

**SECTION 647**  
**ENVIRONMENTAL MITIGATION**  
(Section Added to FP-03)

647.01 **DESCRIPTION** - This work shall consist of archaeological testing and preparation of work plan; monitoring and data recovery to be performed by a certified archaeologist. The primary goal of archaeological monitoring and data recovery is the mitigation of adverse effects to any archaeological deposits and burials within the APE.

647.02 **FIELD METHODS** - This section describes methods to be used during both monitoring and data recovery fieldwork. The methods and reporting requirements will require review by the CNMI SHPO prior to implementation.

- a. **MONITORING** - Full-time archaeological monitoring should be conducted during all ground-disturbing construction activities. The goal of monitoring is to identify sites that are eligible for the NRHP and will be adversely affected by construction activities. The archaeological monitor(s) will attend the pre-construction meeting and explain the reasons for archaeological monitoring, the procedures involved, and how to proceed if an archaeological site or deposit is encountered. When practical, backhoes with flat-bladed buckets will be used during excavation. One monitor will be present for each machine conducting excavation.

If archaeological features or other deposits are encountered during monitoring, the locations will be recorded with a professional-grade Global Positioning System (GPS) unit. If it is possible to collect samples and complete documentation during ongoing monitoring, the monitor will do so. This should only be undertaken in instances of isolated artifacts or features. If human remains or intact cultural deposits representing an archaeological site are identified during monitoring, data recovery may be required. If data recovery is determined to be necessary, all work in the area will cease and CNMI HPO will be consulted prior to its implementation. Procedures for data recovery are listed in the next sub-section.

The guidelines for specific procedures to be followed by the archaeological monitors are listed here. The project monitors shall:

1. Inspect the ground surface prior to modification, documenting and recovering any cultural materials, as appropriate.
2. Observe ongoing mechanical excavation in order to identify subsurface cultural material. When possible, excavation should be halted to allow the monitor to inspect and document any in-situ cultural material.
3. Inspect, as closely as possible, the fills exposed and strata visible in exposed trench faces.
4. If either natural or cultural deposits are exposed and can be safely and adequately examined in the trenches, photograph and document the soil and sediment sequences in situate representative locations. Prepare profile drawings for representative trenches and all cultural deposits. Describe soils, following U.S. Department of Agriculture Soil Survey Manual (1951,1962) standards and terminology, and Munsell Color (2000) guidelines. The soil characteristics recorded will include the following: color, including moisture condition (wet, moist, dry) when color read; texture; structural grade, size, and form (or absence of structure); dry or moist consistence; wet consistence (stickiness,

plasticity); root frequency and size; presence of charcoal or other cultural materials; and lower boundary distinctness and topography.

5. If human skeletal remains are encountered all excavation in the area around the discovery will be immediately halted. Following consultation with CNMI HPO, data recovery methods detailed in the next section will be implemented.
  6. Document and collect all traditional artifacts encountered during excavation. Document post-Contact materials, which need not be collected unless unusual or diagnostic of a place or period of manufacture.
  7. Maintain a daily monitoring log and photographic record. The daily log should be a standardized form that records work times, communications, and activities during the day. The presence or absence of cultural remains and natural soil/sediment strata and the location of each sampled, profiled, protected, or otherwise-treated cultural deposit will be recorded. Specific field observations, soil descriptions, collection and photography logs, and illustrations (profiles and plan view drawings) will be recorded using additional standardized forms. A photographic log will be kept up-to-date, listing name of camera, subject, orientation, photographer's name or initials, and date.
- b. **NRHP Evaluation** – If subsurface archaeological deposits are identified, they will be evaluated with regard to eligibility for the NRHP. This will include assessing both significance and integrity of the deposit. According to the NRHP Regulations (36CFR§60.4):

The quality of significance in American history, architecture, archeology [sic], engineering, and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- i. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- ii. that are associated with the lives of persons significant in our past; or
- iii. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- iv. that have yielded, or may be likely to yield, information important in prehistory or history.

If the monitor identifies cultural material or deposits that have the potential to be eligible for the NRHP, the CNMI HPO will be consulted prior to continuing construction activities.

- c. **DATA RECOVERY** - If intact deposits are identified during monitoring, including disturbed or intact human skeletal remains, work will cease immediately and the CNMI HPO archaeologist and DPW will be informed of the finding. Following consultation and an evaluation of the deposit, agency officials will determine appropriate mitigation measures. Potential mitigation measures may include: avoiding the deposit if possible, or implementing data recovery to mitigate adverse effects.

If data recovery is deemed necessary the following methods should be used:

1. Intact deposits will be excavated in a controlled fashion using 1m by 1m test units (TUs) or units of other suitable dimensions. TUs will be excavated in arbitrary 10cm levels within natural strata and the soil will be passed through a 1/4-inch screen; cultural material will be collected and documented by provenience. A 1/8-inch screen can be used at the discretion of the Principal Investigator. TUs will be excavated to bedrock or sterile sediment.
  2. Features will be documented in plan and profile. They will be sectioned and the excavated fill will be passed through a 1/8-inch screen.
  3. All artifacts recovered during data recovery excavations will be documented and collected with relevant provenience information.
  4. Representative profile drawings of units will be drawn to scale. Soils will be described according to USDA nomenclature detailed in the above section.
- d. **BURIAL RECOVERY** - If human remains are identified, they will be manually exposed enough to allow general observations on intactness and orientation. Remains will be assessed by a professional archaeologist with osteological training, or by HPO staff with the guidance of the Staff Archaeologist. Part of this assessment will include identifying the class of human skeletal remains as detailed in Procedures for the Treatment of Human

Remains in the CNMI (CNMI HPO 2000b). Notes, sketch maps, and photographs of all human remains will be prepared, and their locations will be recorded with a professional-grade GPS unit.

Remains that are identified as Class I (Ancient Chamorro) will be left in-situ, when possible, through redesign of construction plans or other appropriate mitigation measures. If in-situ preservation is not possible, the remains will be carefully removed from the area following a thorough documentation including notes, sketch maps, and photographs. The remains will be subjected to appropriate scientific analyses in accordance with the research design. Upon completion of osteological analyses, the remains will be returned to CNMI HPO for reburial. Remains identified as Class II (Pre-WWII Historic) will be left in-situ, when possible, through redesign of construction plans or other appropriate mitigation measures. If in-situ preservation is not possible, the remains will be removed following basic osteological field observations. If the remains are determined to be Carolinian, they will be turned over to the Carolinian Affairs Office for reburial. If the remains are determined to be Chamorro, arrangements for reinternment within an established cemetery will be made.

Remains identified as Class III (WWII) will be treated according to the following standards: remains determined to be those of Japanese nationals will be disinterred following basic osteological field observations, and temporarily stored at the HPO prior to repatriation to Japan; remains determined to be those of Carolinian or Chamorro war victims will be disinterred following basic osteological field observations, and the remains will be transferred to the HPO for reburial as appropriate; remains determined to be those of Korean war victims will be disinterred following basic osteological field observations, and temporarily stored at the HPO prior to repatriation to Korea; remains determined to be those of U.S. servicemen will be disinterred following basic osteological field observations, and the remains will be turned over to the U.S. government for final disposition.

If remains are identified as Class IV (modern), the Department of Public Safety and the Department of Public Health will be notified. The remains will be fully documented; if they are positively identified, the government will notify the next of kin to arrange for final disposition. If the remains are unidentified, they will be turned over to the Department of Public Health for reburial.

**Burial Treatment Plan** - In consultation with the CNMI HPO, a burial treatment plan will need to be developed for the eventual reinternment of human skeletal material from the CNMI Class I. Preliminary discussions with the CNMI State Archaeologist suggest that provisions for a crypt should be allowed for in each of the Task 1 phase areas. The crypts will have concrete walls and roofs. The location of the crypts will need to be decided upon after consultation with the CNMI HPO. The location of the crypts should be accessible to the public, appropriately landscaped, with a memorial placed on site. Specific re-burial requirements are being developed by the CNMI HPO.

- e. **REPORTING** - A brief end-of-fieldwork letter report presenting a summary of the fieldwork and initial laboratory results should be prepared by the Principal Investigator/Project Director within four weeks of the completion of fieldwork or if construction is intermittent at agreed upon timeframes. Subsequently, a full technical report should be prepared that will follow the Content, Format and Submission Standards for Reports of Archaeological Projects undertaken in the Commonwealth of the Northern Mariana Islands (CNMI HPO 2000a). The full technical report will include archaeology, and if warranted, bioarcheology/osteology results. The report will include the background information, research objectives, and field and laboratory methods presented in the research design; a detailed description of the fieldwork results, including appropriate graphics; a detailed presentation of the laboratory results; a discussion of the field and laboratory data in relation to the project's research objectives; NRHP eligibility determinations; and conclusions and recommendations. The technical report will include CNMI HPO site forms, if appropriate.

#### 647.03 PAYMENTS –

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
64701	Archaeological Work Plan, Testing and Report of Findings	Lump Sum
64702	Archaeological monitoring, NRHP Evaluation and Report	Lump Sum
64703	Burial Recovery and Treatment Plan	Each

**END OF SECTION 647**

***END OF DIVISION 600  
INCIDENTAL CONSTRUCTION***