

“The President’s House in Philadelphia, PA”

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This Fourth of July, visitors to Philadelphia, PA saw more than just the Liberty Bell and Independence Hall – they witnessed history in the making. For the first time in history, a large-scale excavation was taking place on what used to be the site of a four-story mansion once lived in by George Washington and John Adams. The former structure was also the executive headquarters until the White House was finished in 1800. Visitors were able to observe the excavation from an observation deck above.



Erdman, Anthony and Associates, Inc. (Erdman Anthony) was hired by the National Park Service to collect data on the site using the latest 3-D laser scanning technology.

The scanner itself has two components: a digital camera and a laser. First, a surveyor takes a picture with the digital camera, then marks the area he wants scanned. Next, the laser scanner moves robotically around that area and captures data at an incredible speed of 4,000 points per second. The excavation site was 60’ wide by 90’ long and 10’ deep; but because of this rapid data collection time, it only took two hours for the scanner to collect all the data points. Once the points were collected, it only took an additional 30 minutes for Erdman Anthony to merge the data and produce a raw image.

“This is the latest and greatest technology so far,” said Bryan Merritt, LS, Erdman Anthony Project Manager. The benefits of survey laser scanning services include highly detailed 3-D data, shorter data collection time, safer and less intrusive field operations, and enhanced visual capabilities. “Once the data is collected, we can do a full array of mapping, drawings, cross sections, volumes, and more, all from the comfort of our office,” Merritt said.

On the 3-D image made, you can see a dark, square hole along one of the sides. It was determined that this had been the location of an outhouse (privy). At that location, archeologists found old coins, smoking pipes, a passageway that slaves used to move about the house, and a bow window that many believe inspired the Oval Office in today’s White House.

The mansion was built in 1769 and was the location of several historical events, such as Washington signing the Fugitive Slave Act. By the 1830s, most of the mansion had been destroyed. It was rebuilt but then leveled in the 1950s for the landscaping of Independence Mall.

The excavation continued until August 1, 2007, at which point it was to be filled. A memorial will be built on top of the site that will include any artifacts that were found, the 3-D laser image, and other pictures/information on the former mansion.