
4. ASSESSMENT OF LONG TERM CAPITAL NEEDS BY AREA

4. ASSESSMENT OF LONG TERM CAPITAL NEEDS BY AREA

4.1 Overview

The following chapter describes, for each elementary and secondary review area, the Board's existing capital asset inventory of operating schools (year opened, facility size, site size, on-the-ground capacity, number of portables, etc.), projected enrolment (based on average daily enrolment) for each school and how facility renewal needs are expected to change over the 2007/08 to 2020/21 time period.

For each review area, information is provided in respect of:

- Age of facilities compared to Board-wide averages, site sizes for each facility and comparison to panel totals, facility size for each school and comparison to panel totals, permanent and temporary capacity of each school and comparison to panel totals;
- Demographic and enrolment perspectives for each review area, indicating change in Census population 1996, 2001 and 2006; the change in the pre-school and school-age population per household (i.e. the number of households may be increasing, but the number of school-age children per household may be decreasing);
- The change in the number of students entering the school system at the elementary level, versus the number of students graduating from elementary school (i.e. the Grade Structure Ratio);
- The share of English language enrolment between the HPEDSB and the ALCDSB (i.e. apportionment), shown on a historical basis in order to provide perspectives on how the population cohorts are moving through the system and how this is likely to affect future enrolment;
- Projected enrolment from 2007/08 to 2020/21;

- Facility utilization – that is, student enrolment versus the number of bricks and mortar (i.e. permanent) spaces, both in 2007/08 and 2020/21;
- The condition of each school facility today (known as the “deferred backlog” – that is, facility renewal needs that have not been addressed due to lack of funding) and how this is expected to change (based on the RECAPP assessment data and updated by Board staff) by 2016/17 and by 2021/22. As well, a facility renewal condition index (i.e. total cumulative facility renewal costs divided into the facility replacement costs (where the replacement standards are consistent with the original construction standards) is calculated for each school facility in 2016/17 and 2021/22;
- Facility renewal index (i.e. needs) on a per pupil basis (i.e. based on projected enrolment), or FRIPP. This information indicates how quickly the gap between renewal expenditure needs and projected enrolment is growing for each school facility

Finally, program and facility recommendations are summarized for each school at the end of each subsection.

4.3 Review Area PE02 – Bayside School Group (easterly portion of the City of Quinte West, Township of Stirling-Rawdon)

Overview:

Bayside Group Review Area encompasses a portion of the City of Quinte West that is situated east of CFB Trenton, as well as portions of the Township of Stirling-Rawdon. This area is served by five (5) elementary schools.

Bayside PS (JK-8, FI 4-8) is located east of the CFB Trenton and west of Belleville. It is adjacent to Bayside SS as a complex of 3 buildings and has program links to Bayside SS.

Frankford PS (JK-8) is located in the Town of Frankford, 10km north of Trenton. It services the western portion of the former Township of Sidney North of Hwy 401.

Three schools in Stirling, Stirling Primary PS (JK-2), Stirling Junior (2-5), and Stirling Senior (6-8), have a catchment area that comprises of the southern portion of the Township of Stirling-Rawdon and the north-easterly portion of the former Township of Sidney.

There are approximately 700 new residential dwelling units anticipated to be constructed in this review area between 2007/08 and 2020/21. The majority of these units are anticipated to be constructed in close proximity to Bayside PS.

Existing School Facility Inventory:

There is only one elementary school in this review area that is younger (Stirling Senior, 35 years) than the average age of the inventory of schools. The average age of schools in this area is 68 years. For the forty-seven Board-owned properties that are current operating elementary schools, the average site size is 7.93 acres, which is a combination of urban serviced sites generally in the range of 4.0 to 7.0 acres, and a number of rural serviced sites (i.e. municipal water only or full communal services) in the range of 12.0 to 37.0 acres. The average site size in Review Area PE02 is 14.4 acres, which is typical of a mix of rural serviced sites. The average On-the-Ground (OTG) capacity of the elementary schools in the review area is 281.0 pupil places.

The following sets out key facility attributes consistent with information filed by the Board, and with the Ministry of Education.

School Name/Program	SFIS #	Year Constructed	Site Size (acres)	Facility Size (sq m)	2007-08 OTG	# of Portables
East of CFB Trenton						
Bayside PS (JK-8) R.R.#2, Belleville	2135	1912	18.6	2,954	400.0	0
Northern part of Quinte West and Part of Stirling-Rawdon Township						
Frankford PS (JK-8) P.O. Box 300, Frankford	850	1923	6.6	3,580	409.0	0
Stirling Primary School (JK-2) P.O. Box 69, Stirling	2241	1950	5.6	1,720	184.0	0
Stirling Junior PS (2-5) P.O. Box 69, Stirling	2242	1937	3.4	2,443	217.0	3
Stirling Senior PS (6-8) P.O. Box 69, Stirling	2243	1972	37.8	2,358	196.0	3
Review Area Totals or Average		68 years	72.0	13,055	1,406.0	6
Board Jurisdiction (Elementary) Totals or Average		50 years	379.7	121,604.5	12,766.0	36

Demographic and Enrolment Perspectives:

The following table compares the pre-school and school age population data from Statistics Canada between 1996-2001 and 2001-2006 Census periods, illustrating the changing trends which will impact future enrolment growth for this Review Area. The pre-school age population (ages 0-3) declined by 158 persons between 1996 and 2001, but increased by 23 persons or 3.0% between 2001 and 2006. The elementary school age population (ages 4-13) has also decreased by 227 persons from 1996 to 2001 and between 2001 and 2006 the elementary school age population decreased by another 15.2% or 362 persons. The secondary school age population (ages 14-17) has increased by 11 and 55 persons in the Census periods 1996 through 2006.

Actual Population – PE02

Review Area	Census Period			1996 - 2001 Change		2001 - 2006 Change	
	1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
Pre-school Age (0-3)	902	744	767	-158	-17.5%	23	3.1%
Elementary Age (4-13)	2,976	2,749	2,387	-227	-7.6%	-362	-13.2%
Secondary Age (14-17)	1,218	1,229	1,284	11	0.9%	55	4.5%
Total	5,095	4,722	4,438	-374	-7.3%	-284	-6.0%

Source: Statistics Canada 1991, 1996, 2001, 2006 Census Profile Data & Single Year of Age Population Data

Note: 2006 population figures do not include Census undercount

Number of Occupied Households – PE02

Number of Occupied Households			1996 - 2001 Change		2001 - 2006 Change	
1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
7,335	7,435	7,809	101	1.4%	374	5.0%

Population per Household (Population/Number of Occupied Households) – PE02

Review Area	Census Period			1996 - 2001 Change		2001 - 2006 Change	
	1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
Pre-school Age (0-3)	0.123	0.100	0.098	-0.023	-18.6%	-0.002	-1.8%
Elementary Age (4-13)	0.406	0.370	0.306	-0.036	-8.9%	-0.064	-17.3%
Secondary Age (14-17)	0.166	0.165	0.164	-0.001	-0.5%	-0.001	-0.5%
Total	0.695	0.635	0.568	-0.060	-8.6%	-0.067	-10.5%

Note: Figures may not add precisely due to rounding.

The above table calculates the school age population per household. Analysis of the school age population by household indicates that during the 1996 to 2001 Census period, the pre-school age population per household within the Bayside School Group Review Area exhibited an 18.6% decline. The elementary population per household experienced a 17.3% decline and there was a 0.5% decrease in the number of 14-17 year olds per household during 2001 to 2006. The decline in the number of pre-school age children is clearly a lead indicator of future enrolment trends for the education service providers in this Review Area. Approximately 475 new dwelling units were added to the number of occupied households between 1996 and 2006, wherein the pre-school age population decreased by 135 persons during the same period.

Historical Enrolment and Grade Structure (GSR):

The following table summarizes elementary enrolment by grade, between 2001/02 and 2006/07, and for Review Area PE02. Further, the table indicates the change in enrolment by grade, both in absolute numbers and in terms of percentage change. During this time period this Review Area has 290 fewer elementary pupils in 2006/07 than in 2001/02 or a decline of 19.9%.

The change in Grade Structure Ratio (GSR) is shown for each year between 2001/02 and 2006/07. GSR measures the number of pupils entering the elementary system (JK-1) versus the number leaving the elementary system (Grades 6-8). A ratio of 1.5 is indicative of an equal number of pupils entering the system as those leaving the system (i.e. when the information is expressed as average daily enrolment). Further, a ratio of 1.5 in each year is an indicator of stable enrolment, whereas a value greater than 1.5 is indicative of increasing decline in enrolment. The Bayside School Group shows the GSR is increasing by 3.8% between 2001/02 and 2006/07 which indicates the number of pupils in Grade 6-8 who are leaving the elementary system are increasing at a faster rate than the number of JK-1 pupils who are entering the system.

	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	Change	% Change
JK	62	59	57	62	54	61	-1	-1.6%
SK	68	68	63	60	68	55	-13	-19.1%
1	171	147	154	135	126	140	-31	-18.1%
2	169	173	149	142	136	124	-45	-26.6%
3	140	172	185	143	147	142	2	1.4%
4	236	171	191	219	149	167	-69	-29.2%
5	206	234	179	193	216	155	-51	-24.8%
6	234	215	234	182	194	216	-18	-7.7%
7	242	269	246	252	184	209	-33	-13.7%
8	220	241	263	241	243	189	-31	-14.1%
Total	1,748	1,749	1,721	1,629	1,517	1,458	-290	-19.9%
GSR	2.31	2.65	2.72	2.64	2.50	2.40	0.09	3.8%

Apportionment (HPEDSB AND ALCDSB):

The apportionment (i.e. the share of enrolment that each board receives) of historical elementary enrolment (expressed as average daily enrolment) between the HPEDSB and the co-terminous English language board ALCDSB, and in Review Area PE02, is shown below. The information is based on where pupils attend school, rather than where they reside, but it does indicate that the Board's share of elementary enrolment has fallen by 2.3% since 2001/02, and now accounts for approximately 88% of the total enrolment. Changes in apportionment can have a significant impact on Board enrolment.

	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007
HPEDSB Share	90.8%	90.6%	90.9%	89.6%	88.4%	88.5%
ALCDSB Share	9.2%	9.4%	9.1%	10.4%	11.6%	11.6%

Projected Enrolment:

In the Bayside Group Review area, the overall enrolment is projected to decrease by approximately 17% or 238 pupils from 2007/08 1,370 to 1,132 in 2020/21.

Bayside PS is projected to see a decline of 110 pupils, north of Highway 401, Frankford PS is projected to have a decline of 59 pupils and the three Stirling schools (Stirling Primary PS, Stirling Junior School, and Stirling Senior PS) are projected to have a 11% decline or 69 pupils. There is little new development planned for the Stirling area, between 2007/08 and 2020/21 (i.e. approximately 3% of the review area total). Frankford and area makes up approximately 17% of the total anticipated residential development.

Facility Utilization:

Facility utilization represents the number of pupils (i.e. expressed as average daily enrolment (ADE)) over the number of permanent bricks and mortar spaces available to accommodate students, and expressed as the On-the-Ground capacity (i.e. OTG capacity). The following table provides information on current facility utilization and anticipated facility utilization, given projected student enrolments.

The schools servicing this area of Quinte West and parts of Stirling Rawdon Township are expected to be at a 97.4% utilization in 2007/08, but are expected to decline to 80.5% by the year 2020/21.

School Name/Program	2007/08 OTG	2007/08 ADE	% Utilization	2020/21 OTG	2020/21 ADE	% Utilization
East of CFB Trenton						
Bayside PS (JK-8)	400.0	409	102.3%	400.0	299	74.8%
Northern part of Quinte West and Part of Stirling-Rawdon Township						
Frankford PS (JK-8)	409.0	331	81.0%	409.0	272	66.4%
Stirling Primary School (JK-2)	184.0	189	102.6%	184.0	179	97.3%
Stirling Junior PS (2-5)	217.0	215	99.1%	217.0	186	85.7%
Stirling Senior PS (6-8)	196.0	226	115.3%	196.0	196	100.0%
Review Area Totals:	1,406.0	1,370	97.4%	1,406.0	1,132	80.5%
Board (Elementary) Totals:	12,766.0	10,208	79.9%	12,766.0	9,858	77.2%

By 2020/21 it is expected that both Bayside PS and Frankford PS will fall below the 80% utilization threshold for top-up funding (i.e. top-up operations and facility renewal funding) purposes. This will impact on the Board's ability to match grant funding sources for Bayside PS. Frankford PS is a designated "rural" school for funding purposes. However, the Board's ability to deal with an aging facility inventory in this review area is currently limited by the Board's facility renewal grant entitlement levels.

Facility Condition Assessment:

The following provides a summary of facility renewal needs based on a Province-wide facility condition assessment undertaken in 2000 and more recent data provided by Board staff in respect of capital investments under the Province's Stage I and Stage II facility renewal funding. Facility replacement value is based on the cost to replace the school, given the current Provincial funding benchmarks, and the lesser of the value based on facility size in square metres or the number of permanent pupil places (i.e. On-the-Ground capacity, or OTG).

The determination of existing and future facility condition is based on the assessment of facility renewal needs (e.g. roofs, windows, boilers, HVAC, plumbing, millwork, site amenities, etc.) divided into the deemed replacement value of the building.

All but one of the facilities in this review area are expected to exceed 75% of the facility replacement value within the next fourteen years.

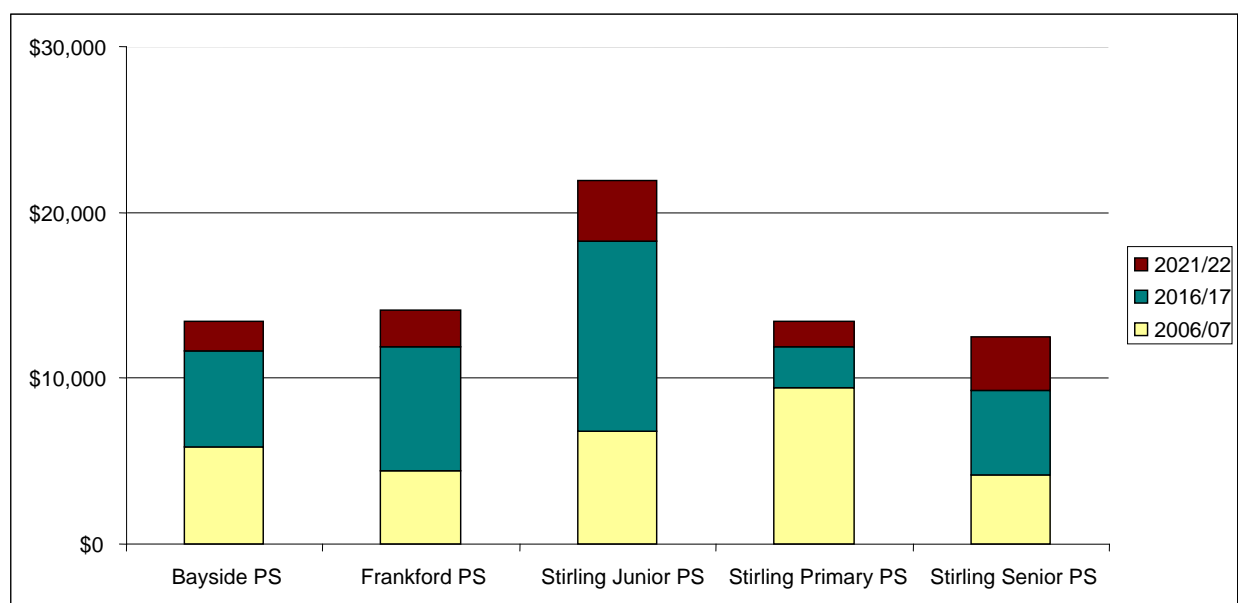
Name of School	Facility Replacement Value (lesser of sq m or OTG)	Facility Renewal Needs to 2006/07	Facility Renewal Index 2006/07	Facility Renewal Needs to 2016/17	Facility Renewal Index 2016/17	Facility Renewal Needs to 2021/22	Facility Renewal Index 2021/22
Bayside PS	\$4.90	\$2.62	53.4%	\$3.63	74.1%	\$4.01	81.8%
Frankford PS	\$5.94	\$1.56	26.3%	\$3.33	56.0%	\$3.83	64.5%
Stirling Primary School	\$2.86	\$1.31	46.0%	\$2.15	75.4%	\$2.40	84.0%
Stirling Junior PS	\$3.49	\$1.83	52.4%	\$3.43	98.1%	\$4.07	116.4%
Stirling Senior PS	\$3.16	\$1.03	32.6%	\$1.85	58.8%	\$2.44	77.4%
Review Area Totals	\$20.35	\$8.35	41.0%	\$14.40	70.8%	\$16.75	82.3%
Board (Elementary) Totals	\$191.08	\$70.42	36.9%	\$129.57	67.8%	\$152.74	79.9%

Note: All figures in millions of dollars. Totals may not add due to rounding.

Total facility renewal needs for PE02 are expected to be in the order of \$14.40 million, or 70.8% of facility replacement value by 2016/17 and \$16.75 million, or 82.3% of facility replacement value by 2021/22. Total renewal grant funding for this area amounts to \$227,259 annually, based on the existing grant funding structure and where enrolment is a consideration. The number is expected to fall to a level of \$176,546 by the Year 2021/22.

The following chart examines facility renewal needs per pupil place; that is, future renewal expenditure needs over projected enrolment (which is a key driver in a per pupil based funding environment). While FCI, or Facility Condition Index, is an indicator of the backlog of unfunded facility renewal needs, longer term capital strategies pay more attention to how quickly a school facility reaches its facility replacement value. The following chart adds one additional element and addresses the extent to which the gap between school enrolment and its facility renewal needs are growing over time. This is known as the Facility Renewal Index per Pupil Place (FRIPP).

FACILITY RENEWAL NEEDS PER PUPIL PLACE



Stirling Junior PS has the highest facility renewal needs per pupil place even though its enrolment is relatively stable with a decline of 29 pupils over the projected fourteen year period. This is due to the fact that its renewal needs are anticipated to increase by \$1.6 million between 2006/07 and 2016/17. After Stirling Junior PS, the next highest increase facility renewal needs

measured against projected enrolment is Frankford PS, followed by Stirling Primary PS, Bayside PS and lastly Stirling Senior PS.

Program and Facility Recommendations:

- Redirect Gr 7/8 pupils from Bayside PS and Frankford PS to Bayside SS;
- Build a 425 pp replacement Bayside PS in 2014/15 for a congregated Bayside PS and Frankford PS with a projected enrolment ranging from 450 to 475 pupils. This new JK-6 facility will be adjacent to Bayside SS as a JK-12 campus structure;
- Combine Stirling Primary PS, Stirling Junior PS and Stirling Senior PS at a new 475 pupil place facility on the Stirling Senior PS location. Enrolment for this new JK-8 facility is projected to range from 500 to 540 pupils.