y | Y | Y | Y | | Trim vegetation | | |
| 10 | Sperling Elementary | | | Y | | | Y | Y | Trim vegetation | | |

1. Includes intersection and midblock locations

2. Includes crosswalk restriping, crosswalk upgrades, curb letdowns, new signalization, signal timing changes, and RRFB sequence changes

3. Includes raised crosswalk and curb extensions at intersections and midblock locations, speed humps, and speed reader boards

4. Includes PUDO designation, signage location change, new traffic operation signs, and new curbside regulations

| | SCHOOL NAME | | RECOMMENDED TRANSPORTATION IMPROVEMENTS | | | | | | | | |
|---------|---------------------------------------|---|--|------------------------------|---------------------------------------|--------------------|----------------------|---------------------------------|--|--|--|
| No. | | New Pedestrian Crossings Facilities ¹ | Existing Pedestrian Crossing Improvements ² | Traffic Calming ³ | Sidewalk / Roadway Improvements | Street Lighting | Signage ⁴ | Traffic Operations ⁵ | Other | | |
| PHASE 2 | | • | | | 4 | • | • | | | | |
| 11 | Stride Avenue Community Elementary | | | Y | | | Y | | | | |
| 12 | Glenwood Elementary | | | | Y | Y | Y | | New School Zone large yellow sign on Marine Dr | | |
| 13 | John Knox Christian School Elementary | Y | | Y | Y | | Y | | | | |
| 14 | Gilmore Community Elementary | | Y | Y | | | Y | | | | |
| 15 | Aubrey Elementary | | | | | Y | Y | | | | |
| 16 | Cameron Elementary | Y | | Y | Y | | Y | | | | |
| 17 | Rosser Elementary | | | | | | | | | | |
| 18 | Armstrong Elementary | | Y | Y | | | Y | | | | |
| 19 | Capitol Hill Elementary | Y | | Y | Y | Y | Y | | | | |
| 20 | Montecito Elementary | | | Y | | | Y | | | | |

2. Includes crosswalk restriping, crosswalk upgrades, curb letdowns, new signalization, signal timing changes, and RRFB sequence changes

3. Includes raised crosswalk and curb extensions at intersections and midblock locations, speed humps, and speed reader boards

4. Includes pick-up/drop-off (PUDO) designation, signage location change, new traffic operation signs, and new curbside regulations

| | SCHOOL NAME | | RECOMMENDED TRANSPORTATION IMPROVEMENTS | | | | | | | | |
|---------|-------------------------------|---|--|------------------------------|---------------------------------------|--------------------|----------------------|---------------------------------|---|--|--|
| No. | | New Pedestrian Crossings Facilities ¹ | Existing Pedestrian Crossing Improvements ² | Traffic Calming ³ | Sidewalk / Roadway Improvements | Street Lighting | Signage ⁴ | Traffic Operations ⁵ | Other | | |
| PHASE 3 | - | - | - | | | | - | - | | | |
| 21 | Suncrest Elementary | | | Y | | | Y | Y | Flex delineators | | |
| 22 | Twelfth Avenue Elementary | | | Y | | Y | | | Advanced warning flasher for SB on Canada Way | | |
| 23 | Brentwood Park Elementary | | Y | Y | Y | Y | Y | | | | |
| 24 | Cascade Heights Elementary | | | Y | | | Y | | New curb to deter illegal parking | | |
| 25 | Ecole Seaforth Elementary | | Y | Y | Y | | Y | | Cones at parking entrance to deter U-turns | | |
| 26 | Forest Grove Elementary | | Y | | | | | | Intersection redesign with reduced turning radius | | |
| 27 | South Slope Elementary | | Y | Y | | Y | Y | | | | |
| 28 | Buckingham Elementary | | Y | Y | | | | | | | |
| 29 | Clinton Elementary | | Y | Y | | Y | Y | | | | |
| 30 | Confederation Park Elementary | | | Y | Y | Y | Y | | | | |

2. Includes crosswalk restriping, crosswalk upgrades, curb letdowns, new signalization, signal timing changes, and RRFB sequence changes

3. Includes raised crosswalk and curb extensions at intersections and midblock locations, speed humps, and speed reader boards

4. Includes pick-up/drop-off (PUDO) designation, signage location change, new traffic operation signs, and new curbside regulations

| | SCHOOL NAME | | RECOMMENDED TRANSPORTATION IMPROVEMENTS | | | | | | | | |
|---------|-----------------------------------|---|--|------------------------------|---------------------------------------|--------------------|----------------------|---------------------------------|------------------|--|--|
| No. | | New Pedestrian Crossings Facilities ¹ | Existing Pedestrian Crossing Improvements ² | Traffic Calming ³ | Sidewalk / Roadway Improvements | Street Lighting | Signage ⁴ | Traffic Operations ⁵ | Other | | |
| PHASE 4 | | - | - | | | | | • | - | | |
| 31 | Lochdale Community Elementary | Y | | Y | | | Y | | | | |
| 32 | St Helen's Elementary School | | | Y | | | Y | | | | |
| 33 | Parkcrest Elementary | | Y | | | Y | Y | | Flex delineators | | |
| 34 | Stoney Creek Community Elementary | | Y | Y | Y | | Y | | | | |
| 35 | Brantford Elementary | | | Y | | Y | Y | | | | |
| 36 | Chaffey-Burke Elementary | | | Y | | Y | Y | | | | |
| 37 | Douglas Road Elementary | | | Y | | | | Y | | | |
| 38 | Edmonds Community Elementary | | | Y | Y | | Y | | | | |
| 39 | Gilpin Elementary | | | Y | | | Y | | | | |
| 40 | Lakeview Elementary | | | Y | | | Y | | Flex delineators | | |

2. Includes crosswalk restriping, crosswalk upgrades, curb letdowns, new signalization, signal timing changes, and RRFB sequence changes

3. Includes raised crosswalk and curb extensions at intersections and midblock locations, speed humps, and speed reader boards

4. Includes pick-up/drop-off (PUDO) designation, signage location change, new traffic operation signs, and new curbside regulations

| | SCHOOL NAME | | RECOMMENDED TRANSPORTATION IMPROVEMENTS | | | | | | | | | | |
|---------|---------------------------------|---|--|------------------------------|---------------------------------------|--------------------|----------------------|---------------------------------|-----------------|--|--|--|--|
| No. | | New Pedestrian Crossings Facilities ¹ | Existing Pedestrian Crossing Improvements ² | Traffic Calming ³ | Sidewalk / Roadway Improvements | Street Lighting | Signage ⁴ | Traffic Operations ⁵ | Other | | | | |
| PHASE 5 | | | | | | | | | | | | | |
| 41 | Lyndhurst Elementary | Y | | | | | Y | | Trim vegetation | | | | |
| 42 | University Highlands Elementary | | | Y | | | Y | Y | | | | | |
| 43 | Westridge Elementary | | | Y | | | Y | | | | | | |

2. Includes crosswalk restriping, crosswalk upgrades, curb letdowns, new signalization, signal timing changes, and RRFB sequence changes

3. Includes raised crosswalk and curb extensions at intersections and midblock locations, speed humps, and speed reader boards

4. Includes pick-up/drop-off (PUDO) designation, signage location change, new traffic operation signs, and new curbside regulations

ATTACHMENT 2 – Proposed Phasing Timeline

| Phases | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|--------|------|------|------|------|------|------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |



Short-Term Improvements

Long-Term Improvements