OTTAWA-CARLETON DISTRICT SCHOOL BOARD

Learning Well-being Social Responsibility

COMMITTEE OF THE WHOLE (PUBLIC) **10 December 2024**
Report No. 24-124

Facilities Renewal Program and School Condition Improvement 2024-2025 Project Plan

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PURPOSE:

1. To obtain Board approval of the Facilities Renewal Program (FRP) to be implemented under the School Renewal Allocation (SRA), Temporary Accommodations (portable moves) and School Condition Improvement (SCI) funding for the 2024-2025 budget year.

STRATEGIC LINKS:

2. In keeping with the goal of creating a culture of social responsibility, as outlined in the 2024-2027 Strategic Plan, the District continues to support the physical environments that facilitate learning, and offer comfort and safety. It is the District's desire to provide inspirational places to learn and work which attract, retain, nurture, value and engage students and staff. Investments into building renewal and upgrades of schools will help improve the quality of teaching spaces and help to promote the success of our students and staff.

CONTEXT:

3. The Ottawa-Carleton District School Board (OCDSB) has a large portfolio of buildings and properties encompassing over 12 million square feet. More than 80% of the spaces are over 20 years old. Like all public sector organizations, the OCDSB has a large estimated backlog of differed renewal projects which is estimated to be $882 million.

   The annual plan is designed to address the facility needs of the District, with a focus on ensuring safe and healthy learning and working spaces for students and staff.

   The Board has approved, as part of the total OCDSB operating budget, the School Renewal Allocation (SRA) 2024-2025 budget in the amount of $15,432,474 which is equal to the SRA grant. The 2023-2024 SRA carry forward from the previous fiscal year is $6,158,166. The Temporary Accommodations Allocation (portable moves) for 2024-2025 is $3,000,000. The total Facilities Renewal Program Budget for 2024-2025 is $24,590,640.

The 2024-2025 allocation of capital renewal funding for School Condition Improvement (SCI) is $47,699,095. The 2023-2024 SCI carry forward from the previous fiscal year is $33,463,282. The total School Condition Improvement budget for 2024-2025 is $81,162,377.

The total combined Facilities Renewal Program and School Condition Improvement budget for the 2024-2025 year is $105,753,017.

The recommended 2024-2025 plan includes a variety of renewal projects including:

- Site – paving and sidewalks, septic and water systems, parking areas, play areas, playgrounds, fencing;
- Building envelope – roofs, doors and windows, foundation repairs, masonry repairs, structural repairs;
- Building interior – flooring, ceilings, interior doors and hardware, millwork;
- Mechanical – heating, ventilation, air-conditioning, chillers, plumbing, controls;
- Electrical – hydro service upgrades, power distribution, generator replacements, lighting, communication cabling, network and telephone upgrades, public address and fire alarm systems;
- Portables – relocations, upgrades and repairs;
- Various functional alterations, program upgrades, renovations, and regulatory requirements;
- Environmental – asbestos abatement, oil storage tank removal and soils contamination remediation;
- Energy conservation and efficiency upgrades, multi-year energy plan projects; and
- Accessibility – various barrier-free projects, elevator replacements and new installations, *Accessibility for Ontarians with Disabilities Act (AODA)* compliance for major renovations; a continued rollout of universal washrooms and change rooms are being undertaken based on identified needs.

KEY CONSIDERATIONS:

4. This year, the FRP and SCI involve many projects of varying complexity and size. The priorities for the planned projects are based upon a multitude of factors which are considered prior to the final determination of the FRP and SCI work plans. These factors include: long-range building envelope reports; mechanical and electrical forecasts based upon Facilities staff experience and knowledge of the buildings; consultant reports; VFA building audits; preventative maintenance reports; school condition reports; program requirements; and accessibility needs.

5. <u>SCI Funding Methodology</u>
SCI funding is provided to address school renewal needs and must be used for expenditures that meet the requirement to be capitalized.

School boards are now restricted to using 70% of their SCI funding to address major building components (for example, foundations, roofs, windows) and systems (for example, HVAC and plumbing). School boards are allowed to use the remaining 30% of their SCI funding to address any locally-identified renewal

needs that are listed in the provincial building database. Please see Table 1 below for the categories of restricted (70%) and unrestricted (30%) uses of SCI funding

Table 1: Summary of Restricted and Unrestricted Expenditures:

Categories	Restricted (70%)	Unrestricted (30%)
A. Substructure (e.g. foundations, basement walls)	Yes	Yes
B. Shell/Superstructure (e.g. roofs, exterior walls and windows)	Yes	Yes
C. Interiors (e.g. stairs, floor finishes, ceilings)	No	Yes
D. Services (e.g. plumbing, HVAC, fire protection and electrical)	Yes	Yes
E. Equipment & Furnishings	No	Yes
F. Special Construction & Demolition	No	Yes
G. Building Site Work (parking lots, site lighting)	No	Yes

6. Backlog

The current backlog of renewal projects continues to be in excess of $882 million for the District's permanent learning facilities. Administration sites are not included in this total. The planned projects are designed to maximize the value at each school and improve the condition of the facility for the students. The list of planned projects is subject to change due to unforeseen building component failures and program change pressures that may arise late in the school year.

7. Temporary Accommodation

The temporary accommodations (portables) are still an integral part of the accommodation plan and are funded by the Ministry to meet our accommodation pressures as a result of enrolment growth. With the need to do major renewal work and/or accommodation retrofits, portables may be used at some sites in order to create swing space for renovations.

8. Accessibility

On an annual basis, staff undertake numerous projects to eliminate barriers within our facilities. Projects include new elevators, lifts, ramps and accessible washrooms. There are many planned projects but staff also execute several reactionary projects based on specific needs that arise at schools to support students throughout the year.

Universal washrooms are large, single use, barrier-free washroom facilities located centrally and, on a barrier-free path of travel. These washrooms include a lot of specialized equipment including automatic door operators and locks, emergency assistance alarms with dome lights & horns located outside the washroom and typically in the main office, barrier-free fixtures, area for plinth/adult size change tables (some include the plinths and ceiling mounted patient lifts) and handheld showers for cleaning accidents. The Ontario Building Code now requires introducing universal washrooms in buildings where they do not already exist in conjunction with major renovations or new construction.

Inclusive washrooms are single-use washroom facilities located centrally and accessed directly off corridors & access routes so users don't have to enter through other spaces or "special" locations (potentially bringing unnecessary awareness to themselves) for gender diverse people or those with any other needs including medical conditions, religious beliefs, anxiety and self-conscious issues. They may or may not be accessible and have separate washroom designations for students and staff (to mitigate potential ethical, safety and legal issues with students and staff sharing a common washroom).

Our goal is to have at least one inclusive washroom for students and staff (separate) in every facility. We have completed conversions of existing binary single use washrooms into inclusive washrooms where possible. Remaining facilities require moderate to significant alterations to introduce them so they will be slower to implement as budgets permit or will be included in additions or renovations. The OCDSB currently has 124 facilities with inclusive washrooms, 4 facilities that are a work in progress and 22 facilities pending.

The District completed a general Accessibility Audit of our facilities in 2006 to determine what might be needed to bring OCDSB facilities in line with the new Accessibility for Ontarians with Disabilities Act (AODA), which was passed into law in June 2005. This comprehensive plan has been used as a guide for planning projects annually.

There is still a significant amount of work to be done and in order to help staff direct resources efficiently, an architectural firm was hired and completed an audit of all our facilities in the summer of 2022. This audit will serve as a guide to implement a multi-year plan on reducing physical barriers, where possible, within our facilities and adapt to any proposed changes implemented by the provincial government.

9. Sustainability & Environmental Impact

As staff implements renewal projects within our facilities, the designs focus on the sustainability of our buildings where possible. Increased insulation for roof replacements, higher efficiency window systems, LED lighting installations and the movement to electrification of our building mechanical systems is an indication of the transition to a more sustainable built environment for our facilities.

Reducing energy consumption and greenhouse gas (GHG) emissions continues to be a focus of the Facilities group and a main consideration when planning projects. A significant reduction in GHG emissions is only possible with a reduction in natural gas consumption. Reducing electrical consumption will have a lesser impact.

We have four main approaches to reducing our GHG emissions (gas consumption); reduce our heating demand, operate systems more efficiently, install higher efficiency equipment and transition from gas to electricity as an energy source.

1. Reduce our heating demand. Improving the building envelope’s performance helps to reduce the heating demand. The roof and window replacement projects are a big contributor. When replacing roofs we typically increase the

insulation value. Older windows are replaced with new windows with better thermal resistance and sealing to reduce cold air infiltration.

2. Operate systems more efficiently. We continue to invest in our central building automation system (BAS) with various upgrade projects. The BAS enables us to schedule our heating and ventilation systems to operate at lower set points during unoccupied periods. The BAS also continuously monitors system performance so that malfunctioning equipment is quickly identified and repaired. The net result of operating systems efficiently and only when needed, is a reduction in gas consumption.

3. Install higher efficiency equipment. When planning projects, funding is included in the budget for high efficiency equipment. When replacing lighting, heating and ventilation systems higher efficiency equipment is typically installed, which helps reduce our energy consumption.

4. Transition from gas to electricity as an energy source. This approach has the potential for the biggest impact on GHG emissions, however it has been the most difficult to implement. Until recently this approach has been cost prohibitive from an operational point of view. A Ministry lead study in 2019 demonstrated that it would be 4.6 times more expensive to heat a school with electricity versus gas. With an estimated $6M of our annual utilities budget attributed to heating, the financial burden would be too great. However, recent advances in the electric heat pump technology, coupled with rising gas prices has made the idea of electricity as a primary heat source more feasible. For all projects that include replacement of heating or ventilation equipment, consideration is given to an electric heat pump design. In some cases physical constraints or limited electrical infrastructure prohibit the approach but we are able to implement this design more frequently. Following are additional points on this topic.

    - The implementation of the ‘air-to-air’ heat pump technology, which applies to our rooftop HVAC units, is now fairly straightforward. Our new design standard is to replace traditional gas fired rooftop HVAC units with heat pump HVAC units. This approach is being applied to all projects, where practical.

    - The implementation of the ‘air-to-water’ heat pump technology, which applies to our boiler/hot water systems, is more difficult. In most cases this would involve modifications to the building structure and mechanical and electrical infrastructure. However, this approach is being considered for projects involving boiler replacements and will be applied, where practical.

    - Electric resistance heating for water (electric boilers) or space heating remains cost prohibitive at this point.

    - Note that the designs for our new capital projects (Shingwàkons PS, Wazoson PS and Riverside South HS) all incorporate this heat pump technology and are using electricity as the primary heating source. Our energy modelling shows that we can expect a 50% reduction in GHG emissions with these schools when compared with a traditional elementary school using gas as the primary heating source.

Reducing energy consumption and GHG emissions continues to be a focus during the planning, design and commissioning phases of the projects. From 2013 to 2019 we were able to achieve a 19.1% reduction in GHG emissions. This trend reversed slightly in the past 3 years due largely to the increase in ventilation being provided as part of the COVID precautions. Going forward we expect to achieve 2-3% reductions in GHG emissions annually as a result of our energy management and GHG reduction measures.

10. Unforeseen Annual Needs

Certain general project portfolios have budgets established under the various sites location designation. Unspecified projects have historically arisen, and provisions have been made to address these annual needs through the various sites' budget lines. Project lists will be refined throughout the year based on supporting District programs and prioritized renewal needs as a result of building deterioration and failures, e.g., roof leaks, portable condition reviews and facility condition indexes.

11. Consolidation of Projects

In order to benefit from economies of scale, multi-discipline renewal projects may be combined at a school to improve the amount of work completed in a shorter period of time and draw on multiple trades and contractors to create a larger program upgrade. These projects will be developed through the design review and will be tendered as single contracts when feasible. This will improve project delivery and ensure effective communications with all stakeholders during construction.

The 2024-2025 Facilities Work Plan continues to target building infrastructure renewal projects. Historical metrics indicate the realistic construction work that can be undertaken annually by the District is between $50-$60 million. The entire FRP/SCI budget allocation has been assigned to multiple site specific projects.

2024-2026 Proposed SCI Projects		
Electrical/Power	$12,450,000	15%
Interior	$16,610,000	21%
Mechanical	$26,705,000	33%
Roofing	$9,100,000	11%
Site/Paving	$8,405,000	10%
Windows	$2,930,000	4%
Contingency	$4,962,377	6%
Total	**$81,162,377**	**100%**

12. Special Initiatives:

Solar Photovoltaic Systems

In conjunction with the District’s multi-year energy plan and 2024-2027 Strategic Plan goal of creating a culture of responsibility, the work plan identifies seven sites which may receive solar photovoltaic net-metering systems. These systems will allow the building to use electricity generated from the building-mounted panels which reduces consumption from the electrical grid and also reduces our carbon footprint.

The District currently has over 3.6MW of solar generation operational and 500kW under construction and anticipated to be online in 2025.

Play Structure Replacement Program
There are over 200 existing kindergarten and senior play structures across the District with nearly 11% of them reaching end of usable life in the next five years. The Facilities department has begun a long term plan to replace existing play structures across the District.

Historically, replacement costs were supported by Facilities, City grants and fund raising efforts by parent councils. As structures approached end of life, schools were notified as early as possible to allow parent councils to start fund raising efforts to supplement the installation costs of a new structure. Over the past few years, costs for the supply and installation of new structures has increased significantly which has made fund raising efforts challenging.

In order to provide an equitable approach to play structure replacement, the Facilities department will fund and manage the program moving forward and parent councils will no longer be required to provide supplemental funding. There are still numerous areas councils can focus their funding efforts including outdoor classrooms, sandboxes etc.

Science Lab and Learning Commons Renewal
Staff continue to upgrade existing secondary science labs and learning commons annually with typically two sites selected per year. Staff are working on a long term plan for the upgrade of the balance of sites within the District.

RESOURCE IMPLICATIONS:

13. Funding
The combined approved FRP budgets (funded through the SRA) and SCI budgets in the Ministry's 2024-2025 estimates are as follows:

FRP	
School Renewal Allocation	$ 15,432,474
Temporary Accommodations (Portables) Allocation	$ 3,000,000
FRP Reserves 2023-2024 - Carry forward	$ 6,158,166
TOTAL FRP Funding 2024-2025	$ 24,590,640
SCI	
SCI 2024-2025 Funding	$ 47,699,095
SCI Reserves 2023-2024 – Carry forward	$ 33,463,282
TOTAL SCI Funding 2024-2025	$ 81,162,377
TOTAL FRP/SCI Funding 2024-2025	**$105,753,017**

Expenditure
The FRP and SCI projects are planned for the 2024-2025 fiscal year. A summary of the FRP/SCI 2024-2025 budget by division of work is outlined in Appendix A. The detailed project list, by school or project initiative, is outlined in Appendix B. In

order to meet the Broader Public Sector (BPS) procurement guidelines, projects need to be approved prior to raising commitments. A list of projects has been compiled in order to effectively roll out next fiscal year's funding. The following is the estimate of project expenditures:

FRP Projects	
FRP Project Plan	$ 21,590,640
Temporary Accommodations (Portables) Projects	$ 3,000,000
TOTAL FRP Planned Projects 2024-2025	$ 24,590,640
SCI Projects	
SCI Project Plan	$ 47,699,095
SCI Reserves 2023-2024 - Carry forward	$ 33,463,282
TOTAL SCI Planned Projects 2024-2025	$ 81,162,377
TOTAL FRP/SCI Planned Projects 2024-2025	**$105,753,017**

As the 2024-2025 planned projects are tendered, based on bid results, projects will be added or removed in order to expand the full budget allocations. It is expected that SCI funding will be used for eligible facility renewal needs. Uncommitted FRP and SCI funds during the year will be used to augment the projects to ensure full use of the funding available.

Original project estimates are based on initial information available and are considered Class 'D' estimates (+/- 25%). As projects evolve during the design development, the project scope may increase or decrease depending on further investigation of existing site conditions and site specific needs. Project budgets will be increased or decreased as required to reflect the scope adjustments for the projects.

As part of the Ministry of Education's reporting requirements, project updates are entered into the VFA database to track the work completed, monitor renewal backlog and generate new funding in subsequent years.

COMMUNICATION/CONSULTATION ISSUES:

14. Due to the number of FRP and SCI projects, Facilities staff continues to work with school communities, childcare operators, Program and Learning K-12, Learning Support Services, Continuing Education and Community Use of Schools departments to prepare work plans that will allow construction to proceed safely during the school year, while minimizing the disruption to students and staff.

RECOMMENDATIONS:

A. THAT the Facilities Renewal Program and School Condition Improvement Project budget in the amount of $105,753,017 be approved as detailed in Appendix B of Report 24-124;

B. THAT staff be authorized to proceed with individual project tenders within the Facilities Renewal Program and School Condition Improvement Project plans;

C. THAT as FRP/SCI projects are tendered, based on bid results, or as priorities change, additional projects may be added or removed to suit the availability of the overall budget and these additional projects will be able to proceed without further approval as long as the total overall FRP/SCI budgets are not exceeded; and

D. THAT the Chair of the Board and Director of Education are authorized to award contracts above $500,000 that are within this overall available uncommitted approved budget.

Randy Gerrior Associate Director of Education, Business	Pino Buffone Director of Education and Secretary of the Board

Appendices:

Appendix A 2024-2025 Facilities Renewal Program and School Condition Improvement Summary

Appendix B 2024-2025 Facilities Renewal Program and School Condition Improvement Project List