EXCAVATION AND STABILIZATION PLAN

FOR

GOAT CAMP RUIN

PAYSON, GILA COUNTY, ARIZONA

Prepared by

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Submitted by

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For the

Town of Payson

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INTRODUCTION

This Plan is intended to supplement the Master Development Plan for Goat Camp Ruin (Wood, 2008; hereafter referred to as GCRMP) and provide specific direction for the physical treatment of the site in order to prepare it for public visitation as an interpretive site adjunct to the Payson Area Trails System (PATS). As originally proposed in the GCRMP, development of the site requires a number of different activities, some of which can be undertaken simultaneously while others must occur in sequence. These activities were organized into eight phases to be implemented over a multi-year period:

I. Initial brush clearing and general mapping of surface features and boundaries.

II. Construction of a vehicle-resistant fence around the parcel.

III. Construction of an access trail from Tyler Parkway into and through the Goat Camp Ruin parcel to connect with US Forest Service (FS) trails as part of the PATS system and laying out an interpretive trail from the PATS trail into the main architectural core of the ruin. Also included in this phase will be the preparation of an initial monitoring plan to periodically assess the condition of the site, trails, and installed facilities.

IV. Clearing and delineating an interpretive loop trail through the ruin, originating from the PATS trail.

V. Development and placement of interpretive exhibits or trail stations and an accompanying brochure/trail guide.

VI. Stabilization and repair of the ruins, beginning with a detailed map of all surface features and limited excavations necessary to prepare for the stabilization work.

VII. Construction of a parking lot adjacent to Tyler Parkway with associated visitor facilities.

VIII. Upgrading of initial interpretive exhibits and continuing monitoring and maintenance of the site and its facilities.

As noted in the GCRMP, some of this work had already been accomplished (Phase I). Since the Plan was approved Phases II and III have also been accomplished, providing both security for the ruin and access into the parcel that was truncated with the building of the fence. In terms of the scheduling of phases, the order has been revised slightly in that it has been decided to begin the stabilization program prior to building the interpretive loop trail through the ruin or installing any interpretive facilities. Once the stabilization effort has reached the point where basic visitor safety issues have been addressed, the interpretive trail will be built as proposed in the GCRMP and the stabilization program will continue. As described in the GCRMP, the other phases need not be sequential and will be pursued as funding becomes available or as the need arises.

Since the completion of the vehicle barrier fence efforts have been under way by Tonto National Forest heritage staff personnel with the assistance of veteran private sector archaeologists donating their time as volunteers to further define our understanding of the character of that part of the site where most of the stabilization efforts will be focused – the central portion of the site previously mapped, tested, and surface collected by ASU (see Wood 2008). The goal of this activity has been to refine the existing map, locate all possible features, and acquire a better understanding of the working of the prehistoric erosion control system of checkdams and terraces protecting the site so that we may repair and improve upon that system in the future. This work

has consisted primarily of locating and defining all known, projected, and possible masonry wall alignments, many of which were not recognized during previous mapping attempts, using a variety of non-invasive techniques, including raking and troweling loose and recent duff, pothunter backdirt piles, clearing some vegetation and removing some of the vegetative debris left behind from the Hohmann clearing and mapping exercise back in the 1990s. As noted above, this activity was confined to those areas of the site previously documented and collected by ASU. Somewhat surprisingly, especially for a site that had been mapped no less than five different times, this effort identified nine new features (Figure 1, Table 1~~, Figure 1~~) including 3 or 4 rooms, several large terraces or courtyard walls, other abandoned or unfinished walls, a possible storage cyst similar to those common in Tonto Basin (as opposed to the usual kind of granary found in the Payson area), and some additional concentrations of fire cracked rock that may represent additional post-prehistoric roasting pits. In addition, we have located more breached and eroded check dams and terraces in the gullies on the southeast slope of the ridge outside of the architectural core of the site. It is from this revised map (Figure 1) that further planning for the site will be developed. As a result of this work, the size and complexity of the site have grown, especially since several of the new walls suggest that there were actually four construction episodes in the central part of the site rather than the three originally recognized. Based entirely on surface expressions of architecture and artifacts, it appears that there was originally a Preclassic pithouse component on this portion of the site, followed by the construction of surface-built single course masonry founded oval versions of the previous pithouses, then by a similarly constructed set of rectangular jacal rooms and possible courtyard walls (all previously unknown), and finally by the hybrid cobble masonry and jacal structures recognized by ASU. The previously unrecorded jacal walls are also of a type rarely reported in earlier excavations in the Sub-Mogollon Rim area – selected, faced, and fitted double row stone foundations to support the wooden post superstructure of jacal walls. This technique is common in Tonto Basin and Verde watershed during the early Classic period. Review of previous excavation work around Payson (almost all of which was performed by ASU as part of a large land exchange program active in the 1980s and 90s) was unable to confirm the presence of this technique at most of the sites excavated. Judging from the maps and written descriptions available from this work, it is clear that the excavators focused their attention on the interiors of rooms only, typically stopping excavation at wall faces and rarely clearing, much less excavating the walls themselves. In addition, very little effort was expended during those projects on searching out features that were not obvious upon initial recording. Since so much additional architecture was identified at Goat Camp Ruin with so little effort, it is possible that many such features were overlooked and ultimately destroyed by the land exchange projects. This project, therefore, offers an unprecedented opportunity to explore the implications of a little known style of architecture in the area and address them in an interpretive context. To do so, we propose a somewhat expanded plan of work to support, mitigate, and accomplish the stabilization and interpretive goals set in the GCRMP.

MONITORING

To date, monitoring of the site has consisted of anti-vandalism protection provided by periodic visitation by Forest personnel and members of the Rim Country Chapter of the Arizona Archaeological Society (RCC). Before stabilization efforts begin, a formalized schedule for visitation will be developed by RCC and a log kept of visitation and observations.

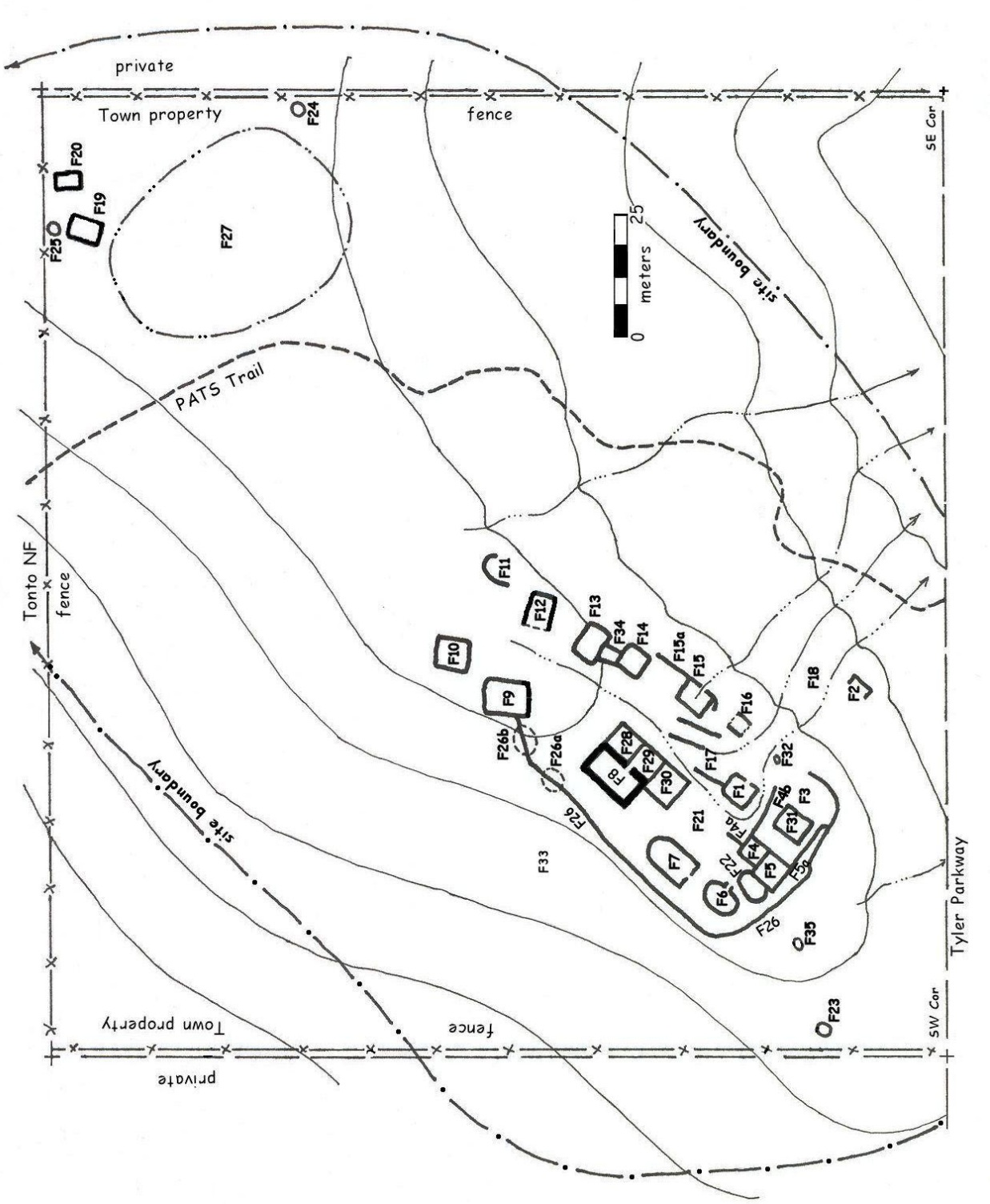

FIGURE 1. **REVISED SITE PLAN FOR GOAT CAMP RUIN**

TABLE 1. **FEATURES IDENTIFIED ON THE SITE PLAN**

1. Masonry and jacal room with attached retaining walls, apparent entry on the SE wall; heavily vandalized in the past and eroding, some tree disruption as well. *Tested by ASU.*
2. Partial masonry and jacal room on the slope below the main ruin entry unknown, with a possible additional room nearby; heavily eroded. Will require brushing and wall clearing to fully define.
3. Partially enclosed courtyard bounded by the primary retaining wall F26 on the SW and SE sides: evidence of past pothunting. Includes newly discovered feature 31.
4. Masonry and jacal room, entry unknown; poor wall definition owing to extensive vandalism and tree growth disruption. F4a is a masonry-founded jacal wall extending from the NE wall of F4 into F21 where it appears to stop. F4b is a wing wall/terrace extending from the E corner of F4 to partially enclose F3.
5. Masonry and jacal room apparently sharing a wall with F4; extensively vandalized. F5a is a masonry-founded jacal wall extending to the SE from the S corner of F5 to define the SW side of F3 inside F26, to which it may connect.
6. Oval jacal room with low masonry foundation, may be partially slab faced with a vestibule entry on SE wall; detached, but enclosed within the primary retaining wall F26. Pothunted, but not extensively. Room appears to have been built on an artificial terrace defined by a large boulder and rubble retaining wall on its NW side, between the room and F26.
7. "The basilica," an apsidal jacal room with low masonry foundation, one end clearly rounded, the other squared with an entry in the short, squared off SW wall; detached but enclosed within the primary retaining wall F26. Pothunted, but not extensively. It appears to have been built on an artificial terrace cut into the side of the ridge, defined by a large boulder and rubble retaining wall/revetment below the room on its NW side, between it and F26, and a masonry retaining wall above it (possibly incorporated into the room itself) separating it from the higher surface of the ridge on its SE side.
8. The central and largest structure on the site, a single room with an entry in the middle of the SE wall opening into F29. It appears to have been of mixed masonry and jacal construction built on a massive, wide double-row foundation of large imported and dressed Tapeats Sandstone blocks. Very heavily damaged by pothunting with the E corner and portions of the N corner and NW wall breached; also some tree and cactus disruption, including one side of entry. *Tested by ASU.*
9. Detached masonry and jacal room with wing wall attaching it to the primary retaining wall F26, entry unknown. Partially vandalized with buried wall exposed in the SW corner.
10. Detached masonry and jacal room, entry unknown; partially vandalized.
11. Partial (buried) oval (?) jacal room with low masonry foundation, entry unknown; appears to be undisturbed, but may have been abandoned and stone robbed for later structures.

12. “Carport” style detached masonry and jacal room entry presumed to be in the presumed west wall, still further presumed to be of unfounded jacal construction like other, excavated, carport-style structures in the area; east half pothunted. *Tested by ASU.*
13. Semi-detached masonry and jacal room, entry unknown with a wing/retaining wall (F34) connecting it with F14; pothunted in the past.
14. Semi-detached masonry and jacal room, entry unknown, with a wing/retaining wall (F34) connecting it with F14; pothunted in the past.
15. Detached masonry and jacal room with associated retaining walls, entry on the SE wall; extensively pothunted in the past. The room appears to be oval but is, in fact, rectangular, benched into the hillside and sitting on an artificial terrace formed by an oval retaining wall and revetment of large boulders and rubble. Attached to this is another retaining wall, F15a, extending to the NE nearly to F14. It is possible that this retaining wall/terrace at one time also extended to the SW to connect with F26; while no alignments are currently visible in this area, there is a line of juniper trees that suggest either the former or buried location of such a feature. F15 was probably heavily vandalized in the past and gully erosion headcutting has recently exposed and damaged the doorway and is working its way into the cultural deposits within the room.
16. A possible room structure with a fairly well-defined S wall and a poorly defined area of large boulders and rubble (and trees) suggesting additional walls. Or, it could be a short retaining wall/terrace associated with a fortuitous cluster of building-material sized rocks that may represent displaced wall fall from pothunting excavations in F15.
17. A complex of 3 retaining (?) walls built on faced, formal masonry foundations between rooms F1 and F15, one of which appears to originate from the N corner of F1. much wall fall or rubble revetment, but no visible connecting walls to suggest the presence of another room; eroding.
18. Trash midden on SE slope of ridge between the main feature concentration and F2, as defined by ASU.
19. Detached masonry and jacal room, entry unknown; lightly pothunted and disrupted by tree growth.
20. Detached masonry and jacal room, entry unknown; heavily vandalized and disrupted by tree growth.
21. Central plaza and cemetery. Some relatively recent potholes in evidence, but it appears to have been thoroughly looted in the past. *Tested by ASU.*
22. Oval jacal room with low masonry foundation, entry unknown (possibly on SE wall), located between F5 and F6. SE wall appears to be overlain by NW wall of F5. Minimal surface expression may indicate that it was abandoned and stone robbed for later structures.
23. Roasting pit, possibly Apache.
24. Roasting pit, possibly Apache.
25. Roasting pit, possibly Apache

26. Primary retaining wall along the ridge crest. Eroded and collapsed today it appears never to have been built as a proper wall. On the whole, the feature is poorly defined and possibly discontinuous (or buried). Along the top of the slope on the NW side of the ridge it appears to be a rip rap revetment held in place by several parallel retaining walls topped by a rough line of piled up boulder rubble. On its south end, where it comes across the top of the ridge to enclose the SW end of the settlement it is little more than a loosely piled alignment of unsorted boulders (some of which are quite large).Where it intersects the S corner of F5, it disappears into a large pile of unsorted boulders, possibly a stockpile for further construction. Disrupted by vandalism in places, particularly in the vicinity of F8. At its N end, near its intersection with F9, it is overlain by two concentrations of fire cracked rock (F26a and F26b) that suggest the presence of additional roasting pits not presently visible.
27. High density artifact scatter with various early ceramic types and other materials indicating the presence of buried features, probably including pithouses. No surface structures, no pothunting; minor surficial damage and erosion associated with an old jeep trail (closed for the last 15 years and now nearly invisible).
28. Rectangular jacal room on a low masonry foundation, it appears to be abutted against the NE end of the SE wall of F8, entry unknown, largely covered by wall fall from F8.
29. Rectangular jacal and masonry room abutted against the SW corner of the SE wall of F8, largely covered by wall fall from F8. The entry to this room is unknown but probably on the SE wall; the only known entry into F8 opens into this room.
30. Rectangular jacal structure on a low masonry foundation, it abuts both the SW wall of F29 and the S corner of F8, entry unknown. The corner between the NW wall of F30 and the SW wall of F8 has been heavily vandalized and appears to have disrupted that wall of F30. not clear if this structure was a room or a small courtyard.
31. Rectangular jacal room on low masonry foundation in the middle of F3, entry unknown but possibly on NW wall (if so, this would be the only room on the site other than F12 where the entry faces upslope). Height of masonry foundation is unknown, but a surface exposure of wall fall suggests at least five narrow courses.
32. Slab lined storage pit or granary between F16 and F31, inside the projected SW line of the F15a retaining wall.
33. Deep trash midden on NW slope of ridge, not recognized as such by ASU. Artifact density and concentration just below F26 is such that it has attracted some pothunting in the past.
34. Masonry founded retaining walls and rubble revetment or a small room between F13 and F14.
35. Small rock pile, possibly another granary; origins and purpose undetermined from surface exposure

In addition to the numbered features listed above, there are several miscellaneous piles of rock and possible, partial alignments visible throughout the site that, owing to being obscured by vegetation or vandalism, have not been identified as features on the site plan but which merit further study and may prove to be structural if they were ever to be tested.

Upon completion of the collection, excavation, stabilization, and repair work a report documenting that activity will be prepared. Included in that report will be a Post-stabilization Monitoring Plan with a schedule for periodic inspection of the ruin and its repairs that will be designed to detect and document condition and causes of deterioration, provide data for future repair needs assessments, and protect the site from vandalism by establishing a regular presence on site. This plan will also identify routine maintenance procedures that can be performed as part of the monitoring effort.

SURFACE COLLECTION

As discussed in the GCRMP, Goat Camp Ruin was extensively collected by ASU across the area where the proposed stabilization work will occur (Howell 1994), a reasonably representative sample has already been curated. However, the ASU collection, while intensive across the main architectural portion of the site, grossly underrepresented the outlying areas, including the dense trash deposits on the east and west slopes of the ridge, the probable main pithouse locus, and the presumed Apache roasting pits. Therefore, it is proposed to conduct additional surface collection in these areas. This effort will both provide a better representation of the site, it will also establish the reference collection vital to any site developed for public visitation, kept against the gradual loss of surface artifacts to visitors who can't (or won't) read the signs.

EXCAVATION

Goat Camp Ruin was also subjected to limited archaeological testing by Arizona State University in 1993 (Wood 2008, Howell 1994). This work was limited to five small units, three inside Features 1, 8, and 12, and two in the open areas of the plaza, Feature 21, and between Features 4 and 6 (Figure 4). Excavations proposed under this plan will be limited to work in support of stabilization and will be undertaken only within and adjacent to those features scheduled for stabilization and repair. As informative as it might be, no testing or excavation is planned at this time for any of the plazas or courtyards, the cemetery, the trash middens, or the probable pithouse locus.

These excavations will be designed to expose features for stabilization and interpretation and recover any data displaced by such excavations in a scientific manner. They will also be designed to affect no more of the site than is necessary in order to preserve as much of the underlying undisturbed cultural deposits as possible.

The first phase of this operation will consist of clearing, specifically, the removal of vegetation on walls and within rooms, including the dead and down wood scattered across the site as a result of earlier mapping efforts. A general clearing of vegetation from the site will not be attempted; rather, the focus of this phase will be to facilitate subsequent excavation and stabilization work and remove potentially disruptive vegetation from features at risk from root and plant growth.

The second phase will focus on wall definition and entry location, to be undertaken by means of probing, sweeping, additional removal of duff and recent fill using rakes and McLeod hand tools, temporary removal and stockpiling of loose surface rock, and trowel definition of the upper edges of all wall faces. This effort will focus on rooms 2, 4, 5, 6, 7, 8, 22, 28, 29, 30, 31, and possibly 16 and on the terracing complexes of features 17, 34, and 26 (Figure 1). Where required to determine the integrity of walls or the relationship between rooms (as in the case between rooms 5 and 22), walls (or the rubble piles currently interpreted as walls) will be deconstructed to the

point where that information is identifiable and then stabilized accordingly. The most intensive work will involve the clearing and stockpiling of displaced rock from the heavily vandalized areas within and around Room 8. Rock stockpiled from these features will be used as necessary for stabilization of walls, backfilling potholes, and, if there is any "left over," will be used to rebuild and repair prehistoric erosion control features throughout the site. This effort will result in the production of the "final" site map that will be incorporated into the interpretive materials.

The third phase will be the actual testing and excavation undertaken according to the Research Design and Excavation Methods described below. The first features proposed for excavation are Rooms 1, 8, and 15, the minimum effort identified in the GCRMP pending the results of the analysis done for this plan. These rooms will be completely excavated, both for their potential to inform the interpretation of the site and because they are the most obviously damaged by vandalism or at risk from erosion and so will require the most extensive stabilization. Since producing the GCRMP, further inspection of the site has resulted in the discovery of additional rooms and other features. This has improved our understanding of the erosional patterns on the site and how many of the features were originally built to protect the structures and living surfaces from erosion but are now themselves eroded and beginning to fail. At the same time, this has reduced our understanding of the site relative to what it appeared to be prior to finding the additional features. Therefore, in order to better protect features from erosion and better understand ~~to~~ the occupational history of the site and fully develop its interpretive potential, it is also proposed to excavate portions of Rooms 22, 29, 30, 31 and 6, possibly also Room 7. Particular attention in these excavations will be paid to locating potentially datable features such as hearths and postholes and to determine the characteristics of the masonry foundations as they relate both to the construction history of the site and to subsequent stabilization needs. It is expected that a minimal sample of each room will be approximately 25% of its surface area; it is not expected that more than 50% will be necessary.

In addition to these excavations, every room and other feature to be stabilized will require excavation work specific to that effort, primarily interior wall trenching and occasionally exterior trenching as well, especially the erosion control features. These trenches will vary in width relative to the nature and size of the walls so as to fully expose the structural elements and allow appropriate treatments such as repair of eroded or root displaced foundations, restacking or mortar augmentation. The excavation of these trenches will follow the same procedures as the full and partial room excavations.

Other excavations will involve a 50% sample of the roasting pit at feature 24, a similar sample of the storage cyst at Feature 32, leaving the rims of the lining stones visible for interpretation. Other excavations will involve test units wherever it is proposed to (eventually) install an interpretive kiosk. These units will be either 1m. x 1m. or 1m. x 2 m. depending on the design of the installations.

Exposed floors and other excavated features will not be left open for interpretation; they will be backfilled and their data and imagery will be used in the interpretive reconstruction descriptions and illustrations.

Collections, including all recovered artifacts, photographs, field notes, analysis forms, and reports from this effort are the property of the Town of Payson and will be curated at the Rim Country Museum.

RESEARCH DESIGN

Given that the express purpose of the project is not data recovery, per se, but excavation support for stabilization and interpretation, the goals of any research design for such work are, necessarily, limited. The primary themes proposed in the GCRMP for the interpretation of the site are "Prehistoric Settlement and Change in the Payson Region" and "Archaeological Site Protection and Management," the first of which is directly relevant here. Within this theme we will address who the prehistoric Payson people were, when they occupied Goat Camp Ruin, and the technology they used to survive in this distinctive natural setting. We will address how they may have affected their natural environment and how changes in that environment affected their history. We will also address the role of the cultural environment, recognizing that changes in the archaeological record also reflect social and/or economic changes unrelated to any variation in the natural environment.

Thus, the research questions posed in the GCRMP emphasize subsistence and daily living subjects, architecture, and, to a lesser extent, cultural affiliation .With that in mind, the primary historic contexts for data recovery, taken from the Tonto National Forest Cultural Resources Overview (Macnider and Effland 1989) will be demography (settlement patterns and cultural affiliation), and subsistence (agricultural and other strategies).

Demography: Settlement Patterns

Settlement patterning questions relevant to the interpretation of GCR are focused on how the structures are arranged relative to each other at any given time. How were people organized to exploit this environment given their types and levels of economy and technology, how were they organized relative to other social needs such as family, group identity, and integration as reflected in the arrangement of residential and communal areas within the site? Answering such questions will require information regarding structure contemporaneity and orientation. Therefore, the recovery of datable material and the identification of doorway placement will be key aspects of both the wall clearing and excavation phases of the operation.

Demography: Cultural Affiliation

Goat Camp Ruin has already been identified as a Northern Salado settlement with a Preclassic Hohokam substrate and a possible Apachean re-use or re-occupation. Several of the newly discovered architectural features may suggest additional influences on the site's development. Additional evidence to support any or all of these contentions, particularly in the form of diagnostic artifact types, will be a key aspect of the excavations and surface collections to be carried out.

Subsistence: Agricultural Strategies

Previous work in the general and immediate area of GCR has long recognized the primarily agricultural nature of Northern Salado and Hohokam settlements around Payson, based almost exclusively on the use of terraces and check dams in upland environments. Since the project area associated with GCR is restricted to the small Town parcel, efforts at data recovery for this topic will be limited to recovering any potential subsistence related tools, plant parts, bone, or other materials as they may be encountered in the excavations and surface collections. Pollen and macrobotanical samples will be taken and stored against some future date when funding may become available for their analysis.

DATA RECOVERY METHODS

Surface Collection

The east and west slope trash middens (F18 and F33) will each be collected by means of three 5 m. diameter circular "dog leash" units spaced across the extent of the trash deposits. Two of the roasting pits will be collected in a similar manner with the units centered on the pits themselves. The unit at pit F24 will be 5 m. in diameter (in conjunction with its sample excavation) while the one at pit F23 will be 10 m. in diameter, largely because it won't be excavated but will be visited along the interpretive trail. An additional 5 m. unit will be placed around F26b, one of the ~~the~~ fire cracked rock concentrations on the western retaining wall in an attempt to determine if it reflects the same patterns of use as the recognized roasting pits. Finally, two 5 m. units will be placed within the probable pithouse locus, F27; placement of these units will be along the western side of the locus facing the PATS trail. As always in such efforts, the center points of all dog-leash sample units will be identified by GPS coordinates and plotted onto a site map.

While no specific effort to locate such items will be part of the collection strategy, all formal tools, exotic artifacts (shell, turquoise), and decorated or otherwise temporally or culturally diagnostic sherds will be collected wherever found and point provenienced by GPS coordinates.

Room and Feature Excavations

All excavation undertaken for this project will be done by hand. Excavation units will be defined by a combination of architectural limits and artificial boundaries. Rooms to be excavated will be divided into quarters, each quarter to define a provenience unit which will include both faces of the walls. Excavation will proceed in 10 cm. levels from the current surface until any natural or cultural stratigraphy is encountered; afterwards, units will be defined by those stratigraphic levels. Excavations will continue to floor level with one 0.5 m. x 0.5 m. unit per room continued through the floor level to sterile. All features and excavation units will be mapped and documented photographically. Based on the earlier testing at the site, it is not expected to find much in the way of cultural stratigraphy in the largely decomposed granite sediments, but if recognizable stratigraphy or buried features are located, excavation units will be profiled and photographed accordingly.

Collections will be defined by excavation unit and level. All excavated material not set aside for additional analysis will be screened through standard ¼-inch mesh screen. Smaller mesh may also be used, as appropriate. Artifact types recovered from the screens – ceramics, lithics, ground stone, exotic items such as jewelry – will be collected and bagged separately. In situ floor contact artifacts will be mapped and photographed along with all floor features and will also be point provenienced from a GPS-located datum established for each room or structural feature. If hearths are encountered in any excavation units, archaeo-magnetic samples will be taken using standard methods if the features appear to have sufficient integrity for the procedure. If a qualified professional is available at the time of exposure, samples will be taken immediately. If not, the hearth will be sealed and backfilled pending later re-excavation and sampling. Charcoal samples for radiocarbon dating or species identification will be taken as encountered during excavation, especially from floor contexts, and sealed in foil pending later analysis as funding becomes available.

Rooms and features to be fully excavated will have all four quarters investigated. Rooms to be sampled at the 50% level will be excavated by opposing quadrants unless erosional or other

stabilization concerns identified during the wall clearing phase indicate that adjacent quadrants would produce better results. Pit features will be cross sectioned and excavated at the 50% level using the same parameters for level definition.

Upon completion of excavation room floors will be sealed with either geocloth or vented visqueen-type black plastic (depending on the availability of funds) and backfilled with screened material from the excavation to a depth sufficient to protect them from visitor impact and yet expose discontinuous portions of wall construction for interpretation.

All excavation units will be sampled for pollen and, as applicable, macrobotanical remains, emphasizing the recovery potential of possible agricultural and food processing features. Pollen samples will be collected as a single bulk sample per excavation unit and will contain a minimum of 120 cc per sample. Macrobotanical samples will be collected from burned feature contexts as well as from any unburned areas such as storage pits or postholes that might retain such material. All such samples will be handled in a manner so as to minimize any potential for contamination.

Other Excavations

Test units measuring either 1 m. x 1 m. or 1 m. by 2 m. depending on the design of the structure, will be excavated at each location proposed for any embedded permanent wayside exhibit or kiosk using the same methods to be applied to room and feature excavations.

Human Remains

Based on previous examinations and testing of the site, the primary location for burials at Goat Camp Ruin was the plaza area identified as F21; no excavations or stabilization work is planned for that area beyond backfilling several old potholes. Nor is it the intent of this project to remove any burials from the site unless absolutely necessary. Nevertheless, prior to beginning excavation the Salt River Pima-Maricopa Indian Community (SRPMIC) and the Hopi Tribe will be notified and afforded the opportunity to visit the site before or during excavation or stabilization. Should any human remains or funerary objects be uncovered, following ARS §41-844, all work in the area of the discovery will be stopped and SRPMIC and /or the Tonto Apache Tribe will be notified of the discovery and measures will be taken to prevent further disturbance of the remains and/or objects. The Arizona State museum Repatriation Coordinator will also be notified. Disposition of the remains and/or objects, including their subsequent treatment, protection, or repatriation, will be in accordance with ASM Burial Agreement 2012-034, *Conditions for the Treatment of Human Remains at Goat Camp Ruin.*.

ARTIFACT AND SAMPLE ANALYSIS

All artifacts collected will be analyzed at a secure facility operated by RCC/AAS under the supervision of an Arizona Antiquities Act (AAA)-qualified archaeologist who will instruct volunteers to conduct the necessary sorting and identification. When the supervisory archaeologist is not available, supervision may be provided by certified AAS members or volunteers trained specifically by the supervisory archaeologist, who will be responsible for verifying all work done by volunteers.

Anticipated artifact classes include ceramics, chipped-stone tools, utilized flakes, lithic debitage, and ground stone. Artifactual materials will be cleaned as necessary for analyses and curation, with the exception of tabular knives that may have been used for processing agave. As funding

or a spirit of volunteerism on the part of a professional laboratory becomes available, these may at some later date be examined to determine the presence of calcium oxalate (CaC_2O_4) crystals from agave.

Ceramics

Ceramics will be categorized using the typologies in the *Checklist of Pottery Types for the Tonto National Forest* (Wood 1987) so that results can be compared with ceramic analyses from other sites in the area.

Analysis will consist of sorting sherds according to ware, type, and, if possible, variety categories. Emphasis will be placed on typing any decorated ceramics that might provide better chronological information than the plain and redwares that dominate the site. They may also provide information on exchange relationships between Goat Camp Ruin and other groups in neighboring areas. Particular attention will be paid toward the identification and classification of protohistoric Apache ceramics. Where possible, sherds will be identified with respect to vessel shape and usage. The primary goals of the ceramic analyses will be to provide data regarding the chronology of construction episodes at the site and on cultural affiliation.

Stone

Chipped and ground stone analysis will be expected to provide information concerning the range of prehistoric activities that may have occurred at the site. Both will be sorted into basic categories: debitage, utilized flakes, bifaces, cores, and formal tools such as projectile points for the flaked stone; hammerstones, manos, metates, and other grinding tools for the ground stone. Formal and informal tools in particular should provide information on agricultural and wild plant processing and on hunting and game processing in the area and will therefore be the primary emphasis in the analyses. Beyond that, the secondary emphasis of analysis will focus on the identification of lithic and ground stone materials and sources to inform on the nature of possible exchange networks or other means of material procurement. If funding for obtaining source area samples and laboratory analysis (e.g. XRF or microprobe studies) can be obtained, selected samples will be tested. Otherwise, sourcing analysis will be conducted in the traditional Southwestern manner, by visual comparison of collected artifacts with distinctive sources known to the analysts, of which there are several in the Payson-Mogollon Rim area, including the well known and widely distributed Hardscrabble dacite and Preacher Canyon chert sources.

Other Artifacts

Artifact classes that might be recovered could include marine shell, turquoise, copper, argillite, and other minerals including pigments. Any such materials recovered by excavation or surface collection will be identified to artifact and material type and described. Shell artifacts will also be identified as to genus and species as specifically as possible. This information may also inform on the nature of possible exchange networks or other means of material procurement.

Faunal Analysis

All recovered bones will be identified to genus, species, age, gender, and body part as specifically as possible and quantities recorded. Tools from bone will be identified as to type and described. Burning, fracturing, polishing, cutting, gnawing, or other modifications will also be documented.

Paleobotanical Samples

Pollen and macrobotanical samples will be curated until such time as funding can be secured to submit them to a qualified paleobotanist for processing and analysis.

Dating Samples

Charcoal and other organic materials identified as suitable for radiocarbon analysis will be collected using industry standard methods to avoid organic contamination and curated until such time as funding becomes available to have them analyzed. Likewise, archaeomagnetic samples from burned earth contexts such as hearths will also be collected using industry standard methods by a professional archaeologist experienced in the procedure. These will also be curated pending sufficient funding for analysis.

Curation

Recovered artifacts, field notes, and all other documentation and electronic data will be curated at the Arizona State University School of Human Evolution and Social Change following analysis and write-up at the RCC/AAS facility in Payson, Arizona.

Dissemination of Information

The Principal Investigator, Project Director and/or a qualified designee will provide to the Town of Payson a written summary of accomplishments and the progress of implementation of the stabilization plan at least once a year over the life of the project or at any time a request is made by the Mayor or Director of Parks and Recreation. These reports will also be made available to the Arizona State Museum, Tonto National Forest, and SHPO. In addition, periodic maintenance inspection reports will also be provided to the Town, ASM, and Forest.

A final report detailing the results of the data-recovery, analysis, and stabilization efforts will be prepared by the Principal Investigator and/or Project Director within one year of the completion of all fieldwork and analysis to be submitted to the Town, Arizona State Museum, Forest, and SHPO. If funding is available, this report will be published as part of the *Arizona Archaeologist* publication series of the Arizona Archaeological Society. In addition, information about the project will be incorporated into the interpretive program on site and in any publications developed to supplement the on-site interpretation.

STABILIZATION AND REPAIR

As discussed in the GCRMP, one of the primary goals of the interpretation is to keep the site in something like its "as found" condition to maintain the interpretive theme of discovery. However, many features on the site have been structurally damaged by vandalism and others have been (and continue to be) structurally compromised by erosion and gully development and so require some level of stabilization and repair. The site will also require terrain modifications to correct the drainage problems that have led to gully formation and damage to features. The original builders of the site did not select the best location for the construction of this many rooms, but they at least recognized this and protected the structures with an extensive system of checkdams (now mostly gullied out) and terraces, many of which appear to have been faced with what would now be called rip-rap revetments to protect the integrity of the terraces themselves.

Given the low relief nature of the architectural remains of this site (e.g. no standing walls above ground), the primary goal of stabilization will be to protect the site from further deterioration due

to erosion. While the stabilization will largely consist of landscaping within and around the features, ~~but~~ some walls will also require repair both to continue to protect features from erosion and to allow visitors to obtain a sense of their original condition. Such repair work will consist of resetting some masonry elements and may involve, especially in the case of walls contributing to erosion control, rebuilding and reinforcement with revetments above and below and splash aprons on the downslope side.

Much of the stabilization work to be undertaken at Goat Camp Ruin will consist of removing unwanted vegetation that either threatens the structural integrity of architectural features or obscures them from view. This will also constitute a major aspect of site maintenance over the years. The second priority will go to backfilling and recontouring potholes (Table 2) and cleaning up loose wall fall. These loose stones will be removed only from areas where the visiting public will be directed or invited to walk, to ensure both the safety of the visitor and the safety of the site. Where appropriate, they will be replaced into the wall or feature they appear to have come from. Rock stockpiles will be kept according to their features of origin, documented in field notes. If identifying their origins is problematical, they may be used for repairing checkdams and retaining walls to improve water management and erosion control, especially on the east side of the main architectural group where, as noted above, gullies are threatening to erode the walls and interior contents of several rooms. This issue will be addressed in the initial stages of stabilization by repairing several original checkdams and retaining walls and ~~the installation of~~installing additional checkdams of similar construction farther down the gullies. These new checkdams will be located as far from view of the interpretive trail as possible to avoid giving the impression that they are part of the original architecture of the site.

The final priority will be the structural stabilization of those rooms most damaged by erosion or vandalism and/or most at risk from erosion in the future. In order to achieve this goal, walls will be repaired and partially rebuilt and reinforced where necessary. Generally speaking, repair work will be dry laid into and onto in situ walls. This will differentiate the repairs from original construction. In no instance, however, will any room or wall be reconstructed or brought up to its original height. Exterior faces of wall alignments in the treated rooms will be visible at or just above grade with wall fall left in place or replaced in those areas where access to make repairs will require its removal. Interior faces may have one or more courses of masonry exposed in places to illustrate construction materials and techniques, but such exposures will be discontinuous so that the rooms do not have that "dug out" appearance common to many stabilized sites of this nature. In this the excavation and stabilization efforts necessarily overlap.

Water management within and around treated features is another aspect of structural stabilization that is critical to the long term preservation of the site. Care will be taken during treatment so as to prevent pooling and sedimentation that would eventually obscure the features. Given the sloping aspect of the sites terrain, it will be a simple matter to ensure that even after repairs the rooms will be able to drain. As noted above, this may require additional revetment and splash aprons below portions of wall that will carry the outflow, but these can be buried and integrated into exterior wall fall. It is not expected that any room will require the installation of subgrade French drains or dry barrels, but such structures remain as options to consider during future monitoring of site condition. If they are to be installed at some later date, said installation will be preceded by a review of the data recovery records and floor plans of the rooms so as to avoid any preserved buried features. Where this is not possible, data recovery excavations will be undertaken following the parameters established in this plan.

All new checkdams and water control work on the trails and slopes leading up to the ruin will be done to Arizona Trail Association and Forest Service standards. Foundation trenches for both checkdams and water-spreading walls will be excavated and checkdams will be keyed into both sides of gullies to prevent "wash around." All rock work will be installed flush with the ground surface and covered with soil so as to present a more natural appearance. Prehistoric checkdams, on the other hand, will be repaired as found and will remain visible on the surface.

Since one of the primary goals of the interpretation of Goat Camp Ruin is to provide the visitor with a sense of discovery as they encounter the various features along the interpretive trail, nine of the 22 rooms will be left "as is," with no treatment planned beyond backfilling potholes and removal of disruptive vegetation. However, even for those rooms where extensive work is planned, the final step in the stabilization process will be to recontour the features in such a way as to appear "natural" with all wall repairs presented in as subtle a manner as possible. Over time, natural revegetation and the accumulation of duff from the many trees on site will enhance this effect just as they have at the nearby Forest Service developed interpretive site of Shoofly Village Ruin. Indeed, part of the long-term maintenance needs for the site will undoubtedly be periodic brush clearing to ensure that the features actually remain visible – a continual problem at Shoofly. However, despite the proposed landscaping, the visitor will be clearly informed about the fact that specific parts of the site have been stabilized and repaired.

All stabilization work, including that for the check dams and retaining walls, will be documented in field notes and photographs and noted on a set of site plans. Later stabilization efforts at the site resulted from needs to be assessed after the interpretive program has been implemented as part of the long-term, continuing condition monitoring process will be based on this documentation.

TABLE 2. **PROPOSED TREATMENTS, FEATURE BY FEATURE**

F1	Excavate completely, backfill floor and recontour. Expose interior wall faces above floor fill, repair erosion damage to SE wall and rebuild entry. Repair downslope checkdams and rip-rap gully with cobbles and boulders.
F2	Clear walls to define structures, backfill and recontour. No further treatment or interpretation.
F3	No work proposed.
F4	Clear walls to define structure and locate entry, backfill and recontour. Repair wall/terrace F4b for erosion control.
F5	Clear walls to define structure and locate entry, backfill and recontour. Repair wall/terrace F5a for erosion control.
F6	Clear walls to define structure and relationship to rubble retaining structure on NW side. Excavate front two quadrants and define entry. Backfill floor and recontour. Expose interior wall faces, particularly those that are slab-faced. Repair as necessary.
F7	Clear walls to define structure and relationship to rubble retaining structure on NW side and retaining wall on SE side. Excavate opposing quadrants and define entry. Backfill floor and recontour. Expose interior wall faces, particularly those that are slab-faced.

Repair SE wall to restore function as erosion control, protect upper edge with soil-covered rip-rap.

F8 Clear walls to define structure and extent of vandalism damage. Clear and stockpile rubble between F8 NW wall and F26. Excavate completely, backfill floor and recontour. Expose interior and exterior wall faces above floor fill. Repair vandal-created wall breaches with stockpiled rubble, repair entry.

F9 Backfill pothole with excavated material adjacent to hole.

F10 No work proposed.

F11 No work proposed at present time.

F12 Backfill pothole with adjacent excavated material.

F13 No work proposed.

F14 Vegetation removal to protect walls.

F15 Excavate completely, backfill floor and recontour. Expose interior wall faces above floor fill, repair erosion damage to SE wall and rebuild entry. Repair downslope checkdams and rip-rap gully with cobbles and boulders. Repair retaining wall F15a for erosion control and add a buried splash apron/revetment on the SE side of the room.

F16 Vegetation removal to protect walls.

F17 Repair terraces/retaining walls as necessary for erosion control.

F18 No work proposed.

F19 Backfill pothole with adjacent excavated material.

F20 No work proposed.

F21 No work proposed.

F22 Clear walls to define structure, locate entry, and determine relationship to F5, which appears to overlap the SE wall of F22. Excavate opposing quadrants, backfill floor and recontour. Expose interior wall faces to floor fill and expose, if possible, structural relationship with F5.

F23 No work proposed.

F24 Excavate W half, backfill and recontour.

F25 No work proposed.

F26 Clear and repair as necessary for erosion control. Attempt to define the relationship between F26, F5, and F5a in the vicinity of the large unsorted boulder pile off the S corner of F5.

F27 No work proposed.

F28 Clear walls to define structure and locate entry, backfill and recontour.

F29 Clear walls to define structure and locate exterior entry. Excavate N quadrant (entry between F29 and F8) and whichever other quadrant contains the exterior entry. Backfill

to floor and recontour. Expose interior wall faces to floor fill and exterior faces on SE and SW walls.

F30 Clear walls to define structure and locate entry. Excavate opposing quadrants, backfill and recontour. Expose interior and exterior wall faces to floor fill.

F31 Clear walls to define structure and locate entry. Excavate opposing quadrants, backfill and recontour. Expose interior and exterior wall faces to floor fill.

F32 Excavate south half. Backfill and recontour.

F33 Backfill and recontour pothole near F26a with adjacent excavated material.

F34 Repair terraces/retaining walls as necessary for erosion control.

F35 No work proposed.

IMPLEMENTATION AND SCHEDULING

As noted in the Introduction, given the long–term nature of this project combined with the scheduling issues inherent in any volunteer effort, the various elements of this plan will not be implemented in a strictly sequential fashion. Site preparation activities such as surface collection, wall clearing, and stockpiling of materials will be undertaken as a coherent phase and may be followed by construction of the loop trail. Excavation and stabilization efforts will follow on a room by room, feature by feature, or section by section basis rather than taking on the entire excavation or stabilization programs as a whole. This type of implementation is best suited to the scheduling necessities of volunteer work and the size of the available work force at any given time. Each room, feature, or section containing a limited but coherently defined group of rooms and/or features then becomes a small project that can be completed in a relatively short time and each small project can be scheduled and implemented over time based on the availability of professional supervisory personnel. Analysis of artifacts from the surface collection and excavations can also be scheduled as small periodic work events for volunteers as appropriate, rather than present it as a single large and daunting task at the end of the project. Interpretive development, developing the brochure and carsonite post stations on through the production and installation of permanent kiosks and wayside exhibits, will proceed independently of the field effort, coinciding only at those points where mitigation may be required for the installation of any facilities.

It is anticipated that the completion of this project may take up to five years, depending on the availability of volunteers and funding.

Tentative Schedule

1. Site preparation, to consist of: clearing vegetation from walls and interiors of rooms to be treated, clearing dead and down wood from PATS trail work and previous clearing and mapping attempts, and removing “coathangers” from poorly trimmed trees also left behind from the previous mapping attempt.
2. Complete wall clearing and definition, stockpile loose wall rubble for later use.
3. Conduct surface collections
4. Backfill potholes in rooms with no further planned treatment.

5. Lay out and construct interpretive loop trail for project access and on-site interpretation of work in progress. Begin erosion control work (ongoing).
6. Carry out excavation and treatment of rooms F1 and F15.
7. Carry out excavation and treatment of rooms F8, F28, F29, and F30.
8. Carry out excavation and treatment of rooms F6, F7, and F22.
9. Carry out excavation and treatment of room F31 and walls F4b and F5a.
10. Carry out excavation of features F24 and F32.
11. Carry out all other excavations and treatments.
12. Excavate test units for kiosk and wayside installations
13. Install permanent exhibits.
14. Produce comprehensive summary report of all excavation and development activities conducted on site.

MAINTENANCE

Once stabilized, the most significant maintenance problems at Goat Camp Ruin will probably be related to moisture. Stabilized and repaired features at the site will be checked frequently for erosion from water runoff, wall fractures, and surface drainage problems during the snowy winter and rainy summer seasons. Interpretive trail wear will be checked and repaired where necessary using sterile fill from the northwest corner of the parcel.

Plant growth will be another major maintenance consideration. In areas where stabilization and repair have not been undertaken, natural plant growth can be left alone. Those portions of the site which have been stabilized and/or cleared of any vegetation will be maintained in the same condition. To suppress the introduction of noxious and invasive species any fill material brought onto the site from outside the parcel will be treated with a pre-emergent herbicide approved by the Forest Service. As well, since Goat Camp Ruin will function as a gateway onto the Forest, the Town will coordinate its weed suppression activities with the Payson Ranger District.

Finally, all stabilization, repair, and maintenance activities will be documented to facilitate continuing monitoring of site conditions. This documentation will be filed with both the Town and the Payson Ranger District and will be made available to SHPO. Any maintenance or repair needs that exceed what is described in this plan will, of course, be subject to further consultation with SHPO.

PERSONNEL

All personnel involved in this project will be volunteers donating their time, including all supervisory personnel. All activities carried out on the site will be planned and directly supervised by a AAA-qualified professional archaeologist and, again, the Town will rely heavily on the trained and certified members of RCC/AAS to provide the labor force. Likewise, artifact analyses will also be supervised by qualified professional archaeologists. The Principal Investigator, representing RCC/AAS and holder of the Arizona State Museum permit will be Dr. Penny Minturn. Project Director will be J. Scott Wood. Field directors (on-site supervisors) will be working or retired professional archaeologists with experience in central Arizona vetted by the Principal Investigator and/or Project Director. Crew chiefs working under the field director(s)

may also be professional archaeologists or members of AAS with appropriate certification. Crew members will be members of AAS. Given the volunteer nature of the work and the prolonged schedule for implementation it is likely that many different individuals will fulfill these roles prior to completion of the project.

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