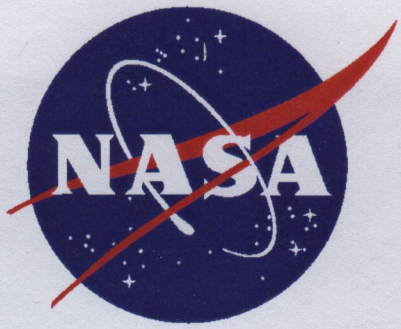
DAMAGE ASSESSMENT
SITE 44HT45

Langley Research Center
Hampton, Virginia

Prepared for:



Langley Research Center
Hampton, Virginia

Prepared by:

Science Applications International Corporation
22 Enterprise Parkway, Suite 200
Hampton, Virginia 23666

January 2005

DAMAGE ASSESSMENT
Site 44HT45
December 2, 2004

On November 19, 2004, contractors began trenching for the installation of underground utility lines for outdoor lighting for the picnic area at NASA Langley Research Center (LaRC) in Hampton, Virginia. The trenches were located within the boundaries of Site 44HT45, a historic site referred to as Cloverdale (Figure 1). Mr. Frank Farmer, a retired Langley employee who had completed some archaeological work on the site in the 1970's was passing by and noted the construction crew. Mr. Farmer called Carol Tyrer with the James River Institute for Archaeology, Inc. (JRIA) as he had just the week before visited the site with Caroline Diehl with Science Applications International Corporation (SAIC) and Carol Tyrer to discuss his work and findings prior to JRIA's evaluation of the site. Ms. Tyrer notified Ms. Diehl of the development and she visited the site. A meeting was held on site by staff with LaRC, SAIC, JRIA, Mr. Farmer, and the contracting utility firm. The trenching work was halted at the site by LaRC environmental managers until the archaeological work could be completed and reviewed by the Virginia Department of Historic Resources (VDHR). A call was placed to Ms. Joanna Wilson with VDHR to alert her of the status of the site and that a damage assessment was underway.

A series of three narrow trenches had been excavated by a ditch-witch machine. The trenches were approximately 7" wide and in most areas to a depth of approximately 25" below the ground surface. The trenches formed a rough triangle shape that extended from a utility pole to a covered barbeque area and near a second utility box near a picnic shelter. In total, roughly 400' to 450' of trench was excavated across the high ground within the site boundaries (Plates 1 through 7).

An examination of the sidewalls of the trench indicates that the site has a 12" to 15" thick layer of topsoil and plowzone. In some cases it appears as if the trench may have cut through a brick foundation and a trash pit. Unfortunately, the brick foundation ran the length of the trench and when the ditch-witch blade impacted the brick, the contractor took a pick ax and pulled up the foundation. The foundation wall was approximately 8 to 10 feet long and ended at a T at a possible 18th century foundation. The foundation is made of handmade brick with sand mortar and probably dates to the nineteenth century. This foundation may be an interior wall for the 19th century addition to Cloverdale. JRIA excavated the ditch by hand to see if the subsoil revealed any traces of a builder's trench. The trench was backfilled with brick rubble and this was removed to see the subsoil. No builder's trench was evident as it appeared that the contractor had excavated underneath the foundation into the subsoil when they were pulling it up. At the southern end of the trench a portion of the foundation was partially intact.

With the exception of the brick foundation, given the 7" width of the trench, the impact to any other potential features appears to be minimal. For instance, it does not appear as if the trenching has completely destroyed any features. Although the damage to the brick foundation is unfortunate, it has not destroyed the integrity of the foundation as a whole.

The main point is that the integrity of site 44HT45 has been only minimally diminished by the trenching episode. The Phase II evaluation is currently underway by JRIA, shovel tests are to be excavated at 25' foot intervals and test units are to be placed throughout the site while still avoiding the narrow trenched areas. In sum, the trenching disturbed roughly 2,800 linear feet at Site 44HT45, however, this regrettable incident does not appear to have significantly impacted the site's integrity, nor has it appreciably reduced its capability to address research questions.

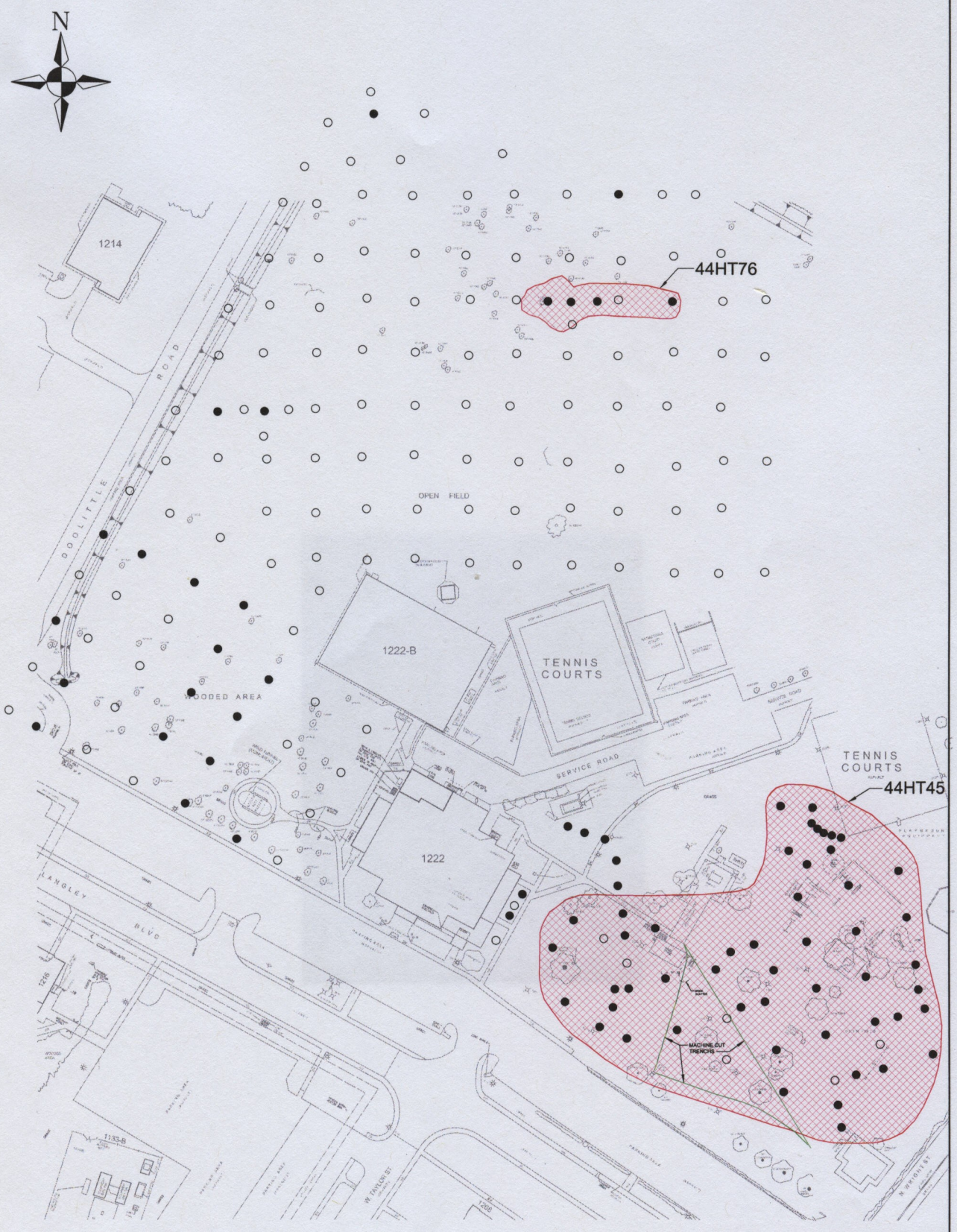
As a result of this incident, LaRC has reviewed their task order policies and the following adjustments are to be made to their work order issuances. This incident occurred as a result of a Work Order Task to replace the outdoor lighting at the picnic area adjacent to Building 1222 at NASA LaRC. The task was part of a blanket facility maintenance service work order to repair facility-wide damages resulting from Hurricane Isabel. All work orders at NASA LaRC require review and functional approval from various offices prior to any action being taken. The reviewing and approving offices depend on the type of maintenance service required by the work order. Examples of functional approval offices include Energy, Environmental, Safety, Security, Master Planner, and Fire Marshall. As part of the Work Order, the project initiator must complete a Safety and Environmental Checklist to provide appropriate information to the reviewers and functional approvers.

In the case of the subject incident, and as previously mentioned, the light replacement and trenching was a result of a blanket Work Order to repair damage from Hurricane Isabel. While the Work Order contained information describing the basic task, to include trenching and excavation, it did not include enough detail to allow reviewers to identify the area as being an established or potential archaeological site. As is standard LaRC safety policy, prior to the trenching, all subsurface utilities were marked in the area and a digging permit was issued to the contractor.

As a result of this incident, NASA LaRC will implement the following procedures.

1. The LaRC GIS Team will incorporate LaRC's current archaeological data into an overlay within the Subsurface Utility Drawings. The overlay will show the archaeological sites in a clearly thatched pattern. These drawings are used by the surveyors to mark utilities for digging permits so the overlay would alert the surveyors prior to marking. In addition, this overlay will include any additional information that results from future Phase I and II surveys performed at the Center.

2. The Environmental Checklist that is part of the Work Order review and approval process will be modified to require a map with graphic overlay of utilities and archaeological sites if the task involves any subsurface work.



PHASE I & II SURVEY AT
NEW TOWN NASA LANGLEY
RESEARCH CENTER

JAMES RIVER INSTITUTE FOR ARCHAEOLOGY
INCORPORATED

223 McLAWS CIRCLE,
SUITE 1
WILLIAMSBURG, VA 23185
Phone: (757) 229 9485

DRAWN BY:	SCALE:
UXB INTERNATIONAL INC.	AS SHOWN
DATE:	DRAWN NO:
DECEMBER 2004	1000-001

Plate 1. Overall view of trenches.

Plate 2. View of trench with pipe.

Plate 3. View of brick foundation scatter.

Plate 4. View of intact brick foundation.

Plate 5. View of brick foundation at base of trench.

Plate 6. View of trenches, trash pit in foreground.

Plate 7. View of possible trash pit.