

Archaeological Investigations for the Missouri Department of Transportation

When the Missouri Department of Transportation (MoDOT) plans a roadway improvement there are federal environmental laws that must first be addressed. One of these federal laws is the National Historic Preservation Act of 1966. Section 106 of this Act requires that MoDOT identify and evaluate historic properties, and determine the effects that the proposed project will have upon them. Section 106 defines a “historic property” as any archaeological site, building, structure (e.g., bridge), object, or district that is eligible for listing on the National Register of Historic Places (National Register).

A Phase I survey is an intensive, systematic investigation of the new right-of-way and easement limits (i.e., the survey area) of the proposed project to identify any historic property that may be affected by the proposed project. If there is good surface visibility (for example a plowed field), archaeological sites may be identified by a pedestrian survey. Archaeologists simply walk the area and examine what is exposed on the surface. If there is poor surface visibility (for example a pasture) the archaeologists use shovel or auger tests to look for artifacts. Shovel tests are small

hand-dug holes about 12 inches wide and up to 24 inches deep, while auger tests are 8-inch diameter holes up to 6 feet deep. In most survey areas, shovel tests or auger tests will be excavated at 50 or 100-foot intervals. The excavated soil is examined for artifacts and other evidence of prehistoric or early historic archaeological sites. Once completed, the shovel/auger test is backfilled and tamped down and the sod replaced if possible. Shovel and auger testing will be confined to the survey area and no holes will be left open. The Phase I survey also includes photographing buildings within or immediately adjacent to the survey area.



Approximate distance between shovel tests.



Approximate diameter of shovel tests.



Example of a backfilled shovel test.



Example of auger test

Phase II testing will be needed if any potential National Register eligible archaeological sites are encountered. The Phase II is a limited archaeological excavation of a site to determine its significance and whether it meets National Register eligibility standards. The standard method for testing an archaeological site is the hand-excavation of test units. Test Units are usually 3x3 foot or 3x6 foot in size and are dug usually to a depth of 3 to 4 feet. These test units are excavated to search for features (e.g., hearths, storage pits, hut basins, etc.) that would provide information about the people whose activities had created the site. In addition, the excavated soil is also examined for artifacts. Any test

unit not completed is securely covered overnight. If there are livestock concerns, an orange plastic fence will be erected around any in-progress test units. Once completed, the test unit is backfilled and tamped down. A Phase II investigation takes approximately 1-2 weeks per site.



Example of a 3x3 foot test unit.

Artifacts recovered from private land during Phase I or Phase II belong to the landowner and, if requested, are returned after a period of study. MoDOT requests that the landowner will allow us to curate the artifacts following analysis and documentation where they will be available for future analysis and interpretations.

MoDOT employees respect private property and will make every effort to avoid damage to your property. MoDOT is prepared to reimburse property owners for damage to crops or other property that may result from this work.



Example of a backfilled test unit.

The results of our investigations are on file with the State Historic Preservation Office of the Missouri Department of Natural Resources and may be consulted by other professional archaeologists. Information about sites investigated by MoDOT may also be presented to school or civic groups, or may be published in professional journals.