

## Staff Report

**Date:** April 13, 2012

**To:** Honorable Members of the Visual Arts Committee

**From:** Mary Chou

**Re:** Public Safety Building – Fire Station Artwork

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During the January 2012 Visual Arts Committee meeting, Commissioners approved the concept of the cistern for the fire station artwork and recommended the artist team, Merge Conceptual Design, work with the design team to develop a proposal that would be well-suited for the site. The artists have spent the past several months developing the attached revised proposal. SFAC staff's recommendation is to proceed with the further development of this proposal.

The artists are meeting with Chief Hayes-White and the Project Team on Monday, April 16<sup>th</sup> to present the revised proposal for comment and feedback. SFAC staff will report on the feedback and input from the Project Team at the April Visual Arts Committee meeting.

public art for the fire station at the public safety building  
mission bay, san francisco, ca

concept proposals  
april 2012



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# CISTERNS



Our public art proposal is based on SFFD's system of underground cisterns. The cisterns are part of San Francisco's unique Auxiliary Water Supply System. The cistern system will be improved with the same bond measure that finances the construction of the Public Safety Building.

Fire fighters can draft from these cisterns in the event of major damage to the water distribution system of the Department of Water & Power and the Fire Department's Auxiliary High Pressure Water Supply System. 159 Cisterns are strategically located throughout the city with a total storage capacity of approximately 11 million gallons of water. The cisterns have been built since the 1850s, and continue to be built today.

Most of the cisterns are marked in the street by a ring of brick pavers. There is a wide range of interpretations by the general public of what these brick paver rings might signify, ranging from alien landing sites, archeological sites to streetcar turnarounds. One might say that the rings have become public art in their own right as they appear randomly at streets and street corners.

In our proposal we are playing with the shape, material and dimensions of a typical brick cistern to help viewers visualize this hidden, urban infrastructure.

# history of the cisterns



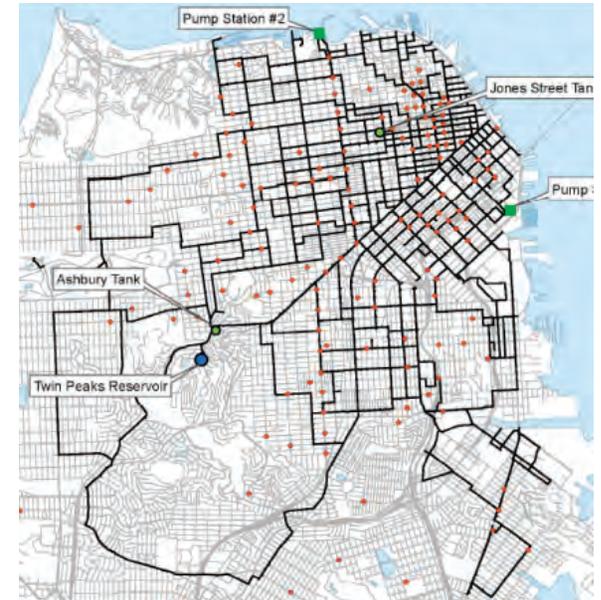
## RESERVOIRS

(July 1852)

- 1 On the Plaza facing Merchant St.
- 2 Corner of Montgomery & Washington Sts.
- 3 " " " Commercial "
- 4 " " " California "
- 5 " " Sacramento & Kearney "
- 6 " " Jackson " "
- 7 " " Pine " "
- 8 " " Dupont " Sacramento "
- 9 " " " " Pacific "
- 10 " " Stockton " "
- 11 " " Bush " Montgomery "
- 12 " " Battery " Commercial "
- 13 " " Dupont " Washington "
- 14 " " Battery " Market "
- 15 Sacramento St. above Stockton St. (41½ metres)



1859



Current map of AWSS and cisterns

A 1952 map marks the oldest cisterns (numbered from 1 to 15), while a map from 1959 shows 40 cisterns as circles at street intersections.

The first cisterns were built after the Third Great Fire (1850). The oldest cistern is located at California & Montgomery Street; it is still in use today.

By 1872, 64 cisterns had been built, with a combined capacity of 3,000,000 gallons. Over the following years, many of the cisterns were left to deteriorate -in spite of the pleadings for maintenance by several Fire Chiefs. As the building of water mains created a fake sense of safety, some cisterns were even used as dumping grounds for construction waste. In 1906 only 23 functional brick cisterns remained. These cisterns provided one of the last functional water sources after the earthquake. However, since they had been poorly maintained in the preceding period, they could not be used to their fullest potential.

After the 1906 Fire and with the construction of the AWSS system, 50 of the old cisterns were restored and 85 new concrete cisterns were built. Over the years cisterns continued to be built, however at a slower rate.

Today, 159 cisterns are in service. The AWSS bond will pay for the construction of 30 to 35 new cisterns, as well as for the repair of some older, failing ones.

1852

# historic photos

Russian Hill 1906  
Exposed brick cisterns  
after the earthquake.



Water drawn from a brick cistern during 1906 fire.



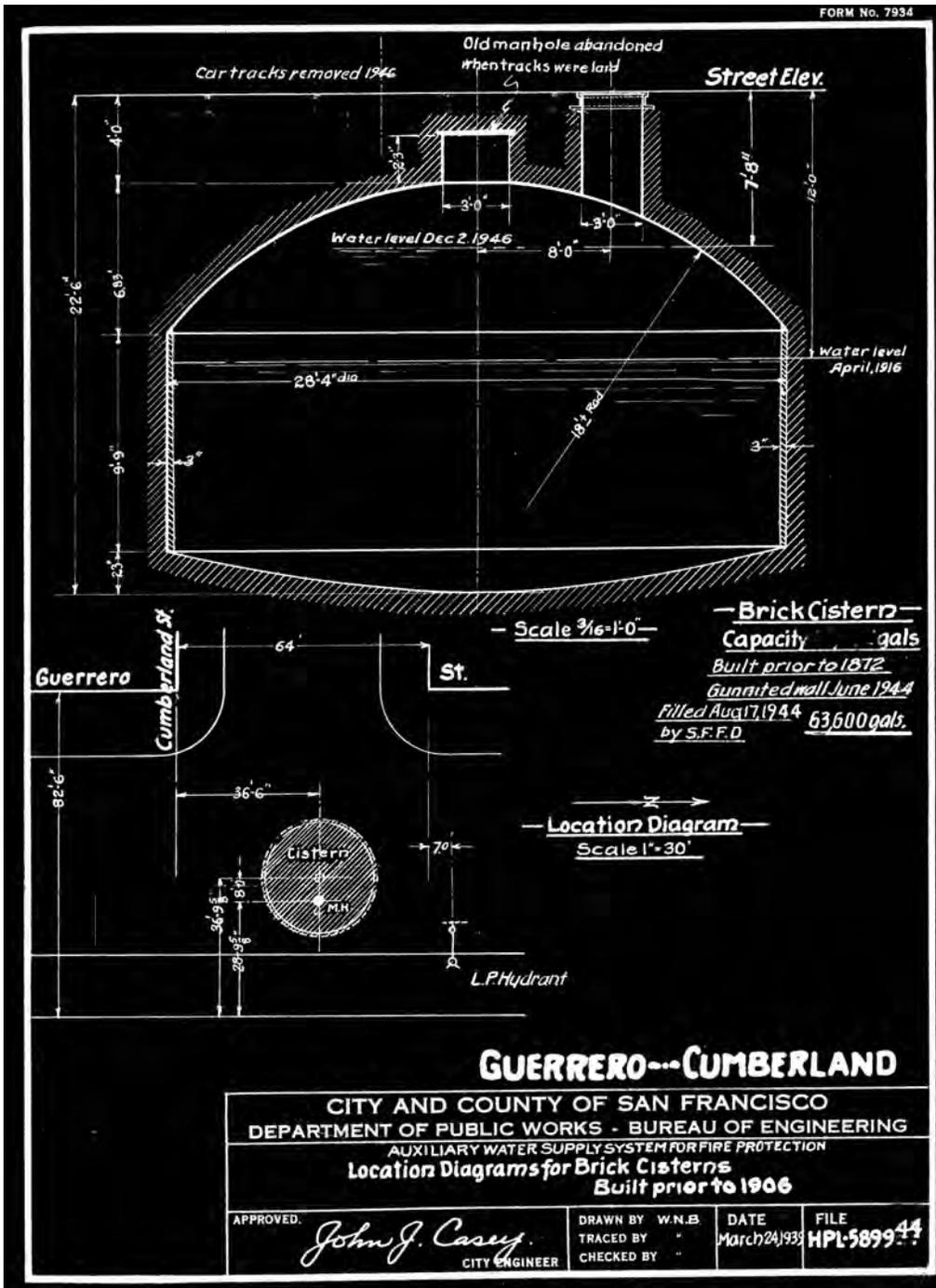
Cistern construction in the 1930s was part  
of the New Deal to fight unemployment.



Cistern construction in the 1980s.



# construction method



Cistern @ 25th St & San Bruno, photo © of PUC, Robin Scheswohl

The first cisterns were square wooden boxes of tar-soaked planks, with caulked seams, and were fitted with flat wooden tops. Most of the original wood cisterns were rebuilt in brick a few years later by John Duane, an expert brick mason and brother of former Chief Engineer Charles F. Duane. By the 1870s, 64 brick cisterns were in service.

Cisterns that were constructed after the 1906 earthquake were made of concrete.

Both brick and concrete cisterns are typically built as cylinders with a curved floor and domed ceiling, their diameter varying from 20 to 30 feet. A small number of square cisterns were also built.

The location of most cisterns is marked with a brick paver ring in the street, no matter whether the cistern is constructed from concrete or brick.

We used the cistern at Guerrero & Cumberland as a guide for our art installation. The cistern was built around 1870, and holds 63,600 gallons. It is the only brick cistern we were able to attain drawings of.

Cistern @ Guerrero & Cumberland, drawing © of PUC

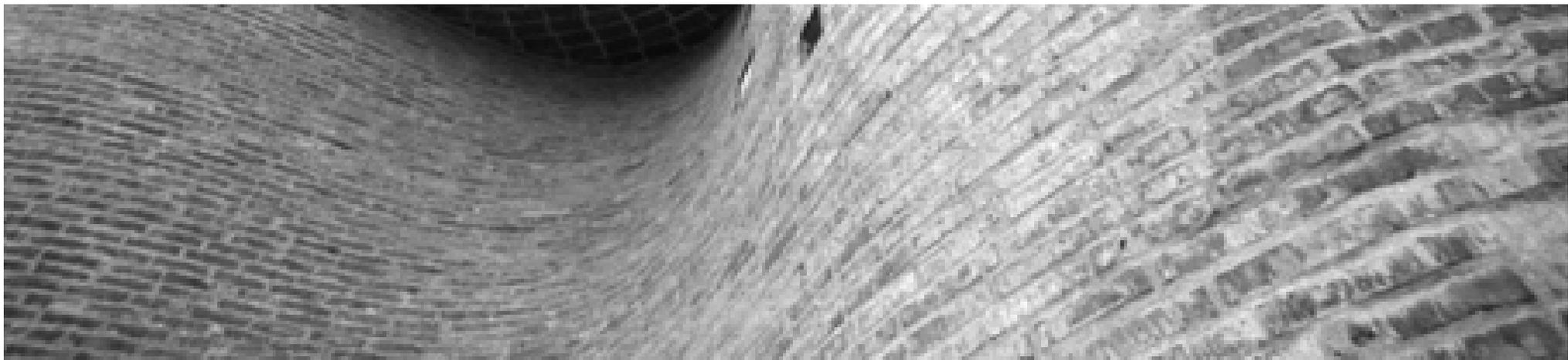
# material



Brick is a versatile material and has been used in the construction of buildings and infrastructure of all shapes and sizes throughout the ages.

At the time of the 1906 earthquake two brick factories existed in San Francisco. Bay City Brick Company was located at the foot of Twin peaks and, the San Francisco Brick Company was located at States Street. Additionally brick warehouses existed on the wharfs of Channel Street, which is in close proximity of the proposed location of the art piece.

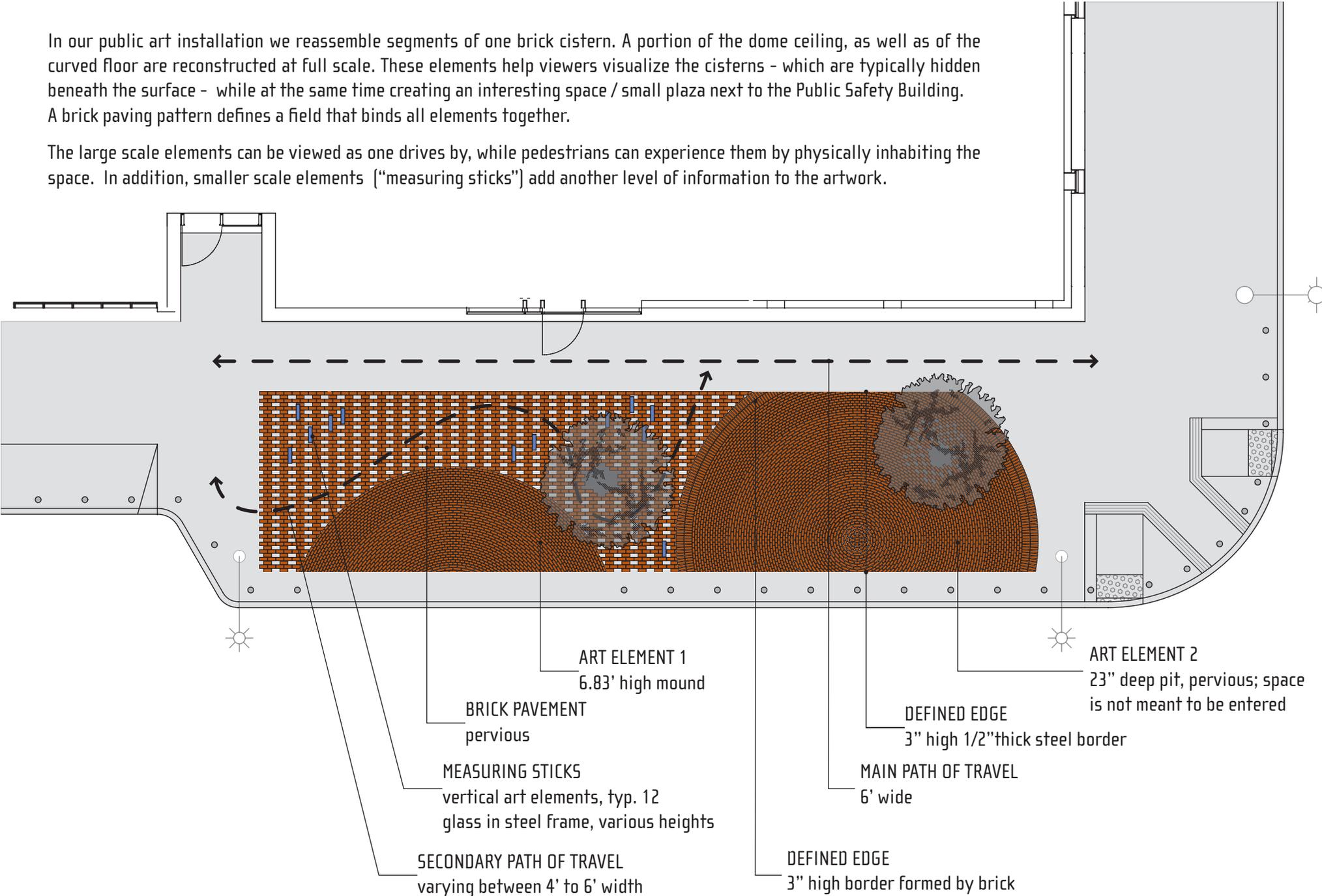
After the Great Fire buildings in San Francisco were increasingly built from brick so they would be more resilient to potential fires. The old Fire Station on site of the PSB was built in 1928, and is one such example.



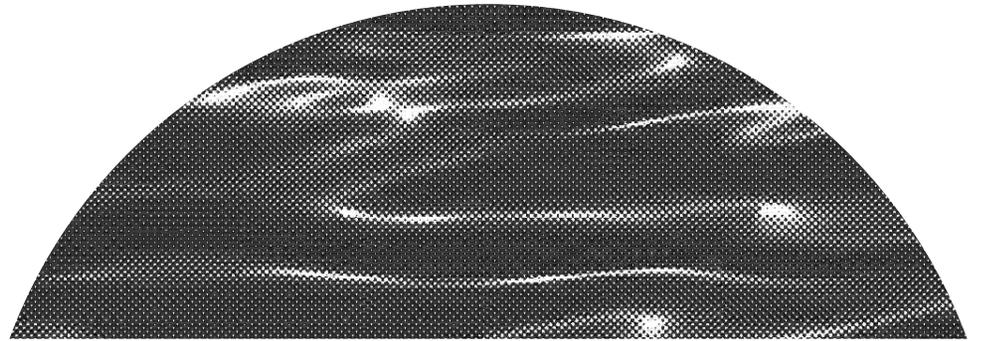
# site plan

In our public art installation we reassemble segments of one brick cistern. A portion of the dome ceiling, as well as of the curved floor are reconstructed at full scale. These elements help viewers visualize the cisterns - which are typically hidden beneath the surface - while at the same time creating an interesting space / small plaza next to the Public Safety Building. A brick paving pattern defines a field that binds all elements together.

The large scale elements can be viewed as one drives by, while pedestrians can experience them by physically inhabiting the space. In addition, smaller scale elements ("measuring sticks") add another level of information to the artwork.



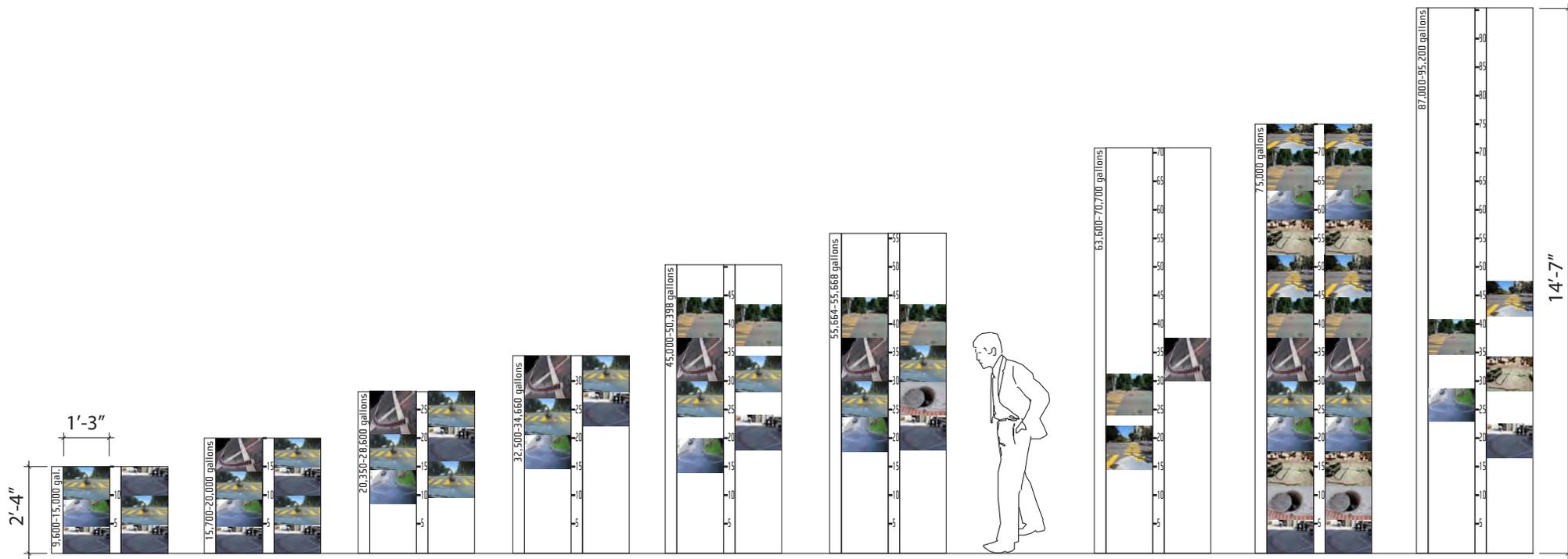
# art elements - MOUNT AND PIT



The simple shapes of the artwork's brick mount and pit seem almost archeological or archetypal in their contemporary surrounding, and are pointing to another time and reality hidden beneath the surface of the modern city. The brick pit is 23" deep, while the brick mount is 6' high. Both elements are full scale reproductions of segments of the cistern at Guerrero and Cumberland.

Both mount and pit are limited by the boundaries of the brick paver pattern field. The resulting vertical surfaces that cut the segments will be defined by steel plates. These plates will feature a simple screen-printed pattern reminiscent of water, referring to the use of the cisterns.

# art elements - MEASURING STICKS / CAPACITY MARKER



The big number of cisterns and the mysterious presence of their brick markers throughout the city fascinates us.

In order to relate our brick sculptures to the city-wide cistern system, we are proposing to record every cistern location in the City by photographing the brick rings that represent them on street level. The resulting images will be displayed on "measuring sticks".

We studied the list of SFFD's cisterns and grouped them according to their storage volume. We related the volume of each group to the diameter of the brick cistern we reconstructed on site. Each measuring sticks thus represent a group of specific cisterns in their full scale height (if they were built with the diameter of our brick cistern.)

Each marker measures 4" x 16" in plan, with the heights varying. They will be made from stainless steel channels framing safety glass panels. The photographs can be applied to the glass (i.e. through a photographic film in the inter-layer). Etchings on the steel frame will indicate the gallon range of the specific cistern group on one side of the frame, while a gallon scale is displayed on the other side for reference. A small LED strip hidden within the frame can illuminate the glass panels at night, giving this installation an atmospheric night presence.

art elements - PAVING



modell images

