



# Hardening Nineteenth Century Sites Best Management Practices

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### Background:

Fort Drum has five National Register listed archeological historic districts. It has become increasingly clear that in the northeastern United States off limits approaches to site protection result in steady deterioration due to extreme weather and vegetation. Using treatment of historic Sterlingville as a pilot project, Fort Drum developed a series of approaches for stabilization of nineteenth century archeological features. It is important to know that these treatments are supplemented by extensive documentation.

### Objective:

To develop and implement systematic methods for evaluating deteriorating nineteenth century properties, safely removing vegetation, designing feature specific treatments, and implementing site protection and to demonstrate that these methods can work for a wide range of military installations and many types of historic features.

### Summary of Approach:

Each feature is evaluated by a Cultural Resources Manager (CRM) working with a vegetation expert. Vegetation is selectively removed.



Before

After

Very stable foundations may be left exposed with future vegetation growth more aggressively controlled. Most foundations are covered with filter fabric. Care is taken to insure that sterile pathways are used for site access. Heavy equipment is never permitted in direct contact with archeological features. Fabric is usually covered with a layer of sterile sand. Note that the loader drives on sand only. Guidelines developed here encourage CRMs to search for cost effective ways to acquire materials and fill on their installations. Left over material from construction projects is one excellent source.



Further treatment depends on the feature's need for further stabilization. In severe situations stabilizing structures may be added. This residence in Sterlingville is an example. Sometimes honeycomb material is used to keep the sand and/or gravel in place. Other properties were

treated using additional layers of gravel, sand bags, and in one case recycled tank treads.



### Benefit:

Historic sites are stabilized for preservation into the foreseeable future. Use of the filter fabrics enables any future land manager or interested party to recover the site in a condition that very closely approximates its condition at burial. When stabilization is complete, sites are sufficiently protected to allow soldier occupation. The additional benefit is that DoD personnel are able to gain experience in respectful occupation of cultural places prior to deploying to places of world heritage. In some cases, these methods could be safely used on prehistoric sites as well.

### Accomplishments:

This initiative has resulted in stabilization of two historic villages on Fort Drum, two sites at Marine Base Quantico, and a series of World War I Trenches at Fort Lee, VA. The opportunity to reach beyond one installation has demonstrated that these methods are adaptable for a wide range of site types and environments. Production of the handbook and video demonstrate the basic principles and methods, making it possible for Cultural Resource and Range Management teams to creatively apply these techniques to meet unique challenges at their installations. Implementation of these methods offers DoD Cultural Resources programs the opportunity to pro-actively support the Mission while providing sound stewardship.

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