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## WILLIAM COOK ELEMENTARY SCHOOL SEISMIC UPGRADE & PARTIAL REPLACEMENT/ADDITION

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| <b>CONSTRUCTION START:</b> | July 2018  |
| <b>TARGET COMPLETION:</b>  | September 2020   |
| <b>PROJECT BUDGET:</b>     | \$14.27 Million  |
| <b>FUNDING SOURCES:</b>    | Capital Plan - \$12.95 Million (maximum) +<br>SD38 Contribution \$1.36 Million + Annual Facility Grant \$350,000 |
| <b>CONSULTANT:</b>         | KMBR Architects  |
| <b>GENERAL CONTRACTOR:</b> | Heatherbrae Builders Inc.  |
| <b>PROJECT MANAGER:</b>    | Richmond Project Team<br>Enquiries: Sam Yoo, 604-295-7000 ext. 4100  |

### BACKGROUND

William Cook Elementary School originally opened in 1954 with renovations and additions in 1957, 1962, 1964, 1971 and 1999 to serve Kindergarten to Grade 7. School District No. 38 (Richmond) has confirmed that Cook Elementary is needed for the long term as part of the overall long-range strategic planning.

Cook Elementary, which consists of four distinct blocks ("Block 5" consists of five portable classrooms), was seismically assessed initially using Version 2 of APEGBC's Seismic Retrofit Guidelines. The entire school has a high risk of liquefaction potential requiring substructure upgrades, with Block 1 (1954 Original School) having a Seismic Risk Category H1 rating and Block 2 (1957, 1962, 1964 & 1971 Classrooms) having a Seismic Risk Category H2 rating, requiring superstructure seismic resistance upgrades.

### PROJECT SCOPE

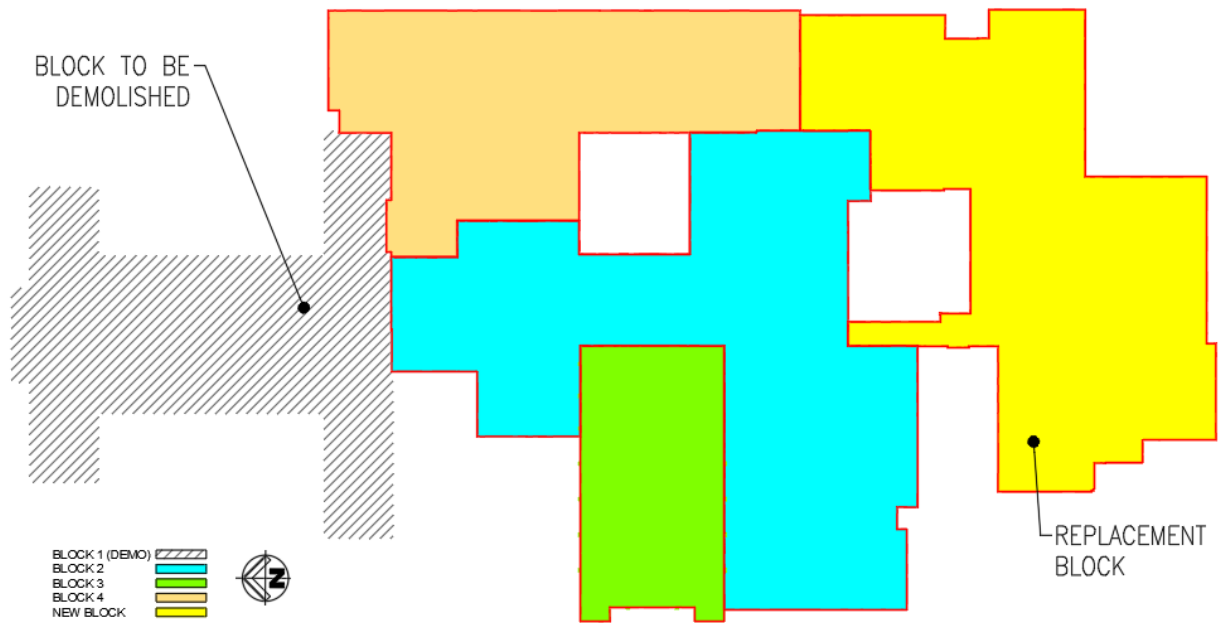
- Structural seismic resistance upgrade to Blocks 2, 3 and 4 of the school:
  - Block 2 (1957, 1962, 1964 & 1971 Classrooms) involving converting some of the existing wood stud walls to plywood shear walls, adding new plywood to existing roof with drags/chords as well as upgrading foundations with grade beams added for liquefaction mitigation;
  - Block 3 (1957 Gymnasium) adding grade beams to tie foundation together.
  - Block 4 (1999 Addition) grade beams to tie the foundation together.
- Block 1 (1954 Original School) demolished and replaced by a single storey addition in the rear, which will expand the school by four classrooms (20K/75E spaces).
- Block 5 portables will be relocated, used as swing space and demolished at the end.
- Non-structural seismic resistance upgrade to the entire school (added restraint of lighting, HVAC, plumbing and cabinets).

- Key feature work:
  - New parking lot with pick-up & drop-off zones;
  - New roofing throughout;
  - New security shutters to exterior windows throughout;
  - New entrance, administration offices & staff room;
  - Upgrading of wall/floor/ceiling finishes in existing building blocks;
  - Upgrading of finishes on walls affected by the structural work in classrooms and other spaces;
  - Upgrading of kitchen off gym; and
  - Minor upgrades to exterior building soffits and building re-painting (except gym mural).

## PROJECT STATUS

- The Ministry of Education approved the Project Definition Report and signed the Capital Project Funding Agreement for the seismic upgrade of Cook Elementary 27 April 2017, funded from the Seismic Mitigation Program (SMP).
- Portables relocated and repaired/upgraded; site for new addition excavated, poor soils removed and preloaded over Summer 2018.
- Concrete grade beam and sidewalk around Gymnasium poured.
- One classroom in Block 1 demolished to re-route piping for siamese fire connections previously located on the building face of Block 1.
- Playground near Cook Road relocated to make room for Block 1 demolition and new pump station construction by the City of Richmond.
- Concrete grade beam on east side of East Wing (Block 4) poured in Summer 2019 to minimize disturbance to school as well as northern portion of interior corridor of East Wing to allow egress from the floor area when occupied.
- Classroom addition substantially completed and occupied September 2019. This is the end of Phase 1.
- Concrete grade beam and tie beam inside the school poured along the corridor & in one classroom of East Wing (Block 4).
- New ensuite and door opening for sliding door added to one Kindergarten Classroom; new flooring provided to 2 classrooms and corridor.
- Phase 2 completed and handed over during Winter Break.
- Hazmat abatement completed prior to Block 1 demolished.
- Phase 3 started in January with the demolition of Block 1.
- Temporary Main Entrance to the building created on north side of gym.
- School Administration temporarily located in 3 Resource Rooms near Temp Main Entrance.

- Daycare moved to one of the portables; Staff Room moved to Multi-purpose Room temporarily.
- Block 1 demolished.
- New principal entrance & admin offices as well as east half of new parking are being worked on.



Seismic Block Map - William Cook Elementary School