



Anglophone West School District (ASD-W) *Multi-year infrastructure planning*

South Fredericton Elementary Schools

New Brunswick Department of Education
and Early Childhood Development (EECD)

24 October 2016

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Executive Summary (1 of 3)

Background and scope:

In May 2016, the District Education Council (DEC) voted to have an infrastructure review performed for the eight elementary schools in South Fredericton. In particular, the review was to explore options with respect to building a new school (K-5 or K-8), the potential of school boundary rezoning, opportunities for consolidation, renovations and additions to existing schools and/or grade reconfiguration.

Objectives:

With the District having to add four more mobile classrooms to the south elementary system in the summer of 2016, a multi-year infrastructure plan was to be developed to address school overcrowding. Considerations were to include topography, building age, floor plans/size, asset condition, current/projected enrollments, transportation, pedagogy and operational/capital costs. The review was to analyze various scenarios and provide recommendations that would help the District during the capital planning process and initiate public consultation as required.

Challenges:

The utilization of the South Fredericton schools is currently at 80%, including the added space from nine mobile classrooms. This leaves very limited room for future enrollment growth. The average age of the elementary schools in scope is 51 years. A review of the existing infrastructure identified there was a shortage of pedagogical space compared to the current EECD Planning Guidelines for Educational Facilities and there is a high amount of deferred maintenance compared to the replacement value for schools of the same size.

Executive Summary (2 of 3)

Challenges (continued):

Site visits of the schools in scope confirmed there is little to no space for resource and/or visiting professionals.

Pressure for available space is expected to increase into the future with the potential for the Early French Immersion Program entry point to change from grade 3 to grade 1. Moreover, the City of Fredericton is projecting the population of the south side to increase by 24% (33,429 to 41,500) within the next 10 years.

Accessibility improvements have been identified on the deferred maintenance list for Kingsclear Consolidated, Forest Hill Elementary, Montgomery Street Elementary, Garden Creek and George Street Middle schools.

Proposed recommendations:

South Fredericton elementary schools are aging and a long-term solution should include elements to revitalize the school infrastructure in conjunction to addressing projected enrollment growth. Proposed recommendations include the following (details of each can be found in the main body and appendices of the report):

1. To meet the needs of a growing population, we recommend building a new K-8 (650 students) school in the Hanwell area. The K-8 solution provides additional capacity needed for the middle school system. This option would reduce bussing costs and travel time. The approximate cost for this option is \$25M – \$26M*.

*Note: Class "D" estimate ($\pm 30\%$) based on the EECD Planning Guidelines for Educational Facilities, as an estimate for this report only. Cost estimates will be adjusted when the EECD Infrastructure and project team establishes the actual space allocation for the new school.

Executive Summary (3 of 3)

Proposed recommendations (continued):

2. Kingsclear Consolidated School is currently a trigger school*, with high deferred maintenance and space deficiencies compared to EECD standards. We recommend closing the school and splitting the school boundary between the proposed K-8 school (majority of the students) and Garden Creek School. This would eliminate \$2M in deferred maintenance.
3. Change the Montgomery Street Elementary School boundary to have the students currently bussed from the Lincoln Road area to now attend Priestman Street Elementary School.
4. Switch area bounded from Montgomery Street to Kings College Road in one direction and Regent Street to York Street in the other from Priestman Street Elementary to Montgomery.
5. Reconfigure Montgomery Street Elementary to a K-2 and Connaught Street School to a 3-5, sharing the same school boundary with the French Immersion Program remaining at Connaught Street.
6. To initiate a revitalization plan, consolidate Forest Hill Elementary and Liverpool Street Elementary schools by building a new K-5 (500) within the existing school boundary. This option will cost approximately \$21M – \$22M** and would eliminate \$2M in deferred maintenance.
7. Enrollment projections indicate there will be a growing need for an additional elementary school with the timeline dependent on the actual trajectory of population growth for the area. Closely monitor enrollment projections to actual, as the planning cycle for a new elementary school may need to start in the near future.

*A "trigger school" has fewer than 100 students or less than 30% capacity and requires a feasibility study (as defined in a statement by the Minister of Education and Early Childhood Development dated 27 March 2015). **Class "D" estimate ($\pm 30\%$) based on the EECD Planning Guidelines, as an estimate for this report only.

Context – ASD-W has initiated a review of South Fredericton elementary schools to identify multi-year infrastructure planning options

Eight elementary and two middle schools in the South Fredericton area were included in the scope of our review:

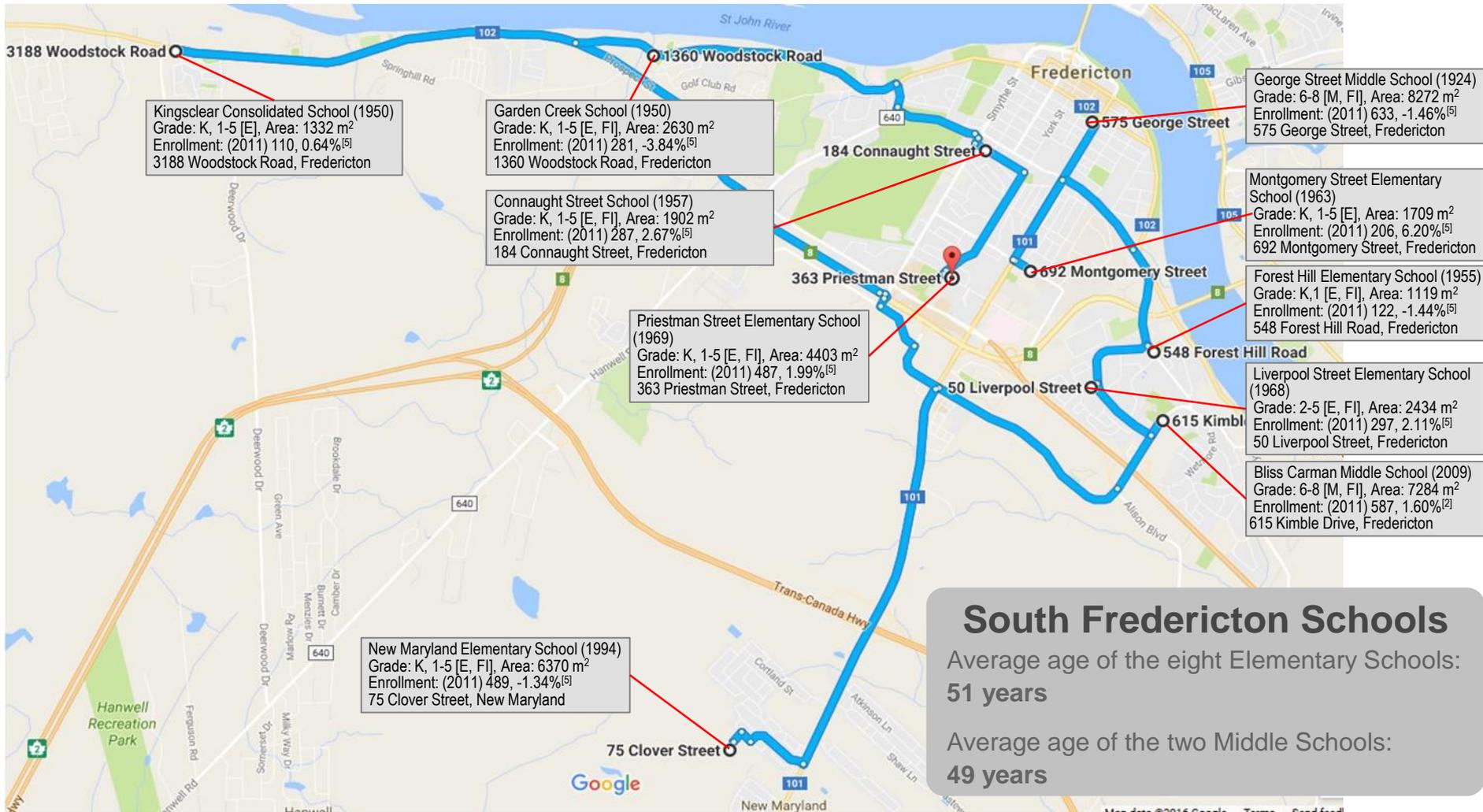
Southwest Fredericton (5 elementary schools)

- ▶ The District noted that the Priestman Street Elementary School is overcrowded with modular classrooms.
- ▶ At Connaught Street School, built in 1957, DEC has approved capital project for a school addition (single gym).
- ▶ Kingsclear Consolidated School had 94 students enrolled in 2015-16, and a request for delaying a sustainability study had been made.
- ▶ Garden Creek School, built in 1965, with 286 students enrolled in 2015-16.
- ▶ It was noted that New Maryland Elementary is a 7-minute drive from Hanwell Intersection at the highway.

Southeast Fredericton (3 elementary and 2 middle schools)

- ▶ The District noted that the Montgomery Street Elementary, Liverpool Street Elementary, and Forest Hill Elementary schools are overcrowded with modular classrooms. Additionally, Montgomery Street Elementary is leased from the University of New Brunswick (UNB).
- ▶ George Street Middle School, built in 1924, has high enrollment (686 students in 2015-16) and is located in the downtown core.
- ▶ Bliss Carman Middle School, built in 2009, had 552 students enrolled in 2015-16. The middle school boundaries may be impacted if the elementary school boundaries are altered.

Subject schools are in close proximity to one another, which presents opportunities for various solutions



Source: Google Maps, EECD sub-district maps 6 and 7 for ASD-W.

Context – overall elementary enrollment has increased by 5% since 2010-11, last year’s growth primarily driven by the arrival of the Syrian new-comer students

- ▶ Aggregate floor area is 37,455 m², or 9.6% of District total of 388,963 m².
- ▶ Age of elementary school assets range from 22 years (New Maryland Elementary School) to 66 years (Kingsclear Consolidated School).
- ▶ Total 2015-16 enrollment for the eight elementary schools in scope is 2,387 students.

Enrollment history											
Schools	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Kingsclear Consolidated School	105	105	99	109	113	117	110	111	111	101	94
Garden Creek School	325	331	336	312	294	294	281	289	277	276	290
Priestman Street Elementary School	448	470	438	439	467	487	487	497	534	525	533
Montgomery Street Elementary School	182	165	167	181	172	181	206	221	216	211	198
Connaught Street School	277	277	269	251	259	274	287	273	272	281	298
Forest Hill Elementary School	146	156	149	113	114	121	122	134	123	118	134
Liverpool Street Elementary School	250	257	269	303	283	291	297	278	304	318	361
New Maryland Elementary School	549	538	505	496	500	511	489	486	472	465	479
Total elementary school enrollment	2,282	2,299	2,232	2,204	2,202	2,276	2,279	2,289	2,309	2,295	2,387
George Street Middle School	643	651	683	685	663	631	633	636	649	649	695
Bliss Carman Middle School*	611	565	615	580	591	558	587	612	603	604	563
Total middle school enrollment	1,254	1,216	1,298	1,265	1,254	1,189	1,220	1,248	1,252	1,253	1,258

*Note: Bliss Carman Middle School, replaced Albert Street Middle School in October 2009. Enrollment history from 2006 to 2009 is for Albert Street Middle School

- ▶ Overall elementary enrollment (including New Maryland Elementary) has been increasing since 2010 (5% total growth).
- ▶ Larger enrollment increase seen in 2015-16 was primarily driven by the arrival of the 96 Syrian new-comer (K-8) students to the schools in scope.

Source: EECD Policy and Planning Summary Statistics and EECD School Asset Data.

Context – average FCI* index is rated poor for the majority of the schools in scope, with the exception of New Maryland Elementary School and Bliss Carman Middle School

- ▶ Replacement value for all 10 schools is approximately \$100.7M.
 - Based on current floor area and replacement cost of \$2,690/m².
- ▶ Average asset conditions are rated poor for the majority of the schools, with the exception of New Maryland Elementary School and Bliss Carman Middle School (based on FCI* ranges recommended in the APPA Book of Knowledge (2009) for Facilities Management):

School	FCI*	Rated condition
Kingsclear Consolidated	0.55	Poor
Forest Hill Elementary	0.37	Poor
Montgomery Street Elementary	0.21	Poor
Garden Creek	0.19	Poor
Connaught Street	0.18	Poor
George Street Middle	0.16	Poor
Liverpool Street Elementary	0.15	Poor
Priestman Street Elementary	0.14	Poor
New Maryland Elementary	0.00	Good
Bliss Carman Middle	0.00	Good
Average school condition	0.22	Poor

- ▶ Note: FCI is a measure for Facility Planners to equate the amount of deferred maintenance to the space of a building for comparison. A rating of Poor or Fair does not mean a building is unsafe or unfit for use. Older buildings often have more deferred maintenance than newer buildings (e.g. the deferred maintenance can require upgrades to modernize heating, ventilation and control systems that did not exist when the building was constructed).
- ▶ The total deferred maintenance cost for the 10 schools was identified as \$12.5M in the EECD School Physical Plant Status Report.

Note: EECD has no deferred maintenance at Bliss Carman Middle School. Site visit confirmed that Bliss Carman Middle School is in good condition.

*FCI: Facility Condition Index with the following ranges: Poor (>0.10), Fair (0.05 to 0.10) and Good (<0.05).

Consultations between the District and EY narrowed the scope to two possible scenarios

Two multi-year infrastructure planning options were prepared for ASD-W to address the overcrowding and projected future growth within the elementary school system for South Fredericton:

- ▶ Scenario 1: Construction of a new K-5 school
- ▶ Scenario 2: Construction of a new K-8 school
- ▶ The two scenarios were to consider the potential of the following options to address the overcrowding of the schools:
 - School boundary rezoning;
 - Renovations/additions to existing schools;
 - Possible opportunities for consolidation;
 - Grade reconfiguration;
 - Additional school/space requirements; and
 - Consideration of the soft impact (pedagogy, guidelines, safety and accessibility) and hard impact (capital costs, transportation, operations/maintenance costs).

Challenges – Space has become an issue at the South Fredericton elementary schools: 80.6% space utilization with little to no space for enrollment growth

- ▶ Two key components of a long-term infrastructure plan include providing enough space to meet the pedagogical needs of the District/community and to revitalize aging infrastructure (which can include renovations, additions and/or replacements).
- ▶ Meeting pedagogical needs:
 - Montgomery Street Elementary, Forest Hill Elementary and Kingsclear Consolidated schools are considered small schools by the EECD Planning Guidelines (less than 200 students). This means the Guidelines specify less supporting space than regular sized schools (e.g. multi-purpose instead of a gym). Additionally, their small size limits their potential for long-term solutions (e.g. fewer classrooms to support school boundary changes, school additions that are usually large to meet current guideline space deficiencies making it more feasible to build new, compared to a large renovation).
 - Space has become an issue at the elementary schools, the overall utilization (including the nine mobile classrooms – four of these installed in summer 2016) is 80.6% based on the current grade configuration. This indicates the schools are essentially at their functional capacity, and there is little to no space for enrollment growth.

Challenges – Shortage of pedagogical space compared to current EECD Planning Guidelines and space availability expected to become a bigger issue in the future

- School visits confirmed there is little to no space for resource and/or visiting professionals in these schools.
- Since the schools were built under older guidelines, there is a large amount of pedagogical space that is missing compared to a modern elementary school (e.g. cafeteria/kitchen, project work areas, break-out rooms, Early Childhood Development, multi-function rooms, special care and performing art rooms).
- The Government of New Brunswick (GNB) is considering lowering the start of the Early French Immersion (FI) Program from grade 3 to grade 1 (this will increase space requirements depending on the amount of students in the grade and the class size limit defined in the teachers' collective agreement).*
- Pressure for available space will increase into the future.
- In 2015-16, Canada implemented the Syrian Refugee Program, which brought 76 new K-5 students to the South Fredericton elementary schools. In September it was announced that 6,000 more refugees were expected to arrive in Canada by the end of December 2016*.
- A review of the historical enrollments for the South Fredericton elementary schools found the K-5 population growing by 2% on average over the last five years, when excluding New Maryland Elementary School and the Syrian new-comers.

*Note: On September 30, 2016, GNB announced that the early entry point for French Immersion will return to grade 1 beginning in September 2017, while the draft of this report was being finalized.

Source: *[http://news.gc.ca/News Release/Communities Prepare to Welcome Syrian Refugees](http://news.gc.ca/News%20Release/Communities%20Prepare%20to%20Welcome%20Syrian%20Refugees) (6 September 2016), EECD Planning Guidelines for Educational Facilities, ASD-W Syrian Enrollment Data for 2015-2016 and EECD Policy, Planning Summary Statistics.

Challenges – Deferred maintenance includes required accessibility upgrades at several of the schools and heating/ventilation improvements at all the elementary schools in South Fredericton

- The City of Fredericton is projecting the south side of Fredericton to increase from 33,429 to 41,500 (see appendix F) by 2026 (including 925 more K-5).
- Utilizing the remaining classroom capacity at New Maryland Elementary School is not considered a viable option. The 2015-16 enrollment was 479 students, leaving little space to accept more students from another school (given the K-5 specifications of 500 students).
- Forest Hill Elementary (K-1) feeding Liverpool Street Elementary (2-5) is not a standard grade configuration (e.g. K-2 and 3-5). The teachers' collective agreement specifies 4 to 4.5 hours of instruction for K-2 and 5 to 5.5 hours for grades 3-8. The split between grades 1 and 2 within the same school boundary may mean children from the same family in the K-2 range could get out of school at the same time in two different locations (potentially creating logistical pick-up issues for some parents).
- Needs for accessibility upgrades have been identified on the deferred maintenance list for Kingsclear Consolidated, Forest Hill Elementary, Montgomery Street Elementary, Garden Creek and George Street Middle schools.
- Forest Hill Elementary School has one classroom, a music room/English as an Additional Language (EAL) and a resource space in the basement floor requiring dehumidifiers at times. All eight of the South Fredericton elementary schools and George Street Middle School have deferred maintenance identified for heating and ventilation improvements.

Challenges – South Fredericton elementary schools are aging (average: 55 years excluding New Maryland Elementary) and a long-term solution should include elements of revitalization

- ▶ Long-term solution should include elements of revitalization:
 - Average age of these seven elementary schools is 55 years, indicating there may be candidates for mid-life upgrades. However, these schools have been rated “poor” on the FCI index indicating there is a high amount of deferred maintenance compared to the replacement cost. As highlighted earlier, the significant deficiency in supporting pedagogical space could impact the business case for mid-life revitalization versus the construction of a new school (Appendix A for details).
 - Even with three small schools in scope, there is limited potential for school consolidation within the existing school boundaries due to the upper limit of 500 students defined for K-5 in EECD Planning Guidelines. With the current enrollments and utilizations, one could consolidate at most two schools into a new one. This essentially adds no more capacity to the elementary system. In this scenario, a new school would provide revitalization and address deficiencies in pedagogical space (Appendix A for details).
 - The location of a new school will impact student transportation and student distribution between school boundaries. Building a new school too close to a boundary can affect future options in regards to school boundary changes (e.g. start to infringe on walking zone of boarding school).

Trigger School – Recommend Kingsclear Consolidated School be consolidated in a new facility considering its small size, high deferred maintenance and space deficiencies to standards

- ▶ Kingsclear Consolidated School is currently identified as a trigger school*, as the 2015-16 enrollment was 94 students. The District noted that during stakeholder engagement, a developer stated there were plans to build approximately 160 lots in Silverwood Country Estates and this would help increase future enrollment.
- ▶ However, Kingsclear Consolidated only has five homeroom classrooms. Several former classrooms have been converted into other pedagogical space that are part of the elementary school program, including a music room (less than 100% utilized), a resource/guidance/literacy room and a library.
- ▶ As noted previously, the school does not meet accessibility standards and there is deferred maintenance for heating/ventilation improvements. Total deferred maintenance is \$2M.
- ▶ The current multi-purpose room used for the gym is too small compared to current guidelines (134 m² compared to 280 m²) and there is no supporting ancillary spaces for the gym. Other space deficiencies include: cafeteria, Early Childhood Development, multi-function room, project work areas and visiting professionals space. This totals approximately 34% of the space of a replacement school and 64% of the total cost (including deferred maintenance). Considering all of these factors and quality of education, we recommend this school be consolidated into a new facility (Appendix E has pictures for comparing elementary infrastructure space types of different ages).

*A “trigger school” has fewer than 100 students or less than 30% capacity and requires a feasibility study (as defined in a statement by the Minister of Education and Early Childhood Development dated 27 March 2015), EECD Policy, Planning Summary Statistics and EECD Planning Guidelines for Educational Facilities.

Proposed Recommendations – Build a new K-8 (650) school in the Hanwell area and implement changes to reduce the amount of students at each elementary school that is at capacity

- ▶ Based on enrollment projections, while the South Fredericton elementary schools are already near their functional capacity (80.6%), it is abundantly clear that at least one new school will be required. Making changes in one school can have a cascading effect on the entire system, because of dependencies within the elementary system, including attending schools out of zone for French Immersion.
- ▶ Our review examined the interdependencies among schools to identify: (a) potential changes that would reduce the amount of students at each elementary school, and (b) potential options to revitalize the aging infrastructure.
- ▶ Our proposed recommendations for the long-term infrastructure plan includes:
 1. Build a new K-8 (650) school in the Hanwell area. This would provide additional capacity needed for the middle school system and only reduce the K-5 capacity by 65 compared to the K-5 (500) scenario. This option would not only reduce bussing costs for Hanwell students into the city (288 to Priestman Street Elementary School and 247 to George Street Middle School), but also travel time. The City of Fredericton identified a potential location within city limits, noting this location would already have infrastructure in place to support the school, e.g. sidewalks, required in the Hanwell area. However, building the school near the edge of the school boundary and bussing a further distance is a decisive factor. Yet, projections indicate another school might be required in the South End of Fredericton as well, and a location might be available for this. The Trans-Canada Highway is proposed to divide the new Hanwell and Priestman Elementary Street school boundaries.

Source: ASD-W school transportation software - Versatrans for 2016-17.

Proposed Recommendations – Split the Kingsclear Consolidated School boundary between Hanwell and Garden Creek School and move Lincoln Road students to Priestman

2. Recommend closing Kingsclear Consolidated School, and include the majority of that school boundary (57) in the new K-8. The Fairview Drive/ Silverwood Country Estates area near the school would go to Garden Creek School (43). Due to the shape of the school boundary, students in Upper Kingsclear would have a shorter bus ride while students in Lower Kingsclear/French Village would have a longer bus ride (with the longest ride before and after boundary change staying approximately the same). This is a large school boundary; although some students would lose a school in their community, the newer school would provide them with additional space and a newer educational facility. French Immersion students from the Kingsclear Consolidated school boundary (attending Garden Creek School) would attend Hanwell, if residing in the new boundary.
3. Priestman Street Elementary School would lose approximately 288 students to the new Hanwell School. Recommend changing the Montgomery Street Elementary school boundary and have the 145 students that are bussed from the Lincoln Road area to attend Priestman Street Elementary School. Under the old school boundary, Montgomery Street Elementary students taking French Immersion (48) attended Liverpool Street Elementary School. Therefore, the proposed boundary change would also reduce the amount of students at Liverpool Street Elementary School. Unfortunately, the Lincoln Road students would continue to be bussed past the nearest school (Liverpool Street), as this school does not have enough capacity for a change, and the walking zone prevents a change with the Priestman Street Elementary school boundary.

Source: ASD-W school transportation software - Versatrans for 2016-17.

Proposed Recommendations – Do not close Montgomery Street Elementary School based on the remaining old school boundary, as the classrooms provide flexibility to adjust Connaught Street enrollments

4. In the current school boundary, Priestman Street Elementary School had a block that extended past Montgomery Street that is proposed to move into the Montgomery Street Elementary School boundary. This squares the school boundary line at Montgomery Street. The proposed area to be shifted is bounded from Montgomery Street to Kings College Road in one direction and by Regent Street to York Street in the other direction. There is currently nine students attending Priestman Street Elementary.
5. Recommendation #3 left 34 students in the old Montgomery Street Elementary School. This means Montgomery Street Elementary could potentially be consolidated into Priestman Street Elementary School. This would eliminate a lease payment to UNB as well. However, it is recommended not to close Montgomery Street Elementary at this time. The future projections for enrollment growth show that the 11 classrooms would be needed in this area of the city, and the plan has not removed any students from Connaught Street School to help lower its utilization level. We examined shifting the boundary between the two schools from Regent Street to York Street as well as a block bounded by Montgomery Street to Kings College Road in one direction and York Street to Smythe Street in the other. This splits the students with 161 at Montgomery Street Elementary and 188 students left at Connaught Street School. However, this would divide the French Immersion Program at Connaught Street School by sending some of those students to Montgomery Street Elementary, which does not currently have an French Immersion Program.

Source: ASD-W school transportation software - Versatrans for 2016-17.

Proposed Recommendations – Reconfigure Montgomery Street Elementary School to K-2 and Connaught Street School to 3-5 sharing the same school boundary

5. Continued – It is recommended that Montgomery Street Elementary School and Connaught Street School be reconfigured to K-2 and 3-5, while sharing the same school boundary. The K-2 split aligns with the teachers' collective agreement specifying hours of instruction per grade. The French Immersion (FI) Program would remain together at Connaught Street School. When GNB lowers the entry point to grade 1, it might mean starting an FI at Montgomery Street Elementary or move those FI to Connaught Street as well (depending on space availability and the percentage of FI enrollment).
 - This approximately splits the student population evenly (178 students). Since the class size limit for K-2 is 21, it would lower the functional capacity of Montgomery Street Elementary, while raising the functional capacity of Connaught Street School (class size limit increases to 26 in grade 3).
 - The District noted that the DEC recommended adding a single gym and renovations to the old multi-purpose at Connaught Street School. The school had 298 K-5 students in 2015-16, and the Planning Guidelines specify a single gym when the small school limit of 200 is exceeded. Although the Connaught Street School would have less than 200 students in a grade reconfiguration (based on 2015-16 enrollment), it is projected to increase above 200 in the next 10 years. The proposed changes to the elementary system would take several years to implement. If a third school is needed for growth, the location is currently unknown or if any existing schools would be in for consolidation. With all these unknowns, it is recommended to use the EECD Infrastructure scoring and prioritizing process for capital projects to help determine to proceed or not.

Source: ASD-W school transportation software - Versatrans for 2016-17.

Proposed Recommendations – Build a new K-5 (500) school to consolidate Forest Hill Elementary and Liverpool Street Elementary schools to start the revitalization of aging elementary infrastructure

6. Recommend to take a proactive approach – build a new K-5 (500) school to consolidate Forest Hill Elementary and Liverpool Street Elementary schools to start the revitalization of aging infrastructure in the South Fredericton elementary system.
 - The amalgamation is relatively easy, as the schools already share the same school boundary. Forest Hill Elementary (K-1) feeds to Liverpool Street Elementary (2-5) and they are 1 km apart via Canterbury Drive.
 - The City of Fredericton has identified several potential locations for a new school within city limits. The new K-5 school could be built without interfering with the existing schools.
 - Based on 2016-17 data, the consolidated school would have approximately 419 students today. This is near the upper design specification of 500 K-5 students, and the 145 students bussed from the Lincoln Road would still have to attend Priestman Street Elementary School after the boundary change.
 - The proposed new school would have 27 classrooms, three more than the two old schools combined. It would eliminate four mobile classrooms and address the previously identified deficiency in elementary program space for the two old schools.
 - A K-8 scenario was not deemed a feasible option to review, as the proposed school is within the catchment area for Bliss Carman Middle School (2.1 km away).

Proposed Recommendations – Closely monitor the enrollment projections to actual, as the planning cycle for a third elementary school might need to begin before the proposed new schools are opened

7. Recommend to closely monitor the enrollment projections to actual, as a third elementary school might be required in the near future. If the current projections held true, the planning cycle for another school might begin before the currently proposed schools are built or the boundaries might need to be adjusted again (see graphic on next page).
 - If not followed closely, the schools could potentially fill to capacity and generate questions relating to sizing. The proposed school sizing is based on recommended elementary capacity limits in the EECD Guidelines and therefore an additional school would be needed – not a larger capacity design.
 - Projections are based on the best available data from the District at the time of the review. This includes historical enrollments and extrapolated data from the City of Fredericton. Factors and/or assumptions affecting population could change and this would affect the projected trend (e.g. an unexpected surge in population similar to the Syrian immigration in 2015-16 or more growth occurring in the north side of the city than was projected compared to the south side).
 - Three sets of projected trends were performed for the schools in scope to determine how the school utilization would be affected (in all cases – birth projection came from the city’s population projections):
 - Forwarding the student enrollment through each grade with no net migration
 - Forwarding the student enrollment through each grade with 2% net migration
 - Extrapolated enrollment from the city’s population projections

Source: ASD-W school transportation software - Versatrans for 2016-17.

Proposed Recommendations – Trend/analyze how the South Fredericton elementary system reacts to the proposed changes and projected growth before committing funds to a potential third school

Projection 1 (Assuming no net migration)							
Year	K	1	2	3	4	5	Total
2016-17	302	333	293	333	339	327	1,927
2017-18	275	302	333	293	333	339	1,875
2018-19	293	275	302	333	293	333	1,829
2019-20	320	293	275	302	333	293	1,816
2020-21	335	320	293	275	302	333	1,858
2021-22	345	335	320	293	275	302	1,870
2022-23	348	345	335	320	293	275	1,916
2023-24	362	348	345	335	320	293	2,003
2024-25	373	362	348	345	335	320	2,083
2025-26	379	373	362	348	345	335	2,142
2026-27	381	379	373	362	348	345	2,188

Project start-up would depend on GNB approval

Year 1 Estimated new school construction
Year 2
Year 3
Year 4 (depending on start time)

2,256 (Estimated 80% Capacity)

Projection 2 (Assuming 2% net migration)							
Year	K	1	2	3	4	5	Total
2016-17	302	333	293	333	339	327	1,927
2017-18	297	308	340	299	340	346	1,929
2018-19	320	303	314	346	305	346	1,935
2019-20	351	326	309	320	353	311	1,971
2020-21	366	358	333	315	327	360	2,059
2021-22	381	373	365	340	321	333	2,114
2022-23	384	389	381	372	346	328	2,200
2023-24	400	392	396	388	380	353	2,310
2024-25	412	408	400	404	396	388	2,408
2025-26	418	420	416	408	412	404	2,478
2026-27	421	426	429	424	416	421	2,537

Project start-up would depend on GNB approval

Year 1 Estimated new school construction
Year 2
Year 3
Year 4 (depending on start time)

2,256 (Estimated 80% Capacity)

Projection 3 (Extrapolated city projections)							
Year	K	1	2	3	4	5	Total
2016-17	312	320	309	316	306	281	1,844
2017-18	319	326	332	319	327	310	1,933
2018-19	338	332	339	341	330	331	2,011
2019-20	361	351	344	348	352	333	2,089
2020-21	381	374	363	353	359	355	2,185
2021-22	399	395	387	372	364	362	2,279
2022-23	413	413	409	397	383	367	2,382
2023-24	427	428	427	419	408	386	2,495
2024-25	438	443	442	438	431	411	2,603
2025-26	445	454	458	453	450	434	2,694
2026-27	447	462	470	469	467	454	2,769

Project start-up would depend on GNB approval

Year 1 Estimated new school construction
Year 2
Year 3
Year 4 (depending on start time)

2,256 (Estimated 80% Capacity)

Based on birth rates for year (forwarded to when they would start school)

Based on forecasted births from city projections

Potential third school (exceeding 80% Capacity)

- High level estimation for when the South Fredericton elementary system (excluding New Maryland) would reach 80% of capacity after the proposed schools have been added.
- It is based on the total elementary enrollment, and some schools could reach 80% capacity at different times depending on population distribution within the school boundaries.
- Elementary system projections have less certainty than middle schools and high schools, as they rely on entry point forecasts versus actual feed school data (see blue and green in tables).
- The tables illustrate how the assumptions in the projections would drive whether/when another school would be needed (projection 1: 2027-28, projection 2: 2023-24 and projection 3: 2021-22).
- Because of this uncertainty, it is recommended to analyze how the system trends/reacts to the proposed changes and projected growth before committing funds to a potential third school.

Source: City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015), EECD Policy, Planning Summary Statistics and ASD-W school transportation software - Versatrans.

Other Considerations – New K-8 school proposed to increase middle school capacity, monitor middle school projections and determine infrastructure plan for George Street Middle School (replace/renovate)

- ▶ The District noted that since students would now have to cross Regent Street after the reconfiguration of Montgomery Street Elementary School and Connaught Street School, additional crossing guards would likely be required in this area.
- ▶ The following table illustrates the new middle school capacity after the proposed K-8 Hanwell School has been added to the system:

Projection 2 (Assuming 2% net migration)				
Year	Bliss Carmen	George Street	Hanwell (6-8)	Total
2016-17	575	460	222	1,257
2017-18	572	484	208	1,264
2018-19	605	473	188	1,267
2019-20	596	489	203	1,288
2020-21	579	498	208	1,285
2021-22	584	513	223	1,320
2022-23	579	491	226	1,297
2023-24	591	498	230	1,318
2024-25	570	498	225	1,293
2025-26	589	533	229	1,351
2026-27	614	572	245	1,431

- Based on the total middle school enrollment, schools could reach 80% capacity at different times, depending on population distribution within the school boundaries. Added K-8 capacity extends potential decision on new middle school to approximately 2025-26 based on projection 2.

- ▶ George Street Middle School is 92 years old and located in the downtown core. The school has no green space and school parking is limited/congested. Monitor the middle school growth projections to actual. Recommend determining an infrastructure plan for aging George Street Middle School be made a priority in the near future. Determine whether to replace or renovate for revitalization and projected growth. The City has noted two potential sites for locating a school in the future.

Other Considerations – Lincoln Road area students attend the closest middle school (Bliss Carman), while remaining students at Priestman Street Elementary attend George Street Middle School

- ▶ Recommendation #3 included changing the Montgomery Street Elementary school boundary. Students (145) bussed from the Lincoln Road area would attend Priestman Street Elementary School. As noted previously, this was recommended to free elementary space in Montgomery Street Elementary School and Liverpool Street Elementary School. This would require a decision in regards to the middle school boundaries:
 - The bussed Lincoln students attend Bliss Carman Middle School. The remaining portion of the Montgomery Street Elementary attends George Street Middle School (splitting this elementary stream between two middle schools). The same would be true if the bussed Lincoln area students were moved to Priestman Street Elementary School, as it feeds George Street Middle School. The options for the bussed Lincoln area students are:
 - Allow the split of the elementary stream to happen at Priestman Street Elementary School and the students would remain at the closest Middle school within their boundary (Bliss Carman) – recommended for the present time; or
 - Attend George Street Middle School (after the Hanwell Middle School students have transitioned to the proposed K-8 school). This would keep the elementary stream at Priestman Street Elementary together in one middle school. However, the Lincoln Road area students would be bussed past the closest middle school.
- ▶ Note: the attached Appendix D contains details for all the schools in scope. These details were used to develop the recommendations in the main body of the report.

Source: ASD-W school transportation software - Versatrans for 2016-17.

Scenario 1 estimated to cost between \$41.6M – \$43.6M*, while the cost of scenario 2 is between \$45.9M – \$47.9M*. Both options would reduce deferred maintenance liability by \$4.1M

- ▶ Both scenarios 1 and 2 address the need for additional space and revitalization of the school system in South Fredericton.
- ▶ **Scenario 1:** Increase elementary capacity by building a new K-5 (500 students) school in the Hanwell area, estimated at \$20.8M – \$21.8M*. Consolidate Liverpool Street Elementary and Forest Hill Elementary schools in a new K-5 school, as part of the revitalization process, whose cost and capacity would be similar to the proposed Hanwell K-5 school (see details in Appendix B).
- ▶ **Scenario 2:** Increase both elementary and middle school capacity by building a new K-8 school (650 students) in the Hanwell area, estimated at \$25.1M – \$26.1M*. As proposed in scenario 1, build a new consolidated K-5 school in the Liverpool Street area (see details in Appendix C).
- ▶ In both scenarios, it is proposed to build two new schools and close the same three schools (Kingsclear Consolidated, Forest Hill Elementary and Liverpool Street Elementary). The cost avoidance in deferred maintenance liability is estimated at \$4.1M.

Scenario 1 - New K-5 school in the Hanwell area and a new K-5 school that would replace Liverpool Street Elementary School

School	Reason	Estimated cost
K-5 school in the Hanwell area (500 students)	Increase capacity	\$20.8M - \$21.8M
K-5 school in the Liverpool area (500 students)	School revitalization	\$20.8M - \$21.8M
Total estimated cost		\$41.6M - \$43.6M

Scenario 2 - New K-8 school in the Hanwell area and a new K-5 school that would replace Liverpool Street Elementary School

School	Reason	Estimated cost
K-8 school in the Hanwell area (650 students)	Increase capacity	\$25.1M - \$26.1M
K-5 school in the Liverpool area (500 students)	School revitalization	\$20.8M - \$21.8M
Total estimated cost		\$45.9M - \$47.9M

Deferred maintenance costs avoided

School	Estimated cost
Kingsclear Consolidated School	\$2.0M
Forest Hill Elementary School	\$1.1M
Liverpool Street Elementary School	\$1.0M
Total deferred maintenance costs avoided	\$4.1M

*Note: Class "D" estimate (± 30%) based on the EECD Planning Guidelines for Educational Facilities, as an estimate for this report only. Sources: EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance



In both the K-5 and K-8 scenarios, the District's infrastructure footprint and operational costs would increase due to the additional space required for projected enrollment growth

- The District's school footprint would see an increase in net square metres of 9,841 m² for a K-5 scenario and 12,966 m² for a K-8 scenario. Operational costs (excluding staffing) would increase by approximately \$176K for a K-5 scenario and \$226K for a K-8 scenario.

Schools (For K-5 Scenario)	Area (m ²)
Kingsclear Consolidated School	1,332
Forest Hill Elementary School	1,119
Liverpool Street Elementary School	2,434
Total for potential school closures:	4,885
New K-5 (replace Liverpool and Forest Hill)	7,363
New K-5 Hanwell (replace Kingsclear)	7,363
Total new space for schools:	14,726
Increase in total m²:	9,841

Schools (For K-8 Scenario)	Area (m ²)
Kingsclear Consolidated School	1,332
Forest Hill Elementary School	1,119
Liverpool Street Elementary School	2,434
Total for potential school closures:	4,885
New K-5 (replace Liverpool and Forest Hill)	7,363
New K-8 Hanwell (replace Kingsclear)	10,488
Total new space for schools:	17,851
Increase in total m²:	12,966

Based on March 2016 ASD-W Operational Data File							
Kingsclear Consolidated School A.	Forest Hill Elementary School B.	Liverpool Street Elementary School C.	Total for proposed school closures D= (A + B + C)	Average spend of 2 new ASD-W 650 student (K-8)* E.	Spend of a newer ASD-W (K-5) - 26 classroom school** F.	Total for a new K-8 and a new K-5 school G= (E + F)	Total for 2 new K-5 schools** H= (F X 2)
Utilities:							
Lights/power	4,797.77	6,549.39	49,027.94	60,375.10	89,881.29	57,150.48	114,300.96
Water/sewage	296.35	1,556.19	5,397.68	7,250.22	12,348.51	2,999.30	5,998.60
Heating fuel/natural gas	9,616.84	16,972.14	0.00	26,588.98	32,252.35	48,872.96	97,745.92
Sub-total	14,710.96	25,077.72	54,425.62	94,214.30	134,482.15	109,022.74	218,045.48
Maintenance/cleaning:							
Garbage removal	540.84	599.28	1,486.20	2,626.32	3,272.82	2,748.24	5,496.48
Snow ploughing	7,397.00	5,550.00	6,150.00	19,097.00	25,977.79	15,277.80	30,555.60
Cleaning supplies	3,651.58	3,527.99	13,363.65	20,543.22	10,885.05	19,295.01	38,590.02
Other minor repair	3,314.58	3,947.82	7,007.47	14,269.87	39,105.31	17,049.44	34,098.88
Sub-total	14,904.00	13,625.09	28,007.32	56,536.41	79,240.96	54,370.49	108,740.98
Total	29,614.96	38,702.81	82,432.94	150,750.71	213,723.11	163,393.23	326,786.46
Operational cost increase:						G_{total} - D_{total}	H_{total} - D_{total}
						226,365.63	176,035.75

* Townsview and Meduxnekeag Consolidated: new 650 (K-8) schools in Woodstock, NB

to approximate operating costs of a new K-8 school

** Gibson-Neil Elementary: newer (K-5) 26 classroom used to approximate operating costs of a new K-5 school

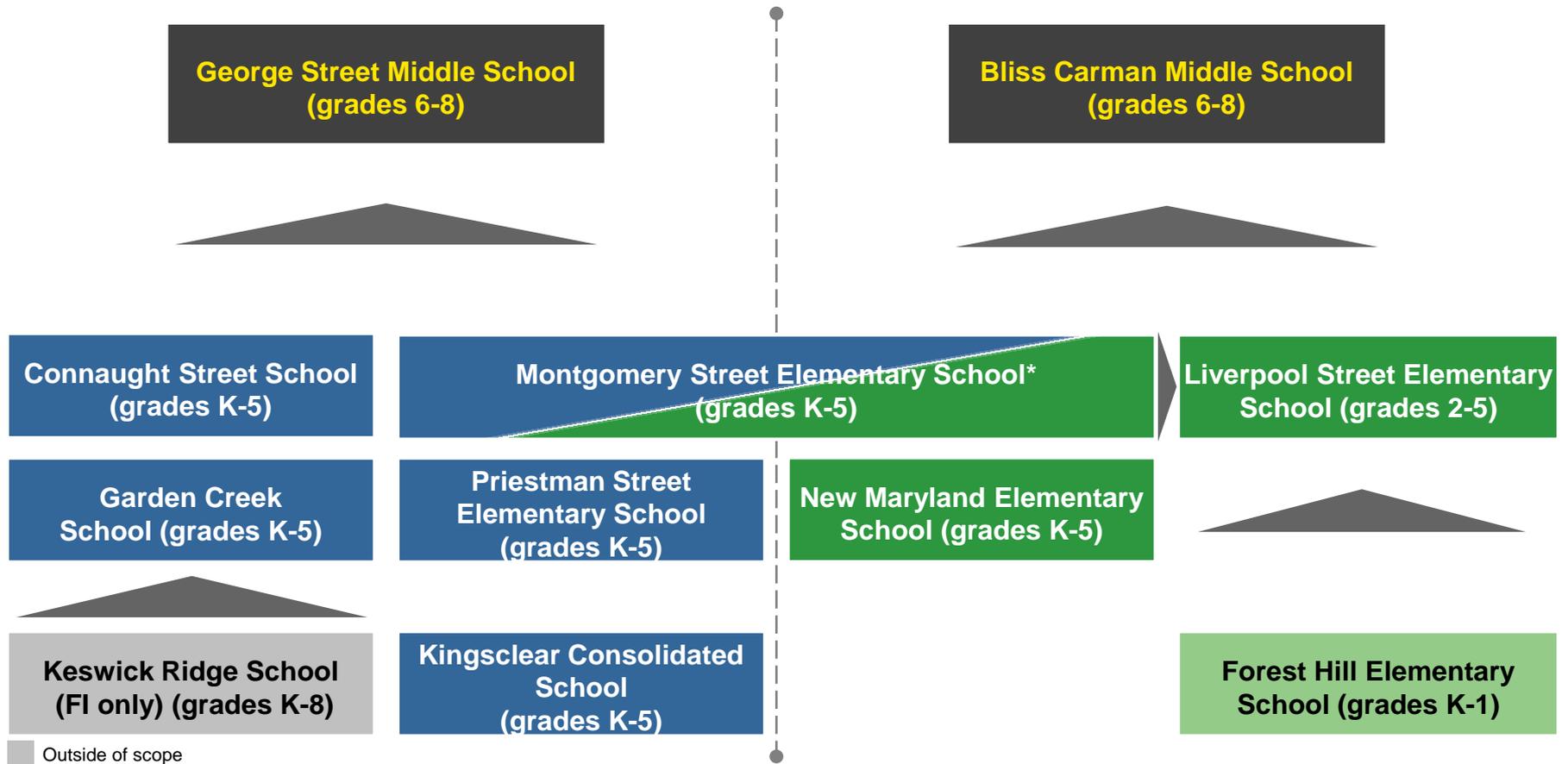
Source: EECD School Asset Data and ASD-W file: Operating Costs for 2016.



Appendix A – Overview of Elementary System



Overview of elementary schools that feed into middle schools for South Fredericton



*Note: Montgomery Street Elementary School feeds both George Street and Bliss Carman Middle Schools:

George Street Middle School: Montgomery Street (Windsor Street/College Hill Road portion)

Bliss Carman Middle School: Montgomery Street (Lincoln Road below Wilsey to City Line)

Montgomery Street Elementary School switch to Liverpool Street Elementary if taking French Immersion

Source: ASD-W school transportation software - Versatrans and ASD-W website.

Limited potential for consolidation within the existing school boundaries – consolidated schools would approach the 500 students upper limit leaving little space for enrollment growth

Total Enrolment by Grade (Excluding Syrian Immigrants) for 2015-16							
Total Enrolment by Grade							
School Name	K	1	2	3	4	5	Total (K-5)
Connaught Street School	49	45	44	42	48	51	279
Montgomery Street Elementary School	37	37	38	26	25	33	196
Forest Hill Elementary School	71	58	-	-	-	-	129
Liverpool Street Elementary School	-	-	59	96	96	92	343
Priestman Street Elementary School	83	75	92	84	80	91	505
Garden Creek School	33	40	46	60	50	57	286
Kingsclear Consolidated School	21	15	19	5	12	22	94
New Maryland Elementary School	95	78	83	77	65	81	479
Total for South Fredericton Elementary Schools:	389	348	381	390	376	427	2,311

Total Enrolment by Grade (Including Syrian Immigrants) for 2015-16							
Total Enrolment by Grade							
School Name	K	1	2	3	4	5	Total (K-5)
Connaught Street School	52	50	47	47	49	53	298
Montgomery Street Elementary School	38	38	38	26	25	33	198
Forest Hill Elementary School	74	60	-	-	-	-	134
Liverpool Street Elementary School	-	-	66	100	99	96	361
Priestman Street Elementary School	93	79	101	85	84	91	533
Garden Creek School	33	41	46	61	51	58	290
Kingsclear Consolidated School	21	15	19	5	12	22	94
New Maryland Elementary School	95	78	83	77	65	81	479
Total for South Fredericton Elementary Schools:	406	361	400	401	385	434	2,387

School Name	Combined Students
Connaught Street School	496
Montgomery Street Elementary School	
Forest Hill Elementary School	495
Liverpool Street Elementary School	
Priestman Street Elementary School	533
Garden Creek School	384
Kingsclear Consolidated School	
New Maryland Elementary School	479

Note: New Maryland Elementary School would have too many students (573) if it were combined with Kingsclear Consolidated. Schools that shared a school boundary were grouped together to examine the potential number of consolidated students.

Potential of school consolidation

- In 2015-16, there were 2,311 students enrolled in grades K-5 for the South Fredericton schools within scope.
- This increased to 2,387 following the Syrian immigration later in the year.
- EECD Planning Guidelines note that K-5 elementary schools generally house 350 to 500 students, with less than 200 students considered a small school.
- Montgomery Street, Forest Hill and Kingsclear Consolidated schools are considered small schools, meaning the Planning Guidelines specify less supporting space than regular sized schools (e.g. multi-purpose instead of a gym).
- Even with three small schools in scope, there is limited potential for consolidation with the existing school boundaries, due to the upper limit of 500 students for K-5.
- New consolidated schools would be close to 500 students, with limited space for enrollment growth).

Sources: EECD Policy, Planning Summary Statistics, ASD-W Syrian Enrollment Data for 2015-2016 and EECD Planning Guidelines for Educational Facilities.

South Fredericton Elementary schools are near functional capacity (80.6%) and there is limited/no space for resource, visiting professionals and program changes to Early FI

Based on 2015-16 Enrolment (Including Syrian Immigrants)

School Name	Total K-5	French Immersion (3 -5)	Maximum Capacity for Current Grade Distribution	Utilization for Grade Configuration	Number of Mobile Classrooms	Homeroom Count (Site Visit)	Classroom Count (Site Visit)
Connaught Street School	298	104	377	79.0%	1	15	16
Montgomery Street Elementary School	198	-	247	80.2%	1	11	11
Forest Hill Elementary School	134	-	168	79.8%	1	7	8
Liverpool Street Elementary School	361	191	409	88.3%	3	16	16
Priestman Street Elementary School	533	115	617	86.4%	3	25	26
Garden Creek School	290	119	355	81.7%	-	15	15
Kingsclear Consolidated School	94	-	114	82.5%	-	5	5
New Maryland Elementary School	479	135	674	71.1%	-	25	28
Total for South Fredericton Elementary Schools:	2,387	664	2,961	80.6%	9	119	125

Note: All calculations and counts in table include the mobile space.

The new mobile for Liverpool Street Elementary School does not increase the classroom count, as space was needed to separate the music room from the library.

Four new mobile classrooms were added for 2016-17 at Connaught Street, Forest Hill Elementary, Liverpool Street Elementary and Priestman Elementary (bringing the total to nine mobiles in South Fredericton).

Classroom utilization

- Overall utilization for the eight elementary schools in scope is 80.6% (including all 9 mobile classrooms)
- This indicates that all the elementary schools in South Fredericton are approaching their functional capacity, and there is little to no space for resource and/or visiting professionals
- Although New Maryland Elementary does have some potential classroom space, it is approaching the Planning Guidelines specification of 500 students (enrollment is 479)
- GNB is considering lowering the start of Early French Immersion (FI) Program from grade 3 to grade 1 (this can increase classroom space requirements, depending on the grade distribution and amount of students that enroll in the program)

Source: EECD Policy and Planning Summary Statistics, ASD-W Syrian Enrollment Data for 2015-2016 and school site visits.

South Fredericton elementary schools (excluding New Maryland Elementary) have seen an average net migration of 2% since 2010 (based on historical enrollments)

Summary of Enrollment History for South Fredericton Elementary Schools (Excluding New Maryland Elementary)

Year	K	1	2	3	4	5	Total	K-4	1-5	Variance of 1-5 to previous year K-4	Percentage Increase to Previous Year
2005-06	274	280	304	270	314	291	1,733	1,442	1,459		
2006-07	312	282	278	294	287	308	1,761	1,453	1,449	7	0.49%
2007-08	260	310	282	277	299	299	1,727	1,428	1,467	14	0.96%
2008-09	280	271	312	279	276	290	1,708	1,418	1,428	0	0.00%
2009-10	299	282	257	306	288	270	1,702	1,432	1,403	-15	-1.06%
2010-11	295	307	285	272	312	294	1,765	1,471	1,470	38	2.65%
2011-12	284	301	306	313	277	309	1,790	1,481	1,506	35	2.38%
2012-13	312	294	304	304	311	278	1,803	1,525	1,491	10	0.68%
2013-14	289	304	297	326	308	313	1,837	1,524	1,548	23	1.51%
2014-15	267	297	306	315	340	305	1,830	1,525	1,563	39	2.56%
2015-16	311	283	317	324	320	353	1,908	1,555	1,597	72	Exclude Syrian Immigration Year

Comparing the variance between the K-4 enrollment in a year to the 1-5 enrollment in the following year estimates the net migration into the elementary system from other locations.

New Maryland Elementary School was excluded from the analysis, so the seven remaining elementary schools were for the south side of the City of Fredericton (for comparison to population data).

2015-16 was excluded from the analysis, as the increase was related to the Syrian immigration and so this data is not comparable to the previous history for net migration. It is unclear whether this spike in 2015-16 will be short lived or not.

Net migration history

- There was little to no net migration for the South Fredericton elementary system between 2005 and 2009.
- Since 2010, the area has seen an average net migration increase of 2% to the total elementary enrollment.
- This is the equivalent of 10 to 39 students added to the elementary system of seven schools.
- The City of Fredericton projections indicate this could increase to approximately 2.8% (on average) in the next ten years.
- Since 2005, the kindergarten enrollment for the system has fluctuated between 260 and 312 students (averaging 289).

A new K-5 school is recommended for revitalization versus adding an addition to an existing school, due to the deficiency of space to current guidelines and FCI scoring

School	Area m ²			High-level estimated cost				
	Existing (A)	New 500 (K-5) (B)	Estimated addition (B-A)	For addition (C)	Deferred maintenance (D)	Total cost (C + D)	For new school	Percentage of cost (C+D to new school)
Connaught Street School	1,902	7,363	5,461	\$14.7M	\$0.9M	\$15.6M	\$19.8M	79%
Montgomery Street Elementary School	1,709	7,363	5,654	\$15.2M	\$0.9M	\$16.1M	\$19.8M	81%
Forest Hill Elementary School	1,119	7,363	6,244	\$16.8M	\$1.1M	\$17.9M	\$19.8M	90%
Liverpool Street Elementary School	2,434	7,363	4,929	\$13.3M	\$1.0M	\$14.3M	\$19.8M	72%
Priestman Street Elementary School	4,403	7,363	2,960	\$8.0M	\$1.7M	\$9.7M	\$19.8M	49%
Garden Creek School	2,630	7,363	4,733	\$12.7M	\$1.3M	\$14.0M	\$19.8M	71%
Kingsclear Consolidated School	1,332	7,363	6,031	\$16.2M	\$2.0M	\$18.2M	\$19.8M	92%

High-level estimate to determine if an addition could be utilized at one of the existing schools instead of building a new elementary school for infrastructure revitalization in South Fredericton. If the percentage of costs were lower, a more detailed analysis of space deficiency to EECD Planning Guidelines would be warranted. Priestman Street Elementary School is at 49%, however, the site has little to no room for an addition.

School addition versus new school

- A “rule of thumb” in determining the tipping point between selecting a new school or renovating an existing school/new addition is when the cost of the deferred maintenance and new addition exceeds 50% of the cost of a new building.
- Once renovations are started, the existing structure must be brought up to code and there is potential for “new discoveries” in the structure that could drive up renovation costs closer to that of a new school.
- It has been identified that consolidation of two schools in the South Fredericton elementary system would require a 500 (K-5) school.
- With the amount of space missing from the existing structures to bring them to current EECD Planning Guidelines and the FCI scoring, we recommend selecting a new school.

The FCI* scoring for the South Fredericton elementary schools are rated poor due to the high amount of deferred maintenance compared to the replacement value of the same size footprint. Kingsclear Consolidated and Forest Hill Elementary schools are the only two schools that score above the average index of 0.22. Note: an FCI rating of Poor or Fair does not mean a building is unsafe or unfit for use.

School	FCI*	Rated condition
Kingsclear Consolidated	0.55	Poor
Forest Hill Elementary	0.37	Poor
Montgomery Street Elementary	0.21	Poor
Garden Creek	0.19	Poor
Connaught Street	0.18	Poor
George Street Middle	0.16	Poor
Liverpool Street Elementary	0.15	Poor
Priestman Street Elementary	0.14	Poor
New Maryland Elementary	0.00	Good
Bliss Carman Middle	0.00	Good
Average school condition	0.22	Poor

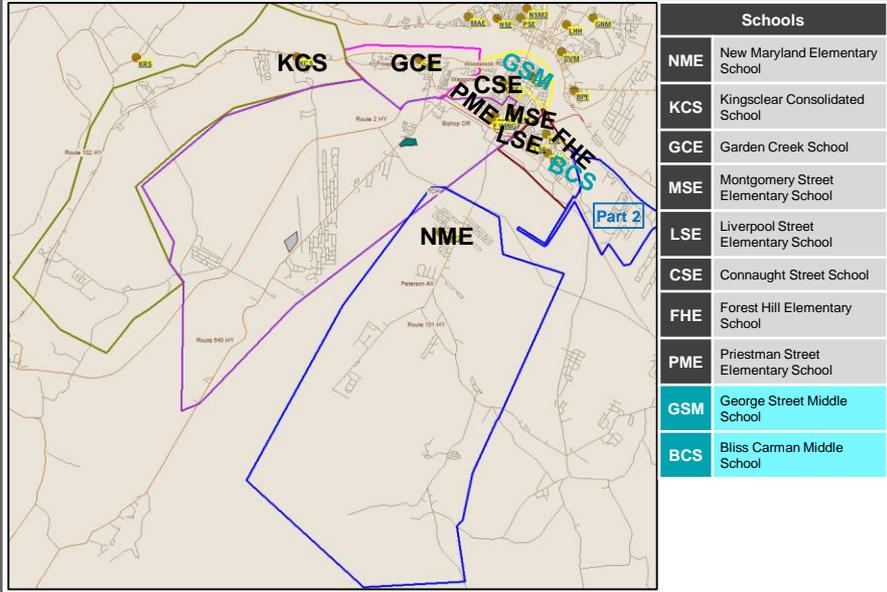
*FCI: Facility Condition Index with the following ranges: Poor (>0.10), Fair (0.05 to 0.10) and Good (<0.05).

Appendix B – Scenario 1 (K-5 School)

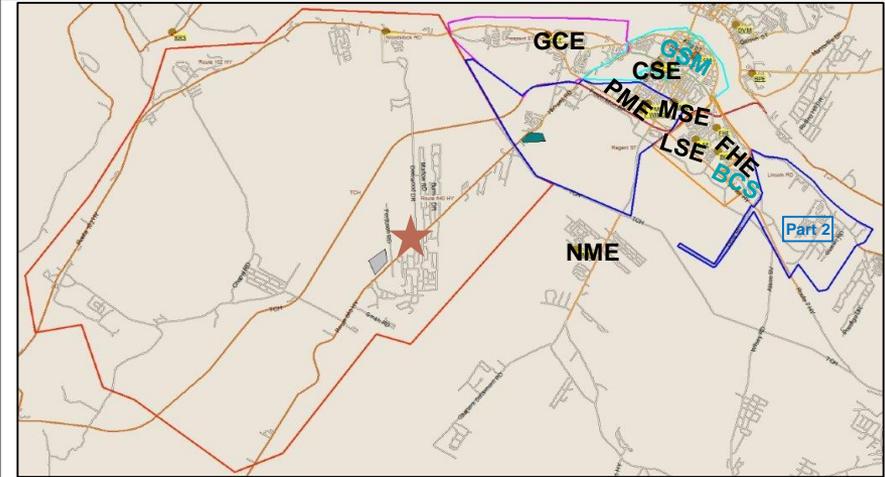


Proposed boundary changes include closing Kingsclear Consolidated, building a new K-5 school in Hanwell area, and replacing Liverpool Street Elementary with a new K-5 school

Current school boundaries



Proposed school boundaries



★ Proposed Hanwell school boundary (K-5)

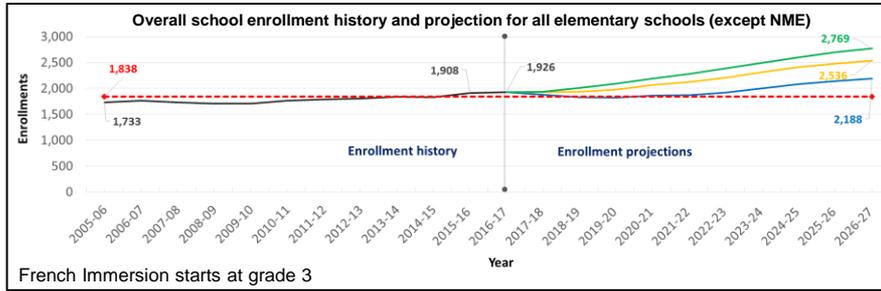
Note: New Maryland Elementary school boundary remains unchanged

- Two new schools are proposed (scenario 1a: new K-5 school located in the Hanwell area and scenario 1b: new K-5 school to consolidate Liverpool Street Elementary/Forest Hill Elementary).
- Kingsclear Consolidated School recommended for closure.
- The proposed school in the Hanwell area would receive students from the current Kingsclear Consolidated School, and Priestman Street Elementary School students living in the Hanwell area.
- Reconfigure Connaught Street School to a 3-5 school and Montgomery Street Elementary School to a K-2 elementary school sharing the same school boundary. A small portion (2% of enrollment) from Priestman Street Elementary School would now go to Montgomery Street Elementary School. Would need to examine changes if French Immersion Program was switched from grade 3 entry to grade 1 entry (e.g. K-1, 2-5 or French Immersion at Connaught Street only – depends on the program enrollment).
- Priestman Street Elementary School would receive students that live in Part 2 on boundary map (Lincoln Road area), that were previously going to Montgomery Street Elementary School.
- Proposed that new K-5 school replace Liverpool Street Elementary and Forest Hill Elementary within the existing school boundary (Scenario 1b).

Source: ASD-W school transportation software - Versatrans.

Combined elementary school projections (excluding NME) – For the proposed scenario 1 recommendations, future enrollments are expected to exceed 80% utilization between 2022-23 and 2024-25

Enrollment projections (excluding New Maryland Elementary School)



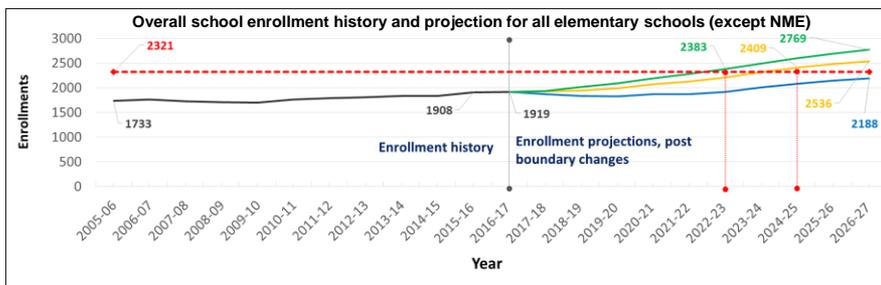
Enrollment projections if GNB changes the French Immersion entry point

Enrollment projections will remain the same at the overall level

Total elementary school enrollment projections (excluding New Maryland Elementary – NME)

- Since 2010, the South Fredericton elementary system has seen a steady increase in enrollments (including a spike in 2015 from Syrian immigration). Overall the enrollment has increased by 10% between 2005 (1,733 students) and 2015 (1,908 students).
- As indicated by the red line, the elementary system is currently operating above 80% utilization (1,838 students), including the four new mobile classrooms added to the system in the summer of 2016.
- Projections illustrate an average annual increase of approximately 2.8% – 3.7% between 2016 and 2026. (Increasing the number of students to 2,536 and 2,769).
- Assuming no change in net migration, the projected enrollment is expected to be 2,188 students by 2026.

Enrollment projections following proposed boundary changes



Total elementary school enrollment projections following boundary changes (excluding NME)

- With the added capacity of a new K-5 school, the combined 80% system utilization increases to 2,321 students.
- Assuming no change in net migration, projected enrollments are expected to remain under 80% utilization for the next ten years.
- Factoring net migrations of 2% and extrapolated City of Fredericton projections, enrollments would surpass 80% of system utilization between 2022-23 and 2024-25.

Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

Target utilization (80%)

Source: EEC Policy and Planning Summary Statistics, ASD-W school transportation software-Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015)

Following proposed recommendations and school boundary changes for scenario 1, the K-5 option does not provide any additional capacity needed for middle school growth

School projections for 80% utilization – before school boundary changes

Schools	Projected historical enrollment	Projected historical enrollment with 2% net migration	Extrapolated from the City of Fredericton's projections
Kingsclear Consolidated School	2016-17	2016-17	2016-17
Garden Creek School	2015-16	2015-16	2015-16
Montgomery Street Elementary School	2016-17	2016-17	2016-17
Liverpool Street Elementary	2016-17	2016-17	2017-18
Connaught Street School	2016-17	2016-17	2016-17
Forest Hill Elementary School	2016-17	2016-17	2016-17
Priestman Street Elementary School	2016-17	2016-17	2016-17
George Street Middle School	2016-17	2016-17	2016-17
Bliss Carman Middle School	2016-17	2016-17	2016-17
Overall - elementary schools (excluding NME)	2016-17	2016-17	2016-17
Overall - middle schools	2016-17	2016-17	2016-17

Elementary and middle school utilization for current state

- The average utilization at all South Fredericton elementary schools is currently at 80.6%, which includes the nine mobile classrooms.
- This leaves little space for future enrollment growth.

Elementary and middle school utilization following school boundary changes

- Following the proposed recommendations, individual schools would reach 80% capacity in different years.
- Assuming no change in net migration, projected enrollments would remain under 80% utilization for the next ten year.
- Factoring net migrations of 2% and extrapolated City of Fredericton projections, enrollments would surpass 80% of system utilization between 2022-23 and 2024-25.
- Scenario 1 (K-5 option) does not provide any additional capacity needed for middle school growth.

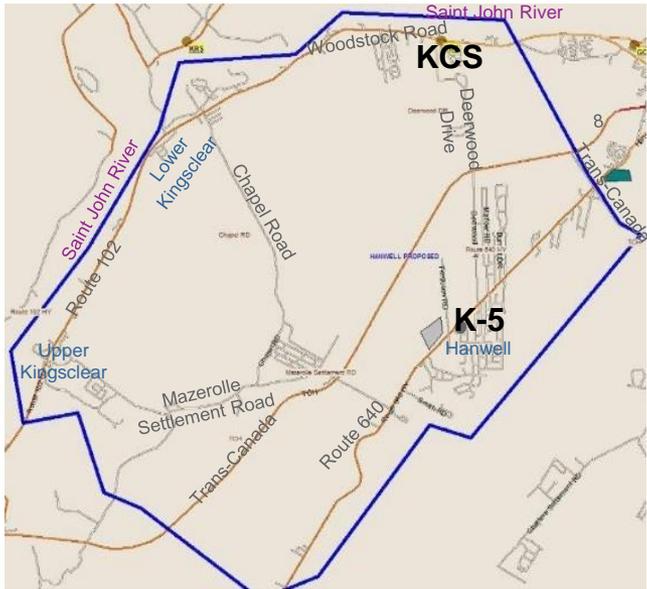
School projections for 80% utilization – after school boundary changes

Schools	Projected historical enrollment	Projected historical enrollment with 2% net migration	Extrapolated from the City of Fredericton's projections
Garden Creek School	2025-26	2022-23	2021-22
Montgomery Street Elementary School	2020-21	2019-20	2017-18
Liverpool Street Elementary	N/A	2023-24	2021-22
Connaught Street School	N/A	N/A	N/A
Priestman Street Elementary School	N/A	2024-25	2022-23
George Street Middle School	2016-17	2016-17	2016-17
Bliss Carman Middle School	2016-17	2016-17	2016-17
New Hanwell (K-5) School	N/A	2022-23	2020-21
Overall - elementary schools (excluding NME)	N/A	2024-25	2022-23
Overall - middle schools	2016-17	2016-17	2016-17

Source: EECDC Policy and Planning Summary Statistics, ASD-W school transportation software -Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

New K-5 (500) school proposed in the Hanwell area to receive students from Kingsclear Consolidated, monitor projections to determine if an additional school is required

Scenario 1a - New K-5 School in the Hanwell area

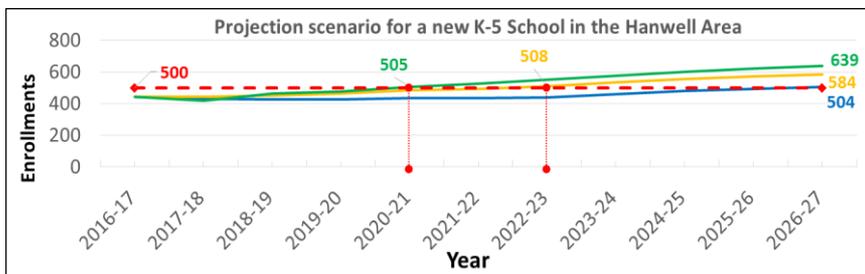


Scenario 1a - New K-5 school

School boundary and enrollment projections for proposed K-5 (500) school in the Hanwell area

- Recommend the proposed K-5 (500) school to be located in the Hanwell area, which would receive students from Kingsclear Consolidated School (recommended for closure).
- This option would reduce bussing costs and travel time for Hanwell students into the city (288 K-5 students currently going to Priestman Street Elementary School).
- The City of Fredericton identified a potential location within city limits, noting this location would have infrastructure in place to support the school including sidewalks (which would be required in the Hanwell area).
- However, building the school near the edge of the school boundary and bussing a further distance is a decisive factor (e.g. It is difficult to modify the Priestman Street Elementary and Liverpool Street Elementary school boundaries, because the walking zone is too close to the school boundary). The Trans-Canada Highway is proposed to divide the new Hanwell and Priestman Street Elementary school boundaries.
- Enrollment projections are expected to surpass the 500 limit (78% utilization) between 2020 and 2022 depending on the projection (extrapolated City of Fredericton and 2% net migration). As noted previously, monitor the projections and determine if future school boundary changes and/or an additional new school would be required.

Enrollment projections for a new K-5 school in the Hanwell area



Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- ◆ Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Scenario 1a: New K-5 (500) school in the Hanwell area – School proposed to have 27 homeroom classrooms and projections indicate that enrollment would reach functional capacity by 2022-23

		Enrollment for proposed Hanwell area school boundary (based on 2016-17 Versatrans data)							Space requirements		
Grades	Size limit	Regular Program					French Immersion		Total	Class rooms	Maximum capacity
K	21	19	19	19	18				75	4	84
1	21	20	20	19	19				78	4	84
2	21	17	17	17	16				67	4	84
3	26	17	17				21	21	76	4	104
4	28	16	15				20	20	71	4	112
5	28	17	16				21	20	74	4	112
Empty	28								0	3	84
Total:									441	27	664
Projected utilization:									66.4%		

		Enrollment for proposed Hanwell area school boundary (based 2% net migration projection for 2022-23)							Space requirements		
Grades	Size limit	Regular Program					French Immersion		Total	Class rooms	Maximum capacity
K	21	18	18	17	17	17			87	5	105
1	21	20	19				17	16	88	5	105
2	21	19	19				16	16	86	5	105
3	26	19	19				24	23	85	4	104
4	28	18	17				22	22	79	4	112
5	28	17	16				21	21	75	4	112
Empty									0	0	0
Total:									500	27	643
Projected utilization:									77.8%		

Construction of a new K-5 (500) school in the Hanwell area

- The new school capacity is based on enrollment projections made using historical enrollment and incorporating extrapolated population projections from the City of Fredericton.
- The design capacity of the new school is 643 students, while the functional capacity is 500 students (78% utilization). This is based on the recommended maximum elementary design limit of 500 students in the EECD Planning Guidelines.
- Based on actual 2016-17 enrollments in Versatrans software, the new school boundary would have 441 students. The proposed school would have 3 empty classrooms and 66% utilization.
- The new school would have 27 homeroom classrooms, assuming that GNB would lower the entry point of French Immersion Program from grade 3 to grade 1.
- The 2% net migration enrollment projection indicates the school would reach the functional capacity of 500 students by 2022-23.

Note: Assuming a French Immersion enrollment of 55%, using the 2% net migration projection and no combined classes.

Source: EECD Planning Guidelines for Educational Facilities and ASD-W school transportation software - Versatrans.

Scenario 1a: New K-5 elementary school for approximately 500 students (class “D” estimate of \$20.8M to \$21.8M)

School grade levels:	K-5
Number of students:	500
Space type	Total area (m²)
27 Classrooms, storage and associated work areas	2,295
Early childhood development	110
Music room	110
Performing arts room	110
Multi-purpose room	280
Double gymnasium	591
Ancillary spaces, 2 instructors offices, and storage for physical education	241
Resource, special care, guidance visiting professional, etc.	220
2 multi-function room	220
Library and seminar room	220
Cafeteria, kitchen and stage	457
Personnel centre/ staff room	110
Administration	59
Custodial and recycling room	55
Subtotal (m ²):	5,078
Systems and services (m ²):	2,285
Grand total (m ²):	7,363
Estimated construction cost/m ² :	\$2,690
Estimated construction cost:	\$19.8M
Land purchases and landscaping (depending on location and topography)	\$1M-\$2M
Total estimated cost:	\$20.8M - \$21.8M
Deferred maintenance costs avoided	Estimated cost
Kingsclear Consolidated School	\$2.0M
Total deferred maintenance costs avoided	\$2.0M

Note: Class “D” estimate (± 30%) based on the EECD Planning Guidelines for Educational Facilities, as an estimate for this report only. Cost estimates will be adjusted when the EECD Infrastructure and project team establish the actual space allocation for the new school.

Source: EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Construction of a new K-5 (500) school in the Hanwell area

- Design for a new K-5 school in the Hanwell area to take students from Kingsclear Consolidated School and Priestman Street Elementary School (students that live in the Hanwell area) is based on 500 students.
- Class “D” construction cost estimate from \$20.8M to \$21.8M, depending on the cost of the land and site chosen.
- Total size of the school is estimated to be approximately 7,363 m².
- The cost avoidance in deferred maintenance liability is estimated at \$2.0M for the proposed closure of Kingsclear Consolidated School.
- Removing Kingsclear Consolidated School from the South Fredericton elementary inventory would replace the oldest (66 years) and second smallest school (1,332 m²), with the worst FCI score (0.55).

Note: Details for deferred maintenance and other hard and soft impacts to the schools in scope are contained in Appendix D: School Details.

Scenario 1b: New K-5 (500) school at Liverpool Street – School proposed to have 27 homeroom classrooms and projections indicate that enrollment would reach functional capacity by 2022-23

Enrollment for consolidation of Liverpool Street and Forest Hill Elementary (based on 2016-17 Versatrans data)										Space requirements		
Grades	Size limit	Regular Program					French Immersion			Total	Class rooms	Maximum capacity
K	21	19	18	18	18					73	4	84
1	21	20	20	20	19					79	4	84
2	21	17	17	16	16					66	4	84
3	26	15	14				18	18		65	4	104
4	28	18	18				23	22		81	4	112
5	28	18	18				23	22		81	4	112
Empty	28									0	3	84
Total:										445	27	664
Projected utilization:										67.0%		

Enrollment for consolidation of Liverpool Street and Forest Hill Elementary (based on projection for 2022-23)										Space requirements		
Grades	Size limit	Regular Program					French Immersion			Total	Class rooms	Maximum capacity
K	21	18	18	17	17	17				87	5	105
1	21	20	19				17	16	16	88	5	105
2	21	19	19				16	16	16	86	5	105
3	26	19	19				24	23		85	4	104
4	28	18	17				22	22		79	4	112
5	28	17	16				21	21		75	4	112
Empty										0	0	0
Total:										500	27	643
Projected utilization:										77.8%		

Construction of a new K-5 school beside Liverpool Street Elementary

- The new school capacity is based on enrollment projections made using historical enrollment and incorporating extrapolated population projections from the City of Fredericton.
- The design capacity of the new school is 643 students, while the functional capacity is 500 students (78% utilization). This is based on the recommended maximum elementary design limit of 500 students in the EECD Planning Guidelines.
- Based on actual 2016-17 enrollments in Versatrans software, the new school boundary would have 445 students. The proposed school would have three empty classrooms and 67% utilization.
- The new school would have 27 homeroom classrooms, assuming that GNB would lower the entry point of French Immersion Program from grade 3 to grade 1.
- The 2% net migration enrollment projection indicates the school would reach the functional capacity of 500 students by 2022-23.

Note: Assuming a French Immersion enrollment of 55%, using the 2% net migration projection and no combined classes.

Source: EECD Planning Guidelines for Educational Facilities and ASD-W school transportation software - Versatrans.

Scenario 1b: New K-5 elementary school for approximately 500 students (class “D” estimate of \$20.8M to \$21.8M)

School grade levels:	K-5
Number of students:	500
Space type	Total area (m²)
27 Classrooms, storage and associated work areas	2,295
Early childhood development	110
Music room	110
Performing arts room	110
Multi-purpose room	280
Double gymnasium	591
Ancillary spaces, 2 instructors offices, and storage for physical education	241
Resource, special care, guidance visiting professional, etc.	220
2 multi-function room	220
Library and seminar room	220
Cafeteria, kitchen and stage	457
Personnel centre/ staff room	110
Administration	59
Custodial and recycling room	55
Subtotal (m ²):	5,078
Systems and services (m ²):	2,285
Grand total (m ²):	7,363
Estimated construction cost/m ² :	\$2,690
Estimated construction cost:	\$19.8M
Land purchases and demolition (depending on location and topography)	\$1M-\$2M
Total estimated cost:	\$20.8M - \$21.8M
Deferred maintenance costs avoided	Estimated cost
Forest Hill Elementary School	\$1.1M
Liverpool Street Elementary School	\$1.0M
Total deferred maintenance costs avoided	\$2.1M

Note: Class “D” estimate (± 30%) based on the EECD Planning Guidelines for Educational Facilities, as an estimate for this report only.

Cost estimates will be adjusted when the EECD Infrastructure and project team establish the actual space allocation for the new school.

Source: EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Construction of a new K-5 school beside Liverpool Street Elementary

- Design for a new K-5 (500) school that is proposed to consolidate Forest Hill Elementary and Liverpool Street Elementary schools.
- Class “D” construction cost estimate of \$20.8M to \$21.8M, depending on the cost of the land, demolition and topography.
- The estimate includes demolition of the old school and the installation of a new field/green space on the old school site.
- Total size of the school is estimated to be approximately 7,363 m².
- The cost avoidance in deferred maintenance liability is estimated at \$2.1M for the proposed closure of Forest Hill Elementary School and Liverpool Street Elementary School.
- The proposed new school would have 27 homeroom classrooms, three more than the old schools combined and would eliminate four mobile classrooms from the elementary system.

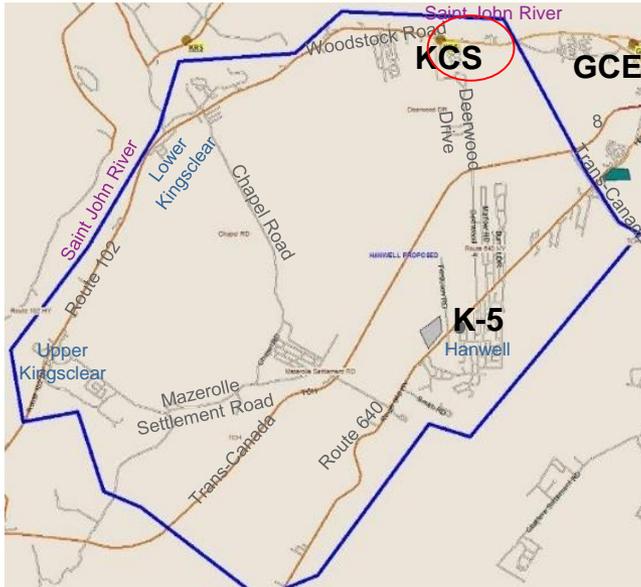
Note: Details for deferred maintenance and other hard and soft impacts to the schools in scope is contained in Appendix D: School Details.

Appendix C – Scenario 2 (K-8 School)



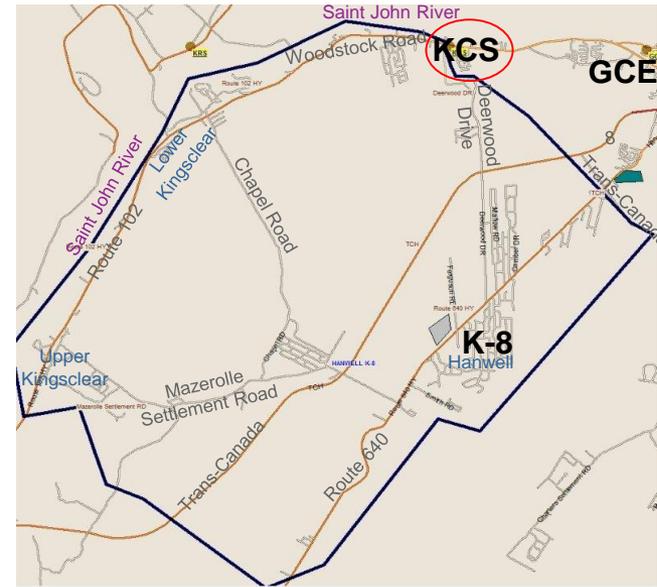
Proposed boundary changes for a new K-8 school would be identical to the K-5 school recommended in scenario 1a, except a small portion of Kingsclear Consolidated boundary

Scenario 1a - New K-5 school in the Hanwell Area



Scenario 1a - New K-5 school

Scenario 2 - New K-8 school in the Hanwell Area



Scenario 2 - New K-8 school

Proposed school boundary – New K-5 school

- Kingsclear Consolidated School (KCS) is recommended to close and consolidate with the Hanwell area of the current Priestman Street Elementary school boundary.
- The new boundary would include Woodstock Road, Route 102, Mazerolle Settlement Road, Route 640 and the Trans-Canada Highway.

Proposed school boundary – New K-8 school

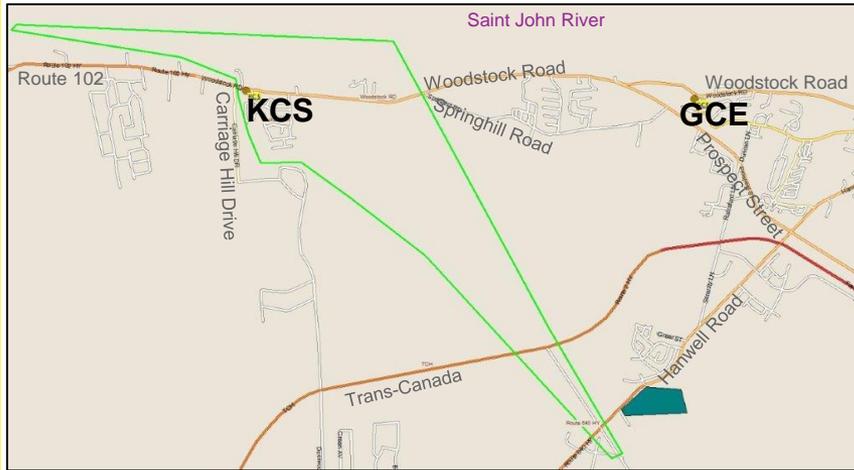
- The proposed K-8 school boundary would be identical to that for a K-5 school, except a small portion of the Kingsclear Consolidated school boundary adjacent to the school (to make room for middle school students).
- It is proposed that these students would attend Garden Creek School (GCE), detailed on the following page.

See Appendix B for details of the other recommendations for school boundary changes included for scenario 2.

Source: ASD-W school transportation software – Versatrans.

Proposed that Garden Creek school boundary would be extended to the intersection of Woodstock Road and Carriage Hill Drive (currently Kingsclear Consolidated)

Section of Kingsclear Consolidated school boundary to GCE



Legend

Section of Kingsclear Consolidated school boundary (KCS) not included in the new K-8 school

Current Garden Creek school boundary (GCE)



Legend

GCE walking zone

GCE school boundary (current)

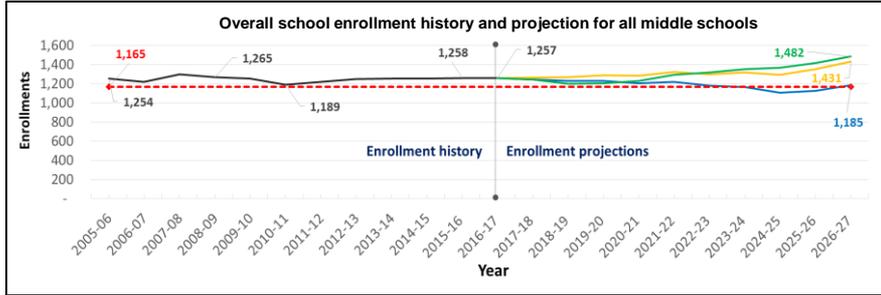
Proposed school boundary for Garden Creek School in the new K-8 scenario

- In the proposed K-8 scenario, Garden Creek school boundary would be extended from the intersection of Woodstock Road and Springhill Road to the intersection of Woodstock Road and Carriage Hill Drive (currently in the Kingsclear Consolidated school boundary).
- The rest of the Garden Creek school boundary would remain unchanged. The students who take French Immersion at Garden Creek School (from the Kingsclear Consolidated school boundary – excluding the green section shown above) would attend the proposed new K-8 in the Hanwell area.
- The remainder of the Kingsclear Consolidated school boundary would be included in the proposed boundary for the new K-8 school in the Hanwell area.

Source: ASD-W school transportation software - Versatrans.

Combined middle school system projections – Future enrollments are expected to exceed 80% utilization between 2025-26 and 2026-27 for the proposed K-8 (scenario 2 recommendations)

Enrollment projections



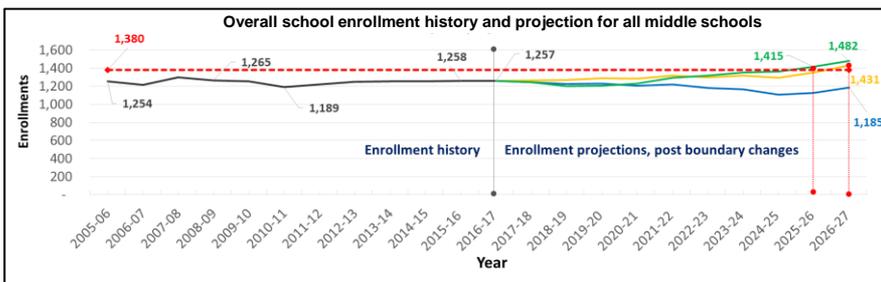
Enrollment projections if GNB changes the French Immersion entry point

No change for middle schools

Total middle school system enrollment projections – before K-8 (scenario 2)

- South Fredericton middle school system enrollments have declined between 2007 (1,298 students) and 2010 (1,189 students). Enrollments increased to 1,248 students in 2012 and have remained flat lined to 2015 (1,258 students, even with the Syrian immigration last year).
- The two middle schools are operating above 80% utilization based on the current classroom and space usage observed during the site visits (80% - red line at 1,165 students).
- Combined projections illustrate an overall increase in enrollment from 2018 to 2026 (increasing the number of students to between 1,431 and 1,482).
- Assuming no change in net migration, projected enrollment is expected to decrease to 1,185 students by 2026.

Enrollment projections, following proposed boundary changes



Total middle school system enrollment projections – following K-8 (scenario 2)

- With the added capacity of a new K-8 school, the combined 80% utilization increases to 1,380 students.
- Assuming no change in net migration, projected enrollments would remain under 80% for the next 10 years.
- Factoring net migrations of 2% and extrapolated City of Fredericton projections, enrollments would surpass 80% of system utilization between 2025-26 and 2026-27.

Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

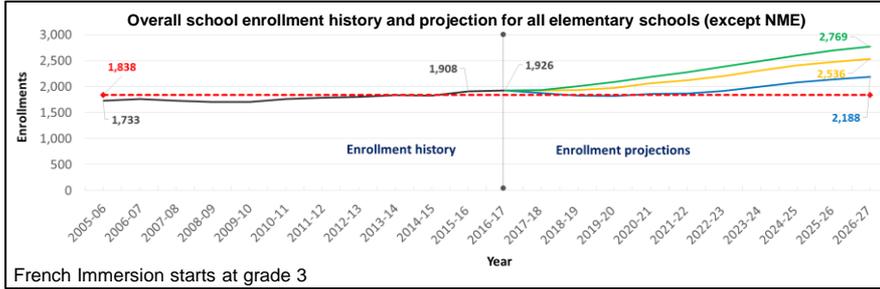
Projected historical enrollments

Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Combined elementary schools projections (excluding NME) – For the proposed scenario 2 recommendations, enrollments are expected to exceed 80% utilization between 2021-22 and 2023-24

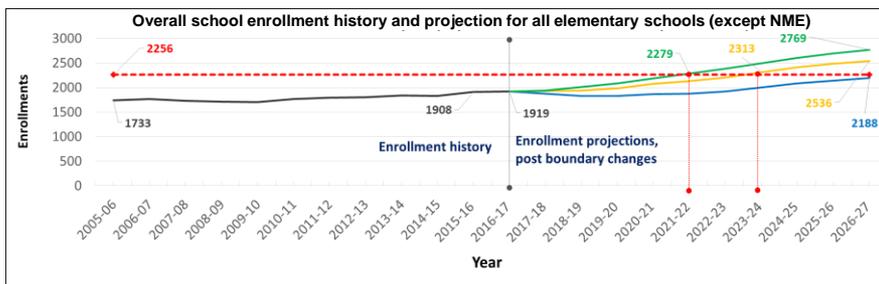
Enrollment projections (excluding New Maryland Elementary School)



Enrollment projections if GNB changes the French Immersion entry point

Enrollment projections will remain the same

Enrollment projections, following proposed boundary changes



Total elementary school enrollment projections (excluding New Maryland Elementary – NME)

- Since 2010, the South Fredericton elementary system has seen a steady increase in enrollments (including a spike in 2015 from Syrian immigration). Overall the enrollment has increased by 10% between 2005 (1,733 students) and 2015 (1,908 students).
- As indicated by the red line, the elementary system is currently operating above 80% utilization (1,838 students), including the four new mobile classrooms added to the system in the summer of 2016.
- Projections illustrate an average annual increase of approximately 2.8% – 3.7% between 2016 and 2026. (increasing the number of students to 2,536 and 2,769).
- Assuming no change in net migration, the projected enrollment is expected to be 2,188 students by 2026.

Total elementary school enrollment projections following boundary changes (excluding NME)

- With the added capacity of a new K-8 school, the combined 80% system utilization increases to 2,256 students.
- Assuming no change in net migration, projected enrollments are expected to remain under 80% utilization for the next ten years.
- Factoring net migrations of 2% and extrapolated City of Fredericton projections, enrollments would surpass 80% of system utilization between 2021-22 and 2023-24.

Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

Target utilization (80%)

Source: EEC Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Following proposed recommendations and school boundary changes for scenario 2, the K-8 option improves capacity needed for both elementary and middle school growth

Elementary Schools reaching 80% utilization – before school boundary changes

Schools	Projected historical enrollment	Projected historical enrollment with 2% net migration	Extrapolated from the City of Fredericton's projections
Kingsclear Consolidated School	2016-17	2016-17	2016-17
Garden Creek School	2015-16	2015-16	2015-16
Montgomery Street Elementary School	2016-17	2016-17	2016-17
Liverpool Street Elementary	2016-17	2016-17	2017-18
Connaught Street School	2016-17	2016-17	2016-17
Forest Hill Elementary School	2016-17	2016-17	2016-17
Priestman Street Elementary School	2016-17	2016-17	2016-17
George Street Middle School	2016-17	2016-17	2016-17
Bliss Carman Middle School	2016-17	2016-17	2016-17
Overall - elementary schools (excluding NME)	2016-17	2016-17	2016-17
Overall - middle schools	2016-17	2016-17	2016-17

Elementary and middle school utilization for current state

- The average utilization at all South Fredericton elementary schools is currently at 80.6%, which includes the nine mobile classrooms.
- This leaves little space for future enrollment growth.

Elementary and middle school utilization following school boundary changes

- Following the proposed recommendations, individual schools would reach 80% capacity in different years.
- Factoring net migrations of 2% and extrapolated City of Fredericton projections, total elementary school enrollments would surpass 80% of system utilization between 2021-22 and 2023-24.
- Factoring net migrations of 2% and extrapolated City of Fredericton projections, total middle school enrollments would surpass 80% of system utilization between 2025-26 and 2026-27.

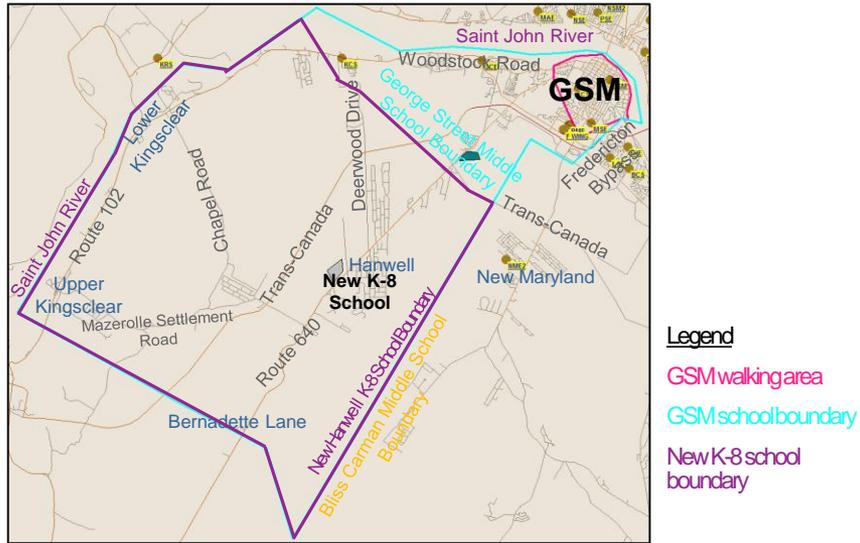
Elementary Schools reaching 80% utilization – after school boundary changes

Schools	Projected historical enrollment	Projected historical enrollment with 2% net migration	Extrapolated from the City of Fredericton's projections
Garden Creek School	2021-22	2020-21	2017-18
Montgomery Street Elementary School	2020-21	2019-20	2017-18
Liverpool Street Elementary	N/A	2023-24	2021-22
Connaught Street School	N/A	N/A	N/A
Priestman Street Elementary School	N/A	2024-25	2022-23
George Street Middle School	N/A	N/A	N/A
Bliss Carman Middle School	2016-17	2016-17	2016-17
New Hanwell (K-8) School	N/A	2021-22	2020-21
Overall - elementary schools (excluding NME)	N/A	2023-24	2021-22

Source: EECDC Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

The new K-8 school proposed in the Hanwell area, would accept students from Kingsclear Consolidated. Monitor projections to determine if an additional school is required

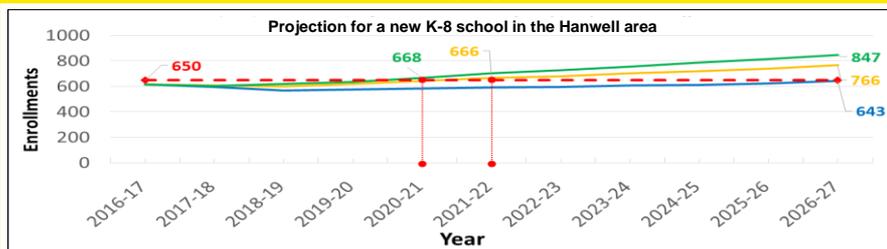
Proposed school boundary



School boundary and enrollment projections for proposed K-8 (650) school in the Hanwell area

- Recommend the proposed K-8 (650) school to be located in the Hanwell area.
- The new K-8 school would take some of the students from Kingsclear Consolidated School and those Hanwell area students that attend George Street Middle School.
- Since Kingsclear Consolidated School is recommended for closure, part of the students would be moved to Garden Creek School.
- The design capacity of the new K-8 school is 867 students, which is based on the projected grade distribution of students. The functional capacity of the school is 650 students based on the maximum design upper limit in EECD Guidelines for K-8 schools.
- Assuming no change in net migration, the new K-8 school would be under the 80% utilization target of (650) for the next ten years.
- Factoring net migration of 2% and extrapolated City of Fredericton projections, enrollments would surpass the 80% utilization capacity between 2020-21 and 2021-22.
- As noted previously, monitor the projections and determine if future school boundary changes and/or an additional school would be required. Enrollment trajectory should be confirmed, as elementary systems have less feed data making the projections less certain than those for high and middle schools.

Enrollment projections



Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- ◆ Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Scenario 2: New K-8 (650) school in the Hanwell area – School proposed to have 34 homeroom classrooms and projections indicate that enrollment would reach functional capacity by 2020-21

		Enrollment for proposed Hanwell area school boundary (based on 2016-17 Versatrans data)						Space requirements			
Grades	Size Limit	Regular Program					French Immersion		Total	Class Rooms	Maximum Capacity
K	21	18	17	17	17				69	4	84
1	21	18	18	18	17				71	4	84
2	21	21	20	20					61	3	63
3	26	16	15				20	19	70	4	104
4	28	27					17	17	61	3	84
5	28	27					17	16	60	3	84
6	28	27					17	16	60	3	84
7	29	19	19				24	24	86	4	116
8	29	17	17				21	21	76	4	116
Empty	29								0	2	58
Total:									614	34	877
Projected Utilization:									70.0%		

		Enrollment for proposed Hanwell area school boundary (based on 2% net migration projection for 2020-21)						Space requirements			
Grades	Size Limit	Regular Program					French Immersion		Total	Class Rooms	Maximum Capacity
K	21	19	19	19	19				76	4	84
1	21	17	16				21	21	75	4	84
2	21	16	15				19	19	69	4	84
3	26	15	14				19	18	66	4	104
4	28	17	17				21	21	76	4	112
5	28	18	17				22	21	78	4	112
6	28	28					20	19	67	3	84
7	29	17	17				22	21	77	4	116
8	29	29					19	18	66	3	87
Empty	29								0	0	0
Total:									650	34	867
Projected Utilization:									75.0%		

Note: Assuming a French Immersion enrollment of 55%, using the 2% net migration projection and no combined classes.

Source: EECD Planning Guidelines for Educational Facilities and ASD-W school transportation software - Versatrans.

Construction of a new K-8 (650) school in the Hanwell area

- The new school capacity is based on enrollment projections made using historical enrollment and incorporating extrapolated population projections from the City of Fredericton.
- The design capacity of the new school is 867 students, while the functional capacity is 650 students (75% utilization). This is based on the recommended maximum K-8 design limit of 650 students in the EECD Planning Guidelines.
- Based on actual 2016-17 enrollments in Versatrans software, the new school boundary would have 614 students.
- The new school would have 34 homeroom classrooms, assuming a French Immersion enrollment of 55%.
- The project team should evaluate the potential for adding another middle school classroom, as two regular program grades would be at the class size limit based on the 55% assumption.
- 2% net migration enrollment projections indicate school would reach functional capacity of 650 students by 2020-21.

Scenario 2: New K-8 school for approximately 650 students (class “D” estimate of \$25.1M to \$26.1M)

School grade levels:	K-8
Number of students:	650
Space type	Total area (m ²)
34 Classrooms storage and associated work areas	2,675
Early childhood development room	110
Project work area and break-out rooms	285
2 Music rooms	240
Performing arts room	110
General science Lab, science Class and prep room	290
Art room	110
2 Multi-purpose rooms	560
Double gymnasium	591
Ancillary space, change rooms and storage for physical education	340
Middle school technology education	250
Resource, special care, guidance visiting professional, etc.	297
2 Multi-function rooms	220
Library and seminar room	300
Cafeteria, kitchen and stage	547
Personnel centre/staff room	165
Administration	83
Custodial and recycling room	60
Subtotal (m ²):	7,233
Systems and services (m ²):	3,255
Grand total (m ²):	10,488
Estimated construction cost/m ² :	\$2,300
Estimated construction cost:	\$24.1M
Land purchases and landscaping (depending on location and topography):	\$1M-\$2M
Total estimated cost:	\$25.1M - \$26.1M
Deferred maintenance costs avoided	Estimated cost
Kingsclear Consolidated School	\$2.0M
Total deferred maintenance costs avoided	\$2.0M

Note: Class “D” estimate (± 30%) based on the EECD Planning Guidelines for Educational Facilities, as an estimate for this report only. Cost estimates will be adjusted when the EECD Infrastructure and project team establish the actual space allocation for the new school.

Construction of a new K-8 (650) school in the Hanwell Area

- Design for a new K-8 school in the Hanwell area to take students from Kingsclear Consolidated School and the students that live in the Hanwell area (attending Priestman Street Elementary School and George Street Middle School) is based on 650 students.
- Class “D” construction cost estimate of \$25.1M to \$26.1M, depending on the cost of the land and site chosen.
- Total size of the school is estimated to be approximately 10,488 m².
- The cost avoidance in deferred maintenance liability is estimated at \$2.0M for the proposed closure of Kingsclear Consolidated School.
- As per scenario 1b (see Appendix B), a new K-5 (500) school is proposed to consolidate Forest Hill Elementary and Liverpool Street Elementary.
- The closure of Forest Hill Elementary and Kingsclear Consolidated schools from the South Fredericton elementary system would replace the two oldest and smallest schools, with the worst FCI scores.

Note: Details for deferred maintenance and other hard and soft impacts to the schools in scope are contained in Appendix D: School Details.

Source: EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Appendix D – School Details



Kingsclear Consolidated School – Is a small school with limited room for expansion on existing school property (without taking away green play space) and school is not accessible



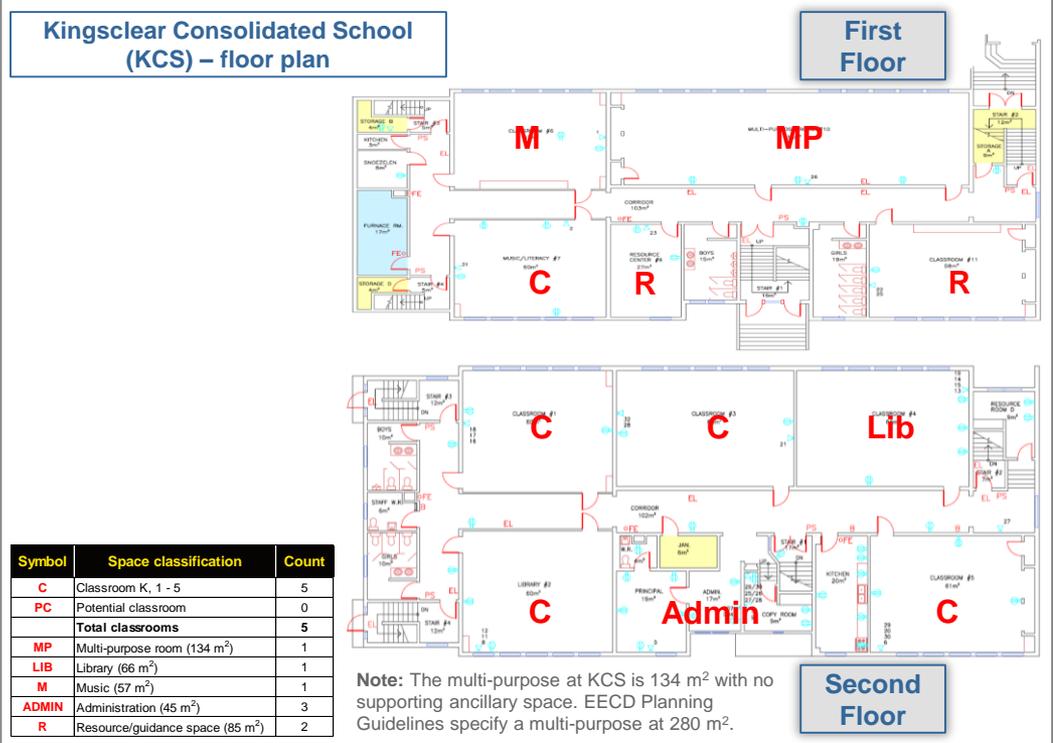
Note: The school footprint is the second smallest in the South Fredericton elementary system at 1,332 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 2,410 m².

Kingsclear Consolidated School

- Kingsclear Consolidated School is located on the corner of Woodstock Road and Fairview Drive.
- The school was originally built in 1950. In 1959, Kingsclear was consolidated with two other local schools: Silverwood and McKinley Ferry.
- The school is located approximately 5.4 km away from Garden Creek School, where students from the Kingsclear Consolidated school boundary attend to take Early French Immersion.
- Picture A: Back side of school – is flat ground. (There is little space between the school and the property line. Limited room for expansion, without taking from outside play area).
- Picture B: Front side of school – there is a small hill stepping down from the school to the playfield and playground.
- Picture C: Front Entrance – the school is not accessible (no ramps or elevators/lifts). The main entrance is split level, with stairs up or down after entering the school.

Source: Google Maps, GeoNB Viewer: <http://geonb.snb.ca/geonb/>, <http://www.nbinfo.ca/record/HDC4129?>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of KCS floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is approximately \$2M in deferred maintenance



- ### Kingsclear Consolidated School
- Site visit confirmed five homeroom classrooms (C).
 - Total deferred maintenance liability is \$2M. Key maintenance items include a new ventilation system, making the site accessible, and various interior and exterior improvements.
 - Comparison of the school floor plans to EECD Planning Guidelines found approximately 816 m² of notable space deficiencies (e.g. cafeteria and a full sized multi-purpose room with ancillary space).
 - Shortage of pedagogical space including early childhood development room, multi-function room, project work areas and visiting professionals offices.

Deferred maintenance	Estimated cost
Interior alterations - upgrade classrooms, ceiling, and corridor, and replace flooring	\$659,000
Building envelope - replace all exterior windows, refinish exterior walls, and replace roof # 2	\$380,000
Heating and ventilation - new ventilation system	\$328,000
Interior accessibility - install one elevator, one stairwell lift and ramps	\$297,000
Fire prevention - install sprinkler system, and replace classroom and office doors with fire rated doors	\$121,000
Electrical - install 36 new classroom receptacles, upgrade electrical systems and interior lighting	\$117,500
Site improvements - upgrade drainage and water proofing and other general site improvements	\$75,000
Total for deferred maintenance	\$1,977,500

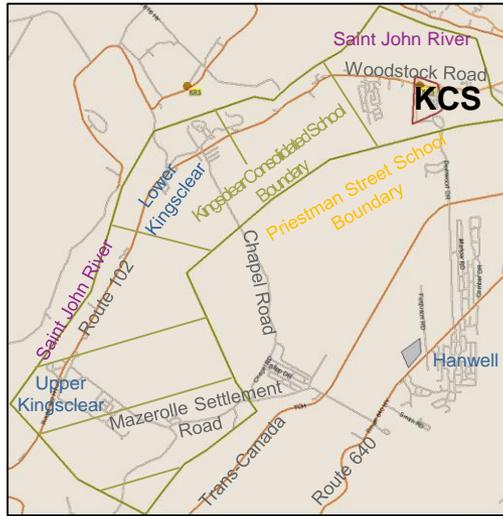
Space deficiencies compared to Planning Guidelines	Area (m ²)
Dining and stage	128
Multi-purpose room, and ancillary and support space	397
Early childhood development room	110
Multi-function room	110
Project work area and break-out rooms	57
Visiting professionals office and waiting area	14
Total space deficiencies compared to Planning Guidelines	816

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.



New K-8 (650) school is recommended in the Hanwell area, with Kingsclear Consolidated School (KCS) recommended for closure and school boundary merged into Hanwell

Current KCS school boundary



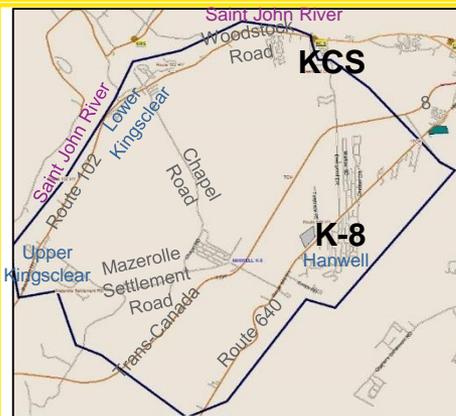
Legend

- KCS walking zone
- KCS school boundary

Kingsclear Consolidated School – current school boundary

- Kingsclear Consolidated has a large stretching school boundary, starting at the intersection of Woodstock Road and Springhill Road and following Route 102 along the Saint John River. This includes Lower and Upper Kingsclear and then along the Mazerolle Settlement Road until the intersection with Chapel Road.
- The boarding school boundary is that for Priestman Street Elementary School, which currently includes Hanwell.

Proposed Hanwell K-8 school boundary



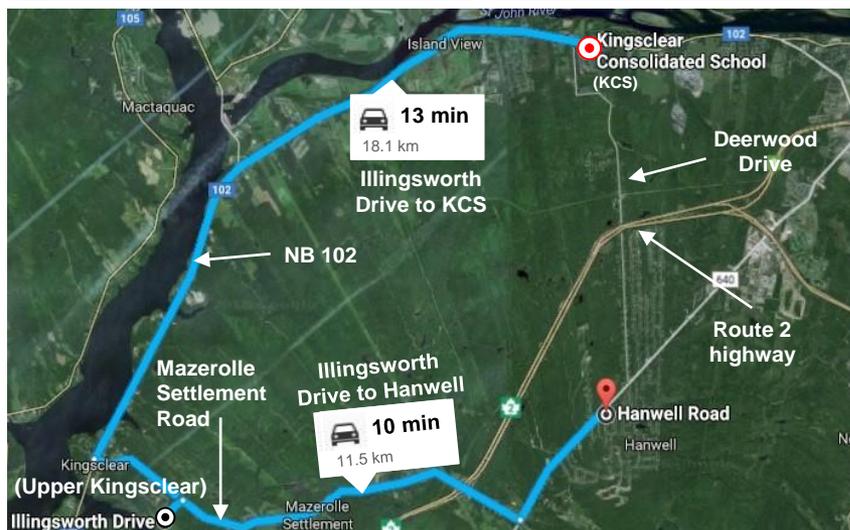
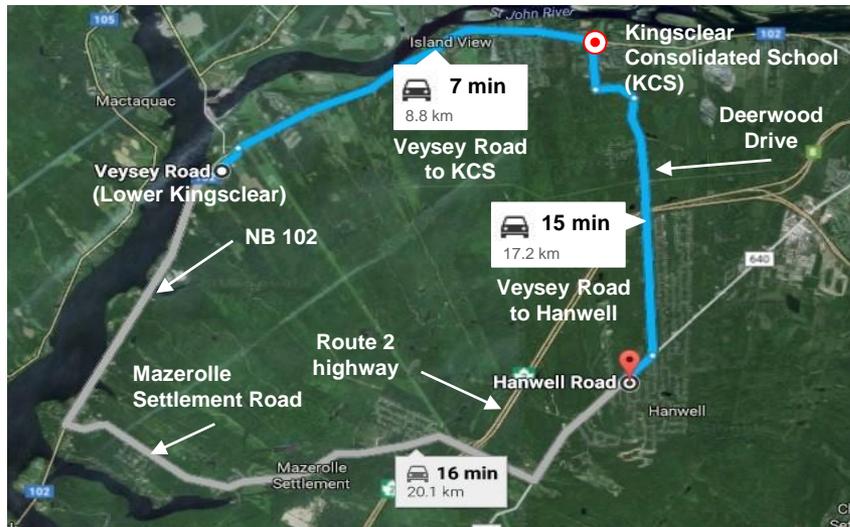
- Kingsclear Consolidated School (KCS)
- Hanwell proposed school (NEW) K-8

Kingsclear Consolidated School – proposed inclusion in new K-8 school boundary

- Kingsclear Consolidated School is proposed for closure, with the addition of a new K-8 (650) school in the Hanwell area (scenario 2).
- The new Hanwell school boundary would include all of the Kingsclear Consolidated School boundary except for the area from the intersection of Woodstock Road and Springhill Road to the intersection of Woodstock Road and Carriage Hill Drive. This area of the old school boundary would transfer to Garden Creek School.

Source: ASD-W school transportation software - Versatrans

Students located in Upper Kingsclear would spend less time travelling to Hanwell Road than Lower Kingsclear, compared to their original school boundary of Kingsclear Consolidated



Impact of proposed school boundary for Kingsclear Consolidated School (KCS)

- Due to the shape of the existing KCS school boundary, some students would have a longer school bus ride, while others would have a shorter one. The longest ride in the boundary before and after the change is approximately the same.

Lower Kingsclear

- Veysey Road to the new Hanwell School via NB-102 and Deerwood Drive is approximately 17.2 km (15 minutes when no stops).
- Veysey Road to new Hanwell School via NB-102 and Mazerolle Settlement Road is approximately 20.1 km (16 minutes when no stops).
- Veysey Road to Kingsclear Consolidated School via NB-102 is approximately 8.8 km (7 minutes when no stops).

Upper Kingsclear

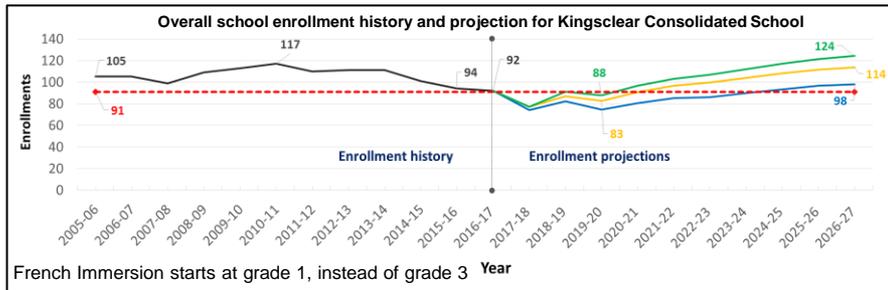
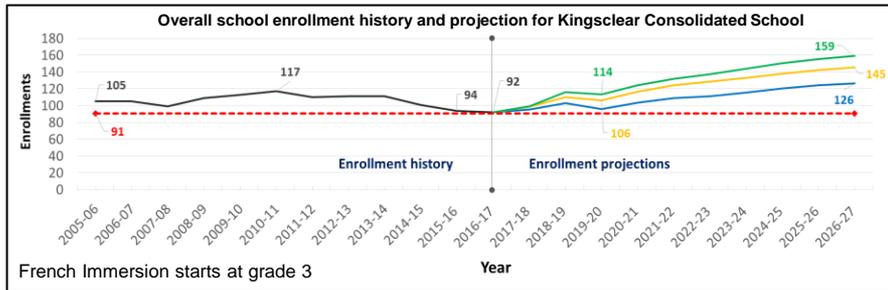
- Illingsworth Drive area to Kingsclear Consolidated School via NB-102 is approximately 18.1 km (13 minutes when no stops).
- Illingsworth Drive Area to Kingsclear Consolidated School via Mazerolle Settlement Road and Deerwood drive is approximately 20.4 km (19 minutes when no stops).
- Illingsworth Drive Area to the new Hanwell School is approximately 11.5 km (10 minutes when no stops).

Note: For estimation purposes only, actual distance and time will depend on where the proposed Hanwell school is sited.

Source: Google Maps

Kingsclear Consolidated School is currently operating above 80% utilization based on the current grade configuration and number of classrooms available for homerooms

Enrollment projections



Enrollment projections, following proposed boundary changes

No enrollment projections for Kingsclear Consolidated School following proposed boundary changes.

Kingsclear Consolidated only has five homeroom classrooms. Several former classrooms have been converted into other pedagogical space that is part of the elementary school program: including a music room (less than 100% utilized), resource/guidance/literacy room and a library. Although there is an increase in projected enrollment, recommend closing the small facility as more classrooms are needed based on projections.

Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

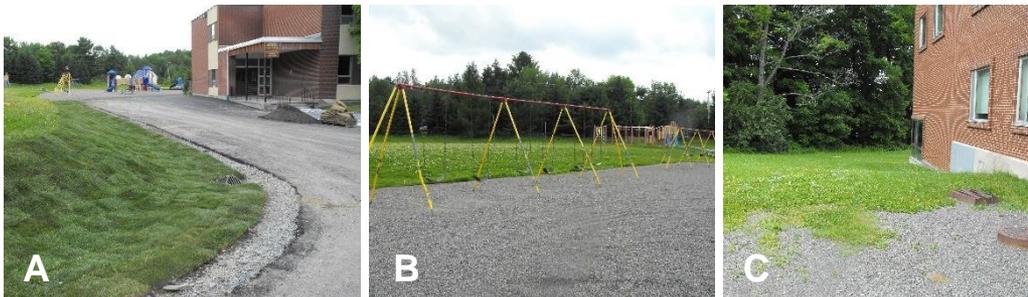
Target utilization (80%)

Kingsclear Consolidated School – enrollment projections

- Kingsclear Consolidated School is currently identified as a trigger school, as the 2015-16 enrollment was 94 students.
- The District noted that during stakeholder engagement, a developer stated there were plans to build approximately 160 lots in Silverwood Country Estates, and this would help increase future enrollment.
- Kingsclear Consolidated School has seen a slight decrease (approximately 10%) in overall student enrollments from 2005 (105 students) to 2015 (94 students).
- As indicated by the red line, the school is currently operating above 80% utilization (target 91 students) due to the small amount of homeroom classroom (5).
- Projections illustrate an increase in annual enrollment of approximately 4.8% – 5.7% between 2016 and 2026 (increasing the number of students to 145 – 159).
- Assuming no change in net migration, projected enrollment is expected to increase to 126 students by 2026-27.
- As indicated in the second graph, the projected enrollment would be less if GNB lowered the entry point of French Immersion to grade 1 as those students attend Garden Creek School (Now 114 – 124 students).

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Garden Creek School – Limited expansion potential exists towards the southwest corner of the school, there appears to be some potential room for expansion towards the field beside Golf Club Road



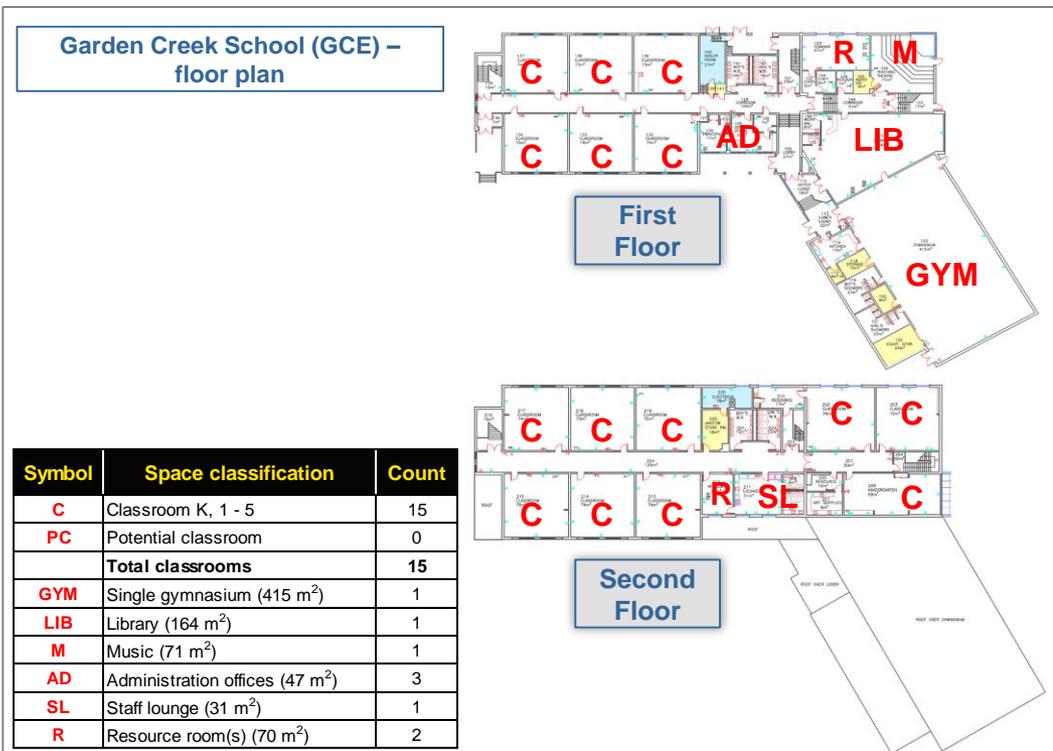
Garden Creek School

- Garden Creek School is located on the corner of Woodstock Road and Golf Club Road.
- The school was originally built in 1950.
- The school is located approximately 5.4 km away from Kingsclear Consolidated School.
- Students from the Kingsclear Consolidated school boundary attend Garden Creek School to take Early French Immersion.
- Pictures A and B show the topography off the entrance from Golf Club Road and the play area located next to the school. There appears to be some potential room for expansion on this end.
- Picture C shows the back side of the school, which is sloping downward towards the woods and the drainage system. There is limited room to expand on this end near the property line and there is a nearby waterway.

Note: The school footprint is the second largest in the South Fredericton elementary system (excluding New Maryland Elementary) at 2,630 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 4,851 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of GCE floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is approximately \$1.3M in deferred maintenance



- ### Garden Creek School
- Site visit confirmed 15 classrooms (C).
 - Total deferred maintenance liability is \$1.3M. Key maintenance items include a new ventilation system, making the site accessible, and various interior and exterior improvements.
 - Comparison of the school floor plans to EECD Planning Guidelines found approximately 1,080 m² of notable space deficiencies (multi-purpose room and cafeteria).
 - Shortage of pedagogical space including project work areas, multi-function room, performing arts room, early childhood development and visiting professionals offices.

Deferred maintenance	Estimated cost
Heating and ventilation - new ventilation system	\$647,000
Interior accessibility - supply and install 1 elevator, 3 stair lifts and ramps	\$341,000
Interior improvements - upgrade classrooms, corridors and washrooms, and replace all classrooms and office doors with fire rated doors	\$155,000
Building envelope - replace 2 sets of exterior doors, replace windows and reseal other windows, replace roof canopy, refinish exterior stairs and repoint brick on the exterior walls	\$100,000
Electrical - install 3 new receptacles and electrical panels and clean and repair switchgear	\$92,000
Total for deferred maintenance	\$1,335,000

Space deficiencies compared to Planning Guidelines	Area (m ²)
Multi-purpose room and ancillary space (1 set)	312
Cafeteria	301
Project work area and break-out rooms	114
Multi-function room	110
Performing arts room	110
Early childhood development room	110
Visiting professionals and waiting area	23
Total space deficiencies compared to Planning Guidelines	1,080

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.



Proposed that Garden Creek school boundary be extended to the intersection of Woodstock Road and Carriage Hill Drive (currently Kingsclear Consolidated)

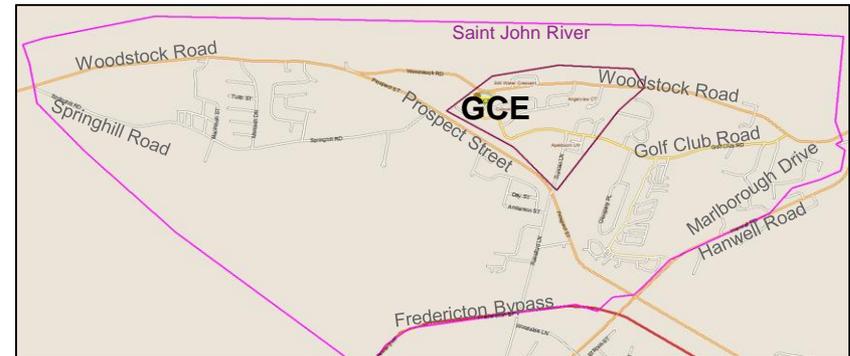
Section of Kingsclear Consolidated school boundary to GCE



Legend

Section of Kingsclear Consolidated school boundary (KCS) not included in the new K-8 school

Current Garden Creek school boundary (GCE)



Legend

GCE walking zone

GCE school boundary (current)

Proposed school boundary for Garden Creek School in the new K-8 scenario

- In the proposed K-8 scenario, Garden Creek school boundary would be extended from the intersection of Woodstock Road and Springhill Road to the intersection of Woodstock Road and Carriage Hill Drive (currently in the Kingsclear Consolidated school boundary).
- The rest of the Garden Creek school boundary would remain unchanged. The students who take French Immersion at Garden Creek School (from the Kingsclear Consolidated school boundary – excluding the green section shown above) would attend the proposed new K-8 in the Hanwell area.
- The remainder of the Kingsclear Consolidated school boundary would be included in the proposed boundary for the new K-8 school in the Hanwell area.

Source: ASD-W school transportation software - Versatrans.

Scenario 2 (New K-8): Students located in Fairview Drive area within walking distance to Kingsclear Consolidated School would need to be bussed to Garden Creek School



Note: Students at Kingsclear Consolidated would move to Garden Creek School or the new Hanwell K-8 school, as the school is recommended for closure.

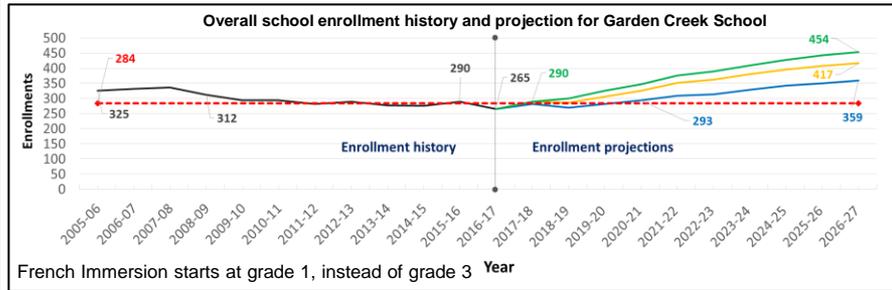
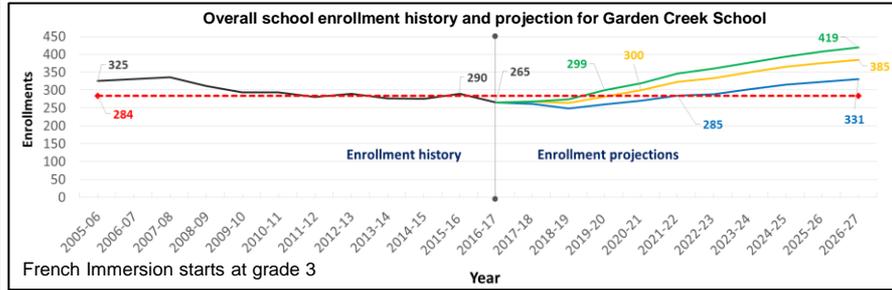
Impact of proposed school boundary changes to Garden Creek School

Fredericton (Woodstock Road Area – nearest Kingsclear Consolidated School)

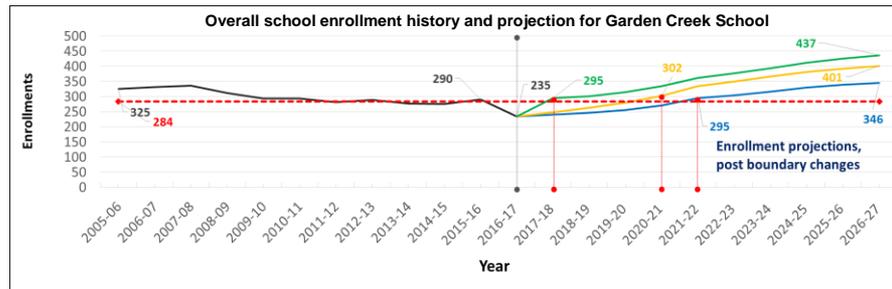
- Fairview Drive to Kingsclear Consolidated School is approximately 250 m (5 minutes walking). Students in this area would need to be bussed if Kingsclear Consolidated School was closed.
- Fairview Drive to Garden Creek School via Woodstock Road/NB-102 is approximately 5.6 km (6 minutes with no stops).

Scenario 2 (New K-8): Enrollment at Garden Creek expected to reach 80% utilization between 2017-18 and 2020-21, if proposed boundary changes were implemented

Enrollment projections



Enrollment projections, following proposed boundary changes



Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- Target utilization (80%)

Garden Creek School – enrollment projections for current school boundary

- Garden Creek School has seen a slight decrease, approximately 11%, in student enrollments from 2005 (325 students) to 2015 (290 students).
- As indicated by the red line, the school is currently operating above 80% utilization (target 284 students).
- Projections illustrate an increase in annual enrollment, of approximately 4.9% - 5.4% between 2019 and 2026 (increasing the number of students to between 385 – 419).
- Assuming no change in net migration, projected enrollment is expected to increase to 331 students by 2026.
- As indicated in the second figure, the total number of projected enrollment is expected to increase to 417 – 454 students if GNB lowers entry point of early FI to grade 1.

Garden Creek School – enrollment projections following proposed school boundary changes

- Students at Kingsclear Consolidated would move to Garden Creek School or the new Hanwell K-8 school, as the school is recommended for closure.
- Assuming no change in net migration, Garden Creek School would not reach 80% capacity until 2021-22.
- Factoring net migration of 2% and extrapolated City of Fredericton projections, enrollment would surpass the 80% utilization capacity between 2017-18 and 2020-21.

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015)

Priestman Street Elementary School – Has limited expansion potential due to the size of property and available space, school had third mobile classroom installed in the summer of 2016



Legend

Existing mobile classroom (MC)

New mobile classroom 2016-17 (MC)

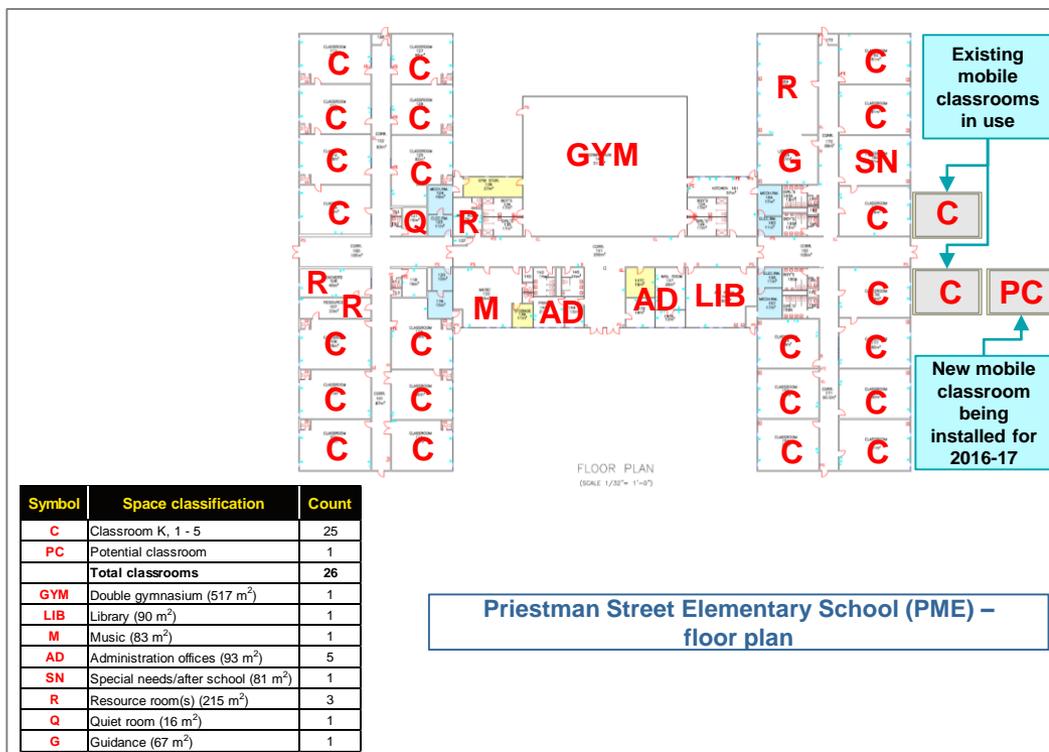
Priestman Street Elementary School

- Priestman Street Elementary School is located on the corner of Priestman Street and York Street.
- The school was originally built in 1969.
- The nearest elementary school (Montgomery Street Elementary) is approximately 1.2 km away.
- Picture A shows the two mobile classrooms currently attached to the school. A third mobile classroom is being added in 2016 to accommodate the growing number of students.
- Picture B shows the back corner of the school from the parking lot.
- Picture C shows the play area, which is located behind the school.
- As indicated from the images, the site has limited expansion potential due to the size of the property and available space.

Note: The school footprint is the largest in the South Fredericton elementary system (excluding New Maryland Elementary) at 4,403 m². For comparison: a replacement school built to current EEC Planning Guidelines (for the same number of students) would be approximately 6,943 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EEC Planning Guidelines for Educational Facilities.

Comparison of PME floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is approximately \$1.7M in deferred maintenance



Priestman Street Elementary School

- Site visit confirmed 25 classrooms (C) and 1 potential classroom (PC), which is the new mobile classroom.
- Total deferred maintenance liability is \$1.7M. Approximately 70% of the estimated cost is for a new ventilation system.
- Comparison of the school floor plans to EECD Planning Guidelines found approximately 1,180 m² of notable space deficiencies (cafeteria and multi-purpose room with ancillary space).
- Shortage of pedagogical space including early childhood development room, performing arts room, and offices for visiting professionals.

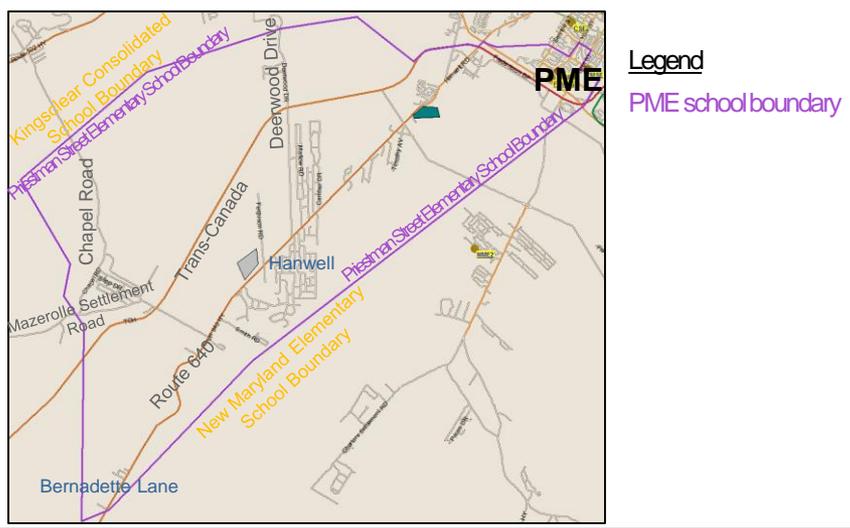
Deferred maintenance	Estimated cost
Heating and ventilation - new ventilation system	\$1,084,000
Exterior improvements - renovate pickup / drop off areas, replace / repair fences , and replace exterior doors for various locations	\$290,000
Interior improvements - upgrade classrooms, replace classroom and office doors, upgrade corridor and replace tile flooring	\$256,000
Electrical - install a new receptacles, and clean and repair switchgear	\$20,500
Total for deferred maintenance	\$1,650,500

Space deficiencies compared to Planning Guidelines	Area (m ²)
Cafeteria	477
Multi-purpose room, and ancillary and support space	442
Early childhood development room	110
Performing arts room	110
Visiting professionals office and waiting area	41
Total space deficiencies compared to Planning Guidelines	1,180

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Priestman Street Elementary School to receive students bussed from Lincoln Road area. The intersection of Route 640 and Trans-Canada Highway marks boundary for new Hanwell School

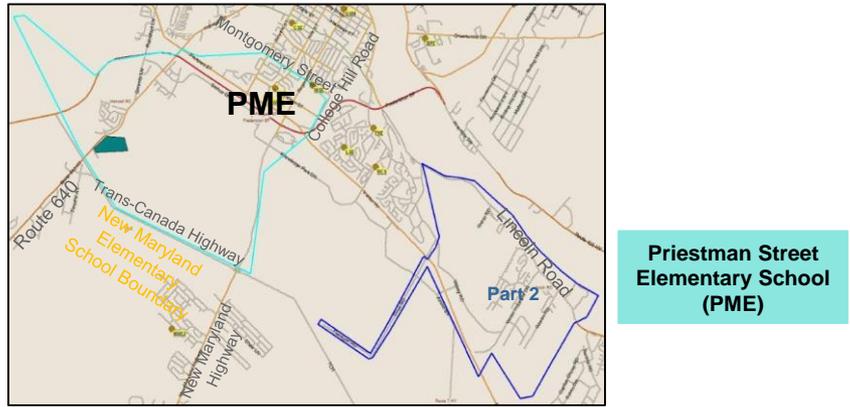
Current school boundary



Review of Priestman Street Elementary School – current school boundary

- Priestman Street Elementary School has a large stretching school boundary, as it starts from Montgomery Street and it extends down the Hanwell Road/Route 640.
- It divides Chapel Road with Kingsclear Consolidated School and the school boundary ends the intersection of Chapel Road and Mazerolle Settlement Road.
- Deerwood Drive marks the northwestern border for PME.

Proposed school boundary



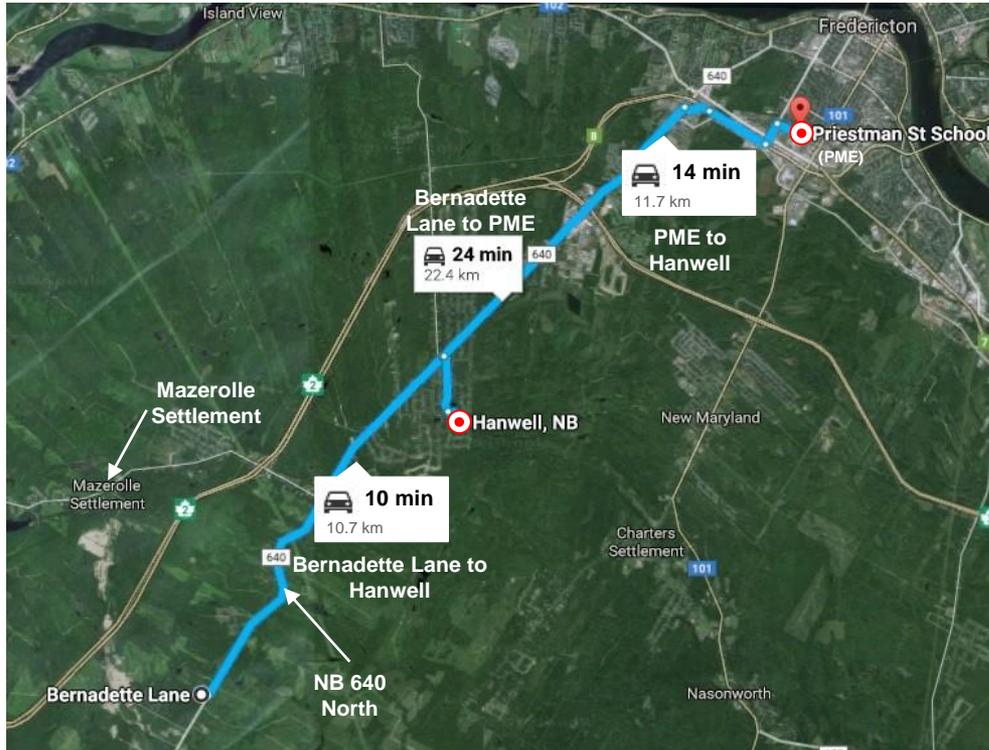
Review of Priestman Street Elementary School – proposed school boundary

- Previously, PME School's border extended to Kings College Road, intersecting with Regent Street and York Street. Proposed northeastern school boundary pull back to Montgomery Street, leaving that block in Montgomery Street Elementary School (MSE).
- College Hill Road is proposed to be the eastern border.
- Intersection of Trans-Canada Highway and Route 640 would be the southern border with proposed new school.
- Additionally, students located in Part 2 (Lincoln Road area) are proposed to be bussed to PME instead of attending MSE.
- The school boundary would remain the same with New Maryland Elementary.

Source: ASD-W school transportation software - Versatrans.



Proposed border changes would reduce the commute time and mileage for students living in Bernadette Lane/Hanwell areas compared to bussing to Priestman Street Elementary



Impact of proposed school boundary changes to Priestman Street Elementary

Bernadette Lane

- Bernadette Lane to proposed new school in Hanwell via NB-640 is approximately 10.7 km (10 minutes when no stops).
- Bernadette Lane to Priestman Street Elementary School via NB-640 is approximately 22.4 km (17 minutes when no stops).

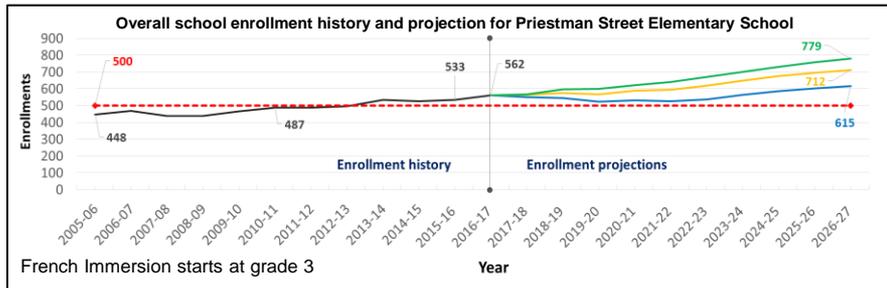
Hanwell area

- Hanwell area to Priestman Street Elementary School via NB-640 is approximately 11.7 km (14 minutes when no stops).
- A report made earlier this year to the DEC by a Hanwell community group it noted that in many cases, the amount of stops and traffic would lead to travel time exceeding one hour.
- A new school in the Hanwell area would reduce both travel time and mileage into the city.

Note: For estimation purposes only, actual distance and time would depend on where the proposed Hanwell school is sited.

Enrollment at Priestman Street Elementary School expected to reach 80% utilization between 2022-23 and 2024-25, if proposed boundary changes were implemented

Enrollment projections



Enrollment projections if GNB changes the French Immersion entry point

No change in net students with the current school boundary if GNB lowers the entry point of early French Immersion to Grade 1. However, this will change the classroom distribution within the school.

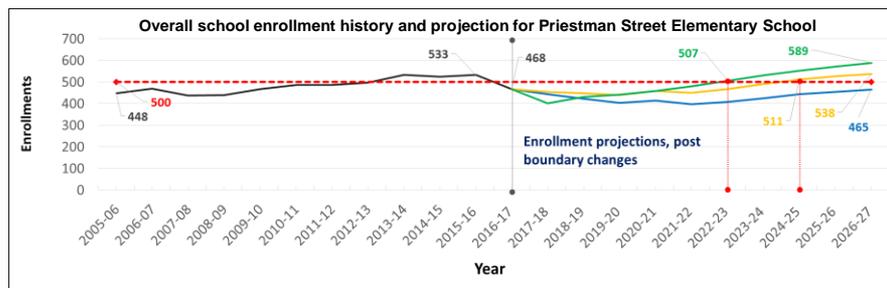
Priestman Street Elementary – enrollment projections for current school boundary

- Priestman Street Elementary School has seen an overall increase in student enrollments of approximately 20% from 2005 (448 students) to 2015 (533 students).
- As indicated by the red line, the school is operating above 80% utilization (target 500 students – hence three mobiles).
- Projections illustrate an average annual increase of approximately 2.4% – 3.3% between 2016 and 2026 (increasing the number of students to between 712 – 779).
- Assuming no change in net migration, projected enrollment is expected to increase to 615 students by 2026.

Priestman Street Elementary – enrollment projections following school boundary changes

- Following the boundary changes, approximately 55% of the kindergarten enrollment would go to the new Hanwell school, and students living in the Lincoln Road area would go to Priestman Street Elementary School.
- Assuming no change in net migration, Priestman Street Elementary would be below 80% utilization past 2026-27.
- Factoring net migration of 2% and extrapolated City of Fredericton projections, enrollment would surpass the 80% utilization capacity between 2022-23 and 2024-25.

Enrollment projections, following proposed boundary changes



Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- ◆◆◆ Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Montgomery Street Elementary School was built in 1963 and is a leased property from UNB, whose lease is currently up for renewal



Legend

-  Existing mobile classroom

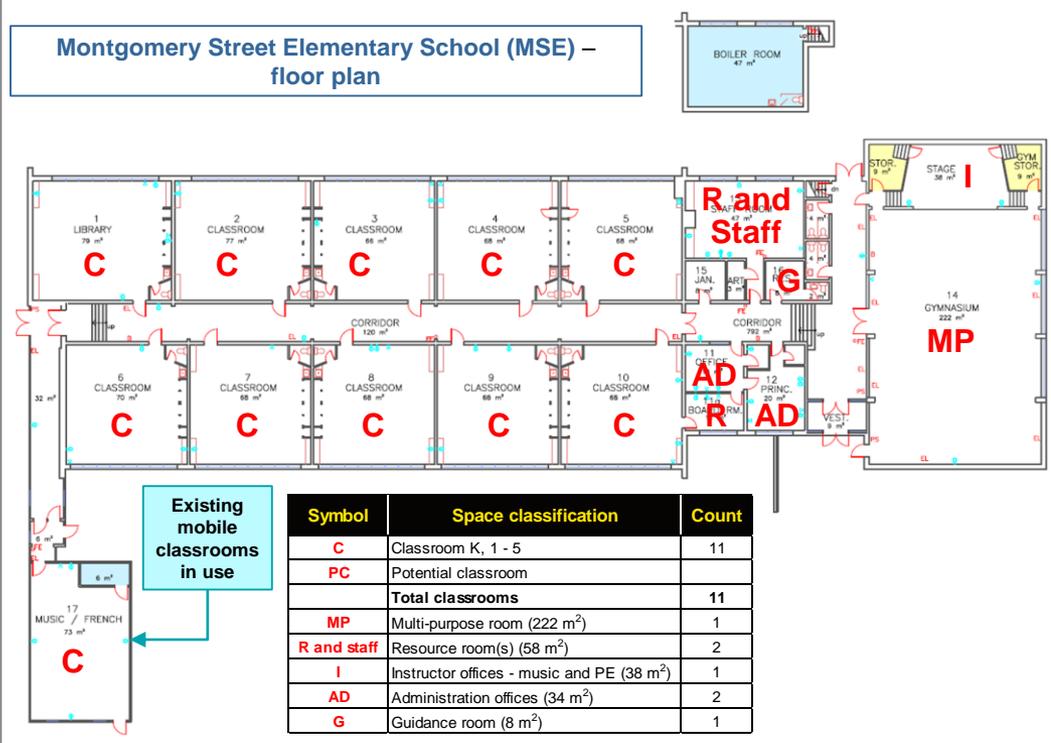
Montgomery Street Elementary School

- Montgomery Street Elementary School is located on Montgomery Street coming off Regent Street.
- The school was originally built in 1963 and is a leased property from the University of New Brunswick (UNB).
- The lease is up for renewal.
- The nearest elementary school (Priestman Street Elementary School) is approximately 1.2 km away.
- There is one mobile classroom.
- Picture A shows the minor step up in elevation to the ball field beside the school.
- Picture B shows the minor step up to the play area located at the back of the school.
- Picture C shows the back of the school and that new windows were being installed in the summer of 2016.

Note: The school footprint is the third smallest in the South Fredericton elementary system (excluding New Maryland Elementary) at 1,709 m². For comparison, a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 3,348 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of MSE floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is approximately \$946K in deferred maintenance



- ### Montgomery Street Elementary School
- Site visit confirmed 11 classrooms (C), which includes the mobile classroom.
 - Total deferred maintenance liability is \$946K. Key maintenance items include a new ventilation system and accessibility upgrades.
 - Comparison of the school floor plans to EECD Planning Guidelines found approximately 891 m² of notable space deficiencies (including cafeteria and project work areas).
 - Other pedagogical space deficiencies included multi-function room, music room, early childhood development room, library and offices for visiting professionals and resources).

Deferred maintenance	Estimated cost
Heating and ventilation - new ventilation system, and thermostat and controls (EMCS)	\$431,500
Interior accessibility - install one elevator, and one stair lift	\$225,000
Electrical - upgrade electrical distribution, pa system and lighting	\$165,000
Interior improvements - upgrade classrooms, renovate 2 washrooms, new classroom ceilings, and repair work (rear side of the building)	\$124,000
Total for deferred maintenance	\$945,500

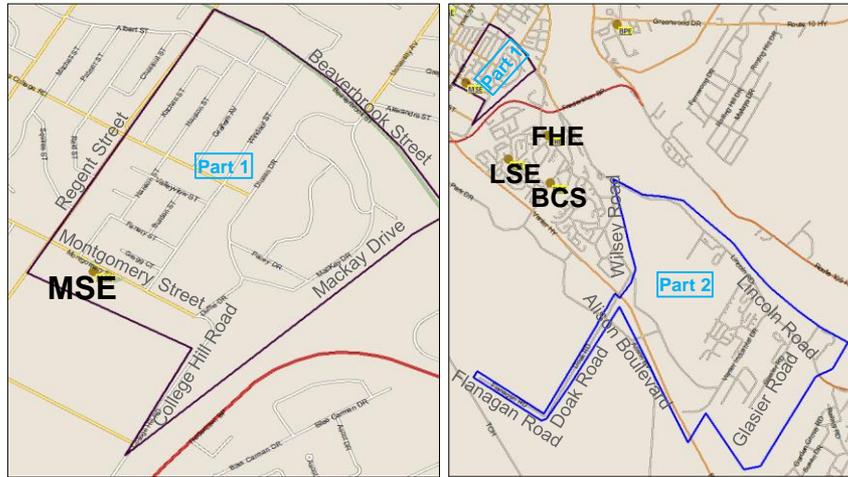
Space deficiencies compared to Planning Guidelines	Area (m ²)
Cafeteria	227
Project work area and break-out rooms	114
Multi-function room	110
Music room	110
Early childhood development room	110
Library	100
Ancillary space (1 set)	62
Special care room	35
Visiting professionals office and waiting area	23
Total space deficiencies compared to Planning Guidelines	891

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.



Proposed that CSE and MSE share a school boundary and reconfigure schools to K-2 and 3-5, with Lincoln Road area students now bussed to Priestman Street Elementary School

Current school boundary



MSE school boundary (Part 1) and MSE Bussing (Part 2)

MSE – current school boundary

Part 1 – School area

- Beaverbrook Street marks the northern border for Montgomery Street Elementary School (MSE).
- Regent Street is the western border for MSE.
- Montgomery Street and College Hill Road is the southern border for MSE.
- Mackay Drive marks the eastern border for MSE.

Part 2 – Bussing area

- Additionally, students in the Lincoln Road area are bussed to MSE, as the neighboring school (Liverpool Street Elementary) does not have enough capacity for them.

Proposed school boundary

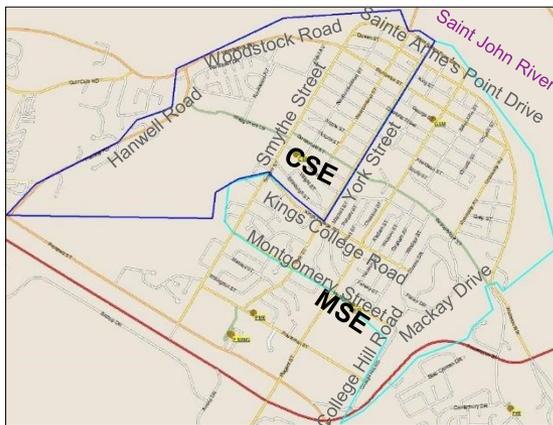
Option 1

Connaught Elementary School (CSE)

Montgomery Street Elementary School (MSE)

Option 2

Recommend to share the boundary and make MSE (K-2) and CSE (3-5).

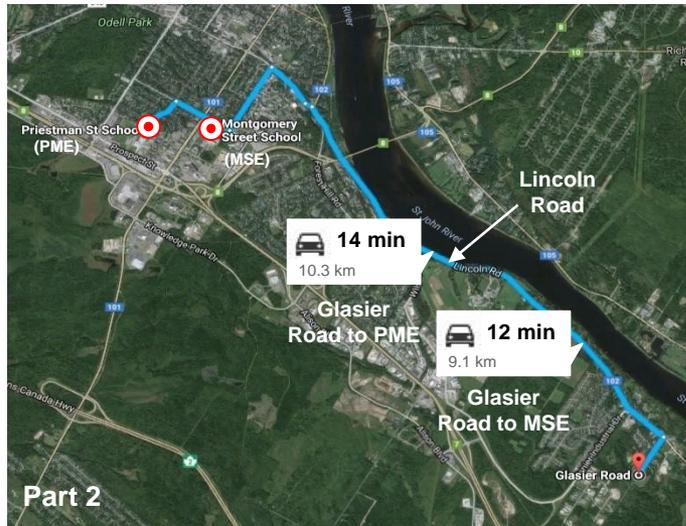


MSE – proposed school boundary

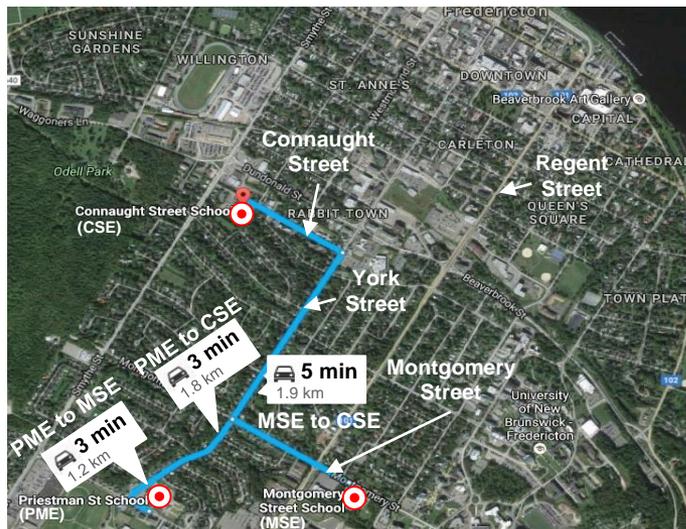
- Students located in Part 2 would now be bussed to Priestman Street Elementary School.
- Option 1 – York Street would now serve as the boundary between MSE and CSE instead of Regent Street. Additionally, MSE would receive the block between Montgomery Street and Kings College Road over to Smythe Street.
- Option 2 – Recommended: MSE and CSE share the boundary and reconfigure the schools to K-2 and 3-5 because the French Immersion Program would be split in half by option 1. Would need to decide how to configure the schools if GNB lowered the entry point of French Immersion back to grade 1 from grade 3.

Source: ASD-W school transportation software - Versatrans.

Proposed boundary changes have minimum impact on transportation for students located in the Lincoln Road area (e.g. Glasier Road) currently going to Montgomery Street



Note: Students located in Glasier Road would be bussed to PME, which is only two minutes away from MSE



Note:

- Grade 3-5 students that were going to MSE would now be going to CSE
- Grade K-2 from CSE, along with a small portion of K enrollment from PME, would now be going to MSE

Source: Google Maps

Impact of proposed school boundary changes to MSE

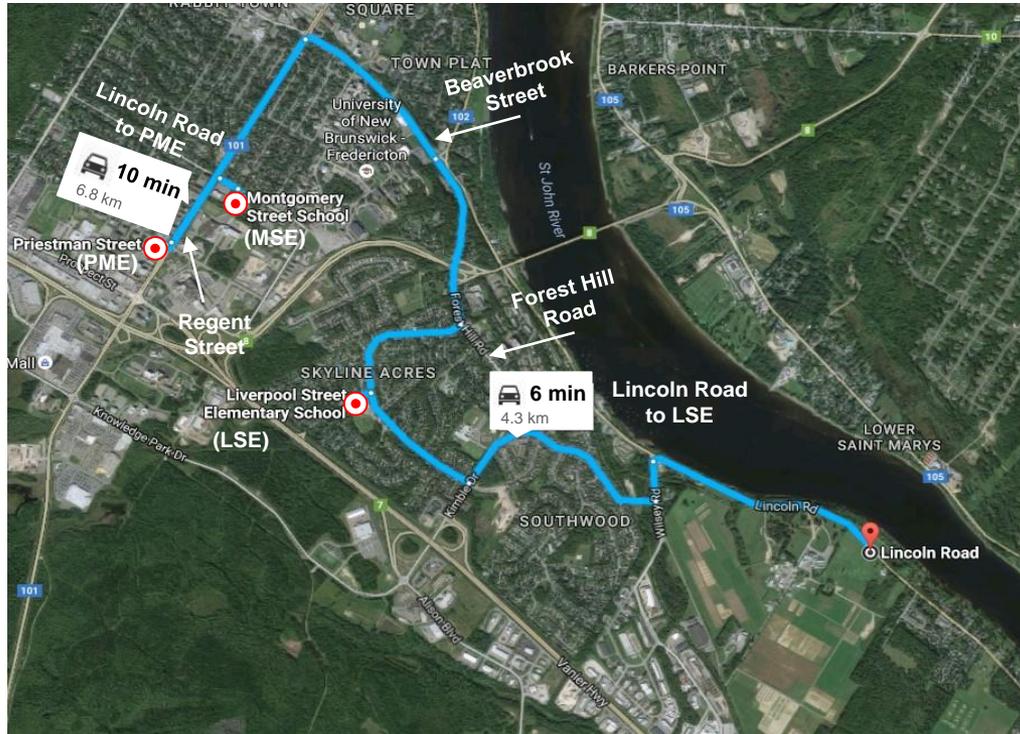
Glasier Road, Fredericton (located in Lincoln Road area – part 2 of MSE)

- Glasier Road to Montgomery Street School via Lincoln Road is approximately 9.1 km (12 minutes when no stops). If going by Wilsey Road it is approximately 11.4 km (15 minutes when no stops).
- Glasier Road to Priestman Street Elementary School via Lincoln Road is approximately 10.3 km (14 minutes when no stops).

Montgomery Street and Connaught Street in Fredericton

- Montgomery Street Elementary School to Connaught Street School via York Street is approximately 1.9 km (5 minutes when no stops). The change in configuration and sharing a boundary would likely increase the need for bussing to the two schools.
- Priestman Street Elementary School to Connaught Street School via York Street is approximately 2.1 km (5 minutes when no stops).
- Montgomery Street Elementary to Priestman Street Elementary School via Regent Street is 1.2 km (3 minutes when no stops).

Proposed border changes would increase travel time (approximately 2.5 km more) for French Immersion (FI) students in the Lincoln Road area



Note:

- French Immersion students in the Lincoln road area (currently in the MSE school boundary) attend Liverpool Street School. Those students would now attend Priestman Street Elementary School.
- Those not taking French Immersion from the Lincoln Road area are currently at Montgomery Street Elementary and would also attend Priestman Street Elementary School after the proposed changes.
- Therefore, all the students in the Lincoln Road area would now attend one school (PME), instead of two schools in the current boundary design.

Source: Google Maps

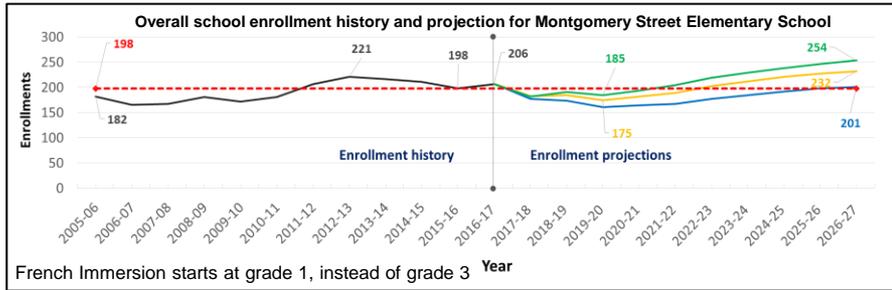
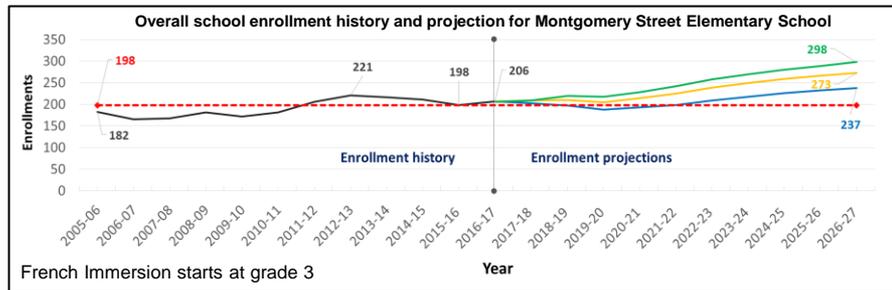
Impact of proposed school boundary changes to MSE

Lincoln Road area, Fredericton

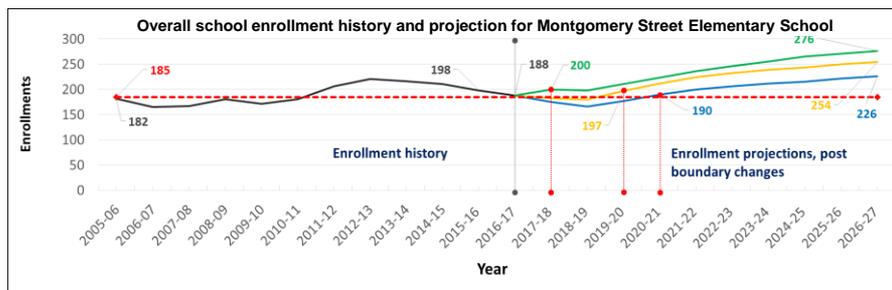
- Lincoln Road area to Liverpool Street Elementary School via Lincoln Road and Kimble Drive is approximately 4.3 km (6 minutes when no stops).
- Lincoln Road area to Priestman Street Elementary School via Lincoln Road and Regent Street is approximately 6.8 km (10 minutes when no stops). Other routes such as Vanier Highway and Forest Hill Road are of similar distance.
- There is approximately an additional 2.5 km of travel for the French Immersion students that are proposed to attend Priestman Street Elementary School compared to Liverpool Street Elementary.
- Montgomery Street Elementary School to Liverpool Elementary School via Forest Hill Road is approximately 4 km (7 minutes when no stops).
- Montgomery Street Elementary to Priestman Street Elementary School via Regent Street is 1.2 km (3 minutes when no stops).

Enrollment at Montgomery Street Elementary School (K-2) expected to reach 80% utilization between 2017-18 and 2019-20, if proposed boundary changes were implemented

Enrollment projections



Enrollment projections, following proposed boundary changes



MSE – enrollment projections for current school boundary

- Montgomery Street Elementary has seen an overall increase in student enrollments of approximately 9% from 2005 (182 students) to 2015 (198 students).
- As indicated by the red line, the school is operating above 80% utilization (target of 198 students).
- Projections illustrate an average annual increase of approximately 2.8% – 3.8% from 2016 to 2026 (increasing the number of students to between 273 and 298). No change in net migration is projected to be 237 students.
- If GNB lowered the entry point of French Immersion, the projections would drop, as there is no FI program at MSE.

MSE – enrollment projections following School boundary changes

- MSE is proposed to become a K-2 school. This lowers the 80% utilization target from 198 to 185 students, because the classroom size limit for K-2 is lower than grades 3-5.
- Assuming no change in net migration, MSE would be above 80% utilization in 2020-21.
- Factoring net migration of 2% and extrapolated City of Fredericton projections, enrollment would surpass the 80% utilization capacity between 2017-18 and 2019-20.
- If GNB changed entry point of FI, would need to re-examine the configuration for FI grade 1-2.

Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

Target utilization (80%)

Source: EECDC Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015)

Connaught Street School – Limited room for expansion due to the elevated topography behind the school, DEC has approved a new addition (gymnasium) to be built on the back side of the school



Legend Existing Proposed

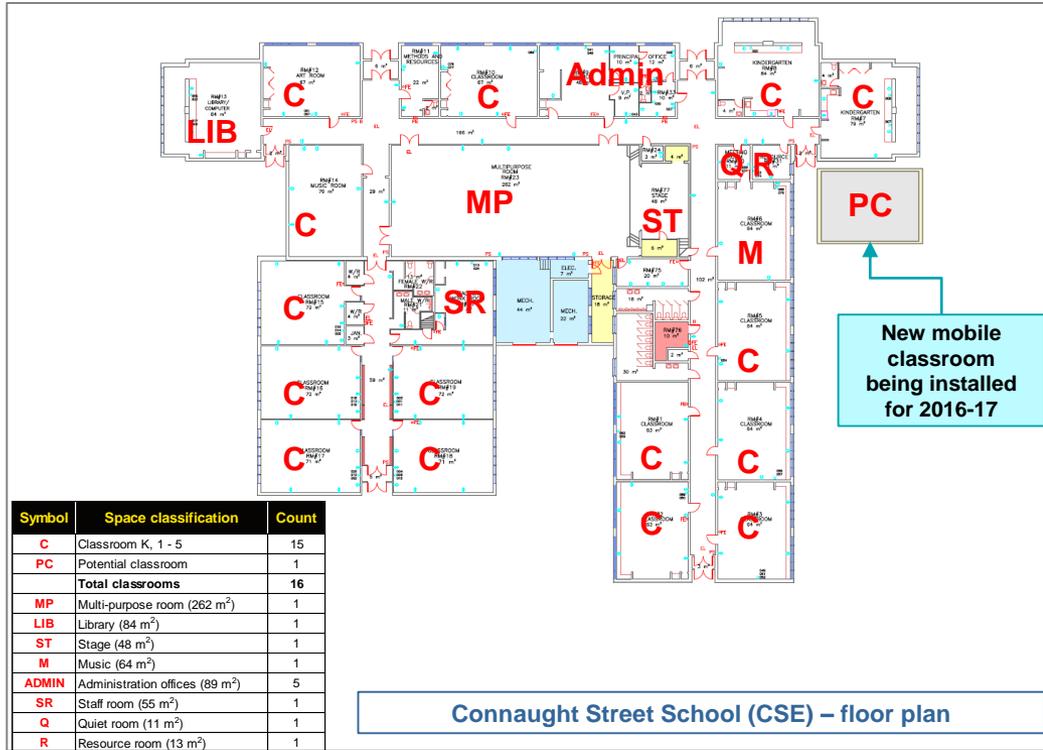
Connaught Street School

- Connaught Street School is located on Connaught Street, just off Smythe Street.
- The school was originally built in 1957.
- The nearest elementary school (Montgomery Street Elementary) is approximately 1.9 km away.
- A new mobile classroom is being installed in the summer of 2016.
- The DEC has approved a new gymnasium and renovations to the old multi-purpose room as part of the capital plan recommendations.
- Picture A shows there is a large hill with a set of wooden stairs leading to the playfield on top of the hill.
- Picture B shows the basket ball play area behind the school, where the new gymnasium is to be located. The land starts to elevate next to the hard court.
- Picture C shows the “Jackson Square” playground, which was unveiled in May 2016.

Note: The school footprint is the fourth smallest in the South Fredericton elementary system (excluding New Maryland Elementary) at 1,902 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 4,976 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of CSE floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is approximately \$921K in deferred maintenance



Connaught Street School

- Site visit confirmed 15 classrooms (C) and 1 potential classroom (PC), which is the new mobile classroom being added in 2016-17.
- Total deferred maintenance liability is \$921K. Key maintenance items include a new ventilation system, and various interior and exterior improvements.
- Comparison of the school floor plans to EECD Planning Guidelines found approximately 1,461 m² of notable space deficiencies (double gymnasium, and cafeteria).
- Shortage of pedagogical space including early childhood development room, performing arts room, multi-function room and offices for visiting professionals and resource space.

Deferred maintenance	Estimated cost
Heating and ventilation - new ventilation system	\$470,000
Interior improvements - upgrade 13 classrooms, install new t-bar ceiling, acoustic panel and new tile floor	\$115,000
Exterior improvements - resurface main driveway and parking lot, replace concrete step and walkway	\$110,000
Upgrade two (2) washrooms	\$104,000
Electrical - upgrade electrical distribution system	\$77,000
Building envelope - three (3) new sets of exterior double doors	\$30,000
Fire prevention - replace fire alarm panel	\$15,000
Total for deferred maintenance	\$921,000

Space deficiencies compared to Planning Guidelines	Area (m ²)
Double gymnasium, ancillary spaces (1 set), and storage	723
Cafeteria	179
Performing arts room	110
Project work area and break-out rooms	171
Early childhood development room	110
Multi-function room	110
Special care room	35
Visiting professionals office and waiting area	23
Total space deficiencies compared to Planning Guidelines	1,461

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Proposed that Connaught Street School and Montgomery Street Elementary share a school boundary and reconfigure the schools to K-2 and 3-5

Current school boundary



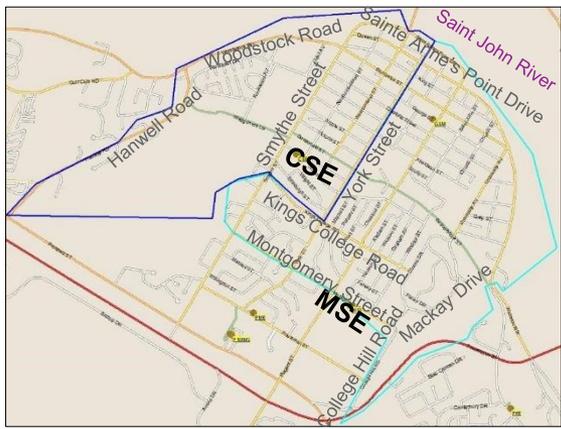
Legend
CSE walking area and CSE school boundary

Review of Connaught Street School – current school boundary

- Saint John River marks the northern border for Connaught Street School (CSE).
- The intersection of Hanwell Road and Prospect Street to the intersection of Hanwell Road and Woodstock Road is the western boundary for CSE.
- The intersections of Montgomery and York Street, York Street and Kings College Road, Kings College Road and Regent Street, and Regent Street and Beaverbrook Street outline the southeastern boundary for the school.
- Waterloo Row marks the eastern extend of the school boundary.

Proposed school boundary

Option 1
Connaught Elementary School (CSE)
Montgomery Street Elementary School (MSE)
Option 2
Recommend to share the boundary and make MSE (K-2) and CSE (3-5).



Review of Connaught Street School – proposed school boundary

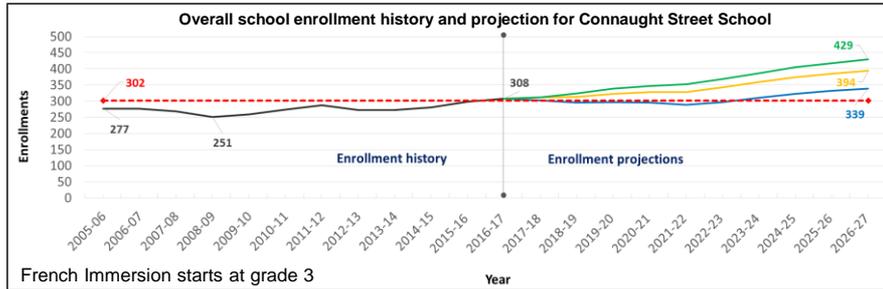
- Option 1 – York Street would now serve as the boundary between MSE and CSE instead of Regent Street. Additionally, MSE would receive the block between Montgomery Street and Kings College Road over to Smythe Street.
- Option 2 – Recommended: MSE and CSE share the boundary and reconfigure the schools to K-2 and 3-5 because the French Immersion Program would be split in half by option 1. Would need to decide how to configure the schools if GNB lowered the entry point of French Immersion back to grade 1 from grade 3.

Source: ASD-W school transportation software - Versatrans.



Enrollment at Connaught Street School (3-5) is expected to remain below 80% utilization for the next 10 years, if proposed boundary changes were implemented

Enrollment projections



Enrollment projections if GNB changes the French Immersion entry point

No change in net students with the current school boundary if GNB lowers the entry point of early French Immersion to Grade 1. However, this will change the classroom distribution within the school.

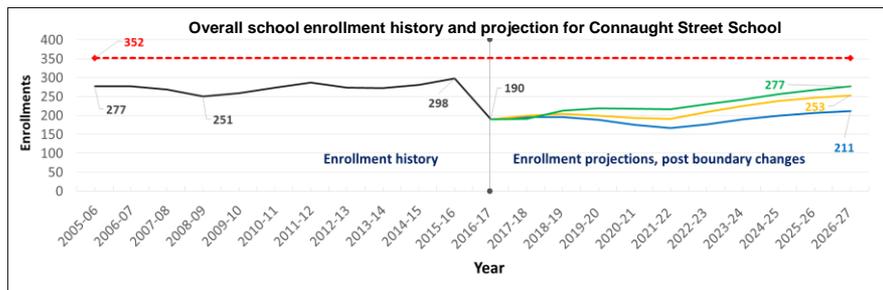
Connaught Street School – enrollment projections for current school boundary

- Connaught Street School has seen an overall increase in student enrollments of approximately 8% from 2005 (277 students) to 2015 (298 students).
- As indicated by the red line, the school is operating at 80% utilization including the new mobile (target 302 students).
- Projections illustrate an average annual increase of approximately 2% – 3% between 2016 to 2026 (increasing the number of students to between 394 and 429).
- Assuming no change in net migration, projected enrollment is expected to increase to 339 students by 2026.

Connaught Street School – enrollment projections following school boundary changes

- CSE is proposed to become a 3-5 elementary school. This raises the 80% utilization target from 302 to 352 students, because the classroom size limit for grades 3-5 is higher than it is for K-2.
- Assuming no change in net migration, CSE is projected to remain below 80% utilization for the next ten years.
- Factoring net migration of 2% and extrapolated City of Fredericton projections, enrollments would also remain below 80% utilization for the next ten years. This indicates there is potential space for additional French Immersion students if the entry point is lowered to grade 1.

Enrollment projections, following proposed boundary changes



Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

Target utilization (80%)

Source: EECDC Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015)

Forest Hill Elementary School – Has limited expansion potential due to the size of the property and school footprint, school had a new mobile classroom installed in the summer of 2016



Legend New mobile classroom (MC)

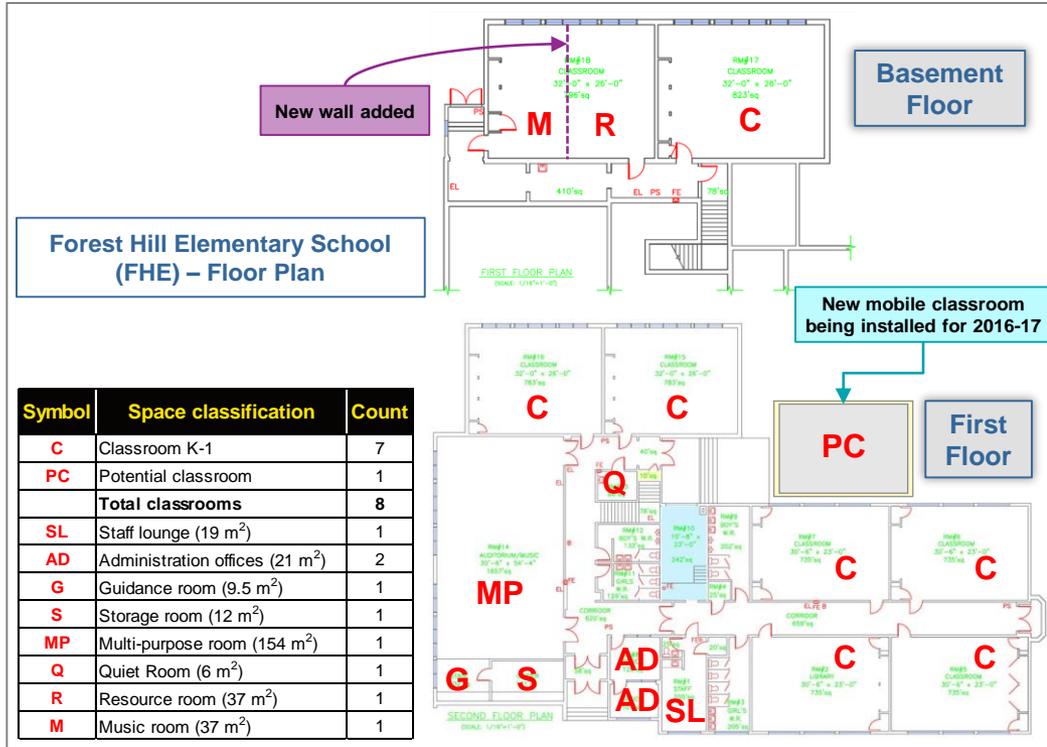
Forest Hill Elementary School

- Forest Hill Elementary School is located on Forest Hill Road off of Canterbury Drive.
- The school was originally built in 1955.
- It is a K-1 school that feeds Liverpool Street Elementary School, located approximately 1 km away.
- A new mobile classroom is being installed during the summer of 2016.
- A play field is located towards the northeast side of the school.
- Picture A shows the play area that is located at the rear of the school.
- Picture B shows the flat topography behind the school and that new windows were installed during the summer of 2016.
- Picture C shows the drop-off area located in front of the school.
- The site has limited expansion potential without taking away from the play area. Additionally, the school is so small it would take a significant sized expansion to bridge Planning Guideline space deficiencies.

Note: The school footprint is the smallest in the South Fredericton elementary system (excluding New Maryland Elementary) at 1,119 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 2,786 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of FHE floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is \$1.1M in deferred maintenance



- ### Forest Hill Elementary School
- Site visit confirmed 7 classrooms (C) and 1 potential classroom (PC), which is the new mobile classroom.
 - Total deferred maintenance liability is \$1.1M. Key maintenance items include various site improvements, heating system upgrades and accessibility upgrades.
 - Comparison of the school floor plans to EECD Planning Guidelines found approximately 728 m² of notable space deficiencies (cafeteria and the multi-purpose gym is smaller than the Guidelines, which recommend 280 m²).
 - Shortage of pedagogical space including early childhood development room, library, multi-function room and offices for visiting professionals.
 - Dehumidifiers are required for the classroom spaces in the basement floor.

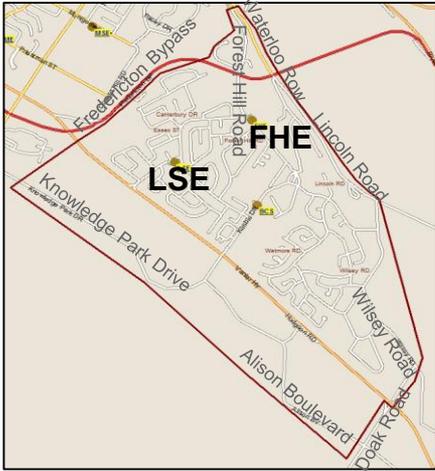
Deferred maintenance	Estimated cost
Site improvements	\$300,000
Heating and ventilation - upgrade thermostat and controls (EMCS)	\$275,000
Interior accessibility - install one elevator, and one stair lift	\$272,000
Interior improvements - upgrade classrooms, 2 washrooms, and 8 classroom ceilings	\$146,000
Electrical - install 20 new receptacles, upgrade electrical supply and distribution, and upgrade lightings	\$111,550
Total for deferred maintenance	\$1,104,550

Space deficiencies compared to Planning Guidelines	Area (m ²)
Cafeteria	188
Early childhood development room	110
Library and seminar room	110
Multi-function room	110
Gymnasium - ancillary space	104
Project work area and break-out room	57
Special care room	35
Visiting professionals office and waiting area	14
Total space deficiencies compared to Planning Guidelines	728

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Forest Hill Elementary and Liverpool Street Elementary schools are recommended for consolidation into a new K-5 (500) school, as they share the same school boundary

Current school boundary

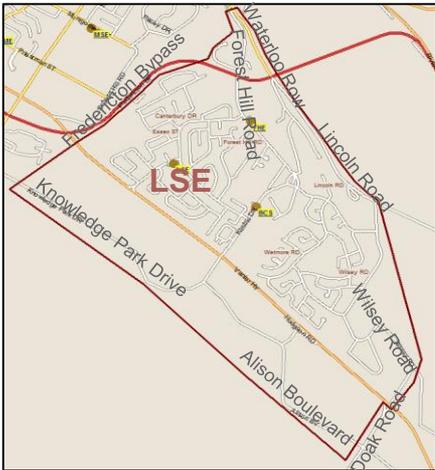


Note: Forest Hill Elementary School (K-1) is the feed school to Liverpool Street Elementary School (3-5), sharing the same school boundary

Review of Forest Hill Elementary School – current school boundary

- The Fredericton Bypass is the northern border for both Forest Hill Elementary School (FHE) and Liverpool Street Elementary School (LSE), and it includes the intersection of Forest Hill Road and Waterloo Row.
- Knowledge Park Drive marks the western boundary for both the schools.
- The intersection of Alison Boulevard and Doak Road marks the southern boundary for both the schools.
- Wisley Road and Lincoln Road mark the eastern boundary for both the schools.

Proposed school boundary



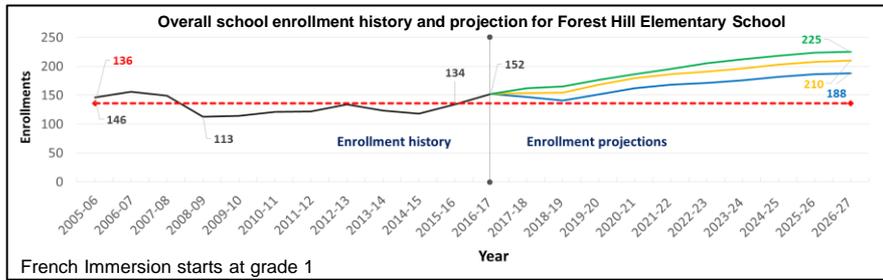
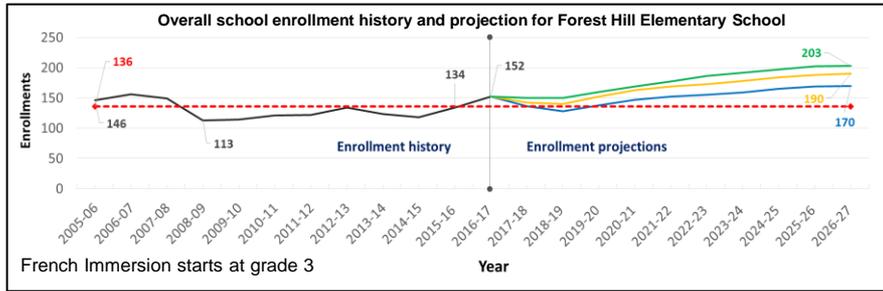
Note: New K-5 (500) school boundary would be the same as the existing school boundary that is shared by FHE and LSE.

Review of Forest Hill Elementary School – proposed school boundary

- It is proposed that a new K-5 school would replace Liverpool Street Elementary School and Forest Hill Elementary School.
- The school boundary of the proposed school would remain the same as the two schools being consolidated.
- Since FHE is already the feed school for LSE, and they share the same school boundary (schools being 1 km apart), it is not anticipated to have a significant impact on school transportation.

Forest Hill Elementary School is recommended for closure, with students to attend new K-5 (500) school proposed to be located within the existing school boundary

Enrollment projections



Enrollment projections, following proposed boundary changes

No enrollment projection for Forest Hill Elementary School, as this school is recommended for closure. Students from Forest Hill Elementary School would be moved to the new K-5 consolidated school.

Forest Hill Elementary School – enrollment projections for current school boundary

- Forest Hill Elementary School has seen an overall decrease in student enrollments of approximately 8% from 2005 (146 students) to 2015 (134 students).
- As indicated by the red line, the school is operating above 80% utilization (target 136 students – hence a new mobile).
- Projections illustrate an average annual increase of approximately 3.9% between 2020 and 2026 (increasing the total number of students to between 190 and 203).
- Assuming no change in migration, projected enrollment is expected to increase to 170 students by 2026.
- Projected enrollment would increase to between 210 and 225 students, if GNB lowered the entry point of early French Immersion to grade 1 (Montgomery Street Elementary does not have this program and they would attend FHF)

Forest Hill Elementary School – enrollment projections following school boundary changes

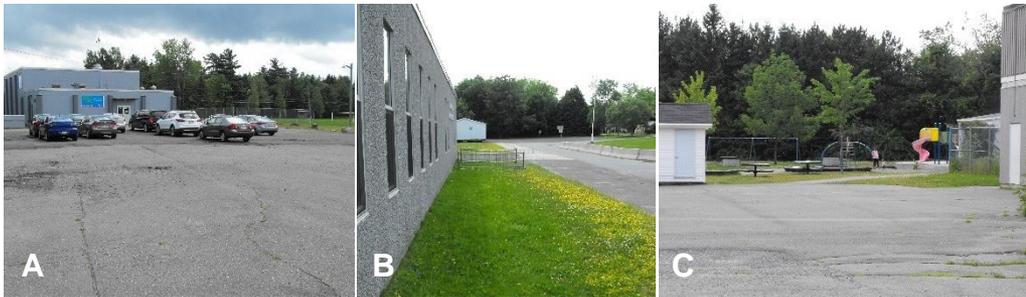
- A new K-5 school is proposed to consolidate Liverpool Street Elementary School and Forest Hill Elementary School within the existing school boundary.
- The French Immersion students that would have attended Forest Hill Elementary for French Immersion, would now be proposed to attend Priestman Street Elementary School.

Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- ◆◆◆ Target utilization (80%)

Source: EECDC Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Liverpool Street Elementary School – There is limited room for expansion on site, and a consolidated school would not be built on the existing school property



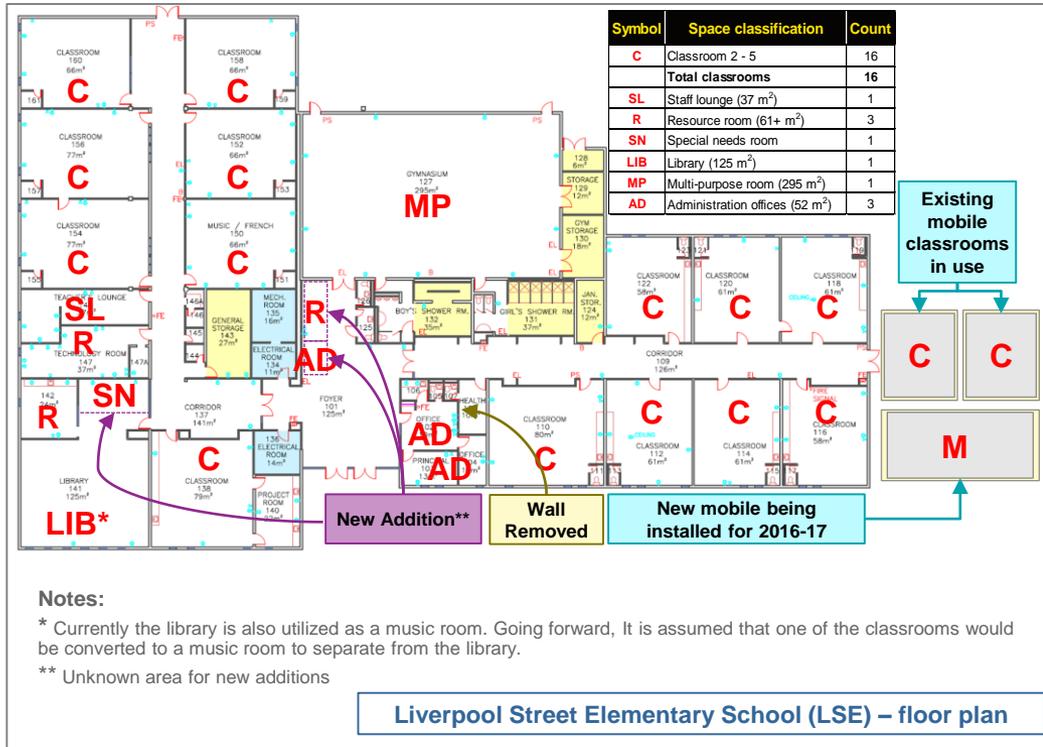
Liverpool Street Elementary School

- Liverpool Street Elementary School is located on the corner of Liverpool Street and Canterbury Drive.
- The school was originally built in 1968.
- It is a 2-5 school that is feed from Forest Hill Elementary School, located approximately 1 km away.
- Two mobile classrooms currently exist on the western wing of the school, and a new mobile classroom is being installed during the summer of 2016.
- Picture A shows the flat topography behind the school and the Boys and Girls Club across the parking lot.
- Picture B shows the walkway along the side of the school.
- Picture C shows the play area behind the school.
- The school property has limited room for expansion.

Note: The school footprint is the third largest in the South Fredericton elementary system (excluding New Maryland Elementary) at 2,434 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 4,906 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of LSE floor plan to EECD Planning Guidelines identified a shortage of education support space and \$993K in deferred maintenance



Liverpool Street Elementary School

- Site visit confirmed 16 classrooms (C), counting the 2 existing mobile classrooms.
- New mobile classroom being installed in summer 2016, assumed one of the classrooms would be required for music.
- Total deferred maintenance liability is \$993K. Maintenance items include a new ventilation system, replacement of exterior rock panels, and other various interior improvements.
- Comparison of the school floor plans to EECD Planning Guidelines found approximately 1,376 m² of notable space deficiencies (single gymnasium and cafeteria).
- Shortage of pedagogical space including early childhood development room, multi-function room, visiting professionals offices, special care rooms, and performing arts room.

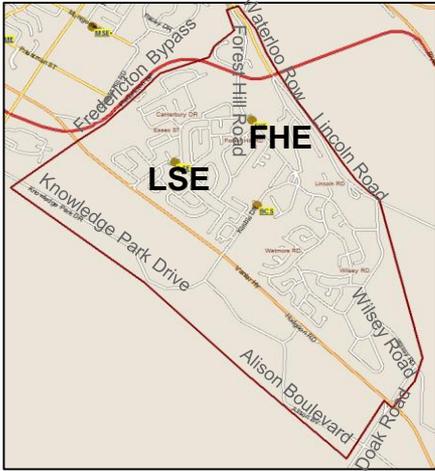
Deferred maintenance	Estimated cost
Heating and ventilation - new ventilation system	\$600,000
Building envelope - replacement of exterior rock panels with metal siding	\$200,000
Interior improvements - classroom upgrades, 18 door replacement, refinish gym floor and upgrade corridor	\$122,000
Site improvements - resurface visitor's parking lot-asphalt, bus loading zone, and repair staff parking area	\$50,000
Electrical - install 3 receptacles, clean and repair switchgear	\$20,500
Total for deferred maintenance	\$992,500

Space deficiencies compared to Planning Guidelines	Area (m ²)
Single gymnasium and ancillary spaces (1 set)	411
Cafeteria	344
Multi-function room	220
Project work area and break-out rooms	114
Early childhood development room	110
Performing arts room	110
Special care room	35
Visiting professionals and waiting area	32
Total space deficiencies compared to Planning Guidelines	1,376

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Forest Hill Elementary and Liverpool Street Elementary schools are recommended for consolidation into a new K-5 (500) school, as they share the same school boundary

Current school boundary

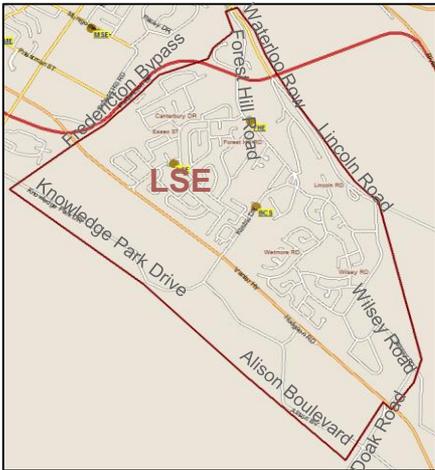


Note: Forest Hill Elementary School (K-1) is the feed school to Liverpool Street Elementary School (3-5), sharing the same school boundary

Review of Liverpool Street Elementary School – current school boundary

- The Fredericton Bypass is the northern border for both Forest Hill Elementary School (FHE) and Liverpool Street Elementary School (LSE), and it includes to the intersection of Forest Hill Road and Waterloo Row.
- Knowledge Park Drive marks the western boundary for both the schools.
- The intersection of Alison Boulevard and Doak Road marks the southern boundary for both the schools.
- Wisley Road and Lincoln Road mark the eastern boundary for both the schools.

Proposed school boundary



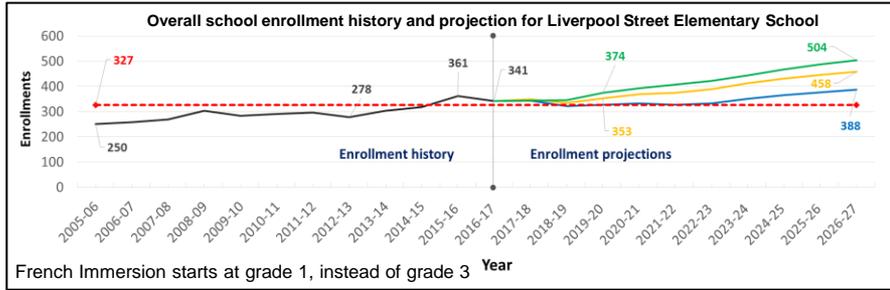
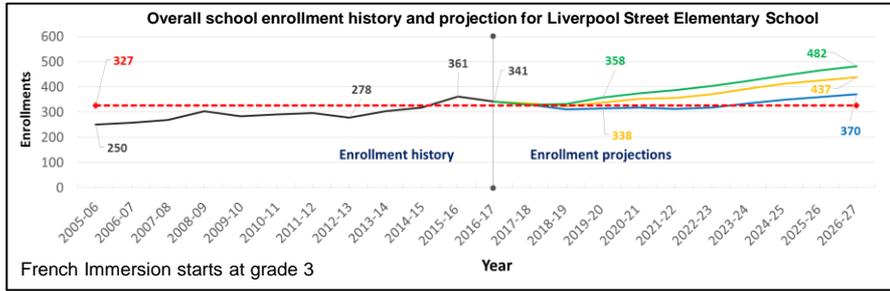
Note: New K-5 (500) school boundary would be the same as the existing school boundary that is shared by FHE and LSE.

Review of Liverpool Street Elementary School – proposed school boundary

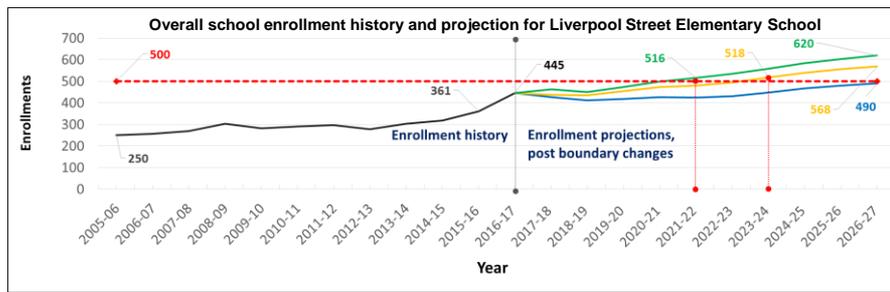
- It is proposed that a new K-5 school would replace Liverpool Street Elementary School and Forest Hill Elementary School.
- The school boundary of the proposed school would remain the same as the two schools being consolidated.
- Since FHE is already the feed school for LSE, and they share the same school boundary (schools being 1 km apart), it is not anticipated to have a significant impact on school transportation.

Enrollment for the new school is expected to surpass 80% utilization between 2021-22 and 2023-24, based on a 2% net migration and extrapolated city projections

Enrollment projections



Enrollment projections, following proposed boundary changes



Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

Target utilization (80%)

Liverpool Street Elementary School – enrollment projections for current school boundary

- Liverpool Street Elementary School has seen an overall increase in student enrollment of approximately 44% from 2005 (250 students) to 2015 (361 students).
- As indicated by the red line, the school is currently operating above 80% utilization (target of 327 students).
- Projections illustrate a slight decrease, followed by an average annual increase of approximately 3.9% – 4.8% between 2019 to 2026 (increasing the total number of students to between 437 – 482).
- Assuming no change in net migration, projected enrollment is expected to slightly increase to 370 students by 2026.
- The enrollment is expected to increase to between 458 and 504 students when GNB lowers the entry point of FI.

Liverpool Street Elementary School – enrollment projections following school boundary changes

- A new K-5 school is proposed to be located within the existing school boundary for LSE and FHE.
- The design capacity of the new school is 643 students and the functional capacity is based on the recommended size limit of 500 students in EECD Planning Guidelines at 78% utilization.
- Enrollment projections are expected to surpass the 80% utilization between 2021-22 and 2023-24, factoring in a net migration of 2% and extrapolated City of Fredericton projections.

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

New Maryland Elementary School – School property has abundant green space and students have access to outdoor sports facilities located at the Athletic Park (adjacent to the school)



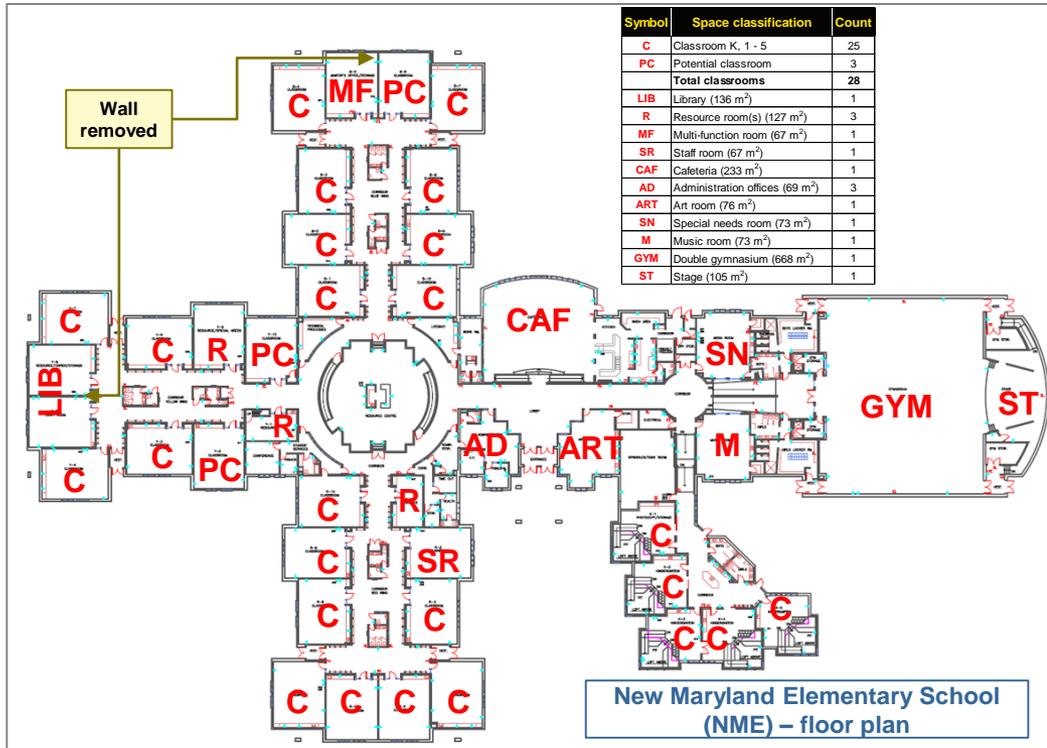
New Maryland Elementary School

- New Maryland Elementary School is located on Clover Street off of Sprucewood Drive.
- The school was originally built in 1994.
- The nearest elementary school is Priestman Street Elementary School, which is approximately 7 km away.
- The Athletic Park located beside the New Maryland Elementary School has two ball fields, a batting cage, a soccer field, two tennis courts, a skateboard park and a beach volleyball court.
- Picture A shows the flat topography behind the school.
- Picture B shows the play area located in the southern region of the school.
- Picture C shows flat topography looking towards the soccer field located in the western region of the school.
- Through a Community Use Schools agreement with the ASD-W, the school gym is open to the community on week nights and weekends.

Note: The school footprint is the third largest in the South Fredericton elementary system at 6,370 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 6,909 m².

Source: Google Maps site visit, EECD Planning Guidelines for Educational Facilities, GeoNB Viewer: <http://geonb.snb.ca/geonb/>, and Village of New Maryland web page: <https://www.vonm.ca/recreation/recreationfacilities/>

Comparison of NME floor plan to EECD Planning Guidelines identified an early childhood and multi-purpose room as space deficiencies and there is \$47K in deferred maintenance



New Maryland Elementary School

- Site visit confirmed 25 classrooms (C), and 3 potential classrooms (PC).
- Total deferred maintenance liability for New Maryland Elementary School was \$47K.
- Deferred maintenance included upgrade of thermostats and controls, as well as new floor in kindergarten classrooms.
- Comparison of the school floor plans to EECD Planning Guidelines found approximately 421 m² of notable space deficiencies (Multi-purpose room and early childhood development room).

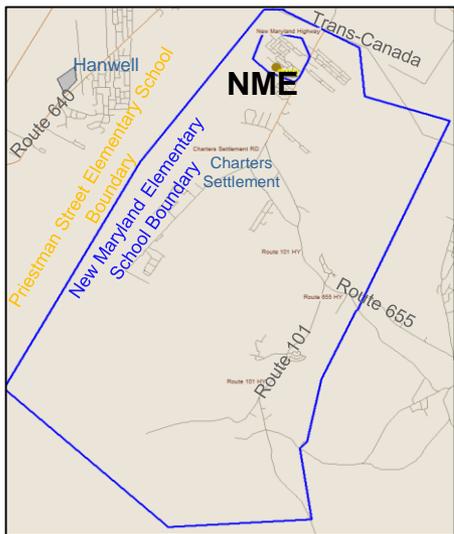
Deferred maintenance	Estimated cost
Heating and ventilation - upgrade thermostat and controls (EMCS)	\$27,000
Interior improvements - install new flooring in the K classrooms	\$20,000
Total for deferred maintenance	\$47,000

Space deficiencies compared to Planning Guidelines	Area (m ²)
Multi-purpose room and ancillary space (1 set)	311
Early childhood development room	110
Total space deficiencies compared to Planning Guidelines	421

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

There are no proposed changes to the New Maryland Elementary school boundary

Current school boundary



Legend

- NME walking area
- NME school boundary

Review of New Maryland Elementary School – current school boundary

- The Trans-Canada Highway is the northern border for New Maryland Elementary School (NME).
- Route 655 and 101 Highway mark the boundary limits for the school to the south and east.
- The western school boundary is with that of Priestman Street Elementary and they are divided by the space between the communities of Hanwell and New Maryland.

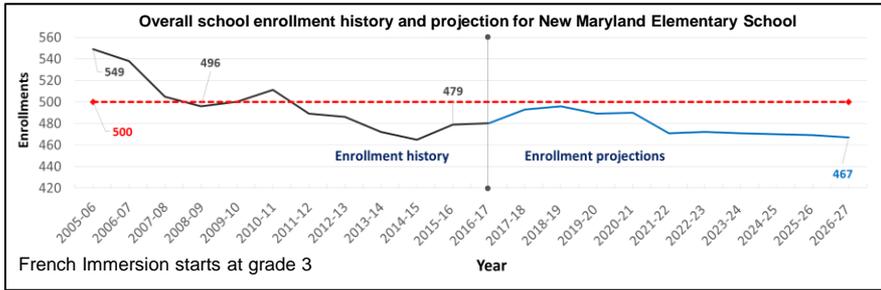
Proposed school boundary

No proposed changes to school boundary

Source: ASD-W school transportation software - Versatrans.

There are no proposed school boundary changes that would affect enrollment projections at New Maryland Elementary School and population projections are trending downwards

Enrollment projections



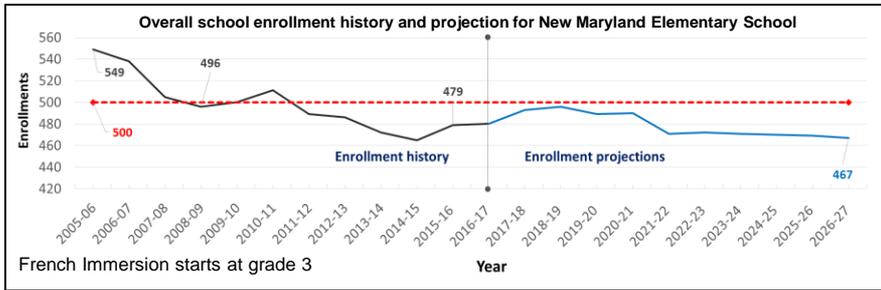
Enrollment projections if GNB changes the French Immersion entry point

No change in net students with the current school boundary, if GNB lowered the entry point of early French Immersion to Grade 1. However, this would change the classroom distribution within the school.

New Maryland Elementary School – enrollment projections for current school boundary

- New Maryland Elementary School has seen an overall decrease in student enrollment of approximately 13%, from 2005 (549 students) to 2015 (479 students).
- As indicated by the red line, the school has been operating below 80% utilization (target 500 students).
- Projections illustrate an increase in student population from 2016 to 2018, followed by a decrease projected to 2026 (number of students estimated to be 467 students).
- The total number of projected enrollments is expected to remain the same if GNB lowered the entry point of early French Immersion to grade 1.

Enrollment projections, following proposed boundary changes



New Maryland Elementary School – enrollment projections following school boundary changes

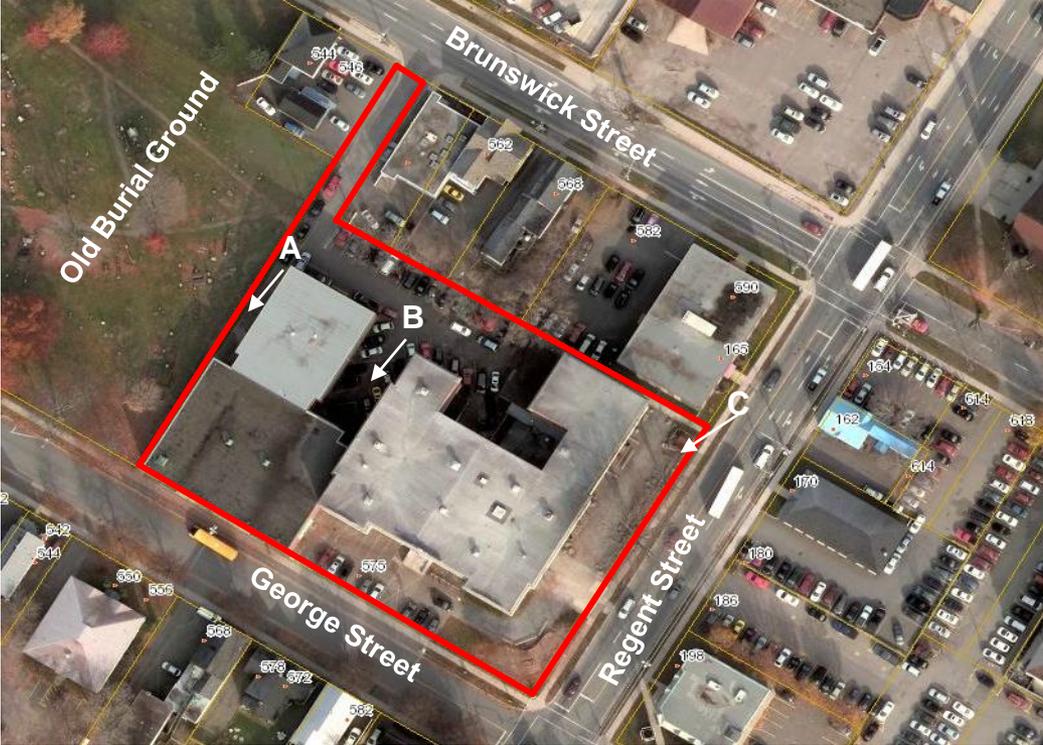
- There are no proposed school boundary changes that would affect the New Maryland Elementary enrollment projections.
- Population projections from the City of Fredericton indicate that New Maryland is expected to drop from 4,223 people in 2011 to 3,976 people by 2026. By 2041, the population is projected to be 3,611.

Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- ◆◆◆ Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

George Street Middle School is located in the downtown core, with no potential for expansion on the site and there is no green space on the school property



George Street Middle School

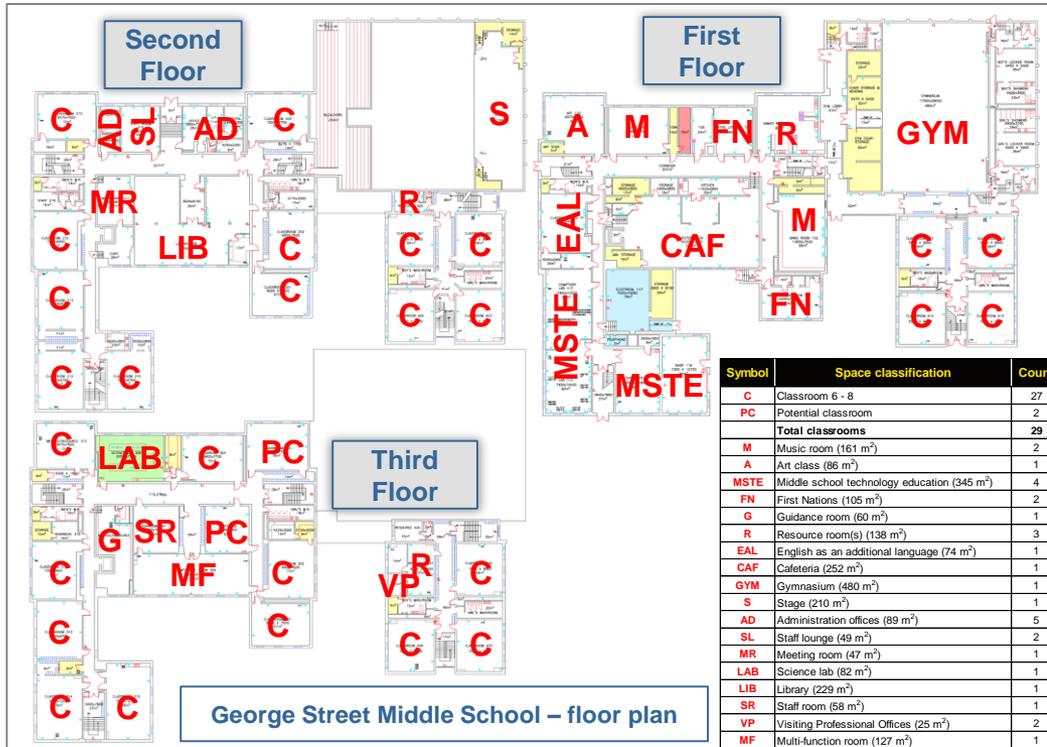
- George Street Middle School is located on the corner of George Street and Regent Street.
- The school was originally built in 1924, and it was a high school at that time.
- Bliss Carman is the other middle school on the south side of Fredericton, and it is approximately 5.2 km away.
- Located in the downtown core, George Street has no expansion potential. The school has no green space on the property.
- Picture A shows that the middle school is situated adjacent to the Old Burial Ground with only a narrow walkway between.
- Picture B shows there is limited parking on school property, and it is congested.
- Picture C shows a small outdoor play area located towards the eastern region of the school.

Note: The school footprint is larger than Bliss Carman Middle School at 8,272 m². For comparison, a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 9,194 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.



Comparison of GSM floor plan to EECD Planning Guidelines identified a shortage of pedagogical space and there is approximately \$3.6M in deferred maintenance



George Street Middle School

- Site visit confirmed 27 classrooms (C) and 2 potential classrooms (PC).
- Total deferred maintenance liability is \$3.6M. Maintenance items include new ventilation system (56% of total) and accessibility upgrades (14% of total).
- Comparison of the school floor plans to EECD Planning Guidelines found approximately 641 m² of notable space deficiencies (the current gym of 480 m² is near to the size of a single gym, however, the school should actually have a double gym – 821 m², and a multi-purpose room).
- Shortage of pedagogical space including performing arts room, a second art room, multi-function room and offices for visiting professionals.

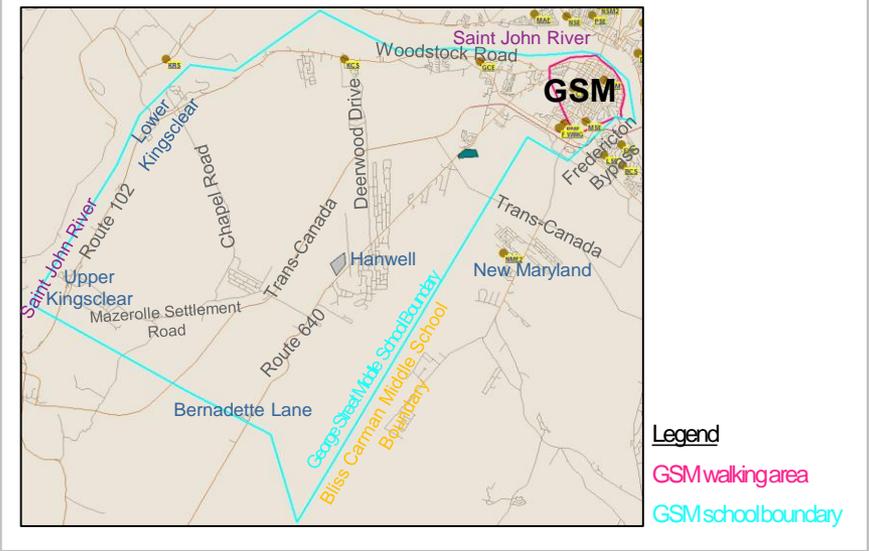
Deferred maintenance	Estimated cost
Heating and ventilation - new ventilation system	\$2,035,000
Interior and exterior accessibility - install two elevators and ramp	\$520,000
Interior alterations and renovations - upgrades to the classrooms, hallways and stairs, washrooms, ceiling and doors	\$406,000
Electrical - upgrade all interior lightening, install three new receptacles per classroom, and clean and repair switchgear	\$300,000
Building envelope - upgrade roof #3, reseal windows and masonry repairs	\$222,000
Site improvement - various site work, and parking lot repaving	\$120,000
Total for deferred maintenance	\$3,603,000

Space deficiencies compared to Planning Guidelines	Area (m ²)
Multi-purpose room and ancillary space (1 set)	311
Performing arts room	110
Art room (second)	110
Multi-function room (second)	110
Total space deficiencies compared to Planning Guidelines	641

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Scenario 1 (New K-5 in Hanwell): No school boundary changes are recommended for George Street Middle School

Current school boundary



Review of George Street Middle School – current school boundary

- The Saint John River marks the northern and western boundary for George Street Middle School (GSM).
- The school boundary is a large and stretching one from the downtown core, along Woodstock Road/Route 102 to Upper Kingsclear, Mazerolle Settlement Road and back to the city following Route 640 through Hanwell.
- The eastern school boundary is shared with that of Bliss Carman Middle School and they are divided by the space between the communities of Hanwell and New Maryland, until the Fredericton Bypass is used.

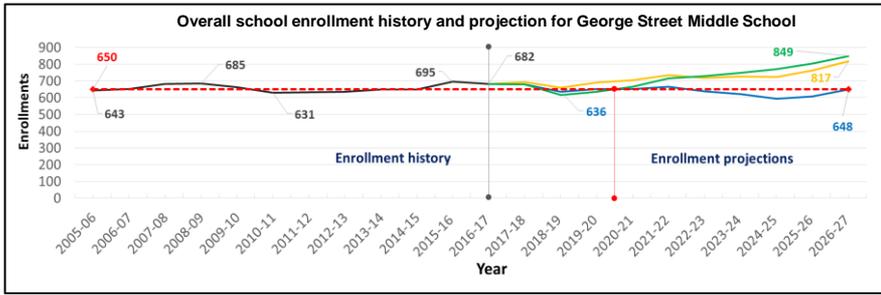
Proposed school boundary

No proposed changes to school boundary

Source: ASD-W school transportation software - Versatrans.

Scenario 1 (New K-5 in Hanwell): Enrollment projections at George Street Middle School would not be affected, as there is no proposed changes to the school boundary

Enrollment projections



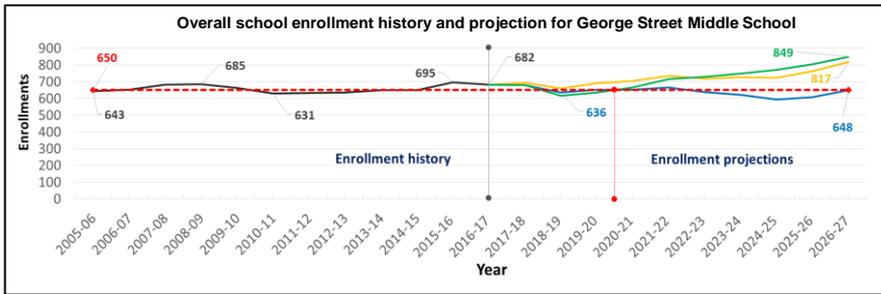
Enrollment projections if GNB changes the French Immersion entry point

Not applicable as George Street Middle School is a 6-8 school

George Street Middle School – enrollment projections for current school boundary

- George Street Middle School has seen an overall increase in student enrollment of approximately 8% from 2005 (643 students) to 2015 (695 students).
- As indicated by the red line, the school is operating above 80% utilization (650 students) based on the current classroom configuration of the school.
- Projections illustrate there would be an increase in enrollments from 2018 to 2026 (increasing the number of students to between 817 and 849).
- Assuming no change in net migration, projected enrollment is expected to increase to 648 (or remain at 80% utilization for the next ten years).

Enrollment projections, following proposed boundary changes



George Street Middle School – enrollment projections following school boundary changes

- With the new K-5 Hanwell option (scenario 1), there are no proposed boundary changes to the George Street Middle school boundary, and enrollment projections would not be affected.
- The K-5 scenario does not add any middle school capacity to the South Fredericton system, and projections indicate enrollments would reach well above 80% utilization.

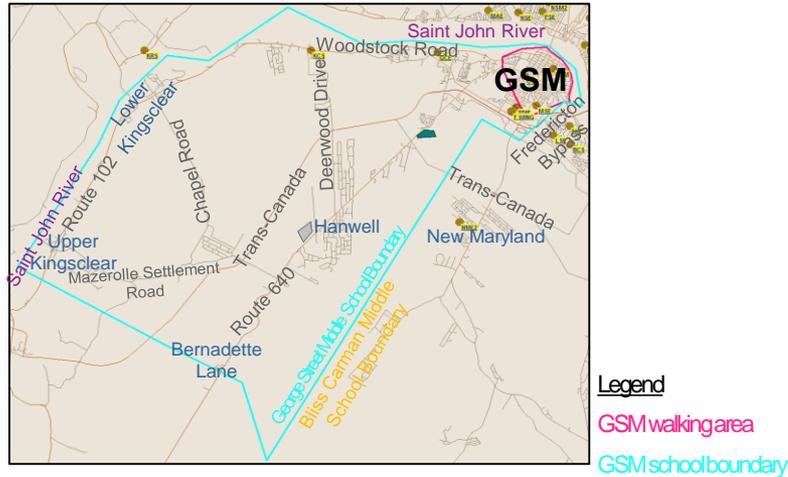
Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- ◆◆◆ Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Scenario 2 (New K-8 in Hanwell): Majority of the rural area in boundary for George Street Middle would now be included in the new K-8 school, with boundary starting at Trans-Canada

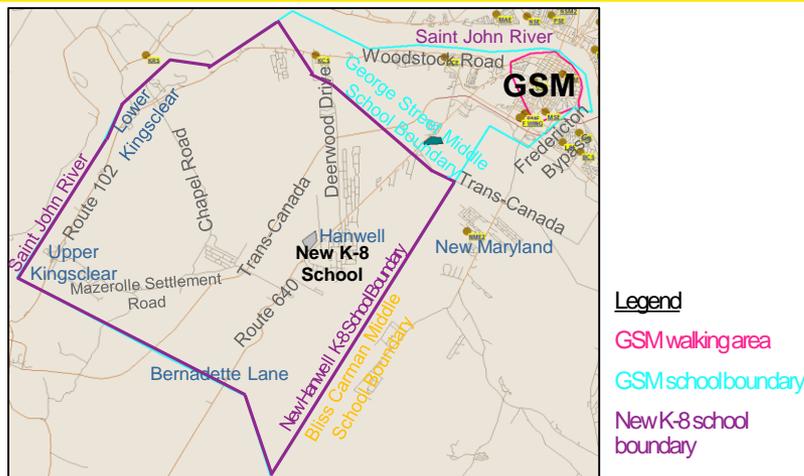
Current school boundary



Review of George Street Middle School – current school boundary

- The Saint John River marks the northern and western boundary for George Street Middle School (GSM).
- The school boundary is a large and stretching one from the downtown core, along Woodstock Road/Route 102 to Upper Kingsclear, Mazerolle Settlement Road and back to the city following Route 640 through Hanwell.
- The eastern school boundary is shared with that of Bliss Carman Middle School and they are divided by the space between the communities of Hanwell and New Maryland, until the Fredericton Bypass is used.

Proposed school boundary

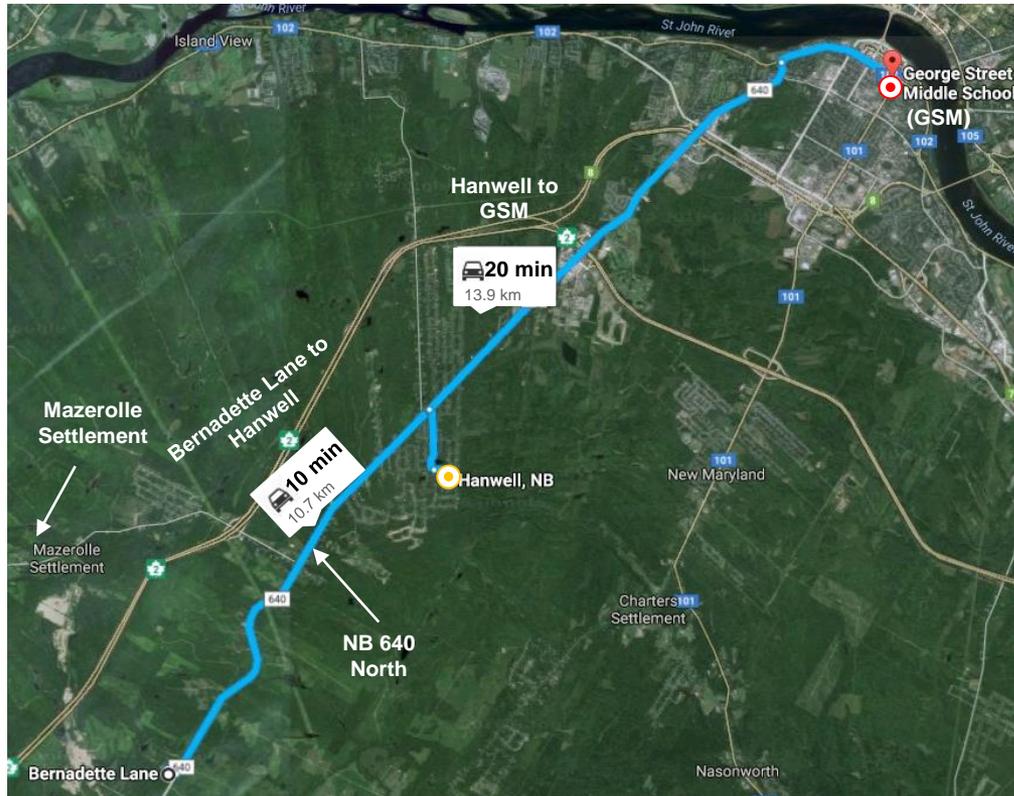


Review of George Street Middle School – proposed school boundary

- The Majority of the rural area would be included in the new K-8 school proposed in the Hanwell area.
- In the proposed K-8 scenario, the northwest boundary would start from the intersection Woodstock Road and Carriage Hill Drive, and then follow route 102 to Upper Kingsclear, Mazerolle Settlement Road and back towards the city following Route 640 through Hanwell.
- The school boundary between George Street and the new school would start at the Tran-Canada Highway, and extend back up through Deerwood Drive to Woodstock Road.
- The Fredericton Bypass would remain the other boundary.

Source: ASD-W school transportation software - Versatrans.

Scenario 2 (New K-8 school in Hanwell): Proposed school boundary changes would reduce the commute time for middle school students attending the K-8 new school



Impact of proposed school boundary changes to students in the new K-8

Bernadette Lane to George Street

- Bernadette Lane to George Street Middle via NB-640 North is approximately 24.7 km (30 minutes when no stops).
- Bernadette Lane to proposed new school in Hanwell via NB-640 North is approximately 10.7 km (10 minutes when no stops).
- This would reduce the bus trip by approximately 10.8 km.

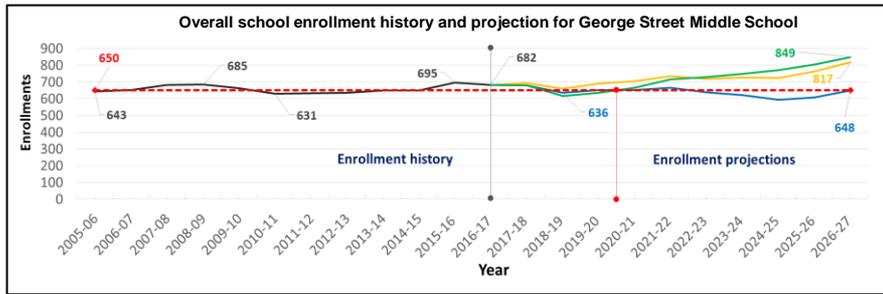
Hanwell to George Street

- Hanwell to George Street Middle School via NB-640 North is approximately 13.9 km (20 minutes when no stops).
- In a report made earlier this year to the DEC by a Hanwell community group, it was noted that in many cases, students can ride over an hour on the bus due to the amount of stops and traffic.
- A new school in the Hanwell area would reduce both travel time and mileage into the city.

Note: For estimation purposes only, actual distance and time would depend on where the proposed Hanwell school is sited.

Scenario 2 (New K-8 school): George Street Middle School enrollment projections would decrease below 80% utilization for the next 10 years after the new K-8 school is built

Enrollment projections



Enrollment projections if GNB changes the French Immersion entry point

Not applicable as George Street Middle School is a 6-8 school

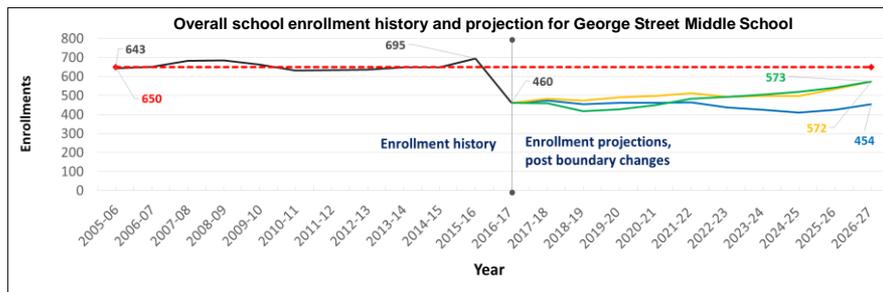
George Street Middle School – enrollment projections for current school boundary

- George Street Middle School has seen an overall increase in student enrollment of approximately 8% from 2005 (643 students) to 2015 (695 students).
- As indicated by the red line, the school is operating above 80% utilization (650 students) based on the current classroom configuration of the school.
- Projections illustrate there would be an increase in enrollments from 2018 to 2026 (increasing the number of students to between 817 and 849).
- Assuming no change in net migration, projected enrollment is expected to increase to 648 (or remain at 80% utilization for the next ten years).

George Street Middle School – enrollment projections following school boundary changes

- Enrollment at George Street Middle School would decrease as students transition to the new K-8 school located in the Hanwell area, resulting in the total number of students reaching 572 by 2026-27.
- All three enrollment projections are forecasted to remain 80% utilization (650 students) for the next ten years after the construction of the new K-8.

Enrollment projections, following proposed boundary changes



Legend

- Projected historical enrollments with 2% net migration
- Extrapolated from the City of Fredericton's projections
- Historical enrollments
- Projected historical enrollments
- Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015)

Students at Bliss Carman Middle School have access to outdoor sports facilities located outside the school and at Kimble Sports Field (adjacent to the school)



Bliss Carman Middle School

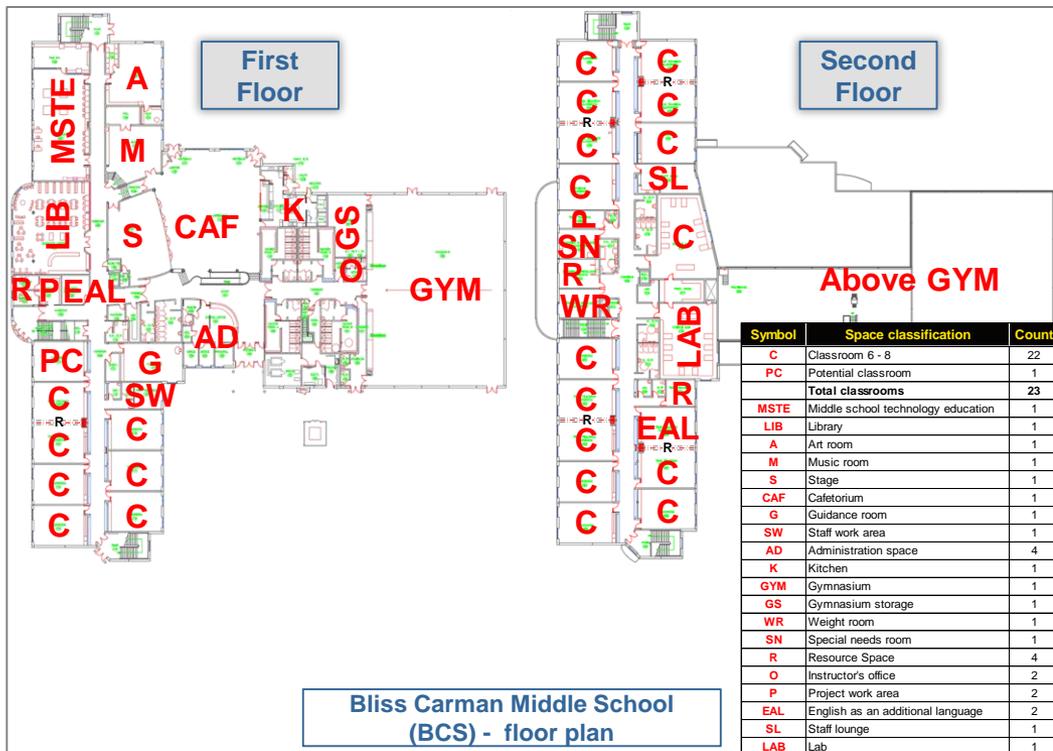
- Bliss Carman Middle School is located on Kimble Drive off of Forest Hill Road.
- The school was originally built in 2009.
- George Street Middle School is the other middle school on the south side of Fredericton, and it is approximately 5.2 km away.
- Kimble Sports Field is located adjacent to the middle school, and it has a soccer field, four tennis courts, a ball field and a skateboard park.
- Picture A shows the flat topography and the basketball courts located towards the southern region of the school.
- Picture B is the drop-off area located in the front of the school.
- Picture C is looking towards the soccer field on the southern region of the school.



Note: The school footprint is smaller than George Street Middle School at 7,284 m². For comparison: a replacement school built to current EECD Planning Guidelines (for the same number of students) would be approximately 8,190 m².

Source: Google Maps and GeoNB Viewer: <http://geonb.snb.ca/geonb/>, site visit and EECD Planning Guidelines for Educational Facilities.

Comparison of BCS floor plan to EECD Planning Guidelines identified space deficiencies including multi-function and multi-purpose rooms, with no deferred maintenance noted



Bliss Carman Middle School

- Site visit confirmed there are 22 classrooms (C), and 1 potential classroom (PC).
- There was no deferred maintenance noted for Bliss Carman Middle School.
- Comparison of the school floor plans to EECD Planning Guidelines found approximately 774 m² of notable space deficiencies (multi-purpose room with ancillary space).
- Pedagogical space deficiencies included multi-function rooms, second art room, performing arts room and office space for visiting professionals.

Note: There is no deferred maintenance noted in the School Physical Plant Status Report for Deferred Maintenance.

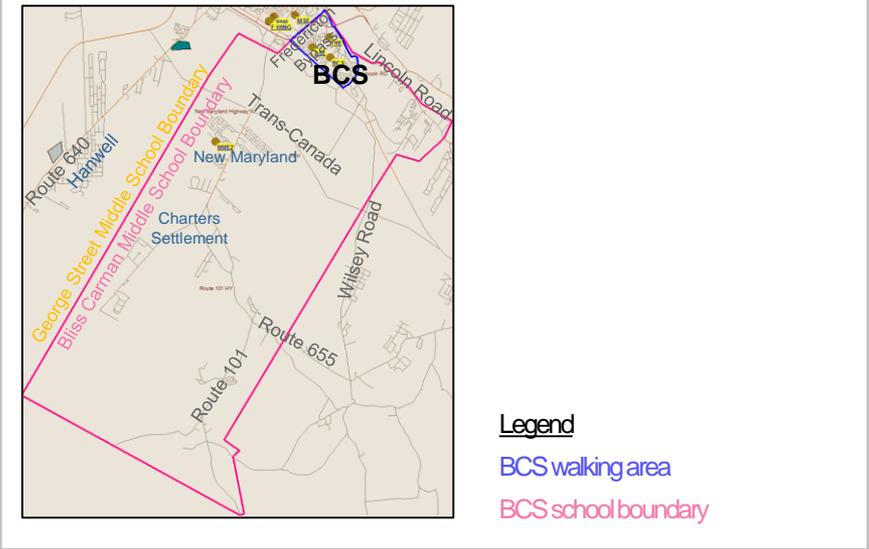
* EECD School drawings provided for Bliss Carman Middle School did not have any dimensions. EECD Planning Guidelines for Educational Facilities were used to calculate approximate space deficiencies.

Source: EECD school drawings with site visit, EECD Planning Guidelines for Educational Facilities, and School Physical Plant Status report for Deferred Maintenance.

Space deficiencies compared to Planning Guidelines	Area (m ²)
Multi-purpose room and ancillary space (1 set)	311
Multi-function room (two)	220
Art room (second)	110
Performing arts room	110
Visiting professionals office, and waiting area	23
Total space deficiencies compared to Planning Guidelines	774

No boundary changes are recommended for Bliss Carman Middle School

Current school boundary



Review of Bliss Carman Middle School – current school boundary

- The western school boundary is shared with that of George Street Middle School and they are divided by the space between the communities of Hanwell and New Maryland, until the Fredericton Bypass is used.
- Lincoln Road marks the northern boundary for Bliss Carman Middle School (BCS).
- Route 655 and 101 Highway mark the southern and eastern boundary limits for BCS.

Proposed school boundary

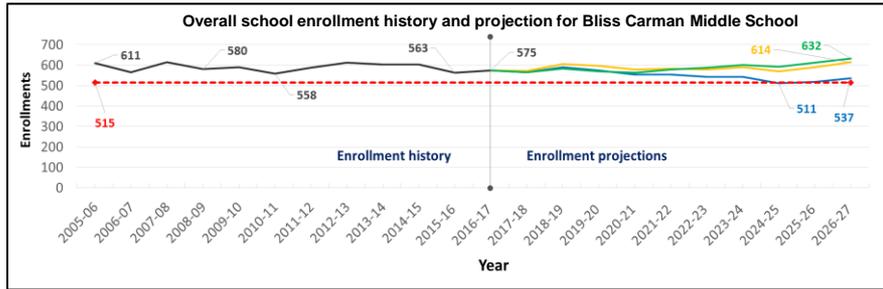
No change to school boundary

Source: ASD-W school transportation software - Versatrans.



There are no school boundary changes proposed for BCS, therefore enrollment projections are the same before and after for both scenarios

Enrollment projections



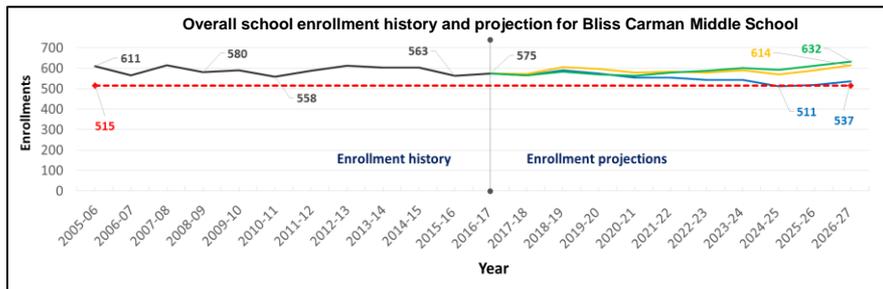
Enrollment projections if GNB changes the French Immersion entry point

Not applicable as George Street Middle School is a 6-8 school

Bliss Carman Middle School – enrollment projections for current school boundary

- Bliss Carman Middle School replaced Albert Street Middle School in 2009-10.
- The school has seen an overall decrease in student enrollment of approximately 8% from 2005 (611 students) to 2015 (563 students).
- As indicated by the red line, the school is operating above 80% utilization (515 students) based on the current classroom configuration of the school.
- Projections illustrate a steady increase in enrollment, with the total number of students reaching between 614 and 632 students in 2026 (at or slightly above 2005 enrollment).
- Assuming no change in net migration, projected enrollment is expected to decrease to 537 by 2027.

Enrollment projections, following proposed boundary changes



Bliss Carman Middle School – enrollment projections following school boundary changes

- With either the new K-5 or K-8 options (scenarios 1 and 2), there are no proposed boundary changes to the BCS and enrollment projections would not be affected.
- A portion of Bliss Carman's school boundary includes New Maryland Elementary. The City of Fredericton's data shows the New Maryland population projections are expected to decrease. Therefore, George Street Middle School has a higher enrollment projection curve than BCS.

Legend

Projected historical enrollments with 2% net migration

Extrapolated from the City of Fredericton's projections

Historical enrollments

Projected historical enrollments

Target utilization (80%)

Source: EECD Policy and Planning Summary Statistics, ASD-W school transportation software - Versatrans, and City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

Appendix E – Comparison of School Space Types



Visual comparison of space types in a newer K-5 school compared to some older K-5 schools within scope

New Maryland Elementary School (K-5) School, built in 1994



Classroom

Kingsclear Consolidated School (K-5) School, built in 1950



Classroom

Forest Hill Elementary School (K-1) School, built in 1955



Classroom

Liverpool Street Elementary School (2-5) School, built in 1968



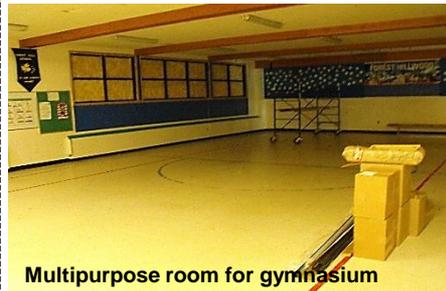
Classroom



Gymnasium



Multipurpose room for gymnasium



Multipurpose room for gymnasium



Gymnasium



Cafeteria



School entrance-no accessibility

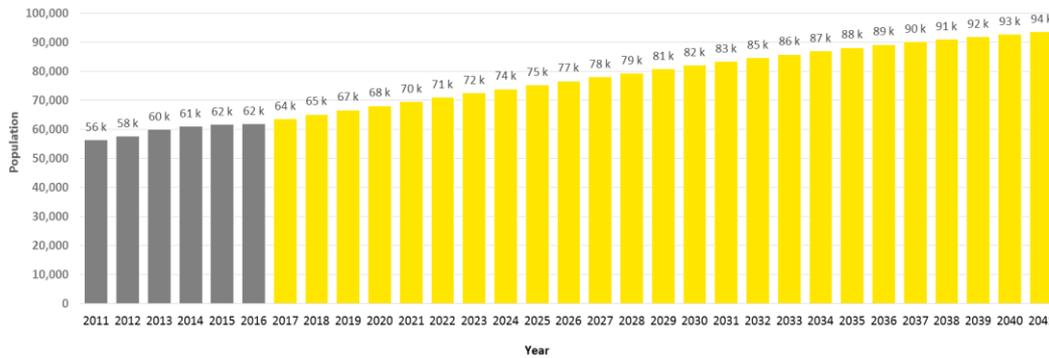
- New Maryland Elementary School is a newer school at 22 years of age. Space types such as classrooms, gymnasium and cafeteria are similar to those in EECD Planning Guidelines.
- Kingsclear Consolidated School, Forest Hill Elementary School and Liverpool Street Elementary School currently have no cafeteria.
- The multi-purpose gyms at Kingsclear Consolidated and Forest Hill Elementary are under sized to current guidelines.
- Accessibility has been identified on the deferred maintenance list for Kingsclear Consolidated and Forest Hill Elementary.

Appendix F – City of Fredericton Population Projections

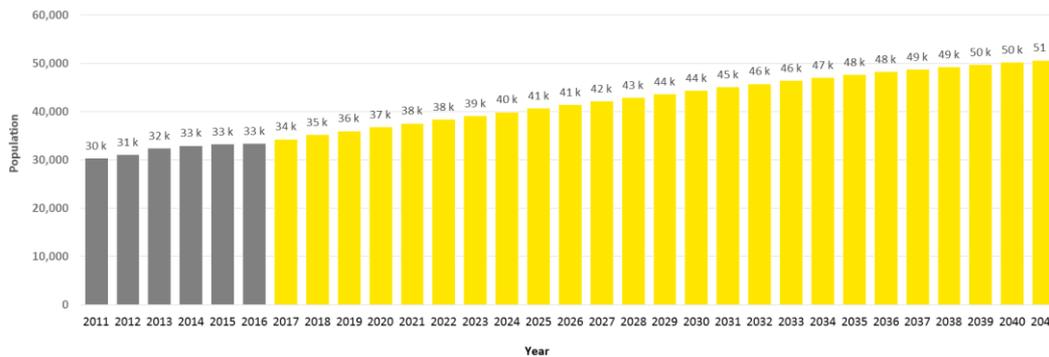


Population projections for the City of Fredericton and South Side indicate an increase year over year of approximately 1% to 2%

City of Fredericton population (historical and projection)



City of Fredericton - South zone population (historical and projection)



City of Fredericton population

- Population projection data was obtained from the City of Fredericton in the report entitled “Economic and Demographic Potential: Fredericton, New Brunswick – July 2015”.
- As indicated in the first chart, the overall Fredericton city population is projected to increase from 61,774 in 2016 to 93,559 in 2041. The population is expected to grow at a rate of approximately 1% to 2% year over year.
- The South Side population is expected to increase from 33,429 in 2016 to 50,694 in 2041. The average rate of population increase is approximately 2%.
- The city had a consultant who prepared the original report on city demographics prepare an extrapolated projection for the South Side.
- The South Side projections then had to be extrapolated to the Fredericton South Elementary school boundaries.

Legend



Historical population



Population projections

Source: City of Fredericton Growth and Community Services (Projections from Economic and Demographic Potential: Fredericton, New Brunswick by Strategic Projections Inc. July 2015).

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