Jackson’s Tomb After 2021 Cleaning & Repair

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February 23, 2022
This Annual Report to the Tennessee State Building Commission (SBC) describes preservation and significant maintenance and management work completed on historic and cultural resources at Andrew Jackson’s Hermitage by the Andrew Jackson Foundation (AJF) in calendar year 2021 and proposed work for calendar year 2022. This annual report submission is required under Tennessee Code Annotated section 4.13.104. The following is a brief description of proposed property acquisition, construction, demolition, alteration, restoration, or preservation works in progress. Projects involving routine maintenance and minor repairs are not included. Projects are listed by building or structure.

Hermitage Mansion

Hermitage Mansion Projects 2021

Due to COVID-19, the AJF’s capital funding was limited in 2021. Fortunately, the AJF received a $2 million appropriation from the State of Tennessee to address needed capital improvements in 2021 and 2022. One of those projects is the replacement of the Hermitage mansion’s boiler and humidification system.

Boiler and Humidification System Replacement 2021-2022

The existing Hermitage mansion steam boiler is rapidly deteriorating and in danger of failing. The AJF plans to replace this boiler with a closed loop hot water boiler system. The boiler is located 300 feet away from the Hermitage mansion in an underground utility vault built in 1988. The utility vault floor is roughly 20 feet below grade. The utility vault consists of a weather tight room that houses the boiler, pumps, and electrical equipment and an open-air space that houses the chiller. The buried steam lines running between the utility vault and Hermitage mansion will be unearthed and replaced with hot water lines.

The AJF will also replace the existing humidification system that is fed by the steam boiler with electric humidifier units. The AJF must upgrade the electrical service to the utility vault and then run new circuits to the Hermitage mansion to power these new humidifiers. Two alternate improvements are being considered as part of this project if funding allows. The first is the replacement of the three fan coil units that heat and cool the Hermitage downstairs hallway in favor of one air handler unit that will better maintain humidity levels and reduce maintenance and energy cost. The second is the replacement of the chilled water lines from the utility vault to the Hermitage mansion. These lines are thirty-four years old and since they’ll be exposed as part of this project replacing them proactively is sound stewardship.

In September 2021, the AJF retained the services of Landmark Facilities Group to design and provide construction administration over the installation of the new boiler and humidification system. In November 2021, Landmark completed initial design and provided a cost estimate for the project including alternates. Landmark will have construction documents ready for bid by February 2022. Construction is slated to begin in July 2022 and conclude by the end of October 2022. The work may require some minor alteration of support piers in the Hermitage mansion
basement and crawl spaces. These alterations will be overseen by a qualified structural engineer and done with all sensitivity to the historic structure and archaeology. Plans for this project will be sent to the Office of the State Architect for review. An archaeologist will also be retained to monitor all underground trenching. Estimated cost $970,000.

Due to fire risk and space limitations, the Hermitage mansion boiler and other modern equipment is located 250 feet from the house in an underground utility vault. The boiler, in the foreground, is failing, note leak on the ground next to boiler shroud.

Water Leak Repair. In August 2020, a clogged condensate drainpipe caused a leak from the Hermitage mansion attic down into the upstairs main hall. In 2020, AJF staff cured the condensate drainpipe problem by increasing the size of the pipes. Repairs to the plaster wall and ceiling and repair of the wallpaper by a qualified conservator were completed in 2021. The total cost of the repair was $30,000 and insurance covered the expense.
Ceiling, plaster, and wallpaper damage caused by a clogged condensate drainage line, August 2020.

Same area as above after repairs in Fall 2021.
Water stain damage to c.1818 wallpaper in Hermitage mansion upstairs hall, August 2020.

Water stain cleaned and wallpaper rehung, Fall 2021.
Hermitage Front Porch Stone Slabs, Column Bases, and Steps. The Hermitage mansion front porch is comprised of slabs of Tennessee limestone. The elastomeric sealant joints between these slabs have failed allowing water into the soil below. Some soil subsidence has begun, and a few limestone slabs have sunk or moved. The elastomeric sealants used in the joints between the stones that comprise the front column bases have also failed. Mortar joints in three of the Hermitage mansion’s limestone slab steps have deteriorated. The rear or north steps have two stones exhibiting subsidence. All the step joints that have failed must be replaced with the best possible material and any stones that have subsided need to be realigned. No funding is currently available for this work in 2022. Staff estimate cost at between $50,000 and $100,000. The wide range of expense is because of the rarity of the work and the caution that has to be exercised moving stone slabs.
Failed joint, stone movement, and stone subsidence, December 2020.

Failed sealant joints in column bases, south front, December 2020.
Tomb of Rachel and Andrew Jackson

2021 Cleaning and Dome Sealant Project

In April 2018, politically motivated vandals spray painted obscenities and political symbols on the Tomb of Rachel and Andrew Jackson. The Andrew Jackson Foundation hired Conservation of Sculpture and Objects Studio (CSOS) from Chicago, Illinois to remove the graffiti from the tomb using laser ablation and traditional cleaning methods. Post removal, CSOS recommended that the AJF clean the entire surface of the Tomb to correct the visual disparity between cleaned and uncleaned areas. CSOS recommended removing the existing copper salt stains on the Tomb’s porous stone surfaces and then sealing the copper dome surface to prevent future staining. CSOS also recommended limewashing the interior of the Tomb’s dome and repairing damaged stones that could allow water to penetrate the structure.

In addition to the work identified by CSOS, the AJF’s preservation architect, Joseph K. Oppermann, identified the Tomb’s cornice and parapet sealant joints as major areas of concern. These failed sealant joints are actively allowing water to penetrate the stone during rains. Oppermann advised that these joints be removed and replaced with better material. The cost for this project was $130,000. The AJF funded this project with a settlement from Chubb Insurance, a grant from the Tennessee Historical Commission, and donations from private sources. CSOS performed all the above-described work in May and June of 2021. Below are before and after photographs of the Tomb.

Left, before photo of tomb condition January 2020.
Right, after photo of tomb condition June 2021.
Before, close-up photograph of tomb showing black and green discoloration caused by copper salts, February 2020.

After, same area as above photograph with salt staining removed, June 2021.
Before photo, underside of tomb cornice showing copper salt staining, January 2020.

After photo, Tomb cornice salt staining removed, May 2020.
Before, staining caused by copper salt and rainwater penetration through failed sealant joints, February 2020.

After, staining removed, leaking joints repaired, and cornice and dome limewashed, June 2021.
Left, failed elastomeric sealant joints before. Right, elastomeric sealant joints removed and replaced with sheet lead molded to each joint.

Jackson tomb copper dome prior to sealing, January 2021.
Copper dome after sealing, June 2021.

Tulip Grove

Tulip Grove’s Architectural and Historical Import
Tulip Grove is widely recognized by architectural historians as one the best examples of residential Greek Revival architecture in the mid-state. Historically, the home has local, state, and national import as the residence of Andrew Jackson Donelson. Andrew Jackson served as Donelson’s guardian after Donelson’s father died and, in many ways, Donelson was like Jackson’s son. Jackson helped Donelson earn a seat at West Point and funded his education in the law at Transylvania University. Donelson served as Jackson’s private secretary during his presidential campaigns and presidency. Later, Donelson served the United States on diplomatic missions to Prussia and the Republic of Texas. In 1856, he stood as the vice-presidential candidate on Millard Fillmore’s unsuccessful bid for president on the American Party Ticket. He remained a staunch Unionist like Jackson, until he retired from public life in 1858. That same year Donelson sold Tulip Grove and moved to Memphis. Donelson remained on the sidelines of the Civil War and died in Memphis in 1871.

Legal Status
As reported since 2016, the Andrew Jackson Foundation bought out the remaining 45 years on the purchase contract for Tulip Grove between the AJF and one of two heirs who held an interest in that contract. In early 2018, the AJF learned that the other heir with a remaining interest in the contract passed away, leaving an adult child as the sole heir to this interest in Tulip Grove. The remaining heir’s interest is a 1/6 share of certain types of revenue generated at Tulip Grove. The AJF’s preference has been to buy out that remaining interest but it has not been able to reach an agreement with the heir. The AJF Board of Trustees has established a committee to discern a long-term use for Tulip Grove.

Tulip Grove’s Condition
Tulip Grove requires significant repairs to ensure the integrity of the building’s envelope. This includes: re-pointing the walls and foundation; gutter, downspout, and site drainage upgrades; replacement and repair of wood trim; repairing and re-glazing all windows; repairing/replacing deteriorated porch joists and flooring; and re-painting. The AJF estimates this work will cost $1.2 to $1.4 million. Tulip Grove also needs a modernized HVAC system to increase the marketability of the building. The AJF began to actively pursue funds for the above work in 2021 and will continue to do so in 2022. The AJF submitted a $2.8 million appropriation request to the State of Tennessee for fiscal year 2023. If awarded these funds will address the needs of Tulip Grove and other priority capital maintenance projects.

Condition Assessment Project
In 2021, the AJF secured funds to complete a condition assessment of Tulip Grove by a qualified preservation architect. This analysis will include preparation of measured CAD drawings, a condition assessment, and cost estimate for rehabilitation of the building and installation of HVAC. This assessment project will inform a phased plan for restoring the shell of Tulip Grove, installing modern HVAC systems, and adapting Tulip Grove’s interior to a yet to be determined
purpose. Centric Architecture was hired for this project and their estimated completion date is April 2022. Total cost for the assessment is approximately $70,000 and it is being funded through an appropriation by the Tennessee General Assembly.

Photographs of Tulip Grove’s Condition

*Rotted trim board and deteriorated gutter on south wing, east elevation, December 2020.*
Deteriorated masonry wall and foundation and rotted skirt board. Porch floor joists also deteriorated over this window, December 2020.

Open foundation joints and failed mortar at window, January 2021.
South east second floor south wall upper window sash removed due to a rotted bottom rail, November 2020. Many Tulip Grove windows are trending in this direction.
Typical Tulip Grove window and masonry wall condition. Note paint failure, step cracking, open mortar joints, and brick movement in jack arch, December 2020.
Jackson Era Enslaved Quarters and Outbuildings

Springhouse
Built in 1821, the Hermitage Springhouse is in good condition today but needs a new hand split shingle roof and minor repointing to the walls. The building also has abandoned modern equipment inside from when it was used as a pumphouse to distribute water across the property. In 2022, the AJF will pursue grants and donations to replace the roof, repoint the walls where needed, remove modern equipment, and open the springhouse door so visitors can better see and understand its use. Other than minor alterations to the roof’s decking and underlayment for sustainability reasons, the roof appearance will not change appreciably from the existing roof structure that was installed in 2005. The AJF will hire a qualified preservation architect to design and specify the roof and masonry repairs. Plans will be sent to Office of the State Architect for review if the project moves forward. Estimated cost for this project is $50,000.
The Hermitage Springhouse looking northeast, December 2021.

Note the severe decay of the roof shingles and exposed tar paper, December 2021.
Springhouse roof from the underside, December 2021.

Note where the mortar has come loose from the stone allowing water to penetrate.
Alfred’s Cabin
This c.1841 two pen saddlebag log cabin originally housed part of Jackson’s enslaved population. After the Civil War, Alfred Jackson, a former Hermitage slave, lived in the cabin until his death in 1901. The south pen of Alfred’s Cabin has been restored and exhibited to visitors as Alfred Jackson’s home as it appeared in the 1890s. The north pen has been closed off to the public due to structural issues with the floor supports. In 2022, the AJF hopes to fund repairs to north pen floor supports and floor, add steps at both doorways so visitors can walk into the north pen, and furnish the pen as it may have looked when it was a slave quarter from c.1841 to 1856. The AJF will hire a qualified preservation architect and an engineer to design these repairs to the structure while the furnishing installation will be completed by AJF Staff based on historical research. Architectural and engineering plans for these repairs will be sent to Office of the State Architect for review. Estimated cost for repair and exhibit is $70,000.
Alfred’s Cabin north pen exterior, December 2021.

Alfred’s Cabin north pen interior showing unlevel and unstable, December 2021.
20th Century Infrastructure and Buildings

**Historic Core Pathways and Andrew Jackson Center Courtyard Repairs**

The visitor pathway infrastructure through the historic core of The Hermitage is thirty-four years old and rapidly deteriorating. Pathways exhibit uneven patched potholes, subsidence, shoulder erosion, tree root upheaval, and drainage issues. The existing pathway lighting system is also obtrusive and insufficient. Current pathways pre-date the Americans with Disabilities Act and must be improved to allow greater access. Visitor convenience and safety require that these improvements be made as soon as possible. These repairs must also be designed in a sympathetic manner with the historic core of the property.

Every visitor passes through the Andrew Jackson Center Courtyard during their time at The Hermitage. Many visitors use the courtyard as a place to eat a snack or simply rest before they continue their tours, return to the museum or film, visit the museum store, or leave the site. The courtyard leaves a final impression on each visitor. The courtyard pathways are deteriorated, trees have uprooted paths and outgrown the space, decorative brick paving has failed, and the lighting is poor. The drainage system in the courtyard is insufficient and during moderate rains the courtyard floods forcing patrons to walk through two- to three-inch-deep water.

The Tennessee General Assembly appropriated funds in 2021 for the AJF to begin these vital infrastructure repairs. In December 2021, the AJF hired Hodgson-Douglas Landscape Architects to design the pathway and courtyard repairs and improvements. HDLA has begun design work and current schedule proposes construction beginning in summer 2022. Plans for this project will be submitted to the Office of the State Architect for review. Estimated cost $950,000.
Pathway deterioration and upheaval due to Magnolia tree and gravel wagon road, September 2021.

Left pathway shoulder erosion creating trip hazards, right patching and subsidence resulting in uneven walking surface, September 2021.
Tree root upheaval on main visitors pathway to Hermitage mansion, September 2021.

Andrew Jackson Center Courtyard, December 2021.
Flooding at Andrew Jackson Center Courtyard entrance due to poor drainage, December 2021.

Deteriorated brick edging around aggregate concrete slabs, December 2021.
Fractured concrete slab in courtyard caused by tree root upheaval, December 2021.

Proposed Demolition of Old Hickory House and Jones Road House

In November 2021, AJF Staff recommended to the AJF Board of Trustees that it consider demolishing Old Hickory House and Jones Road House. AJF Staff informed the Office of the State Architect (OSA) of this recommendation and OSA outlined the process for demolition approval the AJF would have to follow to meet its obligations under T.C.A. 4-13-103 & 104. The AJF Board of Trustees is scheduled to consider the Staff demolition recommendation at its February 2022 meeting.

These two twentieth century residences have no historical or architectural significance to the Jackson Era or to the time that they were built. Both were constructed as employee housing between the World Wars. Old Hickory House was actively rented until May 2021. Staff estimates for repair of all deficiencies is $150,000. Jones Road House has been vacant and mothballed since the early 1980s. Both homes require significant investment for structural repair and modernization to render them usable and safe rental homes. The AJF has a significant backlog of capital maintenance and improvement needs that are central to its mission and take precedence over these homes. Documenting the buildings and then demolishing them is best path forward for the AJF to sustain its mission.
Front of Old Hickory House, April 2021.

East side of Old Hickory House, April 2021.
South side of Old Hickory House, April 2021.

Jones Road House south and west elevations, January 2008.
Jones Road House north and east elevations, January 2008.

Interior prior to mothballing in January 2008, note building had not been occupied since 1980s. House had been vandalized repeatedly.

End of Report