

Best practices

Disaster Mitigation Working in Alaska

FEMA



Kodiak Borough Invests in Earthquake Safety



Middle School seismic upgrades in progress

Kodiak Island, Alaska - This remote island, located on the western side of the Gulf of Alaska, lies in an extremely active seismic area and suffered many casualties during the 1964 Alaska earthquake and tsunamis. **The Kodiak Island Borough is responsible for public school education on the island. Its citizens and community officials are also determined to ensure the safety of the children who attend those schools.**

From 2000 through 2003, awareness of structural seismic safety issues was heightened by the efforts of local experts, concerned citizens and community officials. As a result, the Kodiak Borough issued bonds to pay for a thorough safety review of all of its school buildings. Following the engineering analysis came community-wide public meetings to share information about seismic vulnerability of schools and to identify priorities for retrofit.

The two-story Middle School, which also serves as a community evacuation shelter, emerged as the highest priority for a structural upgrade. The analysis revealed that the building needed infill shear walls, new roof and floor diaphragm connections and other engineered retrofits designed to transfer lateral loads to the foundation. These improvements would bring the school, constructed over 40 years earlier, into compliance with modern seismic building codes that reflect the risk Kodiak faces.

In 2005 the Borough had used the Federal Emergency Management (FEMA) Pre-Disaster Mitigation (PDM) program to develop a hazard mitigation plan. This, along with the community-funded initiative to identify school seismic risks, paved the way for a successful application for a PDM grant of \$938,633 to pay part of the cost of making the needed improvements to the Middle School. The Borough also took advantage of the open building required for the seismic retrofit construction to complete separately-funded fire safety and heating upgrades.

Earthquake safety upgrades to portions of other Borough schools have also been achieved. This additional work was funded through local, State of Alaska and additional FEMA Hazard Mitigation Grant (HMGP) Program funding of \$2,136,697 (through 2012).

The State of Alaska has used the Kodiak Island Borough experience as a “showcase” example of what a

community can do when people come together and make a commitment to long-term structural seismic safety. **The Borough received a Western States Seismic Policy Council “Overall Award for Excellence in Mitigation” in 2009 as a result of the Middle School and other school seismic safety projects.**

The outreach and educational component of both the hazard mitigation planning process and the seismic upgrade construction program included “in-kind” contributions on the part of Borough staff that allowed the community to become much more aware of their seismic (and all-hazards) risk factors and their application to critical community facilities and infrastructure.

The people of Kodiak Island Borough understand that taking action to protect the lives of their children and prevent damage is a critical responsibility and wise investment of time and resources.