
MAPLE LANE ELEMENTARY SCHOOL SEISMIC UPGRADE

TARGET CONSTRUCTION START:	August 2020
TARGET COMPLETION:	December 2021
PROJECT BUDGET:	\$6.74 Million
FUNDING SOURCES:	Ministry of Education Capital Plan - \$6.74 Million (maximum)
CONSULTANT:	Craven Huston Powers Architects
CONSTRUCTION MANAGER:	Unitech Construction Management Ltd.
PROJECT MANAGER:	Richmond Project Team
	Enquiries: Steve Ahluwalia, 604-295-7000 ext. 3436

BACKGROUND

Maple Lane Elementary was built in 1974 with renovations and additions in 1979 and 1982 to serve Kindergarten to Grade 7. The roof diaphragm for a portion of the building was upgraded in 1999 and 2015. School District No. 38 (Richmond) has confirmed that Maple Lane Elementary is needed for the long term as part of the overall long-range strategic planning.

Maple Lane Elementary, which consists of three distinct blocks, was seismically assessed using Version 3 of APEGBC's Seismic Retrofit Guidelines. The entire school has a low risk of liquefaction potential requiring substructure upgrades, with Block 1 (1974 Original Classrooms and Administration) having a Seismic Risk Category H3 rating, Block 2 (1979 North Classroom Addition) having a Seismic Risk Category H1 rating and Block 3 (Gymnasium) having a Seismic Risk Category M rating.

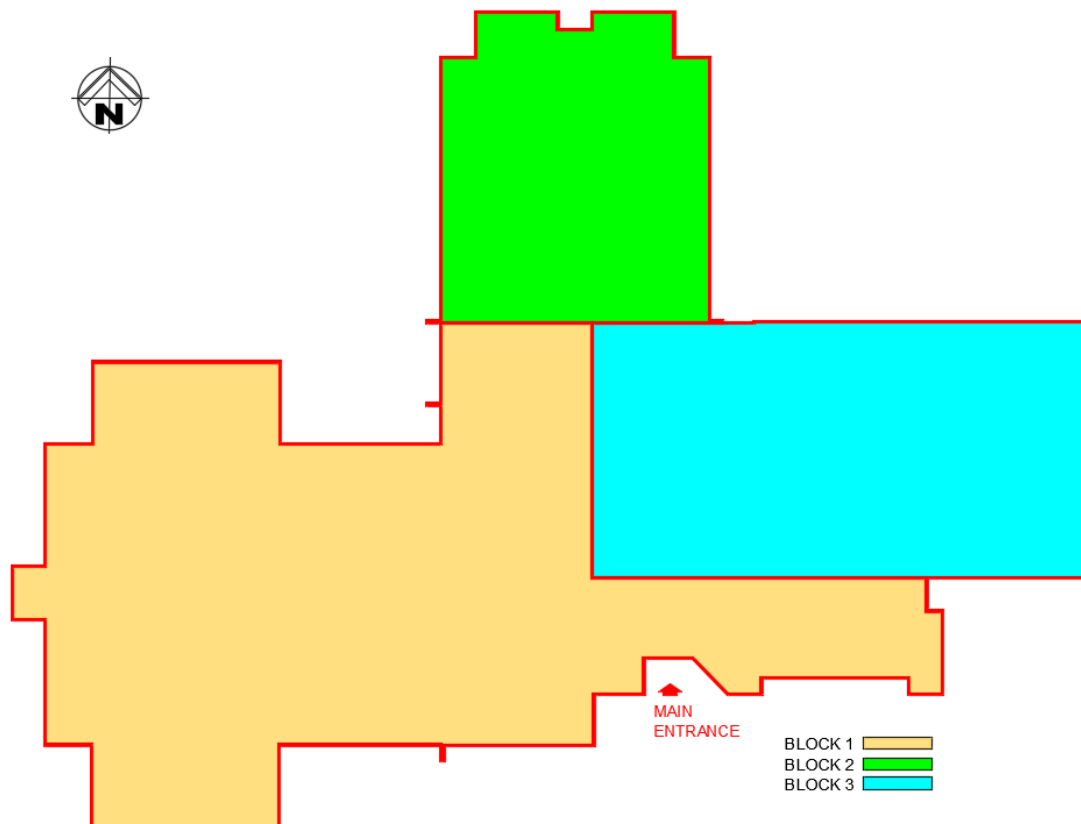
PROJECT SCOPE

- Block 1 (1974 Original Classrooms and Administration) - structural upgrades to mitigate the high seismic risk consisting of: new plywood shearwalls with hold-down anchors and rods drilled and epoxied to the existing footing; adding new plywood to existing roof structure with new drag/chord members to increase diaphragm capacity and to complete the seismic load path; and adding vertical reinforcement to existing unreinforced concrete masonry firewalls complete with dowels to the existing foundation wall and new clip angles installed to provide lateral restraint at the top.
- Block 2 (1979 North Classroom Addition) - structural upgrades to mitigate the high seismic risk consisting of: new plywood shearwalls with hold-down anchors and rods drilled and epoxied to the existing footing; adding new footings under shearwalls in select locations; adding new drag/chord members to the underside of the existing roof structure to complete the seismic load path; re-sheathing the north exterior wall with building envelope system rebuilt; and adding vertical reinforcement to existing unreinforced concrete masonry firewalls complete with dowels to the existing foundation wall and new clip angles installed to provide lateral restraint at the top.
- Block 3 (1974 Gymnasium) - was seismically upgraded in 2017 and not in scope.

- Non-structural seismic resistance upgrade to the entire school (added restraint of lighting, HVAC, plumbing and cabinets).
- Installation of new automatic fire suppression system.
- Restoration of wall/floor/ceiling/exterior finishes and hard/soft landscaping affected by the structural work, addition and demolition.
- Minor removal and replacement of mechanical and electrical equipment to accommodate structural work.

PROJECT STATUS

- The Ministry of Education approved the project in February 2020, funded from the Seismic Mitigation Program (SMP).
- Final occupancy for Maple Lane was granted in mid-November 2021 and the main construction team has demobilized from the site.
- Currently, construction trade staff are working on final deficiencies.



Seismic Block Map – Maple Lane Elementary