



## Seismic Program

In 2004, the Ministry of Education launched the School Seismic Mitigation Program in an effort to identify schools that may have structural risks associated with a seismic event. A partnership was developed with the Association of Professional Engineers and Geoscientists of BC as well as leading research facilities to evaluate schools for seismic safety based on the latest research from major earthquakes around the globe.

Since 2004, these experts have developed new guidelines and new assessment tools to conduct a comprehensive reassessment leading to a more accurate picture of seismic safety risks in British Columbia schools. Risk categories have been established to determine the various levels of seismic risks in schools. All schools in BC have now been assessed against these criteria.

Changes to the 2015 National Building Code (NBC2015) reflected significantly increased assumptions for ground force motions from a Cascadia Fault subduction event off the west coast of Vancouver Island and Haida Gwaii. Specifically, the expectations are for more intense shaking on Vancouver Island and Haida Gwaii (more than 2x the intensity in some regions) than previously assumed.

Throughout 2018, all Vancouver Island, Haida Gwaii and Richmond schools were reassessed using the updated SRG3 to determine a current risk rating for each school. The results of these reassessments are now incorporated in the Ministry of Education’s [Seismic Mitigation Program Status Report](#).

| Rating      | Definition  |
|-------------|---|
| Low (L)     | Least vulnerable structure. Would experience isolated damage and would probably be repairable after a seismic event. Non-structural upgrades may be required.   |
| Medium (M)  | Isolated damage to building elements is expected, non-structural elements (such as bookshelves, lighting) are at risk of failure. Non-structural upgrades required. Building to be upgraded or replaced within the Capital Plan when it has reached the end of its useful life. |
| High 3 (H3) | Isolated failure of building elements such as walls are expected, building not likely repairable after a large seismic event. Structural and non-structural seismic upgrades required.  |

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|-------------|---|
| High 2 (H2) | Vulnerable structure, at high risk of widespread damage or structural failure, likely not repairable after a large seismic event. Structural and non-structural seismic upgrades required.  |
| High 1 (H1) | Most vulnerable structure, at highest risk of widespread damage or structural failure, not repairable after a large seismic event. Structural and non-structural seismic upgrades required. |

Three secondary schools and 29 elementary schools in NLPS have recently been re-assessed and identified as requiring seismic upgrading, which represents 71 percent of the district's schools (41 in total). By comparison, only three schools had previously been assessed as requiring seismic upgrading. Acceleration of the Seismic Program has been identified as an objective in the NLPS Strategic Plan.

### FCI and Seismic Ratings

| School                            | Seismic rating |
|-----------------------------------|----------------|
| Cedar Secondary                   | N/A            |
| Cinnabar Valley Elementary        | N/A            |
| Coal Tye Elementary               | N/A            |
| Dover Bay Secondary               | N/A            |
| Frank J Ney Elementary            | N/A            |
| Randerson Ridge Elementary        | N/A            |
| Wellington Secondary              | N/A            |
| Ladysmith Primary                 | M              |
| Pauline Haarer (French Immersion) | M              |
| Davis Road                        | H2             |
| Rutherford Elementary             | H2             |
| VAST                              | H2             |
| Bayview Elementary                | H1             |
| Brechin Elementary                | H1             |
| Cedar Elementary                  | H1             |
| Chase River Elementary            | H1             |
| Cilaire Elementary                | H1             |
| Departure Bay Elementary          | H1             |
| Dufferin Crescent Elementary      | H1             |
| Fairview Community                | H1             |
| Forest Park Elementary            | H1             |
| Gabriola Elementary               | H1             |
| Georgia Avenue Community          | H1             |
| Hammond Bay (French Immersion)    | H1             |
| Harewood Elementary (NDSS gym)    | H1             |
| Island ConnectED                  | H1             |
| John Barsby Secondary             | H1             |

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|   |    |
|---|----|
| Ladysmith Intermediate                      | H1 |
| Ladysmith Secondary                         | H1 |
| McGirr Elementary                           | H1 |
| Mountain View Elementary                    | H1 |
| Nanaimo District Secondary                  | H1 |
| North Oyster Elementary                     | H1 |
| Park Avenue Community                       | H1 |
| Pleasant Valley Elementary                  | H1 |
| Quarterway Elementary (French Immersion)    | H1 |
| Rock City Elementary                        | H1 |
| Seaview Elementary                          | H1 |
| Uplands Park Elementary                     | H1 |
| Woodbank                                    | H1 |
| Woodlands Secondary (Learning Alternatives) | H1 |

### Temporary Accommodations

In order to expedite seismic upgrades, schools and/or school programs may need to be temporarily relocated to allow construction to proceed during the school year. This could involve the use of portables or other 'swing space'. Schools listed as N/A meet current standards due to upgrades completed or design requirements of the building code in force at the time of construction.