

SPECIALIZED EXPERIENCE

SEISMIC HAZARD AND GROUND MOTION STUDIES

Platform Grace, Santa Barbara Channel, California - As Senior Engineer for Dames & Moore, participated in seismic risk studies and development of design earthquake motions.

Crude Oil Terminal and Pipeline, Long Beach, California to Midland, Texas - As Senior Engineer and consultant to Dames & Moore, participated in development of design earthquake motions.

Platforms Ellen and Elly, San Pedro Bay, California - As consultant to Shell Oil Company, supervised seismic risk studies and development of design earthquake motions.

Generic Nuclear Waste Isolation Facilities - As consultant to Science Applications, Inc., recommended design ground motions for studies of seismic response of tunnels.

Platform Edith, San Pedro Bay, California - As consultant to McClelland Engineers, recommended design earthquake motions.

Platforms Hermosa and Hidalgo, off Pt Arguello, California - As consultant to McClelland Engineers, conducted seismic risk analyses, developed design earthquake motions and conducted ground response analyses.

New Children's Hospital at Stanford - For Ove Arup and Partners, developed design response spectra.

Ferry Building, San Francisco, California - Development of earthquake ground motions and response spectra for analyses of response and retrofitting of historic building founded on Young Bay Mud.

Islais Creek Transport and Storage Sewer Project, San Francisco - Development of design earthquake motions and conduct of soil-structure interaction studies for box structure partially embedded in Young Bay Mud.

Las Vegas World Tower, Las Vegas, Nevada - Development of design response spectra with adequate coverage of long period ground motion for proposed 1000-foot tall tower.

Concord, Hayward and Rockridge BART Stations - Conducted seismic hazard analyses and developed design response spectra.

Asian Art Museum, San Francisco - Conducted seismic hazard analyses and developed design response spectra for proposed conversion of Old Main Library.

Electric Power Research Institute - Co-principal investigator for EPRI / Department of Energy study of earthquake ground motion for ALWR program.

New Main Library, San Francisco - Developed acceleration histories for new base-isolated building.

Hearst Mining Building, U.C.Berkeley Campus - In association with Rutherford and Chekene and Dr Walt Silva, developed design motions for proposed seismic upgrade.

Old Customs House, San Francisco - Conducted seismic hazard analyses, site response analyses and developed design response spectra and acceleration histories for proposed seismic upgrade.

Ferry Building, Piers 27/29, Piers 30/32 San Francisco – Conducted seismic hazard and nonlinear site response analyses for sites with young Bay Mud.

Richardson Bay Bridge, Marin County - Conducted site response analyses and developed site-specific design response spectrum for seismic upgrade of existing bridge structure. Made special study of expected peak and relative displacements.

San Francisco - Oakland Bay Bridge, East Span Seismic Safety Project - With Fugro-EMI, member of seismic hazard and site response analysis team. Conducted nonlinear site response analyses and provided input to soil-pile interaction analyses.

San Francisco International Airport - Conducted seismic hazard and nonlinear site response analyses for airfield development program involving proposed construction of offshore fill or pile-supported runways. Provide input for advanced soil-pile interaction analyses.

New De Young Museum, San Francisco - Conducted seismic hazard and site response analyses. Developed design spectra and time histories.

Yucca Mountain National Nuclear Waste Repository - Member of Seismic Advisory Panel.

UC San Francisco, Stanford Hospital, UC Davis, Sutter Health Santa Rosa and Sacramento, Kaiser Hospital, Vallejo – Seismic hazard analyses and development of time histories.

Mills Peninsula Hospital Replacement – With Dr Norman Abrahamson, conducted peer review, guided modifications, and shepherded ground motions through CGS review.

Pacific Earthquake Engineering Research Center – Participant in 2G02 research project on validation of nonlinear site response analyses.

Sunset Reservoir – For Olivia Chen Consultants and San Francisco PUC developed ground motions for seismic retrofit of dam located near San Andreas fault.

San Francisco PUC Power Plants – Conducted seismic hazard analyses and nonlinear site response analyses for sites on southern waterfront underlain by Bay Mud.

BART San Francisco Transition Structures Section Design – Senior consultant to Parsons Brinkerhoff on site response and ground motion issues relative to global analyses of TransBay Tube and soil-structure interaction analyses of San Francisco Ventilation Structure.

Genentech Buildings 3 and 50, South San Francisco – Developed site specific spectra and acceleration histories in conformance with ASCE 7-05.

Oakland International Airport Terminal One Seismic Upgrade – Developed site specific response spectra in accordance with IBC 2006.

Victoria Island Intake Structure, Contra Costa Water – Developed alternative site-specific and building code spectra.

Peer reviews

Gladstone Institutes, Mission Bay, City of San Francisco.

Mills Peninsula Hospital Reconstruction, San Mateo, California.

Bremerton Naval Hospital, Bremerton, Washington.

South Terminal Upgrade, Anchorage International Airport.

Washington Mutual / Seattle Art Museum Tower, Seattle.

Portalus and Lincoln Square Projects, Bellevue, Washington.

2017 7th Avenue, Olive 8 and The Olivian, Seattle.

Lincoln Square Project, Bellevue, Washington.

399 Fremont Street, San Francisco.

8th Avenue and Stewart Street, Seattle

UCSF Institute of Regenerative Medicine

222 Second Street, San Francisco