# Historic Structures/Cultural Landscape Report: The Hoke House

12602 Catoctin Furnace Rd, Thurmont, MD



Prepared for:

# Catoctin Furnace Historical Society, Inc.

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December 2024

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#### Introduction

This Historic Structures/Cultural Landscapes report is intended to provide a historical description and examination of the Hoke property in Catoctin Furnace, particularly its main dwelling structure and rear yard. The primary purpose of this is to convey the changes that the property has experienced over the course of its more than 200-year history and to make recommendations regarding its future treatment, with emphasis placed on the first-hand knowledge of Beverly Hoke, the property's last private owner before its sale to the Catoctin Furnace Historical Society (CFHS), Joann Miller, and Kenny and Donna Sweeney. The Hoke house is located at 12602 Catoctin Furnace Road (MD Route 806A), and is neighbored to the north by the Rohwein property at 12604, and to the south by the Sweeney property at 12530. The Hoke property contains a single main structure, a one-and-a-half-story dwelling with a shallow basement area. Like with many of the properties on the west side of Catoctin Furnace Road, a short hill extending to the north and south rises from the westernmost edge of the Hoke property. The hill flattens at the top, a remnant of what was once the bed for both a stretch of the Western Maryland Railway and subsequently part of the H&F Trolley line. Also in the rear yard is a narrow, shallow ditch that extends from the southern elevation of the Rohwein property's rear yard into the Hoke property, where it extends to the southwest until reaching the trolley bed hill, upon which it continues directly south adjacent to the hill.

To provide a brief historical overview, the Hoke house was built in the first quarter of the 19th century, most likely in the winter of 1820/21, soon after John Brien purchased the iron furnace and foundry complex in 1820 following the bankruptcy of its previous owner, Willoughby Maybury, in 1819. This is supported by a dendrochronology report on the dwelling, which found that the timbers the dwelling was built from were felled over a period stretching from the summer of 1816 to the winter of 1820/1. It is one of many similarly designed worker homes that were built in the village around that time, such as the Carty-Miller house two properties north at 12606 Catoctin Furnace Road, for which a separate Historic Structures/Cultural Landscapes Report has been prepared. During the tenure of the furnace complex's operations, the Hoke dwelling was occupied by the families of various Catoctin Furnace workers, most of whom are now unknown. A large number of artifacts found in the historic dwelling (i.e., writing utensils, abundant well-decorated pottery, pearlware, etc.) suggest that it was at one time home to a resident who was literate and had a generally higher income than the laborers at the furnace and foundry, instead being more akin to some kind of clerical worker. This contrasts with the prior suspicions of CFHS that the dwelling was solely inhabited by laborers and their families.

Among the families that resided at the Hoke property as Catoctin Furnace workers was the Miller family. The first Miller to reside at the Hoke property for which there is clear evidence was Charles Thomas Miller, a laborer for the Catoctin Furnace industrial complex who most likely began living at the Hoke house by January 1886. He lived there with his wife – Susanne Kelly Miller – and their six children named, from eldest to youngest: James Richard Edgar (known as "Phillip," "Phil," or sometimes "Edgar"), Oscar (known as "Os"), Nora May, Addie Florence, Raymond Pierce, and Martin L. The couple also had two children named Minnie and John, but both died in infancy.

Oral histories provide differing accounts as to where Charles and Susanne Miller's children were born and when they moved to the Hoke property. According to the late Clint Miller – Phil Miller's third child and Charles's grandson – all of Charles and Susanne Miller's children were born at the Hoke house, or the "homeplace" as they called it. Meanwhile, Joann Miller – Clint's daughter – states that to her knowledge Phil Miller was born in the house the family lived in previously on Kellys Store Road. However, payrolls from February 1882 and January 1886 include a Charles Miller (almost certainly Charles Thomas Miller), who is not listed as owing rent in the February 1882 payroll, but is charged rent for an unspecified residence in the January 1886 one. Provided this is Charles T. Miller, he would not have paid rent to the owners of the furnace complex if he lived on Kellys Store Road because that area was off Catoctin Furnace property. Furthermore, while the first definitive date for which Charles began to pay rent was after the birth of his first two children, Phil (born 19 March 1884) and Oscar (born 11 August 1885), and the residence he was renting is not specified, Clint Miller's statement suggests it is most likely that all of Charles and Susanne's children were born at the Hoke house. This means they would have moved to the Hoke property sometime between February 1882 and March 1884, or possibly earlier if Charles were for some reason not being charged rent on the house until after February 1882. Even in the absence of Clint's account, it can be concluded with almost complete certainty from the payrolls that at least the Miller children after Phil and Oscar were all born while the family was living at the Hoke house (Nora May born in 1892).

Based on statements from Clint Miller and Margaret Marie Miller Pickett – Phil Miller's eldest child – as well as information from other historical documents, Charles T. Miller lived at the Hoke house as a foundry worker and rented it from the owners of the furnace complex. He would later rent the property from Joseph Earlston Thropp after he purchased the complex and surrounding worker village in 1906 from the Blue Mountain Iron and Steel Corporation, the last owner and operator of the furnace before it ceased operations permanently in 1903. The first private resident to officially own the property for which there is documentation was Charles Miller's eldest son, Phil Miller. Phil moved into the Hoke house with his family around 1909 and rented it until he purchased the deed to the property on 25 August 1923 from Lancelot Jacques Sr., Stanley E. Hauver, and their respective wives – Alice Jacques and Emma Hauver – who had purchased the land comprising the worker village and the remains of the furnace and foundry from Joseph Thropp in July 1923. Phil's younger brother, Oscar, purchased and lived at the property next door to him at 12530 Catoctin Furnace Road, which is another early 19<sup>th</sup>-century worker house.

Prior to purchasing the Hoke property, Phil lived with his wife, Mary Catherine Stitely Miller (known as "Sally") – whom he had married on 3 October 1902 – in Mine Bank. Mine Bank is a residential area that encompasses a stretch of Catoctin Furnace Road spanning slightly over half a mile from house 13204 to the intersection of Catoctin Furnace Road and Blue Mountain Road (*Figure 1-2*). Numerous Catoctin Furnace workers lived in the area, and it still contains a number of their descendants and the historic dwellings from during the furnace's operations, including several early 19<sup>th</sup> century worker dwellings like the Hoke dwelling (*Figure 3-4*) and a former boarding school (*Figure 5*). Mine Bank is almost exactly across Route 15 from

what was once the upper mine bank for the Catoctin Furnace complex, located near the northern branch of Muddy Run roughly 1.5 miles directly north of the "Isabella" furnace and less than a half mile west of Route 15 in what is now Cunningham Falls State Park (Figure 6). The upper mine bank, opened in the mid-19th century, was the third and largest ore pit the furnace operated (two thousand feet long by several hundred feet wide at its largest), and the final one to be abandoned. Much of the labor performed by Catoctin Furnace workers around the turn of the 20<sup>th</sup> century was done in the upper mine bank, with ore continuing to be mined even under Joseph Thropp after the furnace had ceased operations. While living at Mine Bank, Phil and Sally Miller had their first two children. The couple would go on to have a total of four sons and four daughters named, from eldest to youngest: Margaret Marie, Robert Leroy (known as "Buzz"), Clinton Edgar (known as "Clint"), Leona Catherine, Howard Leo (known as "Plick"), Richard Orville (known as "Rit"), Shirley Irene, and Thelma May (known as "Buck"). The youngest six were all born at the Hoke house. Phil and Sally lived at the Hoke property until Phil passed away on 9 February 1962 and Sally transferred the deed to the property to her eldest son, Robert, and Robert's daughter, Betty. In late summer 1977, Betty sold the property to Francis (known as "Smitty") and Beverly Smith (Beverly has since returned to using her maiden name, Hoke), who moved in around Thanksgiving 1979. They lived at the house with their four children named, from eldest to youngest: Edward (known as "Eddie"), Robert (known as "Bobby"), Jo Ann, and Kristin. Beverly continued living at the Hoke property before selling it to CFHS on 15 February 2023. Kristin and her children also lived with Beverly at the property from 2007 to 2023. After selling the property, Beverly and Kristin rented it until moving out in the summer of 2023.

It is worthy of note that many of the conditions described as "current" in this report are observations made before CFHS began the process of excavating and restoring the Hoke dwelling in late January 2024, meaning many of these features have since been altered or removed entirely. This includes the majority of the dwelling's nonoriginal components except for those necessary to ensure its structural stability and protection from the elements. Features and developments observed after the excavation and restoration process was initiated will be noted as such.

#### **Part 1: Site Conditions**

## **Description of Current Conditions as of 19 December 2023**

#### 1. The Dwelling

The Hoke dwelling, as stated previously, is a one-and-a-half-story log structure with two additions on its west and south elevations, and it uses an electrical heating system. The original historic structure, which is the primary area of the dwelling and encompasses its northeast elevation, is roughly 25 feet from north to south and just over twenty feet from east to west, and is constructed over an original stone foundation. The exterior of the primary structure is sheathed with white vinyl siding, and has a gable-frame roof topped with asphalt shingles (*Figure 7-8*). Regarding the primary structure's other exterior features, it includes a covered front porch with a concrete slab floor atop a concrete masonry unit (CMU) foundation on the east elevation, which

measures roughly twenty feet long by six feet wide (Figure 8-9). The porch is covered by a leanto roof topped with asphalt shingles and supported by wooden posts. Inside the porch is the front door, flanked on either side by single windows with blue-painted plastic shutters (Figure 7). The front door is made of wood, with two small panes of glass at the top (Figure 15). Elsewhere on the main structure, the north elevation of the first and second floors each have a single window; the first-floor window has blue-painted plastic shutters and is closer to the east elevation of the dwelling, while the other has no shutters and is positioned more to the west (Figure 10). On the south elevation, there are two second-story single windows with no shutters, while the first floor connects to the south addition (Figure 8). All the shutters on the dwelling were added in the late 1980s. The west elevation of the primary structure is similarly connected to the west addition. There is also a single window positioned in the corner where the north elevation of the west addition connects with the main structure (Figure 11). On the west elevation of the primary structure's exterior, immediately south of the west addition, there is a white-painted wooden door which leads into a small tool cabinet, inside of which part of the structure's log frame can be seen (Figure 12-13). This cabinet was removed during the 2024 excavation and restoration, although its outline can still be seen (Figure 14).

The interior of the original primary structure's first floor is primarily composed of a living room area connected to the front porch, the west addition, and the south addition, with the only other room being the restroom in the northwest corner (Figure 15-16). Inside the restroom is where the aforementioned first-floor corner window is located, while the rest of the windows are in the living room. Between the restroom and the east wall, there is a wide boxed header dividing the north and south sections of the living room. Just south of the restroom, there is a doorway leading into the west addition of the dwelling (Figure 17). Meanwhile, on the south elevation of the living room, there is a cased opening connecting to the south addition of the dwelling (Figure 18). East of this opening in the southeast corner of the original structure is a wooden winder staircase leading to the second floor, which is made of wood that is not original to the dwelling (Figure 19-20). It is slightly less steep than the original design and extends a small amount farther outward at the base and top than it did originally. Nevertheless, the staircase's location and overall style are typical of the historic worker homes in Catoctin Furnace, such as in the nearby Museum of the Ironworker. In the spandrel space underneath the staircase, there is a small storage closet with an access door on its west side (Figure 19, Figure 21). The second floor has two rooms of essentially equal size separated by a wall and a doorframe, the door for which has been removed (Figure 22). The ceiling on the second floor is slightly higher than most of the other worker homes in Catoctin Furnace. Between the two south elevation windows on the second floor, there is a bump-out protruding from the wall that begins at the floor and ends at the ceiling (Figure 23) The main structure still has its original wood flooring everywhere except for the restroom, although the original wood in the living room is covered by new hardwood floors, and the restroom instead has linoleum tile flooring (Figure 15-*16*).

Beneath the original dwelling structure is a mostly underground crawl space area encased by the stone foundation with an earthen floor, with a clearance of four and one half feet between the ground and the first-story floor joists (*Figure 24-25*). Before the 2024 excavation and

restoration, it was only accessible through an opening on its southwestern elevation connected to the south elevation's partially underground cellar, which will be discussed later. However, the cellar has since been removed, leaving this uncovered entrance directly exposed to the outside environment. Prior to excavation, only about the western third of the crawl space could be accessed, with the remaining two thirds being blocked by a stone wall and filled in on the other side with earth and stone (*Figure 25-26*). As a result of the 2024 excavation, this section can now be accessed because the nonoriginal hardwood flooring above it has been removed.

All the nonoriginal flooring in the original structure's first floor was removed during the excavation except for a roughly three-foot-wide section spanning the length of the west elevation (Figure 27), support boards attached to the original wooden floor joists (Figure 28), and the floor underneath the staircase. Similarly, almost all the nonoriginal components of the first-floor ceiling and drywall have been removed, save for the drywall along the staircase and the former west addition, as well as support boards for the original wooden ceiling joists (Figure 29). This has in turn revealed most of the structure's extant original components. It has also uncovered previous wallpapers on the east elevation, as well as pieces of printed paper, including multiple advertising posters, on the south and southwest elevations which were used for insulation (Figure 30-31). The wall separating the two upstairs rooms has been mostly removed, with only the frame of the wall and door (Figure 32) remaining. Furthermore, the second-story wood floor, which is original to the dwelling, has not been removed, although it is not particularly stable (Figure 33).

The addition on the west elevation of the Hoke dwelling includes two sections: a "summer kitchen" roughly twelve feet from north to south and fourteen feet from east to west, and a smaller anteroom at its farthest west elevation that is roughly twelve feet by six-and-onehalf feet (Figure 11-12, Figure 34-36). Per an architectural survey of the dwelling, the west addition is built over a wood floor system over stone foundation with a brick retaining wall (Figure 14), although it does not appear to have been constructed with any particular system envisioned for its foundation. On its south elevation, the anteroom has a white-painted wooden door with a screen window and another white-painted wooden door behind it with a glass window, which are both original to the addition and exit onto the rear yard patio (Figure 11. Figure 37). The summer kitchen has a gable-frame roof like the primary structure, while the anteroom has a lean-to style roof (Figure 35). Both sections of the west addition roof are topped with asphalt shingles. The exterior of the west addition is covered mainly by white vinyl siding, although its south elevation is sheathed with white-painted wood Dutch lap siding (Figure 11-12, Figure 36). Along the south elevation of the summer kitchen is a length of rusted metal roof panels forming a lean-to overhang supported by wood pole rafters (Figure 12, Figure 35). There are three single windows in the west addition: two on the north and south elevations of the summer kitchen, and one on the north elevation of the anteroom (Figure 11-12). The anteroom also has a double window facing the rear yard (Figure 36). A water spout extends down from the roof near the north corner between the original structure and summer kitchen (Figure 11).

As stated previously, there is a doorway connecting the living room to the west elevation. This doorway opens onto a short staircase leading down into the summer kitchen (*Figure 17*,

Figure 38), the floor of which is almost directly on top of the ground, only separated by its hardwood flooring, the plywood underneath it, and the aforementioned non-descript foundation. On the west end of the summer kitchen is another doorway leading into the anteroom (Figure 17). Essentially the entire interior of the west addition is empty.

The entire west addition was removed during the 2024 excavation process. The only remnants of the additions as of July 2024 are an outline on the original dwelling's exterior where the addition connected to it, the doorway leading into the living room, and some of the brick and stone components of its foundation (*Figure 14*).

The south addition of the dwelling comprises the main kitchen and two walled closet spaces connected to the kitchen, the larger of which was the laundry closet and contains a wire shelf (Figure 39-40). The entire space has peel and stick tile flooring. The addition is roughly twelve feet north to south by seventeen feet east to west, and is connected to the living room by the cased opening mentioned previously. The south elevation of the addition has a white-painted wood door with glass panes that exits onto a small concrete staircase leading to the driveway, directly east of which is a double window (Figure 34). The kitchen has a gable-frame roof, and a lean-to style overhang covers the south doorway and stairs; both sections are topped with asphalt shingles (Figure 8, Figure 34). The exterior of this addition is sheathed with white vinyl siding. Meanwhile, the western exterior of the addition is attached to a walled, lean-to style overhang with a roughly five-foot-wide uncovered opening and a door south of it, within which is the entrance to the shallow cellar (Figure 8, Figure 35). This entrance is abound two feet high. There was once a plywood door covering the short opening leading into this cellar, but it was detached sometime after the property was sold to CFHS. The cellar has an earthen floor and CMU walls on all sides except the north elevation, which has a stone construction original to the dwelling (Figure 41). This combination of CMU and stone construction also makes up the foundation of the south addition. The cellar space is largely empty beside the dwelling's electrical panel, water tank, and several PVC plumbing pipes connected to the water tank (Figure 41). Because there is nothing separating it from the outside elements, the cellar is prone to partial flooding. The cellar leads into the aforementioned crawl space area underneath the original structure via an opening on its northwest elevation (Figure 42).

Like the west addition, the entire south addition, including the cellar, was removed during the excavation process. The only features remaining from it as of July 2024 are a depression in the ground, an outline of its roof and walls on the original dwelling's southern exterior, several electrical outlets and light switches, and the cased opening that connected it to the living room (*Figure 42*). Excavation has also uncovered a large portion of the main dwelling structure's original stone foundation, as well as the previous Dutch lap siding and original wood vertical board siding on the south elevation (*Figure 42*).

#### 2. The Property

The Hoke property covers an area of 0.221 acres, extending roughly sixty feet from north to south and 160 feet from east to west. Near the northeast elevation of the front yard, a concrete

walkway extends about ten feet from the road to several brick steps leading up onto the front porch (*Figure 7*). The southeast corner of the property includes a gravel and asphalt driveway adjacent to the dwelling's southern elevation that extends around fifty feet west from the road (*Figure 43*). Directly north of the driveway, there are two metal poles protruding from the ground, one near the eastern property line, and the other roughly fifteen feet west of it (*Figure 43*). There is a similar pole in the ground positioned about six feet north of the second pole and directly at the southeast corner of the southern addition (*Figure 8*). These are remnants of a chain-link fence that once surrounded the front yard (*Figure 7*). There is a very narrow space of yard separating the Hoke dwelling and the infill dwelling at 12604 Catoctin Furnace Road; at their closest, they are only separated by a few feet. In the rear yard, the border of the two properties are separated by a wooden picket fence installed by the Rohwein family after they moved into house 12604 in 2020.

The area of the Hoke property is largely taken up by its sizeable rear yard, which extends a little over 120 feet west of the dwelling's south addition. One of the most notable features of the rear yard is its rectangular concrete patio, which is approximately twelve feet north to south by sixteen feet east to west. This patio's area spans along the entire southern elevation of the west addition and the entire western elevation of the south addition (Figure 35). The east elevation of the patio is also where the aforementioned outdoor tool cabinet and lean-to overhang are both located. Meanwhile, in the center of the rear yard there is a dilapidated firepit that was built sometime in the 1990s by the husband of Kristin Krenzer (now Kristin Davis), Beverly Hoke's youngest daughter (Figure 44). Further west from the firepit, close to the westernmost elevation of the rear yard, there is a small wooden cross jutting out of the ground (Figure 45). This is where Kori Davis buried a deceased mole shortly before she and Beverly Hoke moved out of the house in summer 2023. According to Beverly Hoke, three of her former pets, one dog and two cats, are buried on the north elevation of the property between the Hoke and infill dwellings. Roughly twenty feet north of the cross is a set of two short wooden posts sticking out of the ground connected by a piece of wood nailed to the top of each post (Figure 46). Beverly Hoke's grandson used this as a target hanger for shooting at with his BB gun. West of the wooden target hanger on the slope of the trolly bed hill, there is another target hanger Beverly's grandson used. This one is made of pipe and still has the metal target hanging from it (Figure 46). This hanger is partially obscured by the brush that covers that area of the trolley bed hill. Also tucked inside the brush at the base of the trolley bed hill is a small concrete slab wall that Francis Smith built soon after his family moved to the property in order to prevent dirt from falling down the hill and onto a flower garden that he was attempting to create at the base of the hill, a project which was unsuccessful (Figure 47).

The vast majority of these nonoriginal features in the rear yard were removed during the excavation and restoration process in 2024, with the patio being among the first, being taken out in tandem with the west and south additions (*Figure 48*). Most of the foliage and brush along the east side of the trolley bed hill was removed around March and April 2024, revealing the full concrete slab wall along with a number of plastic culvert pipes protruding from the base and slope of the hill (*Figure 49*). These pipes were disarticulated, and had been placed by Francis

Smith while trying to put in the aforementioned flower garden. Nevertheless, these pipes, along with the firepit and cross, were all removed in early June 2024.

The dwelling's drinking and running water comes from a well, which is marked by a black well casing protruding from the ground between the south addition and the driveway (*Figure 50*). Meanwhile, its septic system includes an underground septic tank a short distance west of the rear patio, from which a pipe leads to an underground two-section sewage seepage tank near the trolley bed hill in the rear yard. A large number of concrete blocks are buried in a circle surrounding the underground two-section tank completely to prevent any potential leakage into the ground or aforementioned underground stream. Francis Smith had both the well and septic system installed in summer 1979 before the Smith family moved into the house. Francis also connected the infill dwelling next door to these water and septic systems, which continued to be the case until Beverly Hoke sold it in 2008 following the passing of her sister, Patricia.

Another key feature of the Hoke property is the narrow, shallow ditch spanning north to south across the Hoke rear yard that was described in the "Introduction" section (Figure 51-52). From the northern edge of the Hoke rear yard, the ditch turns southwest until nearing the southern edge of the rear yard, after which it extends almost exactly west toward the trolley bed hill. Upon reaching the eastern foot of the trolley bed hill, it continues south in a shallow active channel alongside the hill before being obscured by the brush (Figure 52-53). This is the remains of a ditch stream that once flowed uncovered through the rear yards of many properties on the west side of Catoctin Furnace Road, and now flows partly through underground pipes laid between 1963 and 1977. This stream will be explored in greater detail later in this report. The underground pipe was ruptured briefly in early spring 2024 when the Rohwein family was having the current fence installed around their rear yard. The contractor that was conducting the installation accidentally collapsed the underground pipe and flooded the rear yard. Because of this collapse, the stream's flow was briefly redirected through the original uncovered ditch from the southern property line of 12604 and south of it (Figure 54-55). When the stream was flowing through the uncovered ditch during this period, water seeped into the ground adjacent to it and saturated it, as there was nothing in place to act as a barrier between the stream water and ground. Nevertheless, the situation was resolved when underground pipe in both the Rohwein and Hoke properties was repaired by CFHS in June 2024, and the water flow has since improved greatly.

Before the damaged underground stream pipe was repaired in June 2024, there was noticeable oversaturation of the ground throughout the Hoke rear yard, especially near the former ditch stream. This saturation was severe enough that water would seep out of the ground, and it would easily sink when walked on (*Figure 56*). However, the oversaturation of the ground seems to have been greatly reduced since the pipe was repaired.

Around the center of the Rohwein rear yard's northern property line, there is a grate surrounded by decorative stones in the ground, which was installed by the Rohwein family in late May 2023, and includes a nine-by-nine-inch PVC basin with several connecting underground pipes to allow for waterflow and drainage. The basin also includes four to five small drainage holes, each about 1/16" in diameter, at the bottom. This PVC basin is intended to

continue the southerly flow of the underground stream from the southern edge of the Carty-Miller property to the Hoke property, for which the Rohwein family laid new pipes underground connecting the basin to the pipes placed under the Hoke rear yard by Francis Smith, creating a single consistent flow for the stream. According to Audrey Rohwein, the waterflow of the stream has remained largely consistent since the installation of the basin and new pipes, greatly reducing the influx of groundwater seepage in that area of the yard. Until the grate was installed, it appeared that the previous stream pipe in the infill rear yard had lost much of its flow, likely being hindered following the installation of a gray water system in the rear yard in May 2012.

There is also a rusted grate on the northwest corner of the Carty-Miller property at 12606 (*Figure 57*), which was installed to control the ground seepage of water from the spring that flowed under the trolley bed hill. Around the time the stream in the rear yards north of 12604 was run underground through a culvert in 1963, Clint Miller – then the owner of 12606 – ran a narrow length of pipe underneath the grate to connect to the culvert in his rear yard. Later in the early 2000s, Joann Miller rerouted the water entering the grate underground through an entirely separate length of narrow PVC pipe that extended south from the grate and connected to the stream in the Hoke property near the foot of the hill. A significant portion of the ground at the base of the trolley bed was dug out as a result of the 2024 excavation (*Figure 49*, *Figure 58*). This exposed the water flow from the rusted grate, and could be seen along the western edge of the Hoke property until it was reburied with new pipe in summer 2024.

Located in the southwest corner of the Hoke property and northwest corner of the Sweeney property, there is a large concrete water intake structure, which is situated in the aforementioned channel and measures roughly five feet wide on all sides and protrudes about four feet from the bottom of the channel (Figure 59). The structure collects rain and subsurface water flowing down from Route 15 and the mountains west of Catoctin Furnace. According to a right-of-way and construction project issued by the Maryland State Highway Administration (MDSHA) on 29 October 1990, the structure was installed by MDSHA around summer or fall 1991 to improve water drainage from US Route 15 to Little Hunting Creek around Route 806A, likely as a means of reducing the amount of excess water flowing into the properties of Catoctin Furnace. For this project, MDSHA also instituted a temporary easement between the Hoke and Sweeney properties as well as along the channel extending south of the structure for the construction of the structure, a revision that was dated to 6 August 1991. Kenny Sweeney states that MDSHA purchased that corner of the two properties from him and Beverly Hoke for the project. He further attests that MDSHA also purchased the channel flowing south of the intake structure and the land immediately surrounding it from him and the other residents south of him. Water from the now underground ditch stream and the rusted grate both daylight around this structure and then flow south through the channel along the trolley bed hill. The stream continues south through this channel for roughly 450 feet before turning east, passing underneath Route 806A, and finally emptying into Little Hunting Creek.

#### **Description of Prior Conditions**

#### 1. The Dwelling

The dwelling was originally built with a similar layout to many of Catoctin Furnace's other historic worker homes constructed in the first quarter of the 19<sup>th</sup> century during the ownership of John Brien. As such, it originally had wooden vertical board siding over log, with the boards placed vertically around the first story, and then changing to horizontal on the second story (*Figure 60-62*). The dwelling's roof was originally made of hand-crimped standing seam tin, which was replaced with asphalt shingles sometime between 1932 and the mid-1900s. These shingles were replaced with new ones sometime between 1985 and 1990 because the roof had begun to leak and was in generally poor condition. The interior of the original structure as described in the "Current Conditions" section of this report is mostly the same as it was constructed. However, it did not have the current front door, the boxed header in the living room, or any indoor restroom when it was first built, instead being comprised of a single open space on the first floor. This space would have also served multiple other purposes beyond a living room, including cooking, dining, and sleeping. Similarly, the second floor originally included only a single open space, with there being no walls and doorway dividing it into two rooms. The dwelling originally had no running water or plumbing.

At the time of its construction, the dwelling was occupied by those working for the iron furnace and foundry complex along with their families. However, as explained in the introduction of this report, it was Phil Miller and his family who became the first residents to own the property when they purchased it from Lancelot Jacques Sr., Stanley Hauver, and their respective wives in 1923. In the statement from Clint Miller mentioned in the introduction, he seems to suggest that Charles purchased the property after the Catoctin Furnace complex ceased operations. However, deeds to the property first record the transfer of the property's ownership from Jacques and Hauver to James E. (Phil) and Mary C. (Sally) Miller, with there being no evidence of Charles officially owning the property at any point, although he did live there and rent it.

Beginning as early as late 1899 – at the age of fifteen years old – Phil Miller began working alongside his father, Charles, at the Catoctin Furnace complex. The two would subsequently be employed as workmen for the Western Maryland Railroad after the furnace complex ceased operations in 1903. During their time working for the railroad, Phil and Charles were involved in what would become known as the Ransom Train Wreck on Saturday, 17 June 1905 when the passenger train they were riding back to Catoctin Furnace on –the *No. 5 Thurmont Express* – collided head-on with a double-header freight train outside the village of Ransom near Patapsco, Maryland. Today, the exact site of the collision is roughly 400 feet northwest of where Tank Road intersects with the Maryland Midland Railway in Finksburg, Maryland. The wreck killed the 52-year-old Charles Miller and 25 others, a number of whom were also Catoctin Furnace residents. Phil Miller's uncle, Charles Kelly, was also killed in the wreck. According to a Miller family history report, Phil Miller, then 21 years old, was the last survivor recovered from the wreck, and a *New York Times* article from the following day describes him (misnamed as Elmer instead of Edgar) as being "badly shocked and in precarious

condition." Less than four years later, on 30 January 1909, Susanne Miller would pass away at the age of 47. Following Susanne's passing, Phil Miller and his family moved into the Hoke house. The early deaths of Charles and Susanne Miller impacted the lives of their other children as well. Nora May (born 31 January 1892), their third eldest child after Phil and Oscar, was thirteen years old when her father died and one day before her seventeenth birthday when her mother died. Despite her young age, Nora assumed guardianship over her two younger brothers, Raymond (born 27 April 1896) and Martin (born 22 June 1902), shortly after her mother's passing. This was also not long after the birth of Nora's first child, Leila Florence, in May 1908. She signed for Raymond to enlist in World War I, and he was wounded in action on 4 October 1918 at the age of 22 in the Argonne Sector during the Allied Meuse-Argonne Offensive. He was subsequently misreported as having been killed in action, and returned home alive several months after Nora had received official notice of his death.

Regarding how the original structure's space has been used throughout its history, the living room and upstairs areas have for the most part held the same purpose continuously since the Miller family began renting the property, although these uses have seen several variations in that time. The open space on the north elevation of the living room, defined by the boxed header separating it from the room's south elevation, was for many years an entirely separate room that was Phil and Sally Miller's bedroom along with a chemical burn toilet restroom. While the partition of the first floor did not necessarily predate Phil and Sally Miller's ownership, this was the case for as long as Joann Miller can remember. Meanwhile, the second floor may have been divided into two separate bedrooms since the time Phil and Sally Miller moved in. However, according to Beverly Hoke, Clint Miller had stated that the second floor was only a loft area when he was growing up. Initially, one was for Phil and Sally, while the other was for their children. Phil and Sally most likely moved their bedroom to the first floor as their family grew so their children could have both bedrooms upstairs. This was probably done sometime in the 1910s or 1920s. The Smith family used the three bedrooms similarly when they lived there, with Beverly and Francis sleeping in the first-floor bedroom, and their children using the upstairs bedrooms. Beverly Hoke had the wall separating the first-floor bedroom and the living room knocked down in the 1980s, replacing it with railing. This was removed entirely in 2013, with the boxed header in the living room being subsequently installed.

Sometime prior to October 1932, before any of the present-day additions were built, a small frame addition with a shed roof and containing some type of stove or fireplace with a chimney was added to the west elevation of the original dwelling structure (*Figure 63*). It would have acted as a kitchen and/or canning area. All the historic worker dwellings had an addition like this in that period. Attached to the south elevation of this addition was a covered side porch that extended slightly onto the exterior of the original structure (*Figure 63*). Meanwhile, the south elevation of the original dwelling at this time included a single window positioned where the cased opening to the kitchen is now located (*Figure 63*).

During the residence of Phil Miller and his family, multiple other significant changes were made to the dwelling. By far the most noticeable alterations that have been made to the dwelling are the south and west additions. These include the previously described kitchen,

summer kitchen, and anteroom. Along with the windows described in the "Current Conditions" section, the kitchen also originally had a window facing the front yard and another one facing the rear yard. The cellar and cellar entrance beneath the south addition were created in tandem with the south addition. It was also during the construction of the south addition that the south elevation window was replaced with the opening leading into the kitchen. The summer kitchen, which was used as a dining room during the summer, included a loft-like second floor area directly over the living room doorway, which was allegedly so low that taller people had to duck to avoid hitting their heads on it. Meanwhile, the anteroom initially included a sink on its west elevation, allowing the residents to look out onto the rear yard through the west elevation window while using it. The anteroom was also used for canning. All these additions were built by Phil Miller and his sons in the early 1940s, with the south addition in particular likely being built around 1941, as evidenced by Clint Miller's name and the year 1941 being engraved on the inside of the kitchen walls, which Beverly Hoke found while remodeling the kitchen between 1985 and 1990. According to Joann Miller, it was Phil, Clint, Leroy, and Howard Miller specifically who installed the kitchen.

Sometime between August 1923 and October 1932, the Miller family also added the covered front porch to the dwelling, although it was made of white-painted wood and had log supports (*Figure 63-64*) until Beverly Hoke's son, Bobby, replaced it with the current poured concrete slab and CMU construction in the 1980s. Furthermore, the Millers made a modification to the staircase in the mid-20<sup>th</sup> century, which enlarged the lower stairs and resulted in the bottom step being situated directly against the original door frame (*Figure 65*). Because of this, the front door was moved from its original position (*Figure 63*) to its current one and replaced with a newer wood door with large glass panes. The current window south of the front door was subsequently installed in the original door frame, which was exposed during the 2024 excavation and can now be seen from the inside of the dwelling (*Figure 65*). Today, the original location of the front door can be seen on other early 19<sup>th</sup>-century worker homes in Catoctin Furnace like the Museum of the Ironworker, which share the same original design (*Figure 66*).

Beverly and Francis Smith moved to the Hoke property from their rental home on Kellys Store Road across the street from what was then the Catoctin Full Gospel Church and is now Victory Tabernacle Pentecostal Church, which was where they had their first three children. Like the Millers, the Smith family also made multiple changes to the Hoke dwelling after they purchased it in 1977, including several renovations they made before moving in around Thanksgiving 1979. In the summer of 1979, they installed a gas stove heating system that was placed in the north wall of the first floor (note: they did not remove any fireplace/chimney at this time & there was never one in the anteroom). The section of wall in which it was installed can now be seen from both inside and outside of the dwelling in the exposed original logs and more recent Dutch lap siding, which had a hole cut out of them for the system (*Figure 67-68*). The pipes from the gas system were installed improperly and emitted too much heat, causing the logs in the wall and ceiling on the north elevation to ignite and start a small fire in the dwelling shortly after the Smith family moved in.

After this fire, the Smith family chose to install a new fireplace and chimney at the north elevation of the summer kitchen, which they first used in the late fall of 1979. On 15 December 1979, the newly installed fireplace in the summer kitchen started another, larger housefire while the Smith family was out shopping for Christmas. The fire spread rapidly throughout the dwelling and damaged or destroyed many of the Smith family's belongings, although most of the original structure, including the original wood floor joists and stone foundation, fortunately experienced very little damage. The Smiths were told that the lack of serious damage to the dwelling was attributed to the durability of its original construction, namely its structural composition and thick log walls. However, the remaining original wood from the stairs did have to be replaced, during which the Smith family chose to slightly modify the staircase between late December 1979 and April 1980 in order to make the stairs less steep. Because of this second modification to the staircase, the upper part of the staircase also extends slightly farther west than it had previously, as explained in the "Current Conditions" section. The dwelling's windows also had to be repaired after the fire, but not replaced. In the aftermath of the housefire, the Smith family decided to remove the new fireplace and chimney in favor of an all-electric heating system for the dwelling. The fire resulted in several other changes in the dwelling. For instance, the aforementioned wood and glass pane front door, which had been there since the front door was moved in the mid-1900s, was replaced with the current one, which has a different design (Figure 29). Meanwhile, the cased opening connecting the kitchen and living room was widened, the loft area in the summer kitchen was removed, and the ceiling and roof of both the summer kitchen and second story were raised to their present height. Beverly Hoke later had the two kitchen windows facing north and south removed while remodeling the kitchen between 1985 and 1990. Meanwhile, in 1991 or 1992, Beverly replaced the exterior siding with the current vinyl sheathing, as well as the dwelling's windows. However, the preexisting wood Dutch lap siding and original log siding were still retained within the newly installed vinyl (Figure 61, Figure 68).

As stated previously, the dwelling originally had no indoor restroom with plumbing, with a since removed two-hole outhouse in the rear yard being the only latrine for its residents. Later, the indoor chemical burn toilet would be used alongside the outhouse once it was added. The first purpose-made indoor restroom with running water in the Hoke dwelling would be added by the Smith family around the time of the well and septic system's installation in summer 1979. This is the current restroom described in the "Current Conditions" section. The Smith family did not use the chemical burn toilet, and removed it upon completion of the indoor restroom in summer 1979. Very soon after they added the indoor restroom, the Smith family laid carpet across the original structure's first floor, including the restroom. The first-story flooring had been entirely linoleum when the Smith family first moved in. Beverly Hoke had this carpet removed while renovating the dwelling in 2013, replacing the carpet in the living room with the newer hardwood flooring, and the carpet in the restroom with linoleum tiling.

Like three or four other nearby homes (including the Carty-Miller house), the Hoke dwelling had received its running water from a spring via an underground pipe for many years, at least since the property was sold to Phil Miller in 1923. This spring is now on the western side of Route 15. The second phase of construction on Route 15 in 1985, which expanded the highway

from Lewistown to MD Route 550 into a four-lane divided highway, destroyed the spring pipe. While the pipe was repaired quickly, it greatly slowed the waterflow from the spring to Catoctin Furnace and led the Smith family to disconnect it entirely. However, they already had the current well drilled in August 1979, so they did not experience as significant of a disturbance to their running water as their other neighbors connected to the spring.

In the process of the previously referenced 2024 excavation and restoration, the bump-out on the second story was found to contain bricks stacked above fragments taken from two wooden crates (Figure 69-71). The bricks are remains of a chimney stack arising from what was once a large stone hearth in the living room that was original to the dwelling (Figure 64). Also revealed during excavation was the large stone base of this hearth in the original structure's crawl space (Figure 29, Figure 72). The Smith/Hoke family were unaware of the hearth base during their residence, but they did learn of the encased section of the chimney stack while they were widening the kitchen entrance in 2006, during which the stack was exposed from underneath. However, neither of these features were known by CFHS to still exist in the dwelling before the excavation revealed them, as the chimney was covered by the wall bump out, and the hearth base was difficult to differentiate from the surrounding stone foundation until it could be seen from above (Figure 72-74). The section of chimney above the roofline was removed when new asphalt shingles were placed on the roof between 1985 and 1990, while the Millers likely removed the first-floor portion of the hearth and chimney when they were building the south addition of the dwelling around 1941. The remaining portions on the second floor and in the crawl space, however, were left alone over the years because they did not cause any problems that would warrant removing them.

The sections of the two wooden crates beneath the chimney stack each read "FROM THE G.L. BAKING CO. MANUFACTURERS of FANCY CAKES AND CRACKERS FREDERICK, MARYLAND" (*Figure 71*). As the text may suggest, the G.L. Baking Company was a baked goods company, and it was based at 125 South Carroll Street in Frederick, Maryland. The company was founded around 1909, and while it primarily produced cookies, cakes, and crackers to sell to local businesses and individual customers, it also produced hardtack to ship to American soldiers during World War I as part of a government contract. While the exact origin of the G.L. Baking Company crates in the Hoke dwelling is unknown, they may have been spare crates the company had made for packing and delivering baked goods that a member of the Miller family happened to have access to. The reason for the crates' placement at the base of the chimney stack is similarly uncertain, although it may have been to act as a support between the remaining portion of the chimney and the second-story floor.

#### 2. The Property

Perhaps the most significant change to the Hoke property came in 1944, when an infill dwelling was built in the lot between 12602 and 12606 (*Figure 7*) by Phil Miller and three of his sons –Robert, Clint, and Howard – for Richard Miller (the youngest of the sons) and his family while he was deployed in Europe during World War II. This lot, now the property of 12604

owned by the Rohwein family, was initially part of 12602, and was made separate from the property by Phil and Sally Miller in 1942 for the construction of the infill dwelling. This removed roughly 0.154 acres from the northern elevation of the originally 0.375-acre property, or about 41% of its total area (Figure 53). Unfortunately, Richard Miller was killed in action in Germany on 5 December 1944 at the age of 28 and was buried in the Ardennes American Cemetery. Richard's wife, Rheada, and their children, Richard Allen and James Calvin (known as "Jimmy"), lived in the infill dwelling for a short time after its construction, but left to live in Thurmont in the late 1940s. After this, Betty and Leibert Miller (no known relation to the Miller family focused on in this report) moved into the infill dwelling with their four children – Ronnie, Gale, Wayne, and Bonnie. It was subsequently sold to Beverly Hoke's parents, Lloyd and Margaret (known as "Marg") Hoke in 1955, when Beverly (born in 1944) was around eleven years old. Lloyd and Margaret had previously lived at the Colliers Double Log House across the street from 1948 to 1955. Lloyd and Margaret lived at the infill dwelling until they passed away on 25 April 1989 and 18 October 1999, respectively, after which it was occupied by Beverly's sister, Patricia, until her passing on 5 February 2008. Patricia's daughter, Kathy Hoke Wastler then sold it to the Chaisson family in 2012. Since February 2020, the infill property has been owned by the Rohwein family.

Moving on to the 0.221-acre lot that has comprised the Hoke property since 1942. While the Hoke front yard was more recently surrounded by a chain-link fence, this was not always the case. During the early 20<sup>th</sup> century, and possibly before, there was a white-painted wood picket fence around the property, as was the case for most of the dwellings on Catoctin Furnace Road at the time (*Figure 60*, *Figure 63*). At some point between 1932 and the mid-20<sup>th</sup> century, this fence was replaced by a hedge composed of boxwood shrubs planted along the road by the Miller family (*Figure 64*). Several other neighboring historic houses also had boxwood shrub hedges planted in place of their picket fences, among them being the Carty-Miller House (*Figure 75*). It was not until 1977 that Francis Smith and his sons removed the shrubs and replaced them with the chain-link fence whose posts can be seen today as described in the "Current Conditions" section. There were also two large trees in the front yard on either side of the front porch in the early 20<sup>th</sup> century, likely black walnut trees, which were cut down sometime between 1932 and the mid-20<sup>th</sup> century (*Figure 63*).

The concrete slab that is now the patio in the rear yard was poured around 1978. It initially served as a screened-in carport which, aside from the Smith family's vehicles, also housed the dwelling's water heater. The screened-in carport was built immediately after the concrete slab was added, and was topped with insulated "airplane blankets" (possibly cowling covers or a similar aircraft exterior covering), which varied in material over time. Another insulated airplane blanket was placed directly over the dwelling's water heater sometime before 1989 to protect it from freezing. The carport collapsed due to heavy snowfall during the winter of 1989 or 1990. Beverly Hoke's sons helped clean up the collapsed carport and built the aforementioned lean-to structure attached to the south addition as a means of sheltering the dwelling's water heater. Beverly and her son-in-law would later attempt to install a water heater in the cellar under the south addition, but they were unable to because water kept seeping out of the ground whenever they tried digging out a space to place the heater in (Figure 41). The lean-

to structure was essentially the same as it had been built before its removal during the 2024 excavation and restoration.

Before the Smith family installed the septic system, there was a shed in the rear yard which was positioned around the same location as the current underground sewage seepage tank near the trolley bed hill. The shed was most likely constructed in the early to mid- 20<sup>th</sup> century, and was removed sometime between when Kenny Sweeney moved into the Sweeney property in 1973 and when the Smiths purchased the Hoke property in 1977. Elsewhere in the yard, the previously mentioned two-seat outhouse was located roughly three-quarters of the way back in the rear yard near the property line with 12604, a short distance north of which was the outhouse for the infill property. The outhouse in the Hoke rear yard was likely built in the early 20<sup>th</sup> century, and was removed shortly after the completion of the indoor restroom and installation of the septic and water systems in summer 1979. The outhouse in the infill property was also removed around this time, as the dwelling was hooked up to the Hoke dwelling's septic and water system.

While living at 12602, Phil and Sally Miller owned chickens and roosters until sometime in the late 1950s or early 1960s, possibly around the time of Phil's passing. The chickens and roosters used the then uncovered ditch stream for their drinking water. Phil and Sally constructed a chicken coop near the far southwest corner of the rear yard for the chickens and roosters, which they surrounded with a roughly five-foot-tall plain wire fence fastened to wooden posts. Their granddaughter, Joann Miller, recalls fetching eggs from this chicken coop when she was a child. The chicken coop was removed sometime between when the Millers got rid of their chickens and when the property was sold to the Smith family. The Miller family also fenced in the rear yard on the north and south property lines. This fence was taken out by Francis Smith when the septic system was being installed.

While they were in school, Beverly and Francis Smith's three eldest children – Eddie, Bobby, and Jo Ann – were given pine trees to plant in their yards as part of several Arbor Day projects sponsored by their school during the 1970s. In all, Eddie was given two trees to plant, and Bobby and Jo Ann were each given one. However, the Smith children did not have enough room in their yard on Kellys Store Road to plant the trees, leading Eddie to give his first tree to his grandfather, Lloyd Hoke, to plant in his yard at 12604. The children gave their other three trees to Clint Miller to plant in his yard at 12606 (Eddie's around 1973, Bobby's in 1975, and Jo Ann's in 1978). Of the Smith children's four trees, only two remain today. The first is a pine tree planted next to the fireplace in the Carty-Miller rear yard (*Figure 76*); it is not known whose tree this was. The second is a large pine tree planted on the slope of the trolley bed hill around the property line between 12606 and 12604 (*Figure 77*). This tree was one of the two given to Eddie, and it leans heavily to the east because of its placement on the hill.

Historically, a stream composed of both spring water and ground seepage flowed from north to south through the previously described ditch in the Hoke rear yard. This is in large part fed by numerous natural springs in the area, which are the result of its geological location above multiple intersecting faults and a highly permeable brecciated zone. This stream flowed north to south along the path of the ditch described in the "Current Conditions" section, ultimately

emptying into Little Hunting Creek. It also extended through most of the other rear yards north of the Hoke property. It was not until the first half of 1963 that the residents of 12606 and the properties north of it chose to bury the stream and direct it through an underground culvert. Farther south past the trolley bed hill, the stream was also directed through a culvert underneath Route 806A before exiting into Little Hunting Creek, as detailed in the "Current Conditions" section. The ditch stream was buried because of how much of an obstacle it was to outdoor activities and how easy it was to fall into, and because the residents wished to avoid any potential issues with the stream water seeping into their rear yards. The neighbors laid several lengths of 10-12-inch diameter iron pipe along the ditch before covering it with dirt to maintain the stream's waterflow. However, the residents of both the Hoke property and the infill property initially chose not to do this, and instead continued the flow of the stream from the culvert by simply having it reemerge into the existing ditch stream. However, Francis Smith followed suit in 1977 and buried the sections of the stream in his rear yard with large metal piping, directing it down a similar path as the original uncovered ditch stream. As a result, no water has consistently flowed through the original uncovered ditch between 1977 and today, with waterflow only returning briefly when the underground pipe was ruptured in spring 2024, as detailed in the "Current Conditions" section. The underground piped stream system generally follows the same path as the original ditch stream.

In May 2012, the Chaisson family, who at the time owned 12604 Catoctin Furnace Road, installed a greywater system in their property, which included a greywater-irrigated garden on the slope of the trolley bed hill, a pump system bringing water to the garden, and two rectangular greywater ponds in the middle rear yard. This was completed in conjunction with a water storage bladder they had installed in their basement. The Chaisson family did this because the dwelling was disconnected from the Hoke dwelling's running water and septic systems after they purchased the property, and they needed to implement running water and wastewater systems to receive an occupancy permit for the dwelling. When the greywater system was being installed, the Chaissons had a contractor dig a moderately sized ditch from their basement up to the irrigated garden in the western elevation of the rear yard. This was done to lay the underground pipes and pump leading from the dwelling to the irrigated garden. In the process of digging this ditch and installing the greywater pipe and pump system from the dwelling to the irrigated garden, the section of the stream that extended from the southern edge of the Carty-Miller rear yard through much of the infill rear yard was dug out. Because the ground in the infill property is at a lower elevation and the installation occurred during spring – a season in which the area is much more affected by water than usual – rainwater and subsurface water naturally collected in the newly created ditch and sometimes flooded it until the greywater pipe and pump system were completed and the ditch was filled back in. The dug out ditch stream pipe was also replaced and covered, with the greywater pipe running a safe distance underneath it. The two greywater ponds were added once the ditch was filled in.

The easternmost of the two ponds created for the greywater system was also positioned directly in the path of the underground stream. Since connecting greywater systems to natural water features such as streams can contribute to water pollution and is therefore not legal in Maryland, the ponds could not have been connected to the underground ditch stream. It is also

probable, based on local accounts, that the portion of the stream culvert pipe on the northern infill property line was damaged by the equipment used in digging the ditch or pond for the greywater system. This, along with the need to isolate the ponds from the stream, meant that the replacement pipe laid for the ditch stream likely impeded the stream culvert from properly connecting to the stream pipe under the Hoke property, resulting in a significant disruption to the stream's flow. In turn, it would have also contributed to the existing inundation of water in the surrounding ground areas. This is supported by residents at the time, who state that issues involving the oversaturation of the surrounding ground increased around the time the greywater ponds were dug, and that the stream even seemed to stop flowing. Although the ponds have both since been filled in, their outlines can still be seen in the ground. While attempting to resolve issues involving oversaturation of the ground on the north elevation of their rear yard during times of precipitation – which were sometimes so severe that water would seep out of the ground - the Rohwein family uncovered the exit to the stream culvert. Upon this discovery, they ran a new pipe underground for the stream and installed the aforementioned grate in their yard, a process which they completed by 23 May 2023. These developments were all recorded in the Carty-Miller House Historic Structures/Cultural Landscapes Report prepared in August 2023.

The portion of the ditch stream spanning through the Hoke rear yard had a steady flow when the Smith family moved in, and it still did after they redirected it underground. However, the underground stream in the Hoke rear yard allegedly started to leak out into the surrounding ground following the second phase of construction on Route 15 in 1985. Beverly Hoke notes that, prior to the second phase, her niece could drive Lloyd Hoke's station wagon around the yard when he was teaching her to drive. They could no longer do this following the second phase, as the car would get stuck in the ground because it was so oversaturated by water coming from the leaking stream pipe and the highway itself. According to Beverly Hoke, there was never a ground moisture problem in her rear yard before this point. Several other people who were residents at the time also state that the excess groundwater in the yards on the west side of Catoctin Furnace Road was exacerbated by the second phase of construction, noting that the ground saturation was far less noticeable beforehand.

There is a cinder block bank or retaining wall on the west side of the trolley bed hill. This wall has been in place since the railroad was laid across the trolley bed hill, likely for the purpose of providing support and drainage for the subsurface water flowing down from the mountains and into the adjacent ravine. MDSHA similarly returned the cinder block wall to use when expanding Route 15 in 1985 to act as part of the water management system it was implementing for the highway, with the intention of creating a means for runoff and subsurface water from the highway to flow and disperse into the ground. According to Joann Miller, the water flowing down from Route 15 made, and still makes, its way into the ground in the adjacent rear yards, thus allowing some of it to flow through the rusted metal grate in the Carty-Miller rear yard, which in turn connects to the underground ditch stream. Around 1986, not long after its expansion in 1985, the northbound lane of Route 15 adjacent to Catoctin Furnace started caving in because of its placement along the steep hill on its eastern side, as well as the excess spring water seeping into the ground underneath it. The MDSHA built the current support wall along the highway to fix this problem.

### Part 2: Analysis and Evaluation

As described previously, many local residents maintain that the expansion of Route 15 in 1985 is the main cause of many of Catoctin Furnace's water issues, as they did not notice the current degree of ground inundation until after the expansion. The construction of the original two-lane portion of Route 15 in 1962 did not appear to cause many water-related issues. However, when it was expanded into a four-lane divided highway in 1985, it interrupted the long-time flow of rain and subsurface water from Catoctin Mountain west of Route 15 to Catoctin Furnace. According to Joann Miller and Beverly Hoke, rainwater from Route 15 and the mountains flows down into the ravine on the west side of the trolley bed hill, where the drainage system that includes the cinder block bank should allow it to disperse in the soil. While this system likely works to some extent, it was previously suspected that it could also be worsening the groundwater problems in Catoctin Furnace.

However, a geological assessment of the area by Maryland Geological Survey (MGS) concluded that, while the highway may contribute somewhat to the excess water appearing in the yards and basements of many Catoctin Furnace residents, it is not the primary cause. Instead of highway runoff, the excess groundwater seems to primarily be the result of Catoctin Furnace's geological location above "a complex system of intersecting faults...which includes a major border fault and an associated highly permeable brecciated zone. The geologic units to the east of the border fault include a limestone conglomerate of the Gettysburg Formation and the Frederick limestone," which creates numerous voids in the subsurface rock, among various other affects. This state of permeability, along with the high subsurface flow of water from the mountain west of Catoctin Furnace, is ideal for the formation of numerous springs in the area, as well as the resulting overabundance of groundwater seeping to the surface. This is a very plausible reason water seeped out of the cellar floor when Beverly and her son-in-law attempted to dig out a space for the water heater. However, taking into consideration the accounts of multiple locals that the groundwater problems in Catoctin Furnace only became severe after the second phase of Route 15's construction in 1985, the matter is certainly worthy of further consideration. Both Joann Miller and Beverly Hoke attest that the pipe bringing spring water to multiple residences on the west side of Catoctin Furnace Road was destroyed during this second phase of construction. While the pipe was repaired and soon after disconnected from the residences it supplied, the concurrence of the spring pipe rupturing and the beginning of severe groundwater saturation on the west side of Catoctin Furnace may suggest a causational relationship between the two. The presence of artesian water pressure that affects most of the springs in the area, providing them with enough pressure to flow to the surface without any external influence, could also lend credence to this possibility.

In the early 1960s, an artesian well was drilled at 12620, the residence two houses north of the Museum of the Ironworker, which has been cited by locals as another likely culprit for some of Catoctin Furnace's water problems. Artesian wells use the downward pressure acting on groundwater trapped in artesian aquifers to bring the water to the surface without needing to pump it. Because Catoctin Furnace is in a geographical area that contains numerous springs and aquifers under artesian pressure, such a well is highly effective. However, it is possible that the artesian well has caused too much water to flow to the surface from its source aquifer. According

to Beverly Hoke, the water pressure was so great that when her father, Lloyd, hooked a hose in the rear yard of 12604 up to the spicket in his rear yard, water spewed out that reached as high as the roof of his house. According to Joann Miller, the partially uncovered drainage ditch that spans in front of the houses on the west side of the road did not have a consistent flow before the artesian well was drilled. Instead, it mainly only flowed during and after rainfall. However, after the artesian well was installed, water began to consistently flow southward in the ditch throughout the year. This also coincided with Joann's basement in the Carty-Miller dwelling beginning to flood and needing to be routinely emptied, which she states occurred whenever the ditch was blocked up by debris, leaving the constant flow of water with nowhere to go but into the surrounding ground areas. Meanwhile, although it is uncertain when the ground beneath the Hoke house became so saturated with water, it may have been worsened by the installation of the artesian well. This may also be substantiated by the MGS survey, which found that the artesian well has a large flow volume attributed to the strong local subsurface artesian flows.

Another factor that potentially contributed to the groundwater issues on the west side of Catoctin Furnace Road, particularly the Hoke and Rohwein properties, is the underground stream pipe in the Hoke and Rohwein rear yards. When the pipe in the Rohwein yard was ruptured in spring 2024, CFHS inspected the condition of the pipe in the neighboring yards. Previously, there has been speculation that the iron culvert pipe laid by Clint Miller and the neighbors north of the Carty-Miller property had started to corrode, allowing stream water to seep into the surrounding ground areas. Yet, it was found to be in good condition. Meanwhile, the length of pipe in the Hoke property needed to be repaired along with the ruptured section. As stated in the "Current Conditions" section, the stream's flow and the abundance of groundwater in that area of Catoctin Furnace both seem to have greatly improved following this repair. A possible explanation for this is that Francis Smith may have improperly installed the section of pipe he laid in his rear yard for the stream in 1977. If this was indeed a contributor to the water issues in Catoctin Furnace, it has fortunately been resolved as of June 2024.

A considerable portion of the water flowing downhill from Route 15 and the mountains likely used to flow and/or seep into the mill races that brought water back and forth from Little Hunting Creek to the water wheel powering the iron furnace and mills (the return race is now the ravine along the west side of the trolley bed hill). As a result, the subsurface water was not as much of an issue back when the mill races operated. Since they became inactive, however, that subsurface spring water has not had a waterway to empty into before reaching Catoctin Furnace, which may have been an early catalyst for the issues with ground saturation in the village that have gradually developed into their current state.

#### Part 3: Treatment

Given the highly plausible correlation between the spring pipe being ruptured by Route 15's construction and the beginning of severe groundwater saturation on the west side of Catoctin Furnace, I suggest that, if practical, CFHS should investigate the conditions of the spring on the west side of Route 15 that provided water to several residences on Catoctin Furnace Road. The purpose of this investigation would be to search for any areas where water

could be escaping the spring and emptying into the porous subsurface ground, thus allowing it to flow excessively downhill into Catoctin Furnace.

As of August 2024, the dwelling is still in the process of excavation and restoration, and it has been stripped of virtually all its nonoriginal components. While a massive number of artifacts of potential or confirmed historical significance have been removed from the site by CFHS, more are still present there (*Figure 78-79*). These should be retrieved by CFHS as soon as possible whenever they are found, as they are vulnerable to environmental degradation and/or removal by unauthorized persons.

Many of the artifacts that have been recovered are undergoing examination, which is currently an ongoing process, from which evidence such as that indicating inhabitation by a higher-status worker has been uncovered. As the examination process continues, it would be prudent to pay attention to any unusual markings on wood recovered from the south addition of the dwelling in an attempt to find the carving by Clint Miller described by Beverly Hoke if possible. Doing so could provide more concrete evidence on the date of the south addition's construction.

Otherwise, I recommend that that CFHS continue its ongoing efforts to return the historic Hoke dwelling and property to its original state as accurately as possible. Its plans for doing so have already been detailed in a Frederick County Rural Historic Preservation Grant Application from 2023, and can therefore be read in greater detail through that document.

## **Appendix – Photographs & Images**

All figures courtesy of Tyler Wilson unless otherwise noted (19 December 2023, except where otherwise noted).

Figure 1 courtesy of Bright MLS.

Figure 3 courtesy of Metropolitan Regional Information Systems (ca. 2016).

Figure 6 from *Catoctin Furnace: Portrait of an Iron-Making Village* by Elizabeth Y. Anderson (Charleston: The History Press, 2013).

Figures 60 & 63 Photograph by A. Aubrey Bodine • Copyright © Jennifer B. Bodine courtesy of www.aaubreybodine.com.

Figures 24, 73, & 74 courtesy of David Bittle (11 August 2023).

Figures 64 & 75 courtesy of Catoctin Furnace Historical Society, Inc.

Figures 80-91 and elsewhere as noted courtesy of Elizabeth Comer (various dates as noted).



Figure 1: 13204 Catoctin Furnace Road at the southern edge of Mine Bank, built ca. 1900.



Figure 2: 13427 Catoctin Furnace Road at the northern edge of Mine Bank, still retaining its fundamental design akin to the other early  $19^{th}$  century Catoctin Furnace worker homes. Image courtesy of Elizabeth Comer.



Figure 3: 13217 Catoctin Furnace Road in Mine Bank. Despite its more modern alterations and additions, its central design is still indicative of the Catoctin Furnace worker homes.



Figure 4: 13230 Catoctin Furnace Road in Mine Bank. Another early 19th century worker home, its original historic hearth and chimney are still fully intact on the right. Image courtesy of Elizabeth Comer.



Figure 5: The former boarding house at 13231 Catoctin Furnace Road in Mine Bank, built ca. 1900. Image Courtesy of Elizabeth Comer.

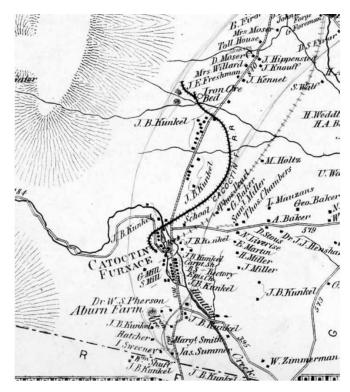


Figure 6: From "D.J. Lake Atlas of Frederick County, Maryland" (1873), showing the Catoctin Furnace complex, the surrounding area, and its residents. The location of the upper mine bank at the northern branch of Muddy Run can be seen near the center top of the map being connected to the furnace by the narrow-gauge Catoctin Furnace Railroad ("Cacoctin F. R.R.").

Map on file with the Map and Geography Reading Room of the Library of Congress.



Figure 7: East elevation of the Hoke dwelling, providing a view of the asphalt shingle roof and white vinyl siding, as well as the front porch, door, and windows. Also in view are the south addition, the walkway and steps leading from the road to the front porch, the fence that once surrounded the front yard, and the driveway. The Rohwein infill dwelling is next door on the right. (ca. 2023). Image courtesy of Elizabeth Comer.



Figure 8: East and south elevations of the Hoke dwelling, providing a closer view of the vinyl siding, the gable frame roof, the front porch, and the porch's lean-to style covering. The two second-story windows on the south elevation can also be seen above the south addition, and two of the former fence posts can be seen in the bottom foreground and at the corner of the south addition.



Figure 9: North elevation of the Hoke dwelling, showing the first- and second-story north elevation windows, and providing a profile view of the front porch.



Figure 10: North elevation of the Hoke dwelling, showing the different positioning of the first- and second-story windows, as well as a portion of the dwelling's original stone foundation.



Figure 11: North elevation of the Hoke dwelling west addition and its connection with the main structure, including the corner restroom window along with the north-facing summer kitchen and anteroom windows. The vinyl siding of each exterior wall in frame can be seen.



Figure 12: South elevation of the west addition, displaying the concrete patio, the screen door exiting the anteroom, the south-facing summer kitchen window, and the outside tool closet. At the far right of the image is a partial view of the lean-to structure covering the shallow entrance to the crawl space area. The south elevation's wood Dutch lap siding is also visible.



Figure 13: Inside the outdoor tool closet, revealing part of the dwelling's original log construction. (19 December 2023).

Photograph by Elizabeth Comer.



Figure 14: Post-excavation photograph of the Hoke dwelling west elevation, revealing sections of the original stone foundation and log siding. The outlines of the west addition and outdoor tool closet can both be seen on the dwelling, as well as the doorway that once connected the west addition with the main structure. The restroom window, as well as remains of the west addition's stone and brick foundation, are also extant. (25 April 2024).



Figure 15: The living room, showing the front door, two of the first floor windows, the boxed header, and the nonoriginal hardwood floors.



Figure 16: The entrance to the restroom, displaying its single window and linoleum tile floor. The southern portion of the boxed header can also be seen left of the restroom door.

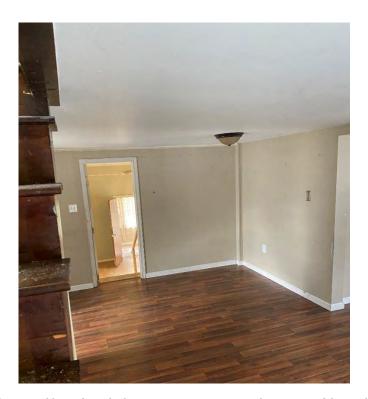


Figure 17: Entrance to the west addition from the living room staircase, providing a view of the southwest section of the living room, and of the doorway's proximity from the boxed header at the far right. The summer kitchen and anteroom doorway can also be seen. (19 December 2023). Photograph by Elizabeth Comer.

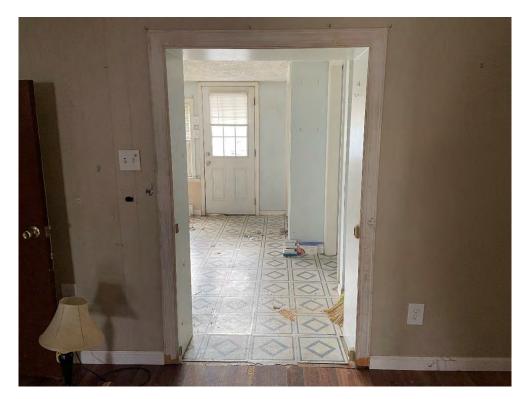


Figure 18: Cased opening entrance to the kitchen from the living room, displaying the peel and stick tile floors and the door exiting onto the driveway.



Figure 19: Base of the staircase from the living room, with the entrances to the kitchen and spandrel closet visible to the right.



Figure 20: Top of the staircase, showing one of the second-floor windows at the top left. The bump out in the wall can also be seen with the light switch attached to it a short distance beyond the stairs.



Figure 21: View inside the spandrel closet, with part of the old interior wall visible.

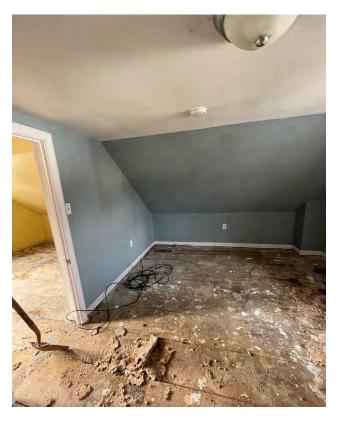


Figure 22: North upstairs bedroom, providing a view into the south bedroom through the doorway, and of the wall separating the two rooms. The original wood flooring is also visible.



Figure 23: Bump out on the second floor and its position between the two south-facing upstairs windows.



Figure 24: Entrance to the crawl space beneath the original dwelling. (11 August 2023). Image courtesy of David Bittle.



Figure 25: Crawl space beneath the original dwelling post-excavation. The original log floor joists and stone foundation walls are all in full view. The stone wall blocking access to the eastern portion of the crawl space can also be seen to the right, rising from the ground to the floor joists. (25 April 2024).



Figure 26: Eastern section of the crawl space area post-excavation, showing the area filled in with stone and earth, as well as the stone wall on the left, which blocked it from access prior to excavation. (25 April 2024).



Figure 27: Post-excavation living room from the northeast elevation, showing the small section of nonoriginal flooring left along the west elevation after excavation; the section of drywall that once connected to the west addition; the original log floor joists, walls, and ceiling beams; some of the nonoriginal wood support blocks; and the stone hearth base (far left). (25 April 2024).



Figure 28: Nonoriginal wood support blocks attached to the original log floor joists on the west elevation of the main dwelling structure. (25 April 2024).



Figure 29: Wide view of the living room post-excavation, depicting many of the extant original components of the dwelling structure, alongside the nonoriginal stairs and front door. The sections of drywall that have not yet been removed are visible along the staircase and the former west addition entrance. The covered entrances to both additions are also visible. (25 April 2024).



Figure 30: Interior remnants of poster paper used as insulation attached to the original log wall in the southwest corner of the dwelling structure. The chinking (sealant material used to fill gaps between logs in log buildings) between the logs is also visible. (25 April 2024).



Figure 31: Exterior remnants of poster paper used as insulation attached to the original log wall in the southwest corner of the dwelling, where the outdoor tool closet once was. (25 April 2024).



Figure 32: Upstairs wall and doorframe post-excavation, facing north. (25 April 2024).



Figure 33: The original upstairs wood floor post-excavation. (25 April 2024).



Figure 34: Hoke dwelling from the south. The south addition, with its covered doorway, double window, and gable frame asphalt shingle roof are in the foreground. To the left is the west addition with the summer kitchen and anteroom. The summer kitchen's south window, gable frame asphalt shingle roof, and metal overhang with wooden pole rafters are all visible, as is the anteroom's lean-to roof and screen door. Also to the left are the concrete patio and lean-to structure attached to the south addition.



Figure 35: South Elevation of the west addition and the rear patio. The summer kitchen's south window, gable frame asphalt shingle roof, and metal overhang with wooden pole rafters are all visible, as is the anteroom's lean-to roof and screen door. To the right is the lean-to structure covering the crawl space entrance, including both its door and its uncovered opening. (February 2023). Image courtesy of Elizabeth Comer.



Figure 36: West elevation of the anteroom, showing its double window, white vinyl siding, and brick foundation. In the background to the right is the metal overhang as well as the outside tool closet.



Figure 37: Windowed anteroom door exiting onto the rear patio. (19 December 2023). Photograph by Elizabeth Comer.



Figure 38: View of the doorway connecting the summer kitchen and living room taken from inside the summer kitchen, displaying the stairs leading up to the doorway, as well as the window south of the front door.



Figure 39: Kitchen from the cased opening, showing the door leading onto the driveway, the double window, and the peel and stick tile flooring.



Figure 40: The two closets on the south addition's west elevation. The left one was once the laundry closet.



Figure 41: Shallow cellar area beneath the south addition, with a view of the CMU foundation wall and the north original stone foundation left of it. The dwelling's water tank is visible to the right. The moisture seeping out of the earthen floor of the cellar can also be seen, demonstrating the excess groundwater in the area.



Figure 42: South elevation of the dwelling post-excavation, showing the outline where the south addition was once located, the cased opening connecting it to the original structure, and the entrance to the crawl space beneath it, which used to be in the south addition cellar. Excavation has revealed much more of the original stone foundation, as well as remnants of the previous wood Dutch lap siding and original vertical board siding right of the cased opening. (25 April 2024).



Figure 43: Driveway facing east. Left of the driveway are the black well casing and two of the extant chain-link fence poles.



Figure 44: Firepit in the rear yard.



Figure 45: Wooden cross in the far west rear yard.



Figure 46: Target hangers Beverly Hoke's grandson used. The wood hanger is in the foreground, while the metal pipe hanger is tucked into the brush on the trolley bed hill behind it.



Figure 47: Concrete slab wall built along the trolley bed hill by Francis Smith, partially obscured by brush.



Figure 48: West and south elevations of the dwelling post-excavation. The outlines of both additions are visible on the original dwelling, and much of its original stone foundation has been revealed. The large divot in the ground where the patio and additions all were is evident when compared to pre-excavation photographs. (25 April 2024).



Figure 49: Section of the trolley bed hill post-excavation. Most of the brush has been removed, revealing the concrete slab wall and the disarticulated plastic culvert pipes. Flowing along the hill is water from the rusted grate in the Carty-Miller rear yard, which was temporarily uncovered when the stream pipe was ruptured in 2024. (25 April 2024).



Figure 50: Black well casing between the driveway and south addition.



 $\textit{Figure 51: Section of the former ditch stream from the north property line to the middle \textit{rear yard}.}$ 



Figure 52: Largely deteriorated section of the former ditch stream from the middle rear yard until it disappears in the brush along the trolley bed hill.



Figure 53: Property lines of the Hoke, Rohwein (north of Hoke), Carty-Miller (north of Rohwein), and Sweeney (south of Hoke) properties. The indented path of the former ditch stream through the Hoke property is more clearly visible here. The thin stretch of land taken out of the Hoke property in 1942 can also be seen in proportion to what the property area was before 1942. Image courtesy of Elizabeth Comer.



Figure 54: Ditch stream while it was temporarily active in spring 2024. (25 April 2024).



Figure 55: Active ditch stream where it emerged from beneath the fence in the Rohwein rear yard.



Figure 56: Inundated ground in the Hoke rear yard before any of the excavations or repairs in 2024.



Figure 57: Rusted grate in the Carty-Miller rear yard. (5 March 2023).



Figure 58: Trolley bed hill in the Hoke rear yard post-excavation. The concrete slab wall, waterflow from the rusted grate, disarticulated culvert pipes, and then extant cross are all visible. (25 April 2024).



Figure 59: Concrete intake structure just outside the Hoke and Sweeney properties, showing the channel surrounding and flowing south from it. (25 April 2024).



Figure 60: Photograph of Catoctin Furnace Road facing south. While the Hoke dwelling is not clearly visible, note the vertical board and batten siding on the Carty-Miller dwelling (right), which was the original siding configuration. The fence spanning across the front yard is also the earlier, white-painted wood picket fence that existed in front of most of the village houses at the time. (October 30, 1932).



Figure 61: Section of the original vertical board siding revealed by the excavation, as well as the wood Dutch lap siding covering it. (25 April 2024).



Figure 62: Original second-story horizontal wood board walls seen from within the dwelling. (25 April 2024).



Figure 63: Hand-colored photograph of Catoctin Furnace Road facing north. The Hoke house is in the left foreground, and can be seen with its small frame shed roof west addition and without its south addition. The earlier front porch installed by Phil Miller, the white-painted wood picket fence, and two large trees that were in the front yard are also visible. Furthermore, the original placement of the front door is present in this image (October 30, 1932).



Figure 64: East elevation of the Hoke dwelling, with its earlier all-wood front porch, boxwood shrub front yard hedges, and top portion of the original stone chimney stack all still present, although the chimney was not connected to a fireplace by that time.

(October 1972). Image courtesy of Catoctin Furnace Historical Society, Inc.



Figure 65: Southeast elevation of the living room post-excavation, depicting the original log floor joists and stone foundation, as well as the frame surrounding the front window, which once housed the front door. The bottom step of the staircase is directly against the old doorframe, indicating why the front door was moved. The original stone foundation along the east and southeast sides of the dwelling can also be seen. (25 April 2024).



Figure 66: The Museum of the Ironworker at 12610 Catoctin Furnace Road, another historic worker home in the village that shows the original placement of the front door, as well as the original hand-crimped standing seam tin roof. (25 April 2024).



Figure 67: Interior view of the section of wall where the Smith family installed the gas heating system in 1979. The dwelling's original vertical board over log construction can be seen via the hole in the wall. (25 April 2024).



Figure 68: Exterior view of the hole where the Smith family installed the gas heating system into the north elevation wall in 1979. The hole was cut into the previous wood Dutch lap siding, hidden beneath the modern vinyl siding until the 2024 excavation. The hole provides a view of the dwelling's original vertical board over log construction. (25 April 2024).



Figure 69: Post-excavation image of the stone brick chimney stack and two crates that were concealed behind the second-story bump out. (25 April 2024).



Figure 70: Remains of the chimney stack behind the second-story bump out, supported by wood boards. (25 April 2024).



Figure 71: Crate fragments wedged beneath the chimney stack. The words ""FROM THE G.L. BAKING CO. MANUFACTURERS of FANCY CAKES AND CRACKERS FREDERICK, MARYLAND" can be seen on both crates. (25 April 2024).



Figure 72: Southwest elevation of the original dwelling interior post-excavation from what was once the restroom. Image provides a full view of the stone base of the dwelling's original hearth and chimney, along with the original log and wood board wall and the former cased opening on the south elevation of the dwelling. Also in view are the crawl space entrance and original wood floor joists. (25 April 2024).



Figure 73: Crawl space entrance from within the crawl space, looking into the cellar area. As can be seen, it was difficult to distinguish the stone hearth base (left) from the rest of the stone foundation before excavation. (11 August 2023). Image courtesy of David Bittle.



Figure 74: South elevation of the crawl space, providing a much more direct view of the stone hearth base before excavation. Without being able to look at it from above or the eastern portion of the crawl space, there was little to suggest it was anything other than part of the original foundation. There are also nonoriginal floor supports made of wood boards. (11 August 2023).

Image courtesy of David Bittle.



Figure 75: The Carty-Miller dwelling and front yard, showing the boxwood shrub hedges planted in the front yards of many other properties in Catoctin Furnace at the time. (October 1972). Image courtesy of Catoctin Furnace Historical Society, Inc.



Figure 76: The smaller of the two extant pine trees given to the Smith children, planted next to the fireplace in the Carty-Miller rear yard. (5 March 2023).



Figure 77: The larger of the two extant pine trees given to the Smith children, planted on the slope of the trolley bed hill in the corner boundary between the Rohwein and Carty-Miller properties. The tree's dramatic lean is clearly visible. (5 March 2023).



Figure 78: What appears to be an antique crank and sprocket, possibly for a bicycle, found beside a pile of debris south of the dwelling post-excavation. (25 April 2024).



Figure 79: Heavily rusted hook found a short distance in front of the dwelling. (25 April 2024).



Figure 80: West corner of the original structure's north elevation wall after the vertical wood plank wall (see Figure 27) had been removed, showing the original horizontal log construction and part of the original wood ceiling. The chinking between the logs and the various materials it is composed of are clearly visible. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 81: Close-up of the interior north wall post-excavation, with a more detailed view of the original horizontal logs and the chinking between them. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 82: Wider view of the northwest portion of the original structure, showing more of the floor as well as the horizontal log walls, chinking, and some of the hole in the wall where the gas heating system was installed by the Smith family. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 83: Gap in the horizontal log wall where the gas heating system was installed around the center of the original structure's north elevation. More of the chinking between the logs is also visible, much of which appears to be composed of wood and stones. The north elevation window is also in view to the right. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 84: Northern section of the west elevation interior wall post-excavation, showing the west elevation window, the wooden ceiling and floors, and the horizontal log walls. The chinking in this area of the wall appears to be made from a much more uniform composition of materials than on the north elevation. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 85: Northern section of the east elevation interior wall post-excavation showing the northernmost east elevation window and more of the wooden ceiling, floors, log walls. Like the northern west elevation, the chinking in this area of the wall appears to be made from a more uniform composition of materials. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 86: East elevation interior wall between the northernmost front window and the front door post-excavation. Small planks and blocks of wood can be seen intermittently attached to the original log wall. The chinking around the third highest log appears to have deteriorated or otherwise been stripped away, leaving gaps between the logs above and below it. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 87: East elevation interior wall between the front door and the southernmost front window post-excavation. Much of the original horizontal log construction is obscured by wallpaper. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 88: Southeast corner of the original structure post-excavation, showing the southern front window and newly rebuilt staircase, as well as the plywood covering the original log wall. The original wood in the ceiling is also visible at the top. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 89: View of the spandrel space beneath the staircase, showing more of the new wood making up the rebuilt staircase. Part of the original horizontal log siding can also be seen through the spandrel. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 90: Southwest corner of the original dwelling post-excavation, displaying the covered entrances to the since removed south (left) and west (right) additions, along with the original log walls between them. Once again, the chinking between the logs in this part of the dwelling is much more uniform than that on the north elevation. The wood ceiling can be seen noticeably blackened at the top of the image, quite likely due to charring from the large house fire on 15 December 1979. (10 September 2024). Image courtesy of Elizabeth Comer.



Figure 91: Post-excavation view of the west elevation interior log wall between the entrance to the since removed west elevation and the former bathroom window. (10 September 2024). Image courtesy of Elizabeth Comer.