

**PHASE I ARCHEOLOGICAL SURVEY
TRAINING AREAS TT2 AND TT3
FORT LIBERTY, NORTH CAROLINA
STATEMENT OF OBJECTIVES**

1. Introduction

This Statement of Objectives (SOO) outlines the work necessary to conduct a cultural resources inventory (Phase I) investigation at Fort Liberty, North Carolina, of approximately 1,884 acres, located on two separate land parcels (Training Area TT2 and TT3). Fort Liberty is in the Sandhills physiographic region, near Fayetteville, North Carolina. Work required under this cooperative agreement is described in Section 4. These areas are priority parcels due to silviculture improvement requirements which involve timber thinning, endangered species (RCW) population restoration and sustainment actions, habitat restoration and other land management concerns.

Previous archaeological surveys at Fort Liberty have found that the size and density of archaeological sites can vary widely according to topographic and other environmental variables. Analysis of 20 surveys (ranging in size from 752 to 10,446 acres and totaling 77,993 acres) reported since 1992 indicates that while the average resource density is 0.063 resource/acre, individual projects have encountered densities as low as 0.043 resources/acre and as high as 0.096 resources/acre.

In order to assure coverage of the highest priority areas, the recipient shall survey parcels and delineate sites in TT2 and TT3 combined (1,884 acres). The recipient shall keep Fort Liberty informed as to acres surveyed and calculations of resource density on a bi-weekly basis and shall consult regularly with Fort Liberty regarding survey progress in relation to the fieldwork level of effort proposed. If high site densities are encountered and demonstrated,

The term “cultural resources” as used in this Statement of Objectives is meant to refer to any prehistoric or historic, site, building, structure, district or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). The term also includes artifacts, museum collections, agency files, land records, oral histories, photographs, and community resources or lifeways.

Persons working under this Cooperative Agreement are considered to be carrying out official agency duties under the Federal land manager’s direction and therefore, are exempt from obtaining an Antiquities Permit per Section 5(c) of 32 CFR Part 229 - Protection of Archeological Resources Uniform Regulations. However, for identification purposes, the field director shall carry a copy of this Statement of Objectives or the agreement award while conducting fieldwork.

The objectives of the tasks described in Section 4 are to:

1. identify and evaluate cultural resources in terms of NRHP eligibility; and
2. assess potential impacts military use of the area will have on each identified resource.

2. Authorities.

The work performed under this Statement of Objectives is to be performed through a cooperative agreement with eligible recipients in accordance with 10 U.S.C. 2684 as all work will be performed in support of research, preservation, management, maintenance and improvement of cultural resources (as defined by 10 U.S.C. 2684 (c) (1)-(4) on Army installations or on project areas off of an installation in support of the Army mission.

The work outlined is to be conducted in accordance with the National Historical Preservation Act of 1966, as amended (PL-96-515), Guidelines for Federal Agency Responsibilities, under Sections 106 and 110 of the National Historic Preservation Act, Army Regulation AR 200-1, and 36 CFR 800 (Protection of Historic and Cultural Properties). In addition, all work shall be conducted in a manner conducive to Appendix A; 36 CFR Part 79; the National Environmental Policy Act of 1969 (42 U.S.C. §§4321-4347); the Archeological and Historical Protection Act of 1974, as amended (16 U.S.C. §§469-469c-2); the Native American Graves Protection and Repatriation Act (25 U.S.C. §§3001 et seq.)(NAGPRA); Executive Order 13007: Indian Sacred Sites; EO 13175 Consultation and Coordination with Indian Tribal Governments; the Archaeological Resources Protection Act (16 U.S.C. §§470aa-mm) (ARPA); and all implementing Codified Federal Regulations; and Army and DoD regulations.

3. Previous Cultural Resources Investigations

Currently known cultural resources on Fort Liberty range from Paleoindian period through Cold War period military land use sites. This project will focus on ALL cultural resources older than 50 years, including World War II and Korean War era military construction and training activity sites.

Extensive archaeological survey and testing research has been conducted on Fort Liberty and Camp Mackall by several organizations. These efforts have resulted in many individual reports, all of which are available for inspection at the Fort Liberty Cultural Resource Manager's (CRM) office. Prior to initiation of fieldwork, the contractor shall examine these reports and specific reference to them shall be included in the draft and final reports. The Fort Liberty Integrated Cultural Resources Management Plan (ICRMP) is also available for inspection at Fort Liberty. Reports on various archaeological investigations at Fort Liberty and the Fort Liberty ICRMP contain maps, environmental context overviews, and descriptions of previous cultural resources investigations, historic and prehistoric context overviews, settlement pattern analysis, and relevant research guidelines for the area. The Recipient shall reference these reports in the draft and final reports.

4. Objectives

General

Fort Liberty is actively pursuing completion of the Installation cultural resources inventory in compliance with Section 110 of the National Historic Preservation Act and supporting legislation and Executive Orders. Under this contract, a survey encompassing approximately 1,884 acres will be conducted in accordance with this Statement of Objectives and the terms of the cooperative agreement. The acreage is contained in two separate parcels and described in the Attachment section.

The Recipient is expected to: 1) determine the kinds of cultural resources present within each survey tract; 2) evaluate the significance of each resource in terms of National Register of Historic Places (NRHP) eligibility criteria; and 3) assess the potential impacts of normal military use of the project area on identified resources. No data recovery, intensive NRHP site testing or architectural recordation (HABS/HAER) is expected to be performed by the Recipient under this cooperative agreement.

Task 1. Background/Archival Research

Prior to the initiation of fieldwork, the Recipient must review Fort Liberty Cultural Resources Management Program (CRMP) site files to ensure that previously recorded cultural resources and their associated data (field notes, artifact assemblages) are adequately considered for their designated survey project areas. All survey findings, related analyses and documentary research will be fully documented in a final report. Information shall also be obtained from, but not be limited to, the following sources:

- a) published and unpublished reports and documents such as books, journals, maps, theses, aerial and land-based photographs, dissertations, deeds, newspapers, and manuscripts.
- b) files and data contained in local, state, and federal agencies and repositories including, but not limited to, historical societies and museums, the North Carolina SHPO, and the Office of the State Archaeologist
- c) consultation with any qualified professionals having knowledge of cultural resources in the areas; and,
- d) consultation with amateur archaeologists and individuals knowledgeable in local history and prehistory.

Additional archival research shall be conducted for historic sites located during the field survey. Information regarding this requirement is found in Task 2.

Task 2. Fieldwork

The Recipient will be provided maps showing the survey project areas. Some project areas, or

portions thereof, may have been surveyed or partially surveyed in the past. Most areas for the present task order, however, have not been previously examined in a systematic manner. The contractor will examine and incorporate information from past work into their fieldwork, analysis, and reporting activity. In some cases, this task will require specific coordination with Fort Liberty CRMP personnel to ensure all relevant datasets are adequately considered.

Survey Area Sampling

Surface (walkover) and subsurface inspection procedures will be followed as described below.

All survey project areas will be inspected for cultural resources through examination of exposed ground surface areas and through systematic subsurface shovel testing using parallel survey transects spaced on 30-m intervals. Shovel tests will be spaced along each transect on 30-m intervals. Surface inspection and collection will occur in all areas, both along transects and in areas between transects where there is ground surface visibility. Standard transect numbering and/or archaeological grid coordinates are to be used to locate and record all shovel test and surface collection units. These coordinates are to be included as part of the identification of specific units and their contents in a survey report appendix. Grid origins or other appropriate coordinates are to be indicated on site maps. Grid coordinates for all survey units must be used and reported on field records, site maps and in report appendices. Grid coordinate systems are the only acceptable intrasite identification method allowed by this contract. The Contractor must coordinate with Fort Liberty Cultural Resources Management Program (CRMP) personnel to ensure grid systems adopted are compatible to those previously used at the Installation.

If a transect and its associated shovel tests are initially aligned over a landform so that probable archaeological site locations (e.g., knolls or spring heads) are obviously missed, field personnel are expected to use their professional discretion in realigning transects accordingly or offsetting shovel tests locations. In this way, all likely site locations will be adequately shovel tested. Additional tests, where warranted and at the discretion of the project Field Director, may be opened in site potential areas if such units fall outside of the location of the 30-m interval, transect shovel tests.

All survey interval points (30-m and/or 15-m), positive and negative, as well as transect beginning and end points, will be flagged using high visibility (i.e., “day glow” orange/red/pink) flagging tape. Sufficient flagging (six or more inches of tape) must be used to permit the easy relocation of collection areas along transects and at each point. The flagging tape will be well-tied to the nearest suitable tree branch, or if a branch is not available, surveyor pin flags with “day glow” colors should be used. Transect numbers and bearing will be written on the transect beginning and end markers, and these numbers tied to a map of the project area showing individual transect locations (see below). The flagging at individual collection locations (i.e., shovel tests and surface collection points) will be marked with their respective transect and unit numbers as well as the date. Such a procedure will mark individual collection locations, and the correction of any problems encountered after the fieldwork is completed.

Recordation and Mapping Procedures

During the fieldwork, a field log (journal, notebook) must be maintained detailing the daily tasking, findings, observations, impressions, and all information obtained that will permit and assist attainment of the regulatory and research goals of the project. Printed forms will be used as appropriate to record the various kinds of data obtained (i.e., photo logs, shovel test forms, level data forms, artifact bag lists, etc.), and the field log must link/key observations, etc. to the appropriate map or form containing additional or supporting information. This log (together with the field forms and maps) shall become a part of the permanent project records and will be included in the material submitted to and curated by CRMP.

The Recipient will produce maps of all survey areas and detailed maps for each recorded site that collectively and adequately depict all relevant natural/cultural landscape features and relevant survey data. Original field maps will be included with field notes and other records transferred to Fort Liberty for curation at the conclusion of the project. Field map data will be integrated into formal, professionally drawn maps to be accurately prepared and incorporated in project draft and final reports. Copies of original hand-drawn field maps are unacceptable for draft or final reports. The exact location of sites discovered under this effort will be plotted on two sets of maps: 1) USGS 7.5 minute Quadrangle Maps, and 2) Fort Liberty project area maps provided by Fort Liberty CRMP/DPW personnel. Differentially-corrected Geographical Positioning System (DGPS) data will be collected, as described below, for each site and isolate.

A separate map will be prepared for each site. All draft and final report maps will include legends, scales, and north arrows. The locations of all survey transect locations, surface collection units or individual piece-plotted artifacts, all transect and site delineation shovel test units, prominent cultural and natural features and landform contour information will be included on all site and isolated find maps. For sites recommended as NRHP potentially eligible, site data stake locations (see below) must be included on all site maps. That is, all shovel tests opened during the current and if possible past fieldwork in the vicinity of project sites, as well as close-interval boundary tests, must be mapped and illustrated on final project site maps. Negative and positive shovel tests along these transects, as well as boundary definition tests in the vicinity of known sites and isolated finds, must be included on the site maps.

Site maps will further provide localized landscape details on ground conditions (wetlands, erosion, disturbances) as well as depictions of unusual landscape features (e.g. witness trees, terracing, tar kiln mounds, ditches, fence lines, etc.). Project area and/or site maps will delineate sub-areas that were not tested and the field notes will describe why such areas were not surveyed (e.g., wetlands, ordnance, impact areas, restricted access). On densely overgrown sites, mapping will proceed employing (minimally) lines-of-sight along the major and minor axes of the site grid, together with any additional mapping points as necessary to adequately document site boundaries and conditions. Maps that do not accurately or adequately reflect site conditions (i.e., that do not illustrate major cultural or topographic features) will be unacceptable and the Contractor required to correct them, at no additional cost to the government. Sufficient digital photographs shall be taken to document significant data and information found during the survey work. Photographs will be also taken of all historic architectural features found during the project. A range pole may be used for photographic scale on larger architectural type

features. Shovel test, surface collection, and architectural feature photographs will contain an appropriate (and legible) scale, north arrow and menu/information board, which identifies the site, provenience, date, and subject. Menu boards will be clearly located in the photographs, but placed so as not to detract from a clear rendering of the subject. Chalkboards or hand-lettered cards are unacceptable in field photographs produced under this contract. Additional photographs of the subject may be taken without the information board, although the scale and directional indicator must be retained. All such photographs (i.e., without menu boards, scales, and north arrows) will be unacceptable and will not be used in the draft or final reports, unless approved in writing by the USACE Contracting Officer's Technical Representative (COTR).

Archival Research for Historic Sites

The Fort Liberty CRM office contains additional maps that should be consulted when historic sites are located during the survey. On all historic sites where evidence for past occupation exists, such as evidence of domestic or industrial structures, sufficient historic archival research will be conducted as part of this contract to assist in the interpretation of the archaeological materials recovered at these sites. It is anticipated that less than 20 percent of all sites encountered in each survey will require background archival research. Archival research will include examination of Installation and local county property, tax, and other records as deemed appropriate. The 1919 Cumberland County Soil Map, the 1918 Property Owners Map, and the 1919 Cumberland County Topographic Map are primary resources which include early house sites.

Archaeological relocation of structures shown on these maps should be attempted or an explanation given if they are not found. How this research will proceed and the results that will be provided must be detailed in the technical proposals. If the level of historic archival research is inadequate—specifically if commonly known, readily accessible, and locally available archival materials and/or secondary sources are ignored during the archival research—the Recipient will be required to examine these materials and report on the information at no cost to the government.

Spent shell casings, clips, other types of exploded munitions and discarded military equipment can be found in all Fort Liberty training areas. Randomly dispersed military artifacts and training debris will not be collected or otherwise documented in cultural resources surveys of Installation properties unless the project Principal Investigator considers, in consultation with the Fort Liberty CRMP, the material to be of unusual historical significance. Examples of significant, historic military use sites on Fort Liberty would be a mess hall dump site pre-dating World War II, a World War II era Enemy Prisoner of War (EPOW) camp site, or World War I era (1918) structural remains. Spent ammunition, ordnance or discarded equipment post-dating ca. 1940, while over 50 years old, are not typically considered historically significant on Fort Liberty. Any obvious World War I, or early Camp Liberty/Fort Liberty (ca. 1918–1930) related sites or artifact deposits may be of historical significance and, if encountered, should receive due consideration. Similarly, military structural remains (buildings, earthworks, bunkers, rifle pits, etc.) less than 50 years old, if encountered in project surveys, will not be mapped or recorded as historic sites. Such potential remains, of obviously more than 50 years old will be mapped and subsequently assessed, in consultation with Fort Liberty CRMP personnel, for potential historical significance.

Surface and Subsurface Survey Procedures

Subsurface and surface collection will be thoroughly conducted in all areas, along transect lines spaced regularly throughout all survey areas AND between regular 30-m interval transect lines in areas that exhibit high surface visibility. Surface collection cannot be used in lieu of shovel testing but shall be used to augment data collected through shovel testing. In all survey areas, every effort must be made to cover all obvious high surface exposure areas (e.g., road-cuts, firebreaks, timber harvest clearings, military excavation features [fighting positions, “foxholes,” bunkers], other forest openings [wildlife food fields, artillery firing points]), even if these areas fall outside the 30-m transect and/or surface collection point/shovel test interval locations, to insure that all survey areas are thoroughly examined. All surface artifacts that are clearly identified as nonmilitary in origin will be documented and collected.

For military artifacts or structures that are date to World War II or earlier, the contractor must contact the CRMP to determine if data and/or artifact collection is necessary. Questionable artifacts and modern military ordnance will be dealt with as described below. Military ordnance (“live,” “dud”), if encountered, will not be moved or otherwise disturbed, but will be left in place, and the area flagged with red/white striped flagging tape for Explosive Ordnance Disposal (EOD) assessment (see additional safety details and UXO training section to follow). Under this cooperative agreement, no surveys will be conducted in ordnance impact areas or on live-fire ranges. If suspected live ordnance is encountered in the field, immediately cease survey work and notify the CRMP.

Subsurface evaluations, in the form of transect shovel testing, will be systematically conducted in all project areas except where active wetlands or endangered plant sites are encountered (see below). Shovel test transects will be aligned as previously described. The first test on each 30-m interval transect must be within 10 m of the transect starting point. Transects may be aligned in accordance with the Fort Liberty firebreak system, training roads, cardinal directions, or other major physiographic or cultural features, as appropriate, to maximize archaeological visibility and coverage. Transects, however, will be re-oriented along well-defined landforms (e.g., terraces, ridges, toe slopes) when practical, to insure that these locations are thoroughly surveyed. Shovel and/or surface collection units may be positioned using the compass and pace count method as long as field technicians consistently maintain a relative degree of spatial accuracy. All shovel test unit locations, including survey transect and site delineation units (see below), will be marked with flagging as previously described.

No shovel tests will be excavated in areas with standing water (active wetlands, upland bogs, swampy floodplains, springheads), but field technicians will perform linear inspections of wetlands that lie along their transects in order not to overlook any natural islands, hammocks, spring houses, bridge remnants, mill remains, fish weirs or other potential cultural features of historical significance. Shovel tests will be opened in all other project areas, regardless of degree of slope, including lower elevation areas presently found dry. Any deletions of shovel tests shall be fully noted and must be well-justified in the field notes and the survey report. Small puddles surrounded by dry terrain do not constitute “standing water” and testing points that fall into such puddles are to be relocated nearby. The recipient will note any unmapped hydrologic features encountered on the landscape (e.g., upland depression ponds, spring seeps, drainage ditches,

erosional gullies) on all survey maps.

All shovel tests must be a **minimum of 30 cm in diameter** and will be opened to subsoil, as defined by specific, localized soil conditions. If obvious subsoil strata are not reached, shovel tests must be minimally **excavated to a depth of at least 75 cm below surface**. All excavations shall continue until cultural evidence is no longer apparent or potentially present (i.e., to “culturally sterile” levels). “Culturally sterile” levels are defined as natural depositional soil where cultural evidence is not likely present. The Field Director or Principal Investigator shall determine that stage of unit excavation. In general, unless subsoil (typically rock or hard/compact clay/clayey sand) is encountered, all shovel tests must be opened to a minimum of 75 cm, regardless of whether artifacts or features are present in upper unit levels. Additionally, shovel tests will be excavated at least as deep as that recorded in previous survey work at a known site location (i.e., if previous shovel testing found artifacts deeper than 75 cm, every effort must be made to open tests to the depth reached by the earlier units). All excavated soils from all shovel test units will be screened through 1/4-inch hardware cloth/mesh screens. All shovel test (and any other) excavation units must be backfilled to a level equivalent to the surrounding ground surface.

All survey transects and associated shovel tests will be depicted on field maps of the project area and further included in draft and final report illustrations. Project field notes will describe the number and location of individual shovel tests opened along each transect. Each survey transect and its constituent shovel tests will be numbered in a manner that permits subsequent researchers (using the maps and field notes) to easily relocate, with a high degree of accuracy, individual shovel tests. Shovel test logs will be maintained providing information on the grid provenience, size, depth, soil conditions, and contents of all collection/shovel test units. The location, depth, and associated materials for all shovel tests will be noted in the project report appendix for both positive and negative tests. The artifactual contents of all positive shovel tests will be explicitly documented in the report appendix and in the artifact catalog in such a way as to insure that the location can be revisited, and the artifacts (or lack thereof) originating from individual units can be readily determined.

Soil column profiles will be drawn to scale to sufficiently illustrate and delineate the natural and cultural structure of sites. Soil horizons and strata notes for all shovel tests opened during boundary definition fieldwork shall be described in standard scientific terms in field, as well as incorporated in a project report appendix. The Munsell Soil Color Chart shall be used to describe soil strata and colors. All cultural or natural features and other relevant phenomena will be included in soil profile drawings. Other significant information, including dimensions, depth, orientation, associations, etc., will be documented as well.

In addition to providing adequate maps depicting individual survey transect and shovel test locations within each discrete survey area, the project report will include a summary of shovel tests were opened, those not opened, and the total number of tests excavated/not excavated, as well as the total number of positive and negative tests. Field notes will provide this level of detail for each transect and collection unit location. Formal rates of coverage will be included on a map or maps of the project area indicating where shovel tests were excavated, and where this was not possible.

A designated representative (CRMP archaeologist) may audit shovel test locations and project documentation periodically, examining units to ensure proper size and depth as described above. Shovel tests found incomplete (i.e., <75 cm deep unless compact clay subsoil, rock, concrete, asphalt or other hardened deposit was reached) or positioned at inappropriate intervals will be noted and brought to the attention of the Contractor. The Contractor will correct the situation, within the parameters of this SOW, at no additional cost to the government. Such correction requests may occur at any time up to 90-days after completion of all fieldwork under this contract or an acceptable explanation provided for any such omission to the SOW.

Archaeological Site Recordation

State of North Carolina site forms are to be completed for each site. Electronic versions of the required site form will be provided by the Fort Liberty CRMP. Contractors must use these form versions as they are specifically designed for electronic integration into the CRMP database.

In addition to other data recordation requirements described in this Statement of Objectives (see below), sites determined as “potentially eligible” for inclusion on the NRHP will be recorded by DGPS within +/-2 meters parameter, in a projected polygon shapefile (.shp). These polygon data are not required for NRHP ineligible sites. Shapefiles for all potentially eligible sites will be collected as soon as logistically possible after site delineation procedures (see below) are completed. Site boundary shapefiles will accompany all other digital deliverables (e.g. artifact spreadsheets, site data spreadsheets, report). The Recipient must coordinate a field visit with Fort Liberty CRMP archeologists to review the collection of digital site-boundaries and survey datum locations following the identification of all potentially eligible sites and the delineation of their boundaries. During this field visit the physical and digital boundaries and survey data locations for each potentially eligible site will be assessed using DGPS and ArcMap. Structural foundations, chimneys, piers cellars, tar kilns, cribbing, wells, cisterns, walls, fencing, dams or other surface visible features encountered on historic sites shall be mapped as accurately as possible (using tape and compass) and photographed (with scale if possible). Any extant structures, structural remains or cultural/historic landscape features (e.g. orchards, witness trees, garden remnants, etc.) that figure into the area’s evaluation as a historic landscape will also be mapped and photographed. Every effort shall be made to determine the site-specific history, site function, date of construction and occupation, and the identity of the inhabitants of historic sites. This minimally will include examination of CRMP and/or local county records (e.g., deeds, tax records, census data) as appropriate (specially the 1919 Topographic Map, 1918 Property Owners Map, and the 1919 Soil Map). Open wells and cisterns shall be marked with red and white striped flagging tape and reported to the FLCRMP/Archaeologist. If open wells or cisterns are noted in the field, immediately inform the FLCRMP/Archaeologist.

The locations of all cemeteries will be noted on project area maps, including all known and suspected cemeteries. Shovel testing survey work will not be conducted within the mapped/obvious boundaries of a known or newly encountered cemetery. If a project area cemetery is not part of Fort Liberty’s “known” cemetery inventory, the cemetery will be documented in accordance with the Fort Liberty cemetery inventory and the POC for Fort Liberty CRMP should be notified. The boundaries of newly discovered cemeteries must be

sketched using a compass and tape or transit and tape and efforts made to fully record grave location(s) and marker(s) data. Since most Installation cemeteries have already been documented, prior to initiating fieldwork contact must be made with the Fort Liberty CRMP/Archaeologist to determine whether any cemeteries are known in the project area, what information about them has been recorded and what additional information, if any, is needed.

Any previous work (i.e., previously recorded sites) conducted on sites covered under this cooperative agreement will be thoroughly reported in the survey project report, and the information and collections obtained from earlier work at each site will be considered part of the site assemblage used in all eligibility determinations. All previous survey data shall be used in the determination of site boundaries and all previous collection units and shovel tests from the site area shall be indicated on report site maps. If it is not possible to accurately indicate previous collection unit and shovel test locations on report maps, detailed descriptions and illustrations of these units and tests must be otherwise provided in the final report, together with text information on the contents of each such provenience unit. If earlier work has produced maps of the site, these are to be presented, in a professionally drafted format. Photocopies of hand-drawn field maps are unacceptable. Questions regarding these requirements should be directed to CRMP personnel prior to completion/submission of the Contractor draft report.

Site Boundary Delineation

Once sites are successfully located through surface and subsurface survey, site boundary delineation units, will be arranged so that additional shovel tests (“radial units”) will be excavated in a grid oriented along cardinal or transect grid directions. Such site delineation units will be spaced on a 15-m interval. Subsurface testing for purposes of site boundary delineation will be conducted in all cases, even in areas where surface visibility is excellent. As with transect shovel test units, radial shovel tests opened for site delineation purposes must have a diameter of at least 30 cm, and such units will be opened to the same depth required for transect shovel tests (see above). All site delineation shovel test (and all other) units shall be completely backfilled. These close-interval tests will be dispersed between transect test units in such a fashion as to create a uniform grid. Every positive transect shovel test will have 15-m interval (radial) tests excavated around it along cardinal (i.e., N/S and E/W) or grid directions, until at least two negative tests are reached around the periphery of such delineated sites. In instances where a site is identified in close proximity to the survey project area boundary, site delineation shovel tests will extend up to the limit of the survey project area boundary. The recipient must notify the CRMP if site boundary delineation would likely result in shovel testing outside of the project boundaries.

Surface recovered materials located at 30-m or 15-m interval points will be treated as positive shovel tests and will be documented and delineated as such. Any other artifacts discovered in exposed areas within estimated site boundaries, such as objects found on roads or on eroded/disturbed surfaces as survey teams move between transects and/or shovel test locations, will be recorded in the same manner as artifacts recovered at 30-m or 15-m interval, survey grid points. All shovel test units, including site discovery, positive radial and boundary delineation units, will be included on site maps. Delineation shovel tests will continue to be excavated until two consecutive negative tests are encountered around each positive test (surface or subsurface)

in the grid. The midpoint between the last positive shovel test and the first of the two negative tests shall constitute a site boundary and shall be “double-flagged” with surveyor’s flagging tape using two colors (e.g., orange/red and white) of flagging to facilitate positive unit relocation. Differentially-corrected Geographical Positioning System (DGPS) derived grid coordinates will be collected for the approximate center of each site encountered. In addition, grid coordinates will be collected with DGPS for each positive transect and positive radial/boundary delineation unit recorded at every NRHP potentially eligible site. Site boundary polygon data will be collected for each site recommended as potentially eligible for listing on the NRHP (see below for additional requirements). Polygon data are not required for sites recommended as not eligible for the NRHP.

Examples of acceptable and unacceptable shovel test gridding procedures are described in this Scope of Work. All NRHP-eligible sites must have at least two permanent survey monuments placed on the site grid. The main datum monument should be placed on the grid point at 500N500E, with a foresight or backsight monument placed at a known distance and bearing from the main datum, generally 30 meters north or 30 meters south of the main datum. Additional data monuments should be placed on known grid points if the site is large, and in each case the location of monuments should be determined by surveying instruments such as a total station. No nails or spikes will be driven into trees for reference purposes. Datum markers shall be a steel rebar (#5 or larger) at least 36 inches long, and the upper 6 inches will be spray-painted with “day-glow” orange paint. In addition to painting, the datum marker will be double-flagged with high visibility (i.e., “day-glow” orange/red/pink) flagging tape, and left protruding at least 6-inches but no more than 12-inches above the ground surface. For safety purposes, data stakes will be capped with aluminum or brass caps designed for such use.

Due to the frequency and interval of controlled burns on Fort Liberty, specific marking procedures are necessary to ensure that data stakes can be successfully relocated to facilitate later site investigations well into the future. In addition to painting/marketing metal data stakes on all sites recommended as NRHP potentially eligible under this contract, data stake locations will be made visibly evident through a combination of ground staking and tree marking procedures. At least two, preferably three, wooden survey stakes, at least 24-inches long, will be arrayed (12-to-24-inch radii) around each permanent datum point. The tops of all wooden stakes will be driven to within 12 inches of the ground surface, brightly painted with “day-glow” orange paint and the exposed tops well flagged with surveyor’s flagging tape. If trees are found within a few meters of a datum stake location, at least two, preferably three trees in closest proximity to the datum stake will be painted with “day-glow” orange paint bands approximately six feet above the base of each tree. “Day-glow” orange/red/pink flagging tape shall be tied around each paint-blazed tree.

Global Positioning System (GPS) data

The geographic locations of site data stakes on all NRHP potentially eligible sites investigated under this contract will be digitally recorded using a Differential Global Positioning System (DGPS). DGPS-collected coordinate data will also be recorded for the boundaries of all NRHP potentially eligible sites, as well as the approximate center points of all isolate locations and NRHP ineligible sites. The DGPS unit(s) employed by the Contractor will have a corrected

accuracy of less than two meters. A list of UTM grid coordinates, based on these DGPS data, projected both in NAD27 and NAD83, will be tabulated and presented in the technical report. The Recipient will differentially correct all DGPS data with post-processing algorithms derived from land-based stations nearest to Fort Liberty and must work in coordination with Fort Liberty CRMP personnel to ensure that accurate DGPS data are recorded and corrected. All DGPS data are collected using the WGS84 datum, and the collected dataset are to be provided in electronic form (CD, DVD) along with the correction base-station files as part of project deliverables. DGPS handheld computer units must meet the approval of the CRMP/DPW GIS Analyst. DGPS units that do not provide data to the standards required under this contract will not be allowed, and failure to provide accurate DGPS coordinates to the above standards may result in the Contractor returning to the field until such data is provided, at no additional cost to the government.

A certain number of positive shovel tests from all potentially eligible sites will be defined by DGPS. Two positive shovel tests from potentially eligible sites having less than 10 positive shovel test units will be recorded by DGPS. The two shovel tests selected for DGPS should be those having the greatest distance between one another. Potentially eligible sites having between 11 and 20 positive shovel tests will have four of the positive shovel test units defined by DGPS; two of the positive shovel test units will be those having the greatest distance between one another. Five shovel test units will be defined using DGPS for all potentially eligible sites having greater than or equal to twenty-one positive shovel tests. These DGPS defined shovel test units will follow the same outline as above for 11 to 20, with at least two shovel tests reflecting the greatest distance between positive tests at the site. The recipient shall select those positive shovel tests that contained diagnostic material and/or deposits of special significance within the site.

National Register Eligibility Evaluations

All sites will be evaluated as eligible, potentially eligible or not eligible (ineligible) for inclusion on the National Register of Historic Places (NRHP). Site evaluations for NRHP eligibility will be determined primarily on the basis of data obtained from site discovery and boundary definition shovel tests and surface collection units. In the case of sites with historic period components, archival research must be conducted and used to support evaluations of such sites. If evaluations are questionable and extensive site testing is necessary for any particular determination of site eligibility, beyond investigatory methods required in this SOW, it is acceptable to recommend such sites as “potentially eligible.” In such cases, which should be minimal, recommend more extensive testing for the purpose of determining definitive NRHP eligibility in the future. In other words, extensive site testing is outside the scope of this cooperative agreement. However, in using the “potentially eligible” classification, the Recipient must specify what information is needed to make an “eligible” or “not eligible” evaluation, what methods, in brief, will be necessary to collect that information and why the initial field survey methods were judged inadequate to provide definitive NRHP recommendations at the survey level.

To be considered potentially eligible, a site must be determined significant according to the National Register of Historic Places Criteria. A recommendation must be made that a site is either potentially eligible or not eligible (ineligible) for the NRHP and justified with **specific**

reasons. It is not acceptable to state merely that a site contains information dating to a particular time period and that this information is of local or regional importance. The investigator must state precisely why the information is of value or why it is unique or, conversely, why the information is of limited or no value, or why it is common/redundant. For example, if a site contains material dating to a particular period, the value of the site must be expressed in terms of what is known about the local culture represented by the material, how many comparable sites with this material are known from the Installation (and in general terms from the larger region), and what research questions can be addressed with materials from the site.

NRHP determinations must also specify how additional investigations can add significant knowledge to what is already known about the culture or components represented at the site. What problems exist concerning the understanding of the culture? Would investigation of the site serve to address some or all of these problems? What specific research approaches are relevant to understanding these past cultures, and how would investigation of the site serve to provide new information? The questions asked depend on the nature of the resource under consideration and the state of knowledge concerning the pre-contact period and history of the project area. The Recipient must demonstrate familiarity with the archaeology and history of North Carolina, as well as the surrounding Northeast and Southeast regions, and be able to assess the site's ability to address legitimate research problems, questions, and topics. Existing historic cultural context documents developed for this purpose are to be referenced wherever possible and appropriate.

Conversely, evaluations must include justifications for statements that sites are not significant ("not eligible" for inclusion on the NRHP). **Unsupported statements that other sites have similar deposits (without providing specific quantitative or qualitative evidence in support of this claim), or that refer only to site integrity, are neither sufficient nor acceptable. Such a conclusion must be supported by the reason(s) why the investigator considers the site unimportant.** The Recipient must combine his/her knowledge resulting from the documentary research with the information and data obtained from all the sites found during the survey work conducted under this cooperative agreement, and previous work on Fort Liberty, to arrive at legitimate, defensible conclusions concerning site significance.

All recommendations for NRHP eligibility status under this cooperative agreement must proceed, in part, through the use of comparative analyses making use of the results of past work on Fort Liberty. These analyses will refer to the entire site assemblage found during the survey in question, as well as to materials found during earlier investigations on Fort Liberty by this Investigator and previous Investigators. Assemblage diversity, density, and content must be compared and contrasted for all sites documented in the current survey, and against relevant assemblages from other surveys conducted on the Installation where the information is published in final report form. In project draft and final reports, the Recipient will address sample bias in the representation of components that are recommended either as potentially eligible or not eligible for inclusion on the NRHP. In addition to this assessment, the Recipient will further address environmental bias in both potentially eligible and ineligible sites. Environmental bias will be considered at least in terms of landform types and/or soil types.

Site Protection

In order to protect significant sites from inadvertent military activities damage, all archaeological sites found in this survey and classified as potentially eligible for inclusion on the National Register of Historic Places must be reported to the FLCRMP/Archaeologist (910-396-6680) as soon as logistically possible. The Contractor will further provide specific recommendations for the protection of such NRHP potentially eligible sites at this time.

Task 3. Laboratory Analyses and Curation

All relevant cultural materials discovered during the course of the project are to be included in the project collections analyzed for reporting and submitted to the Fort Liberty CRMP, with the following exceptions: no live military ordnance, no expended ammunition that cannot be firmly placed in a historic context (pre-1957) and directly associated with a project reported cultural site, no modern trash or debris less than 50-years old. Brick bats, mortar, concrete, sandstone fragments, cinder blocks and other building rubble will be counted and weighed. A representative, especially diagnostic, sample of whole brick, and mortar specimens will be retained for final curation by Fort Liberty. All material will be clearly labeled, using a permanent medium, in accordance with the Fort Liberty Artifact Curation Facility Guidelines (2002), or the standards in force at the time the work is carried out. Specific Curation Standards are found in Attachment B.

All cultural material collected will be systematically sorted, identified and analyzed using procedures or processes appropriate to the type or class of artifact under consideration. Projectile points will be classified typologically to assist chronological determinations. All ceramics (historic and pre-contact period) will be analyzed to permit identification of known types where possible. The analytical methods and procedures used for each type or class of artifact and the results of the analysis will be presented in the final report of investigations. A catalog/inventory of all artifacts by specific provenience and accession number, which also includes all summary information and identification generated during analyses, is to be included as an appendix to the volume and made available as a curation deliverable in digital format. The curation database must be in the format currently in use by the Fort Liberty CRMP. This format must be obtained from the Fort Liberty CRMP prior to analysis and cataloging to ensure compatibility.

All cultural material obtained during the field research, including artifacts, faunal and floral remains, soil and other samples, etc., will be cleaned, stabilized when necessary (including metal stabilization where appropriate for unusual or especially significant historic artifacts). Pre-contact period pottery sherds will be inspected for carbon residue prior to cleaning and should not be cleaned, but left for possible dating/residue analyses.

The Recipient will prepare all project artifacts, field and analysis notes, photographs, slides and negatives, electronic media, and other data for permanent curation at Fort Liberty. Preparation will be accomplished in accordance with the Fort Liberty Curation Guidelines (2002), the North Carolina Office of State Archaeology standards, the Guidelines for the Disposition of Archaeological and Human Remains, and 36 CFR 79, Curation of Federally Owned and

Administered Archaeological Collections. Curation decisions must be coordinated with and meet with the approval of the FLCRPM and/or Curator. The Recipient will provide all bags, boxes, and other supplies and materials necessary to meet the curation standards outlined below. Specific product information (i.e., curation materials, conforming to existing Installation standards) can be obtained from the FLCRPM and/or Curator. The original and one copy each of the complete accession catalog, as well as the project materials transfer packing list, will be submitted in hardcopy, and one digital copy on CD/DVD in a spreadsheet or database program that can be directly translated into Microsoft Office programs (i.e., Access and Excel). One hard copy will be maintained by Fort Liberty and the second hard copy (and a digital copy if requested) will be sent to the Office of State Archaeology, North Carolina State Historic Preservation Office by Fort Liberty.

Task 4. Reporting

Basic descriptive information about how the work was conducted (field and laboratory methods) must be provided in all reports, including the dates of fieldwork, the number of person days it involved and the names of field supervisors and crew members.

A map or a series of maps showing where shovel test transects were located in each survey area must be provided in the body of the report, and these transects must be numbered in such a way as to permit use of the field records, which must employ the same transect numbers. Where large numbers of transects are illustrated, and consecutive transect numbers are used, only every 5th, 10th, or 20th transect need be labeled in each survey area as long as it is abundantly clear what the numbers and locations are for the intervening (unlabeled) transects.

A professionally executed and fully legible map showing the locations of all surface collection and shovel test/collection units, as well as significant cultural and natural features, must be included in the report for each site and isolated find. Grid coordinates for each shovel test/collection unit (positive and negative) at each site and isolated find must be provided in a report appendix, together with a list of unit depths, soil descriptions and artifact contents. The contents of all positive shovel tests and surface collection units are to be summarized in the report text, specifically detailed in a report appendix and in the project artifact catalog/database. Shovel test and surface collection unit data will be reported in a systematic manner to ensure that positive unit locations can be revisited, and the artifacts recovered from individual units can be readily correlated. Report readers must be able to alternately refer to report maps and report appendices to easily determine which units produced materials, what those materials were, how deep the units were opened, and all other pertinent information (i.e., soil color, strata, depths, etc.). All positive and negative shovel tests, controlled surface collection units, and piece plotted artifacts in the vicinity of project sites, including those excavated during previous projects (if any), must be illustrated on final project site maps (if reasonably feasible). Moreover, site content data from previous projects must be summarized in the current report (see below) and consideration of such materials included in site NRHP eligibility assessments.

In all draft/final reports and state site forms, the official state site numbers will be used, and reference to the sites in the text will be by their official numbers. The use of temporary site numbers, or arbitrarily assigned site names, is unacceptable and will be the basis for the

immediate revision of draft or final reports. If a newly discovered site or revisited site has no official site number, the Contractor will obtain a North Carolina site number from the Office of State Archaeology (OSA) and use the number in all draft and final reports.

As noted above, previous work at individual sites and in neighboring areas must be presented in sufficient detail for the reader to compare and determine what was done and what was found. If previously recorded sites are located in the survey area but could not be relocated, this must also be discussed. If shovel test units were opened at sites during earlier projects, maps showing the location of these tests must be presented and added to the current site maps, if possible and accurate. Similarly, if surface collections were previously made on a given site, this information will be included on new site maps and in the report text. Constructing maps from earlier reports or field notes is acceptable, although all such maps must be professionally drafted. Photocopies of field notes or field maps as project report illustrations are not acceptable. Summary data on the number and kinds of artifacts found during previous investigations must also be presented in the text. If the artifact data from previous projects are not available in published report tables, a complete listing of the materials by provenience must be included in the current report appendices. These prior data will be used to help assess the archaeological record of reported sites, and in making recommended NRHP eligibility determinations.

All intact or potentially diagnostic projectile points, significant stone or bone tools, representative examples of common ceramic types, and all unusual or especially diagnostic artifacts must be illustrated using photographs (with scale) in the final report. For each projectile point and other intentionally retouched/ground stone or bone tool, the following attribute data will be included in the report in tabular form: maximum length, width, and thickness, weight, and raw material. Additional attribute data may be compiled at the discretion of the Recipient. For all pre-contact period ceramic artifacts the following attribute data will be included in the report in tabular form: paste (type, size, and density of inclusions) surface treatment(s), rim form, and lip form. For historic ceramics attributes to include paste, glaze, type, decoration, manufacture, origin, date and vessel form is to be included. Minimum number of individual (MNI) vessels will be estimated for each site and each such vessel described, for historic and pre-contact period sites. Additional attribute data may be compiled at the discretion of the Recipient. All lithic artifacts (i.e., tools and debitage) are to be reported using standardized and well-defined sorting criteria. All historic period artifacts will likewise be described using standardized and well-defined sorting criteria. Functional categories for all historic artifacts need to also be included in analysis formats. Examples of common ceramic types, unusual and especially diagnostic specimens (e.g., sherds with maker's marks, bottles, buttons, pipes, architectural hardware, tools, etc) must be illustrated using scaled photographs in the final report. A list of primary references justifying the typological, chronological and artifactual analyses methods must be included in the report, to facilitate location and inspection of the original type descriptions or accounts of analytical procedures.

A primary emphasis of the laboratory analysis and reporting must be the determination of occupation span, and function for each site, or for each component within complex sites. Additionally, the analysis must be directed to delimiting whether other sites found on Fort Liberty have similar assemblages or components. This must include quantitative comparative analyses using data samples from existing published reports, other sites examined under this

contract, and a sample of sites examined to date on the Installation where such information is published in final CRM report form. Sufficient data must be provided to ensure that subsequent investigators can evaluate technical conclusions, interpretations, and NRHP eligibility determinations offered in the current report.

For sites with historic components, the evidence, procedures, and results taken to document the history, function, date of construction, span of occupation, site proxemics and identity of inhabitants shall be presented. This will include recounting what was gleaned from Installation (CRMP), county, and other relevant records. Such archived and/or published records (e.g. historic maps, deed records, census data, etc.) will be examined by the Recipient as part of this agreement as described above.

At every site where 10 or more positive shovel tests are opened, artifact density/distribution maps must be produced to guide the interpretation of materials obtained from these units, and these maps must be presented in the final report in a legible format. These maps may be produced using a standard computer mapping program. The method by which the maps were produced must be documented (i.e. the program, interpolative algorithm, scale/contour intervals must be referenced). Minimally, one map of overall artifact density must be prepared, based on the count or weight of materials, as considered appropriate by the project Principal Investigator. Additional maps of specific artifact categories (i.e. ceramics, lithics, historic glass, nails, etc, and/or by functional groupings: Kitchen, Architectural, Agricultural, etc.) may be produced at the discretion of the Principal Investigator to aid in site interpretation. The production and use of additional maps is encouraged. Where widely differing components are present, such as 18th-to-20th century historic occupations or Late Archaic and Woodland period occupations, and sufficient numbers of artifacts and discrete proveniences are present to yield useful results (>20 identifiable artifacts), separate maps must be produced. The map data will be used and specifically referenced in NRHP eligibility justifications.

An interpretive section will be prepared as part of the report, separate from the management recommendations, which summarizes what was found and evaluates what has been learned from the project. That is, how does what was found as a result of the survey work compare with what has been found or previously believed about past occupations of the Fort Liberty/Sandhills area? How can the results guide future work? Quantitative comparative analyses with site data previously recorded on Fort Liberty will be conducted as part of this effort.

Full artifact inventories (catalog and analysis results) must be included in the final report, or referenced in an accessible appendix, with all artifacts reported and described by specific provenience (i.e., unit type, level, grid coordinates, accession number and specimen number). The level of documentation must be such as to tie all recovered artifacts to specific provenience units (i.e., shovel tests, surface units, general surface, etc.). In all artifact catalog tables the column for site numbers will be the exact designation and not include additional zeros. The accession numbers and specimen numbers (as paired) will be included in all artifact tables in each subsection of the appendix. Care must be taken to ensure that artifact counts are fully reported and that data tables add up correctly. Data values reported for site dimensions, numbers of tests, and artifact counts in the report text, on maps, and other figures, and in the inventory/appendices must be consistent, and in agreement with what is reported on state site

forms.

More information about reporting requirements is found in **9. Deliverables**.

5. Required Meetings

Pre-Fieldwork Meetings

The Recipient will meet with the Fort Liberty Cultural Resources Manager or his/her representative, before initiating any fieldwork under this agreement. At this time, the Recipient will review the contract project goals, any issues relating to the Statement of Objectives and discuss safety considerations.

Site/Field Inspections

During the course of fieldwork, Fort Worth USACE technical POC or Fort Liberty CRMP archaeologist (PM or designee) may visit the project site on an as needed basis to inspect the work.

Post-Fieldwork Meetings

Within two workdays of completion of fieldwork under this cooperative agreement, the Recipient will meet with the Fort Liberty CRMP Archaeologist or his/her designated representative to present the results of the fieldwork verbally and graphically. Accurate maps must be used in the presentation. The Recipient will outline what was accomplished, problems encountered and preliminary recommendations with respect to the protection of cultural resources considered potentially eligible for inclusion on the NRHP.

6. Native American Graves Protection and Repatriation Act (NAGPRA) Items

If Native American human remains, burial items, or objects of cultural patrimony are discovered during the course of this project, the Fort Liberty CRMP and USACE representative must be notified immediately. All work must stop on any site producing the human remains or items until proper consultation can occur by FLCRM personnel. All coordination with and reporting to Native American groups with potential interest in NAGPRA related cultural resources identified at Fort Liberty shall be conducted by Fort Liberty personnel.

7. Points of Contact

USACE

The technical Point of Contact is Ms. Kathy Mitchell, Environmental Agreements PM, Regional Planning & Environmental Planning Center. Ms. Mitchell can be reached via phone at 817-886-1709, or email, kathy.s.mitchell@usace.army.mil.

Fort Liberty

The technical Point of Contact is the Fort Liberty Cultural Resources Curator/Archaeologist, Dr.

Linda Carnes-McNaughton, phone, (910) 396-6680, director line (910) 908-4280 or email, linda.f.carnes-mcnaughton.civ@army.mil.

Recipient Responsibilities

- a. Any changes to the project scope or other provisions of this SOO must be authorized in writing by the USACE Grant Officer. The USACE technical point of contact, Environmental Agreements Manager for this work is Kathy Mitchell as identified above.
- b. Recipient shall be responsible for all damages to persons and property that occur in connection with the work and service under this agreement, without recourse against the government. The Contractor shall provide maximum protections, take every reasonable means, and exercise care to prevent unnecessary damage to existing historic structures, contemporary structures, landscape plantings, natural features, roads, utilities, and other public or private facilities. Special attention shall be given to historic structures, natural and landscape features of the areas to protect these elements and their surroundings.
- c. The Recipient shall furnish sufficient technical, supervisory, and administrative personnel to ensure the expeditious accomplishment of the work specified in this Statement of Objectives (SOO). Additionally, the Recipient shall furnish all services, materials, supplies, equipment, investigations, studies, and travel required in connection with this SOO.
- d. Due to the sensitivity of infrastructures associated with specific military training missions that may be in close proximity to project sites and the sensitivity of archeological and cultural resources, it is recommended that the recipient coordinate the release of information for publication or any other public use (including student thesis, professional conference papers, professional journal articles, published book chapters or public media) any sketch, photograph, report, or other materials with the FLCRMP/PM Archaeologist prior to any such action.

9. Deliverables

Safety and Logistics Plan

A detailed safety plan describing how the task order will be implemented must be prepared and submitted to the USACE POC and the Fort Liberty CRMP before the start of any fieldwork under this task order. Throughout the project, all training area and range access will be coordinated through Range Control.

This safety plan will be reviewed and modified as necessary prior to the start of fieldwork, and may be further modified over the course of the task order as necessary. This safety plan is expected to cover such information within it as is unique to the conditions at Fort Liberty, including military training activity and unexploded ordnance. Procedures must be included for emergency response to ensure military or other rescue personnel can find possible injured crew. This must include procedures about map use so that field crews can report injuries/safety issues in such a way that appropriate maps are used (military base maps vs. USGS Quads). Procedures for dealing with work in areas with low signal/loss of frequency for cell phones and radios must

be in place. All Recipient field personnel must carry a streamlined or full copy of the safety plan with emergency numbers at all times, as well as procedures for dealing with emergencies. All Recipient personnel working on Fort Liberty under this agreement are expected to have read and signed an acknowledgement that they have read and understood, the full text of this safety plan. **No person will be allowed to work on Fort Liberty under this cooperative agreement until the Recipient has filed a copy** of this signed acknowledgement document with the USACE representative and the Fort Liberty CRMP. The Recipient must receive approval of the safety plan in writing from Fort Liberty.

More information about the safety plan and safety procedures can be found in Attachment C.

Monthly Progress Reports

A progress report will be submitted electronically on a quarterly basis. Each report must be accompanied with an invoice for each quarter of effort throughout the duration of the project and submitted to the USACE post award invoicing box at swf-cesu-invoice@usace.army.mil. If no expenses are being invoiced during a specific quarter a progress report is still required and the recipient can simply state in their submittal that no expenses are being submitted during that quarter. These reports must contain an accurate up-to-date account of all work. Reports must include a detailed description of completed work and the stage of completion of each project deliverable. The report will also contain potential problems that may impact the project schedule.

State Site Forms

The Recipient will complete two sets of North Carolina site forms on acid free paper including all relevant information obtained through the survey project. Where applicable, in the case of previously recorded sites, the Recipient will complete revised site forms to update, modify and/or correct previously reported site data. The Recipient will obtain current electronic site forms from the Fort Liberty CRMP's Database Manager.

State forms will be completed and/or updated for **all** sites located on project areas covered under this contract. In the project report and on all form copies submitted, the state site forms will have official state site numbers on them, and reference to the sites in report the text will be by the official numbers. Two printed copies of each form will be submitted on acid free paper, one copy for the state site files (OSA) and one copy for the Fort Liberty CRMP. In addition to the printed form requirement, it is important to include completed electronic forms, along with other digital/electronic deliverables for this cooperative agreement, on CD/DVD to the CRMP.

Management Summary

Within four weeks of completion of survey project fieldwork under this contract, the Recipient will provide a management summary briefly describing the work conducted and the results of survey, which will minimally include list of all sites and isolated finds discovered, maps indicating their locations and preliminary NRHP eligibility recommendations.

Curation Database/Inventory

A catalog/inventory of all artifacts by specific provenience and accession number, which also includes all summary information and identification generated during analyses, is to be included as an appendix to the volume and made available as a curation deliverable in digital format. The curation database must be in the format currently in use by the Fort Liberty CRMP. **This format must be obtained from the Fort Liberty CRMP Curator and/or Database Manager prior to analysis and cataloging to ensure compatibility.**

Draft and Final Reports

Draft Report. Three paper copies of the draft report will be required. Specific information regarding content can be found in Task 4 (Reporting). All draft and final reports shall conform to report standards promulgated by 36 CFR Part 66, Recovery of Scientific, Prehistoric, Historic and Archaeological Data: Methods, Standards, and Reporting Requirements as well as reporting requirements of the North Carolina Office of State Archaeology, and the details presented in this SOO.

All reviewer comments are to be addressed equally by the Recipient, within the provisions of the project SOO and cooperative agreement. The USACE technical POC will resolve any discrepancies or questions that arise concerning the reviews. The Recipient will not proceed with final report printing until the Fort Liberty agrees that all comments have been addressed in a satisfactory manner. The Government shall have 45 calendar days to review the draft document and each subsequent reiteration of the document.

For any draft, if the Recipient believes that specific corrections/changes requested by the Fort Liberty CRMP and/or USACE should not or cannot be reasonably addressed within the revised draft final report, an itemized explanation of why these corrections/changes will not be made in must be submitted in writing to the Fort Liberty CRMP, USACE technical POC, and approved by them in writing, prior to submitting a revised draft final report. No such requests by the Recipient that represent an attempt to circumvent or ignore specific provisions of this scope of work will be accepted.

If the Recipient believes that the requested corrections/changes are outside the scope of work or were not called for in the review of the initial draft report the Recipient must schedule a meeting with the USACE technical POC and Fort Liberty to discuss any issues and find a suitable solution to resolve the issues at hand.

Final Report. This final report will contain all the information specified under Report Format and Contents in Attachment D and incorporate any requested revisions of the initial draft and draft final reports. Ten (10) hard perfect bound, 1 unbound camera-ready original manuscript and 1 unbound high-quality coy, all on acid free paper are required. Two CDs containing the complete final report in Adobe Acrobat PDF format (version 5.0 or higher) will be submitted with hard copies.

Curated Artifacts and associated materials

Artifacts and associated materials, such as, but not limited to the list below, shall be submitted

directly to Fort Liberty CRPM/Archaeologist or curator prior to submittal of final report:

- a. Faunal and floral materials, if collected
- b. Human remains, if collected
- c. Soil samples, if collected
- d. Other materials collected
- e. Original field notebooks, logs, journals, shovel test logs, other field data forms, etc.
- f. Maps and field drawings
- g. Photographs, slides, negatives (black & white & color), digital images on CD/DVD
- h. Electronic media on CD/DVD
- i. Other record data will be submitted.

10. Submittal Schedule

Task/Deliverable	Start Date	Submittal/Completion Date
Safety Plan	Upon receipt of signed cooperative agreement	W/in 10 calendar days after receipt of signed cooperative agreement
Background Research	Upon receipt of signed cooperative agreement	W/in 20 calendar days after receipt of signed cooperative agreement
Quarterly Progress Report & Invoice	31 December, 30 April, 31 July & 30 September	NLT ten days past the end of each quarter. Each quarterly Invoice must be submitted with the quarterly progress report.
Fieldwork	W/in 30 calendar days after receipt of signed cooperative agreement	W/in 150 calendar days after receipt of signed cooperative agreement
Management Summary	W/in 30 calendar days after receipt of signed cooperative agreement	W/in 45 calendar days after completion of fieldwork
Draft Report	W/in 30 calendar days after receipt of signed cooperative agreement	W/in 180 calendar days after completion of fieldwork
Revised Draft Report (if required)	Upon receipt of Government comments	W/in 30 days of receipt of Government comments
Final Report	Upon receipt of acceptance of draft final report	W/in 45 calendar days following acceptance of draft final report by Government
Artifact Inventory and Curation Information.	N/A	Concurrent with Final Report
Electronic Copy of Report on CD	N/A	Submitted with Final Report
GPS Data	N/A	Submitted with Final Report
Standard Form 298	N/A	Submitted with Final Report
Completed North Carolina Site Forms	N/A	W/in 30 calendar days after request for final report submittal

11. Mailing Address for Deliverables

Deliverable documents submitted to Fort Worth USACE Post Award email box at the following address:

Swf-cesu-invoice@usace.army.mil

OR for large documents send to:
CESU Post Award Kathy Mitchell or Melissa Coleman
P.O. Box 17300
819 Taylor Street, Rm 3A12
Fort Worth, Texas 76102-0300

Deliverables (artifacts) submitted to Fort Liberty shall be sent to:

Department of the Army
Directorate of Public Works
ATTN: AMIM-LIP-EM
2175 Rock Merritt Ave., Stop A
Fort Liberty, NC 28310-5000

12. Period of Service

Period of performance for this agreement is 12 months from the date of award.

Descriptions of Land Tracts for Survey

Two tracts including 1884 acres in two training areas are proposed for cultural resources inventory through Phase-I archaeological survey (Figure 1). The Two tracts include the entirety of TT2 and TT3. The total area for the two survey tracts is 1884 acres.

The two tracts selected for inventory have been recommended by the Training Lands Working Group (TLWG) for inclusion in a Training Area Grouping (TAG), to occur in FY24. Each year, a set of Training Areas are selected for landscape rehabilitation. The primary goals of each TAG are pine stand management, hardwood management, prescribed fire, ground cover management firebreak reduction, maintenance of existing firebreaks/maneuver trails, management of threatened and endangered (T&E) species sites, and cultural resource survey. Many of these goals are accomplished through silviculture improvement prescriptions entailing timber thinning. The current density of forest cover in these areas (basal area >80) exceeds the optimal (basal area 50–60) for RCW population restoration and sustainment, and immediate timber thinning is essential to return forest stands in these areas to optimal conditions. High density forest stands in each of the three survey areas also represent heightened wildfire hazards, exacerbated by their locations on Fort Liberty property boundaries where dense forest stands exist alongside off-post civilian housing developments. Forest land management practices including timber thinning are prohibited in areas that have not completed cultural resource inventories through Phase-I survey and consequently these areas are considered high priority for cultural resources inventory. Phase-I archaeological survey and cultural resources inventory is proposed in these three tracts as a means of eliminating restrictions on timber thinning and hardwood removal necessary to implement best forest management practices.

The first tract (1,600 acres), Training Area TT2, is located north of Plank Road, and east of Inverness Road (Figure 2). This tract is bounded on the north by McDuffie Creek, and on the west by a north-south running firebreak. The tract includes five known archaeological sites (31HK632, 31HK633, 31HK635, 31HK202 and 31HK886) that have not been sufficiently tested to determine their NRHP eligibility. It also includes seven known archaeological sites which have been determined to be not eligible for the NRHP.

The second tract (284 acres) proposed for survey, Training Area TT3, is located south of Plank Road, and south of Training Area TT2 (Figure 2). This tract is bounded on the south by the Fort Liberty property line, on the north by Plank Road, on the east by a vehicle trail, and on the west by an unnamed stream. The tract includes one archaeological site (31HK662) which has been determined to be potentially eligible for the NRHP, and one other site which is not eligible.

Proposed Phase I Survey Areas

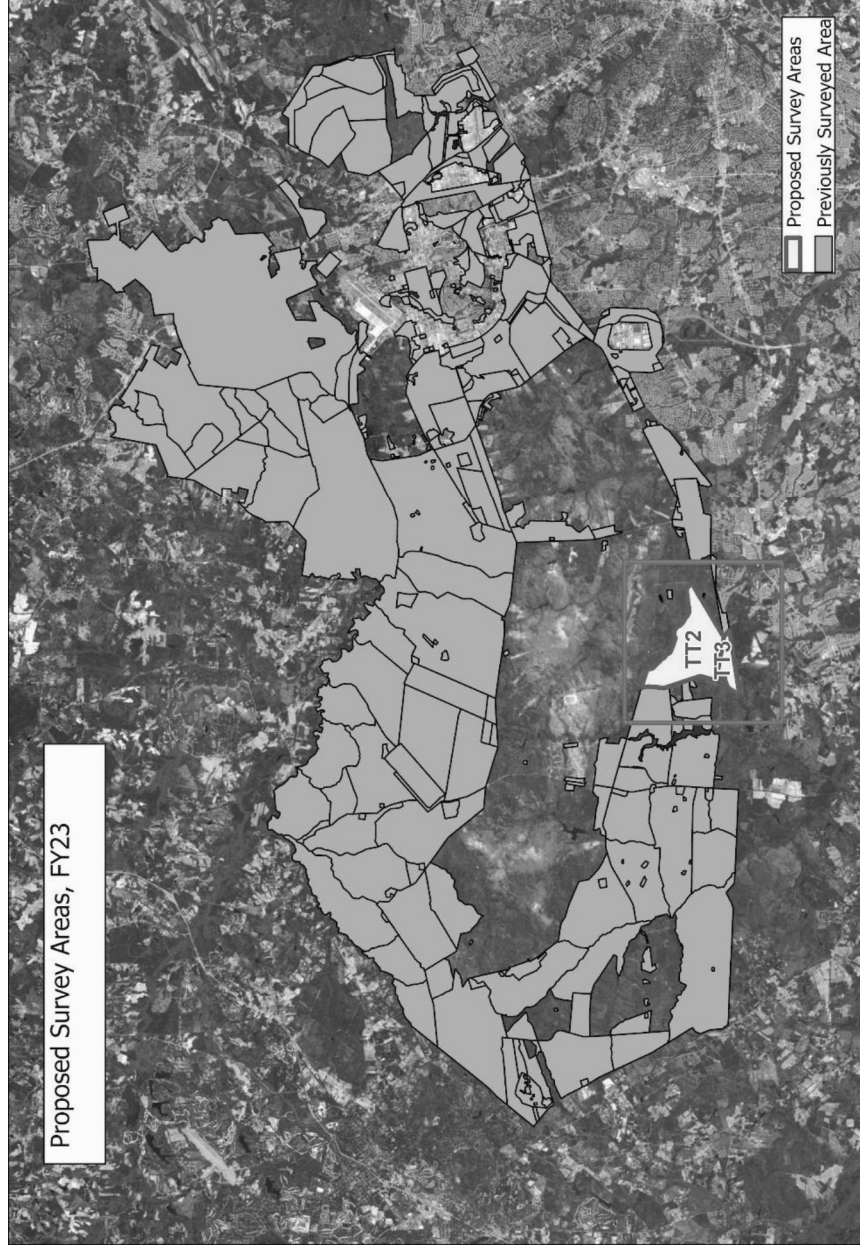


Figure 1. Locations of tracts proposed for cultural resources inventory archaeological survey.

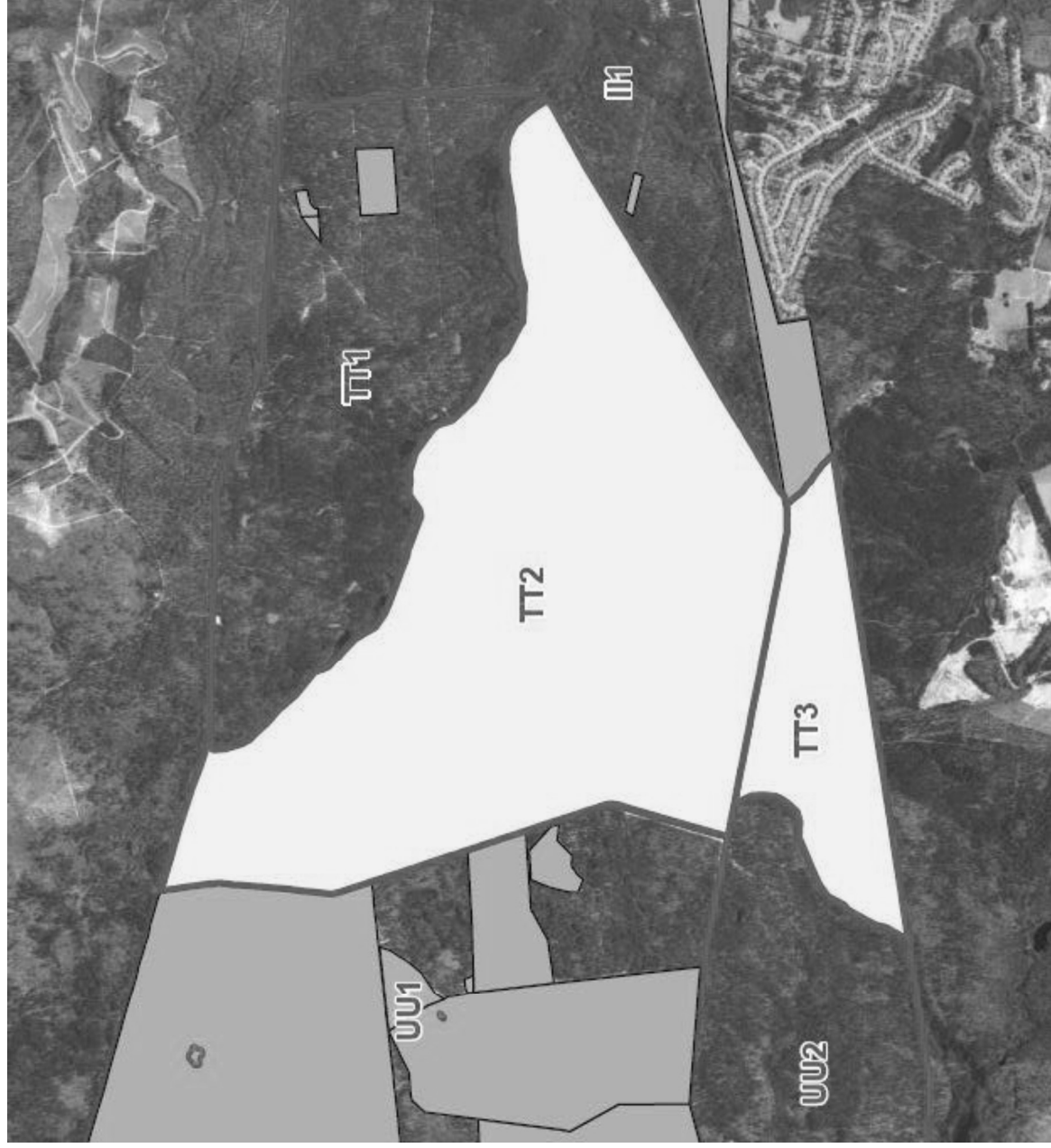


Figure 2. Location of tract proposed for archaeological survey in Training Areas TT2 and TT3.