

# FACILITY REPORT - LIVERMORE VAULT



## INTRODUCTION

The Ship Art “Vault” facility located in Livermore California is the product of years of research and development into creating the best possible Fine Arts Storage Facility in the San Francisco Bay Area. It is a direct response to input from private clients, museums and the insurance industry as a way of diversifying risk in a world that is seeing an increase in catastrophic events such as fires, earthquakes, hurricanes and floods. The San Francisco Bay Area is home to some of the most amazing art collections but this area does come with significant risks. Due to its location The Livermore “Vault” facility is designed to directly reduce those risks as well as allow some geographic risk diversification.

## BUILDING CONSTRUCTION

This facility is independently owned by Ship Art -- it is not a leased facility. The California building code was updated after the Loma Prieta and Sylmar earthquakes dictating that overall design and construction must be completed with earthquakes in mind. Research shows that buildings constructed from the ground up to modern earthquake codes perform substantially better than retrofitted buildings.

- Built in 1999
- Free standing Class “ A” building with no shared roof lines
- Fire resistant, reinforced concrete tilt-up build
- High level of steel throughout -- including steel truss roof supports instead of wooden glue lams
- Built to all modern earthquake codes --not retrofitted
- Access through loading docks and offices
- 20,000 square feet
- Temperature and humidity controlled
- Two dock high tractor trailer accessible doors
- One street level drive in dock
- 24 foot high ceiling
- LED lights with UV filters on motion sensors
- All racking systems designed, engineered, permitted and installed in 2018
- One rear emergency exit secured by metal fire doors and double-bolted from inside

## SECURITY / FIRE

- UL rated central station alarm system equipped with battery backup and wireless communication
- Motion sensors throughout the building
- All points of entry-- interior and exterior-- monitored 24/7 by infrared motion cameras which can be accessed both onsite and offsite
- All access by clients or their agents is supervised and arranged at least 48 hours in advance
- All staff subject to stringent criminal history background checks at the federal level
- Comprehensive smoke and fire suppression system with smoke detectors in all HVAC units and ducts
- High capacity wet standpipe fire suppression system
- Fire extinguishers throughout the warehouse in excess of what is required by law
- 50 feet from the nearest fire hydrant
- 2 miles from the nearest fire department
- 4 miles from the nearest police station

## CLIMATE CONTROL

This is a completely new and modern system installed in 2018.

- Facility maintained at a constant temperature of 68° F ( $\pm 5^\circ$  F) and humidity of 45% RH ( $\pm 5\%$  RH)
- Dickson controls remote access charting and systems for all climate parameters
- Hydro-thermograph recordings maintained on a regular basis
- Alarms on climate units alert senior staff via cell phone if temperature or humidity falls out of range
- 13 roof mounted HVAC units --either new or certified reconditioned
- New insulation
- New ultrasonic humidification units.

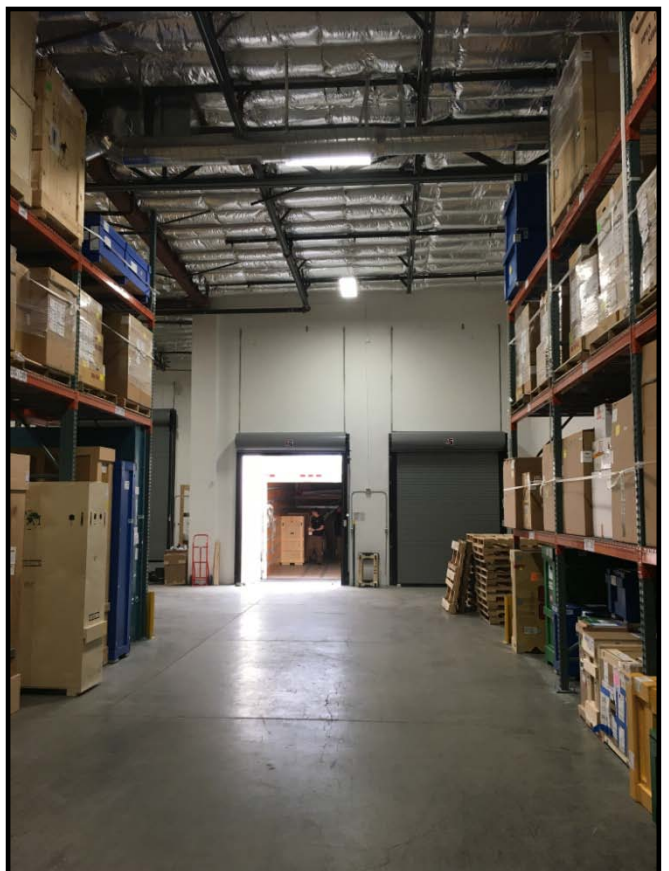
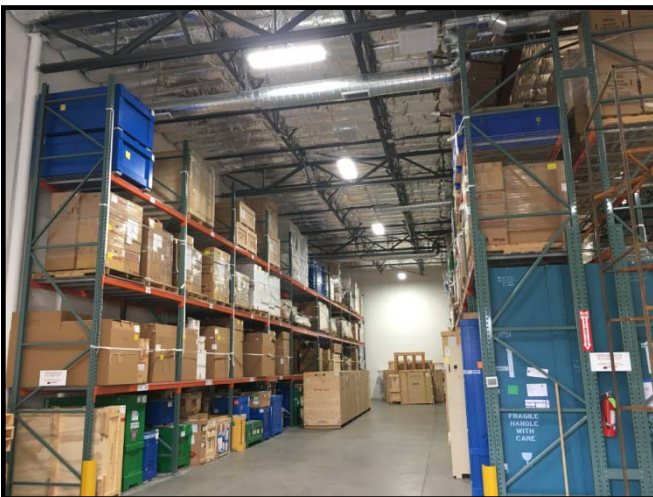
## HOUSEKEEPING

Since this is a new facility for us and is operated as a Vault storage instead of an operations hub it is much easier to keep clean.

- Climate storage is sealed and essentially dust free
- Cleaning done on as-needed basis with cotton rags and broom
- No solvents are used
- Comprehensive Integrated Pest Management system in place

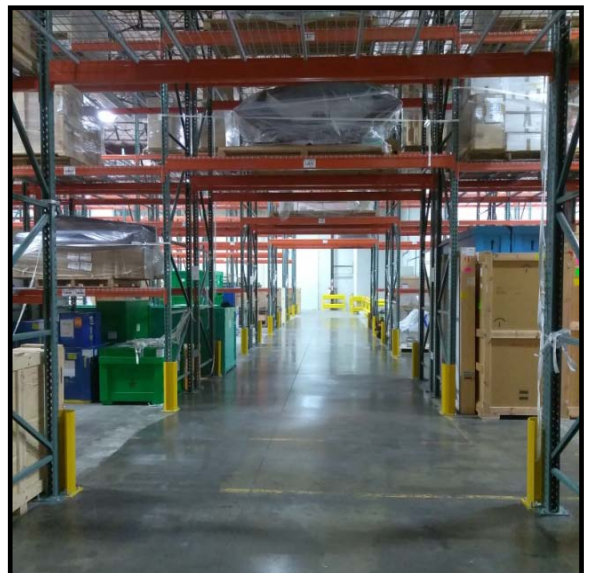
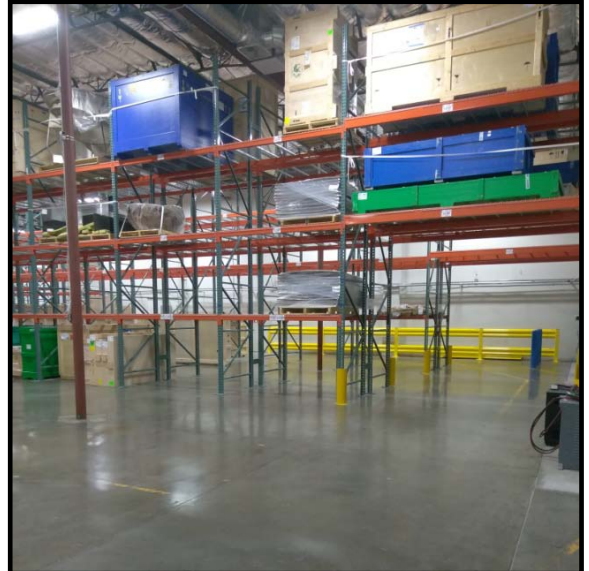


## Facility Photos





## Facility Photos



# Earthquake Risk Assessment



## San Francisco and Peninsula:

Companies located in San Francisco or the Peninsula are at risk from the San Andreas fault line. Based on reports by the USGS this fault line has a probability rating of 21% of an earthquake of 6.7 or greater during the next 14 years.

## Oakland Area:

Companies located in the Oakland area are at risk from the Hayward fault line. Based on reports by the USGS this fault line has a probability rating of 27% of an earthquake of 6.7 or greater during the next 14 years.

## Livermore Area:

Companies located in the Oakland area are at risk from the Greenville fault line. Based on reports by the USGS this fault line has a probability rating of 3% of an earthquake of 6.7 or greater during the next 14 years.



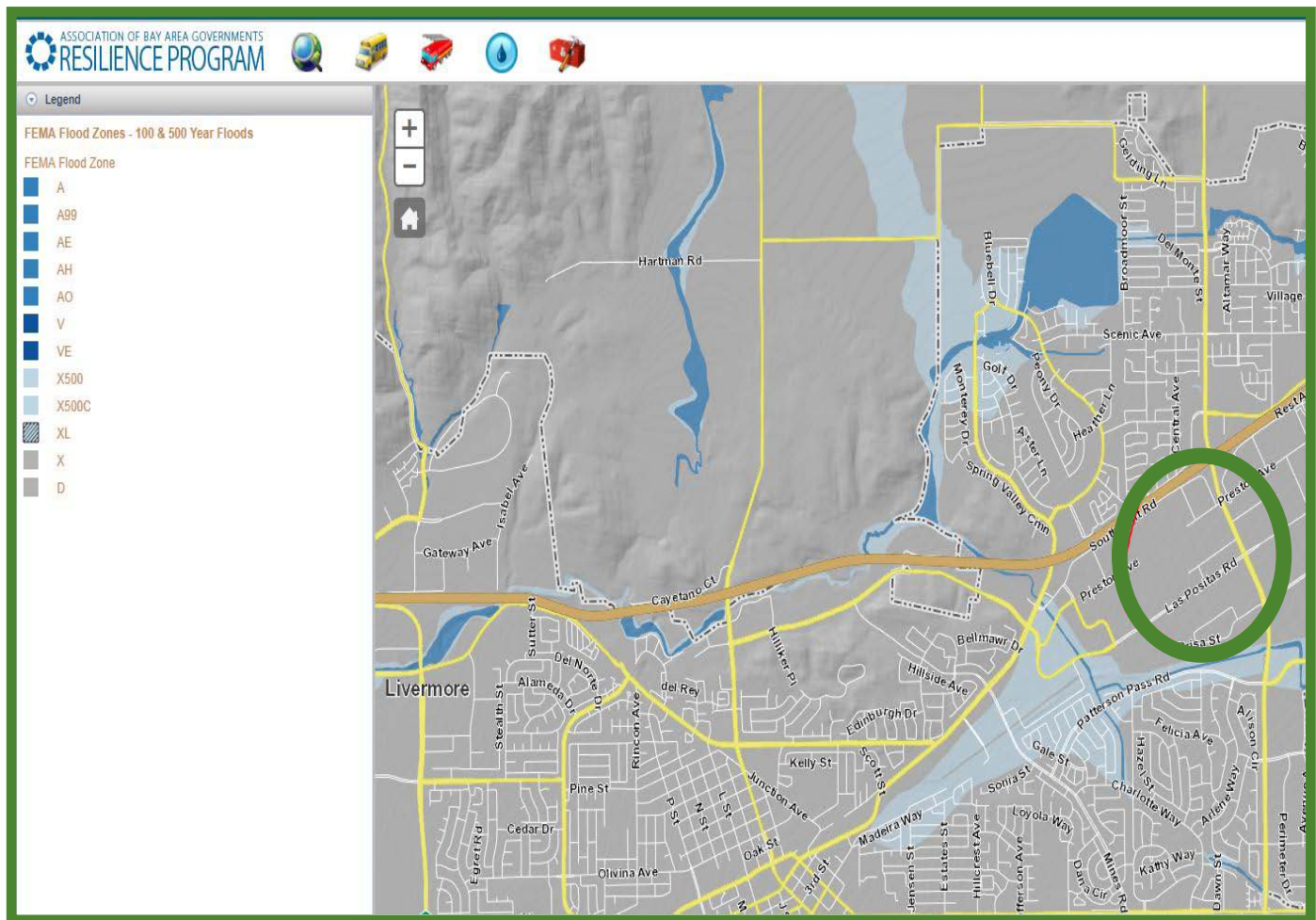
**Summary:** The Ship Art Vault located in Livermore is the only Museum Level Fine Arts Storage Facility in the San Francisco greater Bay Area that has an earthquake probability rating of less than 5%. All other facilities including Ship Art headquarters have a probability rating of 21% or above in the next 14 years.



# Flood Risk Assessment



The Ship Art Livermore Vault facility lies in a FEMA Flood Zone X. This is one of FEMAS lowest probability zones. It is outside of even the 500 year flood zone.



**Summary: There is very little to no risk of flood at this location.**

# Liquefaction Risk Assessment



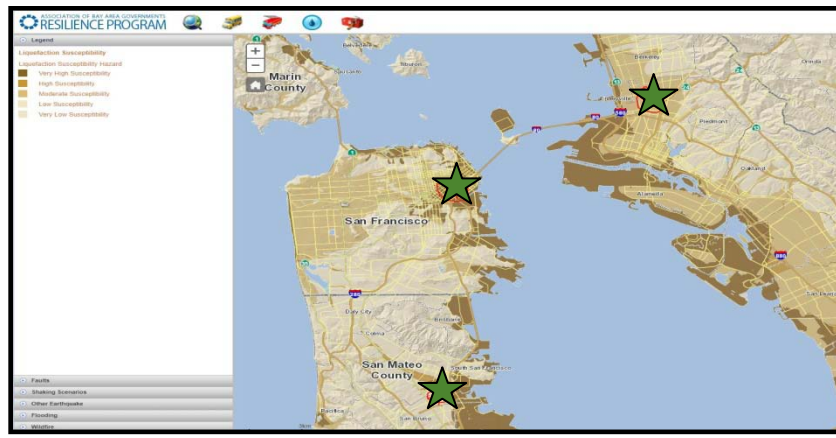
## Risk Assessment:

All Museum level Fine Art Storage Facilities in the San Francisco Bay Area are at moderate risk for Liquefaction. This is according to the susceptibility maps of FEMA and ABAG, the Association of Bay Area Governments. This includes the ShipArt Livermore Vault Facility.

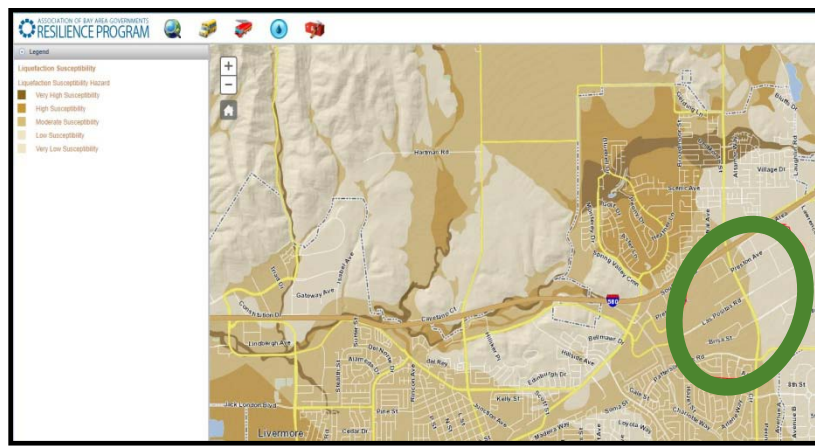
## **What is Liquefaction?**

**Earthquake liquefaction**, often referred to simply as **liquefaction**, is the process by which saturated, unconsolidated soil or sand is converted into a suspension **during an earthquake**. The effect on structures and buildings can be devastating, and is a major contributor to urban seismic risk.

The below map shows the general locations of existing fine art facilities.



The below map shows the Livermore Vault facilities' general location.



**Summary:** While the Vault does lie on the edge of a liquefaction zone which is something it shares with all of its Bay Area peers it does lie in a significantly lower earthquake probability zone which brings its probability of liquefaction to a very low level. Significantly lower than all of the other facilities.