



School Seismic Safety Retrofit Program

2022 Supplemental Capital Budget Decision Package

Project Summary

The Office of Superintendent of Public Instruction (OSPI) requests \$8,561,000 to complete the six school seismic safety projects approved by the Legislature in the 2020 supplemental capital budget. Additional funding is needed due to the discovery and verification of higher liquefaction risks associated with one of the six projects funded by the Legislature. With this discovery, the cost of designing and installing the necessary seismic retrofit has increased. This request will ensure that OPSI has funding available to complete the remaining retrofit projects to protect students and educators during a seismic event.

Project Description

The 2017-19 capital budget provided funding to the Washington Department of Natural Resources (DNR) to conduct school seismic safety assessments of 222 public school buildings in Washington and report their findings. DNR hired a structural engineering firm to perform the required assessments which included the American Society of Civil Engineers (ASCE) 41-17 Tier 1 seismic evaluations, Federal Emergency Management Agency (FEMA) 154 Rapid Visual Screenings (RVS), and the Earthquake Engineers Research Institute's Earthquake Performance Assessment Tool (EPAT).

In June of 2019, DNR published the results of their seismic assessments. Unfortunately, DNR's assessments indicated that Washington has many older school buildings that are seismically vulnerable and need to be retrofitted to protect students and educators. DNR's report showed older unreinforced masonry buildings and non-ductile (low amounts of reinforcing steel) concrete buildings are especially at risk. The average date of construction of the buildings assessed was 1963, which was well before the adoption of modern seismic building codes in 1995.

The 2020 supplemental capital budget appropriated \$13.24 million to OSPI solely for seismic retrofit grants to school buildings used for the instruction of K-12 students. Cost estimates for each school building's retrofit were based on Tier 1 seismic screenings using a rapid visual screening to determine each building's general seismic risk. Retrofit cost estimates were based on general engineering design and not a detailed structural analysis.

With both predesign and construction underway for several retrofit projects, it is apparent that the original \$13.24 million appropriation is not substantial enough to cover the costs of all six retrofit projects. The primary driver behind this request for additional state funding was the

discovery and confirmation of liquefiable soils underneath the North Beach Pacific Elementary School Gym. Considered a very high seismic risk, the Pacific Beach Elementary School gymnasium was the first project in the state to receive state seismic retrofit funding. Soil core samples collected by the Pacific Beach Elementary School retrofit project team demonstrated that the gymnasium poses a greater liquefaction risk than originally anticipated in the DNR Phase 1 *School Seismic Safety Project*. The discovery of these highly liquefiable soils has increased the scope of the retrofit project, which will require additional resources to complete. In addition to the cost of the added retrofit needs, our budget request accounts for the increased price of construction materials, which escalated because of the pandemic and other factors influencing global markets. To ensure Washington's schools are prepared for future seismic events, the Superintendent requests \$8,561,000 to complete the six seismic retrofit installations which were funded by the Legislature in 2020.

What will the request produce or construct (i.e., building predesign or design, construction of additional space, etc.)? When will the project start and be completed?

This request will allow OSPI to complete all six seismic retrofits that were funded in the 2020 Supplemental Capital Budget.

How would the request address the problem or opportunity identified in question? What would be the result of not taking action?

If this request is not funded, OSPI will have to complete retrofit installations within existing appropriation. Stated differently, OSPI would have to complete retrofit projects that are currently under construction. The remaining schools would forego funding and lose the ability to install their seismic retrofits.

What alternatives were explored? Why was the recommended alternative chosen?

The overall cost associated with retrofit construction prevents the state from simultaneously performing seismic retrofits to every school building in the state. From an administrative standpoint, OSPI must stagger school seismic retrofit grant awards to school districts to ensure that the agency has the sufficient funding necessary to complete retrofit installations. Project cost estimates for seismic retrofits can be extremely difficult for engineers and geologists to determine and can increase exponentially depending on variables unique to each building receiving a retrofit. To ensure that OSPI requests sufficient funding for retrofit installation, our budget request accounts for contingency and the cost of retrofit design. Without design and contingency, the cost estimate for the completion of these retrofits is \$6,400,000. However, to account for unknown variables that could affect the remaining retrofit projects, we recommend fully funding this request at \$8,561,000 to ensure that all remaining retrofits can be completed in a timely manner.

Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

The 2020 supplemental budget provided \$13.2 million in funding to install seismic retrofits at six school buildings. This request will allow OSPI to complete retrofits at all six buildings. Without additional funding, OSPI will not be able to complete retrofits at Cosmopolis Elementary School and Marysville Totem Middle School.

Will non-state funds be used to complete the project? How much, what fund source, and could the request result in matching federal, state, local, or private funds?

No, school districts are not required to offer a local share towards their seismic retrofit project.

School districts receiving grant funding will be required to work with their county government to ensure that their district is part of their county's Federal Emergency Management Agency (FEMA) approved Hazard Mitigation Plan. By requiring a district to participate in a FEMA approved Hazard Mitigation Plan, school districts will become eligible for potential federal grant funding.

Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming, and other analyses as appropriate.

This project supports Superintendent Reykdal's K-12 Education Vision of his goal for Washington's public education system to prepare every student who walks through our school doors for post-secondary aspirations, careers, and life.

Does this project include IT-related costs, including hardware, software, cloud-based services, contracts or IT staff?

OSPI will utilize its existing Information and Condition of Schools (ICOS) Database to track pertinent project information. No funding requested will be used to modify the ICOS database.

If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail.

N/A

Does this project contribute to statewide goals to reduce carbon pollution and/or improve energy use? If yes, please elaborate.

School Districts that receive a School Seismic Safety Retrofit Grant will be required to meet the Washington Sustainable Schools Protocol if a major retrofit is required.

Historical Significance

School Districts will need to work with the Washington State Department of Archaeology and Historic Preservation to ensure that seismic retrofit projects do not impact potential

archeological sites, or historic buildings. School Districts will also need to ensure compliance with any local archaeological and/or historic preservation laws and codes.

Describe Growth Management Impacts

School Districts are responsible for determining whether and how they need to participate in the planning process with the city or county planning authority. Many districts have expressed difficulty locating potential new school facilities within established urban growth boundaries.

Grant Recipient Organization

Local School Districts

Application Process Used

N/A

Funding Requested

- 2019-21: \$0
- 2021-23: \$8,561,000
- 2023-25: \$0
- 2025-27: \$0
- 2027-29: \$0

How is your proposal impacting equity in the state? Which communities are impacted by this proposal? Include both demographic and geographic communities. How are disparities in communities impacted?

School construction in Washington is financed using a state funding share and a local funding share. However, many communities throughout the state do not have the financial resources required to produce the local funding share required for their school construction project. When this occurs, school buildings in these communities are left with no resources for capital repairs. Over time, the condition and safety of these facilities deteriorates without additional capital investments. To further complicate matters, many of these neglected facilities were constructed before the adoption of modern seismic code. With limited resources available, communities are forced to utilize the facilities they currently have, leaving students and teachers inside of questionable facilities that are not prepared for future seismic events.

In contrast, wealthier communities are easily able to pass capital levies and bonds, allowing them to construct and modernize their school facilities. Several wealthy communities in the state have already installed their own seismic retrofits without utilizing state funding.

This proposal will provide fully state funded seismic retrofits to buildings in communities that would otherwise lack the resources necessary to install their own seismic retrofit.

Specifically, additional retrofit funding will allow OSPI to complete seismic retrofits at Cosmopolis Elementary School and Marysville Totem Middle School.