

---

## **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.

---

---

## **4.2 Review Area PE01 – Trenton School Group (south-westerly portion of Quinte West including C.F.B. Trenton)**

### **Overview:**

This planning area comprises the south-westerly portion of the City of Quinte West bounded by Highway 401 to the north, Whites Rd. to the east, Lake Ontario to the south and the western boundary of the Board's jurisdiction in the City of Quinte West. This area is served by six (6) elementary schools.

Two schools, North Trenton PS (JK-6) and Prince Charles PS (JK-8) are located west of the Trent River. The communities east of the Trent River are served by four elementary schools, namely: V P Carswell ES (JK-6) in the northeast portion of the City, Queen Elizabeth PS (JK-8) and College Street PS (JK-8) in the downtown core, and Breadner ES (JK-8) located on Canadian Forces Base Trenton.

There are approximately 490 new residential dwelling units anticipated to be constructed in this review area between 2007/08 and 2020/21.

### **Existing School Facility Inventory:**

The elementary schools within this review area are, on average, four years older than the average age of all elementary schools in the Board's jurisdiction. 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 PE01 is 5.6 acres, which is typical of urban serviced sites. The average On-the-Ground (OTG) capacity of the elementary schools in the review area is 279 pupil places; whereas the Provincial average OTG for elementary schools without a "rural" designation is 379.

The following table sets out key facility attributes consistent with information filed with the Ministry of Education.

School Name/Program	SFIS #	Year Constructed	Site Size (acres)	Facility Size (sq m)	2007/08 OTG	# of Portables
<b>West of Trent River:</b>						
Prince Charles PS (JK-8) 138 Dufferin Ave South, Trenton	1861	1960	7.4	3,126	282.0	3
North Trenton PS (JK-6) 12 Briardale Blvd, Trenton	1660	1957	5.1	1,291	135.0	0
<b>East of Trent River:</b>						
Breadner Elementary School (JK-8) 31 Gimli Road, Trenton	2	1949	5.0	4,252	420.0	0
College Street PS (JK-8) 20 South St., Trenton	484	1938	4.1	3,205	343.0	0
Queen Elizabeth PS (JK-8) 16 Sillers Ave., Trenton	9322	1951	6.3	3,590	337.0	1
V P Carswell Elementary School (JK-6) 4 Seneca Rd., Trenton	2351	1965	5.6	1,337	158.0	1
<b>Review Area Totals or Average</b>		<b>54 years</b>	<b>33.5</b>	<b>16,801</b>	<b>1,675.0</b>	<b>5</b>
<b>Board (Elementary) Totals or Average</b>		<b>50 years</b>	<b>379.7</b>	<b>121,604.5</b>	<b>12,766.0</b>	<b>36</b>

### Demographic and Historical Enrolment Perspectives:

The following tables compare the pre-school and school age population data and occupied households between 1996-2001 and 2001-2006 Census (Statistics Canada) 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 285 persons between 1996 and 2001 and by 90 persons between 2001 and 2006. The elementary school age population (ages 4-13) has also decreased by 230 persons or 7.4% from 1996 to 2001. More recently, the number of 4-13 year olds has decreased by 12% or 345 persons. The secondary school age population (ages 14-17) has increased by 160 persons in the Census periods 1991 through 2006.

**Actual Population – PE01**

Review Area	Census Period			1996 - 2001 Change		2001 - 2006 Change	
	1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
Pre-school Age (0-3)	1,270	985	895	-285	-22.4%	-90	-9.1%
Elementary Age (4-13)	3,105	2,875	2,530	-230	-7.4%	-345	-12.0%
Secondary Age (14-17)	980	1,140	1,140	160	16.3%	0	0.0%
<b>Total</b>	<b>5,355</b>	<b>5,000</b>	<b>4,565</b>	<b>-355</b>	<b>-6.6%</b>	<b>-435</b>	<b>-8.7%</b>

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 – PE01**

Number of Occupied Households			1996 - 2001 Change		2001 - 2006 Change	
1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
7,680	7,825	8,022	145	1.9%	197	2.5%

**Population per Household (Population/Number of Occupied Households) – PE01**

Review Area	Census Period			1996 - 2001 Change		2001 - 2006 Change	
	1996	2001	2006	Absolute Change	% Change	Absolute Change	% Change
Pre-school Age (0-3)	0.165	0.126	0.112	-0.039	-23.9%	-0.014	-11.4%
Elementary Age (4-13)	0.404	0.367	0.315	-0.037	-9.1%	-0.052	-14.2%
Secondary Age (14-17)	0.128	0.146	0.142	0.018	14.2%	-0.004	-2.5%
<b>Total</b>	<b>0.697</b>	<b>0.639</b>	<b>0.569</b>	<b>-0.058</b>	<b>-8.4%</b>	<b>-0.070</b>	<b>-10.9%</b>

---

---

The above table calculates the school age population per household. Analysis of the school age population by household indicates that during the 2001 to 2006 Census period, the pre-school age population per household within the Trenton School Group Review Area exhibited an 11.4% decline. The elementary population per household experienced a 14.2% decline and there was a 2.5% 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 340 new dwelling units were added to the number of occupied households between 1996 and 2006, whereas the pre-school age population decreased by 375 persons during the same period.

### **Historical Enrolment and Grade Structure Ratio (GSR):**

The following table summarizes elementary enrolment by grade between 2001/02 and 2006/07 for Review Area PE01. Further, the table indicates the change in enrolment by grade, both in absolute numbers and in terms of percentage change.

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 Quinte West Group shows the GSR is increasing by 4.2% 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, although this trend has moderated since 2003/04.

	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	Change	% Change
<b>JK</b>	71	76	56	74	68	63	-7	-10.3%
<b>SK</b>	81	79	78	67	84	71	-10	-12.3%
<b>1</b>	178	165	155	151	155	157	-22	-12.1%
<b>2</b>	186	181	165	147	166	128	-58	-31.2%
<b>3</b>	164	181	174	161	150	156	-8	-4.9%
<b>4</b>	170	166	177	158	158	139	-31	-18.0%
<b>5</b>	184	164	168	166	155	155	-29	-15.8%
<b>6</b>	161	183	168	159	163	145	-16	-9.7%
<b>7</b>	163	166	166	160	140	142	-21	-12.9%
<b>8</b>	145	161	175	169	143	144	-1	-0.7%
<b>Total</b>	<b>1,500</b>	<b>1,520</b>	<b>1,483</b>	<b>1,409</b>	<b>1,379</b>	<b>1,298</b>	<b>-202</b>	<b>-13.5%</b>
<b>GSR</b>	<b>1.42</b>	<b>1.59</b>	<b>1.76</b>	<b>1.67</b>	<b>1.46</b>	<b>1.48</b>	<b>0.06</b>	<b>4.2%</b>

#### 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, in Review Area PE01, 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 fluctuated only slightly since 2001/02, and has accounted for approximately 58% 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	58.2%	58.4%	58.2%	51.7%	58.8%	59.7%
ALCDSB Share	41.8%	41.6%	41.8%	42.3%	41.2%	40.3%

Note: May not add precisely due to rounding.

---

---

**Projected Enrolment:**

Overall enrolment in this review area is expected to decline from 1,298 pupil places in 2007/08 to 1,158 pupil places by 2020/21, even though 73% of the residential development in Quinte West is expected to occur within this review area (a portion of which is expected to be non-family households).

West of the Trent River, average daily enrolment at North Trenton PS and Prince Charles PS is expected to increase by 29 pupil places when comparing 2007/08 and 2020/21. A slight increase in enrolment is largely due to proposed residential development primarily located in the south-east portion of the Board's jurisdiction and along the waterfront in the western end of the Bay of Quinte. The area west of the Trent River accounts for 70% of the total anticipated development in the City of Quinte West, although it is expected that the portion along the waterfront would likely attract non-family households.

Modest residential development in the V.P. Carswell catchment area is expected to be sufficient to maintain stable enrolment at this school over the forecast period. Enrolment is expected to remain between 165 and 161 over the 2007/08 to 2020/21 forecast period.

Projected enrolment at Breadner ES will be affected by the desire of the French language boards to enrol all Francophone right holders at CFB Trenton, as well as the increasing number of Base employees choosing to live off the Base. As such, enrolment at Breadner ES is expected to fall from 163 in 2007/08 to 127 in 2020/21.

While there are a limited number of infill residential developments expected in the downtown core east of the Trent River, it is expected that College Street PS and Queen Elizabeth PS will see a decline of more than 80 pupil places over the forecast period, with the majority of the student population decline occurring at College Street PS.

**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.

Overall, the schools serving the former City of Trenton are expected to be at 74.7% utilization as of 2007/08, with the further expectation that facility utilization will decline to a level of 70.3% by the year 2020/21.

School Name/Program	2007/08 OTG	2007/08 ADE	% Utilization	2020/21 OTG	2020/21 ADE	% Utilization
<b>West of Trent River:</b>						
Prince Charles PS (JK-8)	282.0	325	115.2%	282.0	352	124.7%
North Trenton PS (JK-6)	135.0	94	69.5%	135.0	96	71.1%
<b>East of Trent River:</b>						
Breadner Elementary School (JK-8)	420.0	181	38.7%	420.0	147	35.0%
College Street PS (JK-8)	343.0	236	68.9%	343.0	182	53.1%
Queen Elizabeth PS (JK-8)	337.0	268	79.6%	337.0	240	71.3%
V P Carswell Elementary School (JK-6)	158.0	165	104.7%	158.0	161	101.9%
<b>Review Area Totals:</b>	<b>1,675.0</b>	<b>1,269</b>	<b>74.7%</b>	<b>1,675.0</b>	<b>1,178</b>	<b>70.3%</b>
<b>Board (Elementary) Totals:</b>	<b>12,766.0</b>	<b>10,208</b>	<b>79.9%</b>	<b>12,766.0</b>	<b>9,858</b>	<b>77.2%</b>

Over the next fourteen years it is expected that four of the six elementary schools serving this area 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 to facility operations and renewal expenditure needs.

### 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 the 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.

Five of the six elementary schools 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
Prince Charles PS	\$4.54	\$1.81	39.9%	\$4.40	96.8%	\$5.02	110.6%
North Trenton PS	\$2.14	\$1.06	49.6%	\$1.47	68.7%	\$1.65	77.0%
Breadner ES	\$6.76	\$2.86	42.4%	\$5.07	75.0%	\$5.71	84.5%
College Street PS	\$5.32	\$2.21	41.5%	\$4.90	92.1%	\$5.42	101.9%
Queen Elizabeth PS	\$5.43	\$1.52	28.0%	\$2.42	44.7%	\$2.99	55.1%
V P Carswell ES	\$2.22	\$1.60	72.1%	\$2.06	92.7%	\$2.39	107.6%
<b>Review Area Totals</b>	<b>\$26.41</b>	<b>\$11.06</b>	<b>41.9%</b>	<b>\$20.32</b>	<b>76.9%</b>	<b>\$23.19</b>	<b>87.8%</b>
<b>Board (Elementary) Totals</b>	<b>\$191.08</b>	<b>\$70.27</b>	<b>36.8%</b>	<b>\$132.94</b>	<b>69.6%</b>	<b>157.16</b>	<b>82.2%</b>

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

Total facility renewal needs for PE01 are expected to be in the order of \$20.32 million, or 75.3% of facility replacement value by 2016/17 and \$23.19 million, or 90.0% of facility replacement value by 2021/22. Total renewal grant funding for this area amounts to \$189,773 annually based on the existing grant funding structure and adjusted for school-by-school enrolment. This figure is expected to fall to a level of \$179,834 annually by 2021/22 provided that there are no changes to the current funding benchmarks..

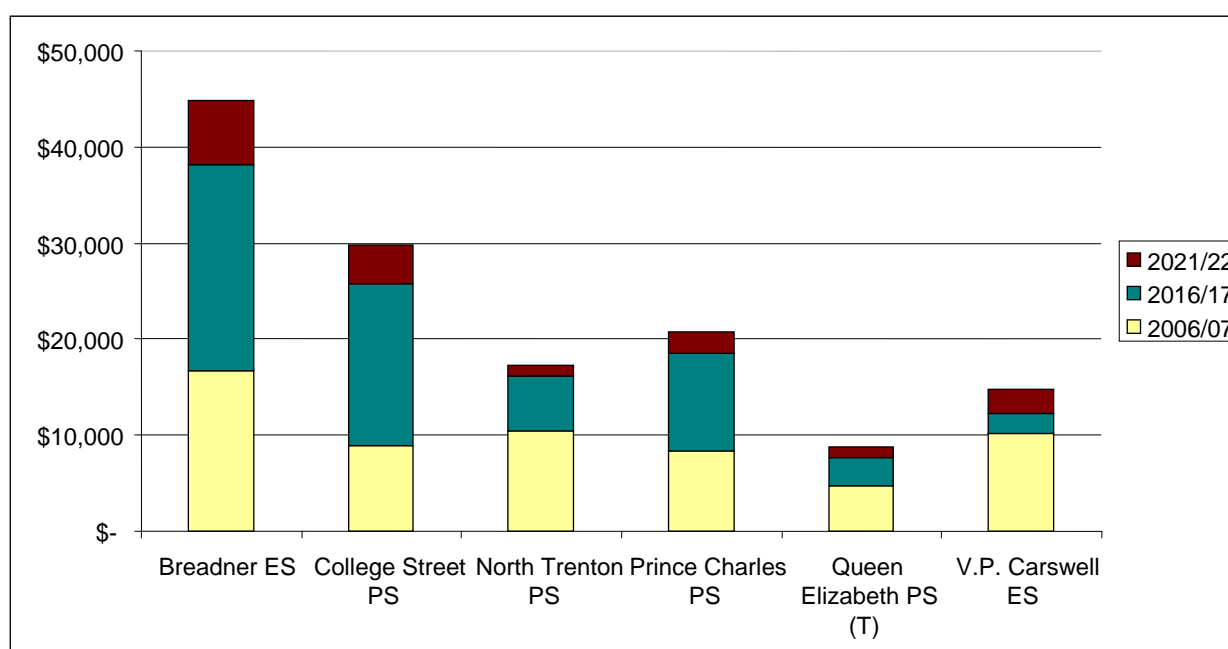
The following chart examines facility renewal needs per pupil place; that is, future renewal expenditure needs over projected enrolment (which is a key driver in a per pupil based funding environment). While FCI, or Facility Condition Index, is an indicator of the backlog of unfunded facility renewal 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).

Breadner PS exhibits the highest increase in facility renewal needs in a declining enrolment situation. Its FRIPP is three (3) times greater than the Board average at the elementary level.

The second highest increase in facility renewal needs measured against projected enrolment is College Street PS, followed by Prince Charles PS, North Trenton PS, V.P. Carswell ES and Queen Elizabeth PS, where Queen Elizabeth PS is the lowest cost per pupil place in this review area.

**FACILITY RENEWAL NEEDS PER PUPIL PLACE**



### Program and Facility Recommendations:

The following outlines the proposed program and facility strategies for this review area.

- Convert Trenton HS to Grade 7-12 facility. This option would improve facility utilization (between 95% and 100%) and provide opportunities to enhance the student learning environment. Retaining Trenton HS as a Grade 9-12 facility would result in facility utilization falling below 75% and would negatively impact the Board's ability to fund facility renewal and operating costs.

- Redirect Gr 7/8 pupils from Prince Charles/North Trenton to Trenton HS.
- Replace the 1960s portion of Prince Charles PS and construct a 215 pp addition (10 classrooms) as a JK-6 facility that will accommodate both the North Trenton and the Prince Charles student population. This strategy would vastly improve the facility condition of Prince Charles PS and would provide a sustainable JK-6 student population of 355 to 365 pupil places, as well as opportunities to enhance the student learning environment.
- Redirect Gr 7/8 pupils from Breadner ES, College Street PS and Queen Elizabeth PS to Trenton HS.
- Construct a 5 classroom addition at V P Carswell plus library resource centre and Special Education pod. Redirect Breadner JK-6 pupils to this facility.
- Combine College Street PS and Queen Elizabeth PS JK-6 pupils at Queen Elizabeth PS. The Queen Elizabeth PS facility has a facility condition index at or below 55% over the next 14 years. Combining these two student populations would generate a stable enrolment of between 275 and 300, which would translate into a facility utilization ratio in the range of 83.4% to 90.2%.