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United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name Wooten Fallout Shelter
Other names/site number N/A
Name of related multiple property listing N/A
(Remove "N/A" if property is part of a multiple property listing and add name)

2. Location

Street & Number: Lions Gate Drive
City or town: Memphis State: Tennessee County: Shelby
Not For Publication: N/A Vicinity: N/A Zip: 38116

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,
I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

national statewide local

Applicable National Register Criteria: A B C D

Claude K. Stapp 10/8/2019
Signature of certifying official/Title: Deputy State Historic Preservation Officer, Tennessee Historical Commission Date
State or Federal agency/bureau or Tribal Government

In my opinion, the property meets does not meet the National Register criteria.
Signature of Commenting Official: _____ Date _____
Title: _____ State of Federal agency/bureau or Tribal Government

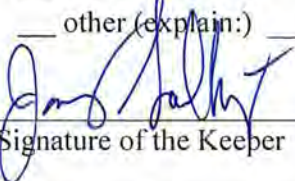
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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:)


 Signature of the Keeper

11.27.2019
 Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private
- Public – Local
- Public – State
- Public – Federal

Category of Property

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1	0	buildings
0	0	sites
0	0	structures
0	0	objects
1	0	Total

Number of contributing resources previously listed in the National Register 0

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6. Function or Use

Historic Functions

(Enter categories from instructions)

OTHER/Fallout Shelter

Current Functions

(Enter categories from instructions)

VACANT/NOT IN USE

7. Description

Architectural Classification

(Enter categories from instructions.)

No Style

Materials: (enter categories from instructions.)

Principal exterior materials of the property: CONCRETE; METAL

Narrative Description

Located in the center of a gated, late 20th century residential subdivision in the Whitehaven area of Memphis, Tennessee, the Wooten Fallout Shelter is a single contributing building comprised of above- and below-ground sections. Above ground is the entrance, shrouded by concrete pyramidal shields, with a secondary escape hatch entrance located nearby. Below ground is the approximately 5,600 square foot reinforced concrete fallout shelter. Built between 1961 and 1963 to accommodate up to sixty-five people in the event of nuclear war, the fallout shelter includes a large recreation room, women's and men's dormitories and restrooms, a radio communications room, an industrial kitchen, morgue, and storage spaces. The property retains its historic integrity.

Setting

The Wooten Fallout Shelter is located on a small parcel of land in a gated low-density residential subdivision. Northwest of the fallout shelter is the Wooten residence, a 1939 Spanish Colonial Revival mansion.¹ Between the residence and shelter, partially within the nomination boundaries, is a non-historic

¹ The Tennessee Historical Commission (SHPO) has determined that the Wooten Residence is eligible for listing in the National Register under Criterion C for its architectural significance and Criterion B for its association with Hoyt Wooten, a significant person in the communications history of Memphis as the founder of WREC radio, the region's first full-time radio station. The Wooten House and Wooten Fallout Shelter are each significant under different Criteria and Areas of Significance with different

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asphalt tennis court, surrounded by a non-historic chain-link fence. The shelter's escape hatch is located in the center of the court. The Wooten residence is the only other still-extant building that was historically located in the fallout shelter's setting.² In the 1980s and 1990s, a developer subdivided the Wooten property and created a residential subdivision of single-family homes and duplexes. Beyond the immediate gated subdivision is the Whitehaven area of south Memphis, which developed as a residential suburb during the latter half of the 20th century. Whitehaven is currently predominantly comprised of African American residents.

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Above-Ground Sections

The above-ground sections of the fallout shelter include its pyramidal concrete shields and metal escape hatch. The pyramidal shields are arranged in three parts on a north-south axis (see Top Right Inset on Figure 1). The central section is elongated to house the recessed main shelter entrance on the south end and mechanical systems on the north end, also in a recessed area. Lightly rusted steel bars and doors fill the openings of the recessed areas to limit access and provide security. The main entrance door is steel with a small square frosted window. A light socket is located above the door.



Figure 1: Postcard of the Wooten Fallout Shelter, ca. 1965, courtesy of Special Collections Department, University Libraries, University of Memphis

Periods of Significance. The Wooten Residence is therefore excluded from this nomination to allow for a narrow focus on the importance of the fallout shelter during the Cold War era.

² Figure 1 indicates the presence of a small outbuilding near the Fallout Shelter. That building is no longer extant.

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Historically a radio tower containing multiple antennae for separate radio communication systems extended up about 80 feet from the center of the ridgeline of the central elongated section (see top right inset of Figure 1). The base of this tower remains but the rest is no longer extant. A small antenna is attached to the tower base, which may have been an original antenna referenced by Wooten as being built into the concrete itself as a backup in case the tower and other antennae were destroyed.³

Approximately seventy feet to the west of the pyramidal shields is the escape hatch, which consists of a steel escape tube that extends about a foot above-grade and is covered by a steel lid slightly larger than the tube to accommodate a steel hinge. The interior of the tube has steel hand and foot rails. The escape tube leads downwards to the western wall of the below-ground shelter. Originally the hatch was hidden in a flower bed to maintain security but still allow for a secondary egress.⁴ The hatch is now in the middle of a non-historic asphalt tennis court enclosed by a non-historic chain-link fence.

Below-Ground Section

The majority of the Wooten Fallout Shelter is below ground. The floor of the shelter is approximately twenty feet below ground with approximately four feet of earth above the shelter's roof. The below-ground structure is made of reinforced concrete with twelve-inch-thick walls, floors, and ceilings.⁵

Staircase and Landing

The main entrance to the below-ground section of the fallout shelter is located on the south end of the central pyramidal shield. An enclosed concrete staircase with a metal handrail descends about eighteen steps before making a dogleg turn and descending four more steps. At the bottom landing is a small space with painted concrete floors, walls, and ceiling. There are two steel doors, one opposite the staircase on the south wall and one on the west wall. The south door has four series of vents, while the west door has a single square window.

Decontamination Room and Morgue

The landing's south door opens into a small storage space. It is finished similarly to the stairwell landing. A thick steel door on the east wall opens into another storage space below the entrance stairs. This space was built to serve as a decontamination room, equipped with an extant shower to allow people to wash off any fallout and remove contaminated clothing to prevent infiltration of fallout into the main shelter space. This space was also intended to serve as a morgue, if necessary, so Wooten designed the air conditioning system to keep this space between thirty-five and forty degrees.⁶

Recreation Room

The west door in the landing opens into the large rectangular recreation room of the main shelter space. The walls are finished in a mixture of original wood paneling and painted concrete walls. Historically, bookcases were placed where the wall material changed to help create the feel of different rooms (see Figures 1 and 2). The south walls have two original painted landscape scenes which are bordered by original faux wood shutters, intended to mimic the appearance of exterior windows. The ceiling is painted concrete, as it was originally, with two original soffits that run the width of room containing HVAC ducts. Non-original ceiling

³ Louise Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963.

⁴ William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969.

⁵ William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969.

⁶ Louise Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963; William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969; "Bomb Shelter Boyhood Idea," *Commercial Appeal*, March 31, 1963.

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fans and light fixtures hang from the soffits. The floor is covered by non-original tile, which runs throughout the shelter. Historical photos indicate that the original floor in the recreation room was wood parquet (see Figures 1 and 2).



Figure 2: Recreation Room, ca. 1963.

Courtesy of Special Collections Department, University Libraries, University of Memphis

Centered on the west wall of the recreation room is a metal door that leads to the escape hatch. This door is original but historically was hidden behind a television screen and curtains.⁷ On the north wall of the recreation room, at the western edge, is a wood door leading to the control room. Further to the east, about halfway down the recreation room's north wall, is an open doorway leading to the kitchen. On either side of the kitchen doorway are original built-in pool cue racks. Centered on the south wall are two wood doors that lead to the women's and men's dormitories, which each consist of a lounge area, restroom, and sleeping quarters. An original water fountain is between the doors. The women's and men's dormitories are generally mirror images of each other.

⁷ "Bomb Shelter Boyhood Idea," Commercial Appeal, March 31, 1963.

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Women's Dormitories

The first space from the recreation room is the lounge area. There is a small closet at the entrance, which helps to provide privacy from the view of the recreation room. The lounge area is a small rectangular room. Walls are painted concrete. Historically there was wall paper on at least one wall. Floors are non-historic tile; they were originally wood parquet. There is an original vanity and original additional mirrors on the south wall. Light fixtures are original (see Figure 3).



Figure 3: Women's Lounge, 1963. From *The Commercial Appeal*, March 31, 1963

On the south wall of the lounge is a wood door leading to the women's restroom. The floors and walls are clad in tiles that appear to be original. The restroom features original decorative glass privacy screens with yellow paint streaks and leaf images. Along the east wall is a double-vanity with wood cabinets and tiled

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counter tops. Adjacent to the south are two restroom stalls. Adjacent, along the south wall, is a shower stall and bathtub.

A wood doorway on the east wall of the women's lounge leads to the women's sleeping quarters. This is a large rectangular room that historically held metal lockers and fourteen metal bunkbeds to house twenty-eight people. Some of the lockers are extant. Walls are concrete. The quarters were historically decorated in a pink color scheme. Walls are currently painted beige. The floor is currently tile. It was historically tile but of a different type and appearance than current (see Figure 4 for a historic photo of the Men's Sleeping Quarters which had the same appearance). Privacy screens near the south and west end historically allowed the room to be broken up into three rooms. One set of screens is extant in the women's sleeping quarters. Soffits on the ceiling (containing HVAC ducts) give the ceiling a coffered appearance.⁸



Figure 4: Hoyt Wooten in the Men's Sleeping Quarters, ca. 1963. Photo Courtesy of Special Collections Department, University Libraries, University of Memphis

⁸ William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969; "Luxury in Bomb Shelter," *Dayton Daily News*, September 8, 1963.

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Men's Dormitories

The men's lounge is generally a mirror image of the women's lounge except for different decorative finishes. The walls are clad in original wood paneling and wainscoting on all walls except the west. The west wall is painted concrete with wainscoting; the painted portion was originally covered by wallpaper (see Figure 5). An original large mirror with original light fixtures above is on the east wall. Original light fixtures and decorative wall figurines of a horse and rooster are on the west and east walls. HVAC vents are near the ceiling on the west and south walls.



Figure 5: Men's Lounge. Photo taken April 1, 1963 by Bill Hudson of the Associated Press. Courtesy of the Associated Press.

The men's restroom is a mirror image of the women's restroom. It has the same cladding and decorative features as the women's restroom with the exception of a slightly different design on the privacy screens. The men's screens are frosted with glitter and images of leaves and butterflies.

The men's sleeping quarters are a mirror image of the women's, but it has no intact privacy screens. The men's sleeping quarters has been damaged by water, which has resulted in peeling paint on the walls and damage to the tile floor. The quarters were historically decorated in a blue color scheme, but walls are currently painted beige like the women's sleeping quarters (see Figure 4 for a historic photo of the Men's sleeping quarters).⁹

⁹ "Luxury in Bomb Shelter," *Dayton Daily News*, September 8, 1963.

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Radio Control Room

The radio control room has non-original tile floors, a drop ceiling, original ceiling light fixtures, and original wood paneling on the walls. Much of the tile and paneling has been damaged by water. On the north wall is an original built-in desk that spans the width of the room. Above the desk are two sets of original modular cabinets. Centered on the wall, between the cabinets, is an original configuration of multiple clocks, showing the time in various cities around the world. The clocks are arranged around a circular image of a world map. Below the clocks is an original panel related to the shelter's generators. Originally, the room housed other equipment for radio communications, mechanical systems, and electrical generators, but this equipment is not extant (see Figure 6). On the south wall, on either side of the doorway, are storage closets. On the east wall is another original permanent desk. Above the desk is a map of the United States, also original to the shelter's construction date.



Figure 6: Radio Control Room. Photo taken April 1, 1963 by Bill Hudson of the Associated Press. Courtesy of the Associated Press.

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Kitchen

The kitchen is accessed via a doorway on the north wall of the recreation room. The kitchen has a non-original tile floor and a drop ceiling. Original modular Geneva steel cabinets with metal pull handles and countertops cover the majority of the south, west, and north walls. Also on the south wall is an original stainless-steel industrial stovetop and oven. Adjacent, to the east, is a countertop that projects northward into the middle of the room and provided seating below a cabinet with glass windows. Centered on the west wall, between the cabinets, is an original faux window with decorative patterns of falling leaves and faux muntins. The window can be backlit to create the illusion of an exterior window. The backlight was intended to mimic the color of a sunset. Below the window is an original large triple basin metal sink with original faucet. On the north wall is a large industrial refrigerator. An empty space next to the refrigerator indicates that some equipment is no longer extant, possibly more refrigeration units. Adjacent is a countertop that extends southward towards the center of the room. On the northern edge of the west wall is a built-in table that extends into the center of the room. Above the table is a framed mirror. On the east wall are additional cabinets and a door to storage/utility rooms.



Figure 7: Kitchen in the Wooten Fallout Shelter, 1963.
Photo from *The Nashville Tennessean Magazine*, October 6, 1963

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Storage/Utility Room #1

Two storage/utility rooms are located east of the kitchen. Storage Room #1, accessed from the kitchen, has concrete walls, floors, and ceiling. This room includes the shelter's water tanks, water heater, storage shelves, and panels for the shelter's electrical and generator systems. On the east wall is a door to Storage/Utility Room #2

Storage/Utility Room #2

Storage Room #2 features an electrical panel on the east wall, flanked by storage cabinets. This room likely held additional equipment but it is no longer extant. The walls are covered by cloth in an accordion pattern, part of the noise dampening system Wooten designed to muffle the noise of the shelter's two generators and water pumps. This room has experienced extensive water damage.

Integrity

The Wooten Fallout Shelter has overall good integrity. It remains in the same location as where it was constructed from 1961 to 1963. The fallout shelter retains the majority of its integrity of design, workmanship, and materials as shown by its intact characteristic above-ground concrete pyramidal shields, metal escape hatch, and below-ground concrete structure, layout, and original design details throughout. The shelter maintains its association with its historical and engineering significance as exemplified by its design. Its sense of feeling as a private Cold War era nuclear fallout shelter is also intact.

The only aspect of integrity that has changed significantly is setting. Historically the fallout shelter was set on the Wooten family's approximate forty-acre estate and was neighbored by the Wooten's large two-story residence. After Hoyt Wooten's death in 1969, the property was sold to developers who constructed a gated community of single-family residences and duplexes around the shelter and Wooten residence. The escape hatch, originally hidden in a flower bed, is now in the middle of a surface tennis court that is enclosed by a chain-link fence. Alongside the fallout shelter is a surface parking lot, which was constructed in the 1960s (as indicated by its presence in Figure 1), but it is unclear whether it was present during the Period of Significance. Beyond the community gates, the Whitehaven area of south Memphis has developed with low-density residential and commercial development. While the setting has changed, this should not be considered a significant detraction to the overall integrity of the shelter because it has not affected the shelter's design or ability to convey its significance, primarily because its most significant features are below-ground and therefore independent of the above-ground setting. The design of above-ground features (pyramidal shields and escape hatch) has not been affected by the changed setting.

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8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)
Property is:

N/A

- A Owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
less than 50 years old or achieving
- G significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

Social History

Engineering

Period of Significance

1961-1963

Significant Dates

1963

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Wooten, Hoyt (engineer/designer)

Van Powell, William Nowland (interior designer)

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Statement of Significance Summary Paragraph

The Wooten Fallout Shelter is locally significant under Criterion A in the area of Social History as a physical representation of the social fears and responses to the threat of nuclear war during the Cold War era. The shelter is also locally significant under Criterion C in the area of Engineering. While designing a private shelter for his family and friends, Hoyt Wooten utilized many of the fallout shelter design techniques recommended by the United States government to calm fears and theoretically maximize the chances of civilian survival in the event of nuclear war. These techniques included construction underground, use of reinforced concrete for the entire structure, as well as independent and redundant electrical generation, air ventilation systems, and radio communications systems. Decorative finishes were deliberately chosen to psychologically calm fears and encourage occupants to stay underground until the danger of fallout had ended. The shelter's physical design therefore serves as an excellent example of fallout shelter design, albeit at an unusual scale for a privately built and owned shelter. The period of significance is 1961-1963, the dates of the fallout shelter's construction which encompasses all areas of significance. The Wooten Fallout Shelter retains its overall integrity.

Narrative Statement of Significance

Historical Significance

Built during the height of the Cold War amid national discussions over civil preparedness, the Wooten Fallout Shelter is significant under Criterion A in the area of Social History as physical evidence of the social response to the threat of nuclear war during the Cold War era. Although some people advocated for publicly funded bomb and fallout shelters, the idea of privately funded and built shelters became a dominant idea in the national discourse of civil preparedness. The United States government encouraged all families to build their own shelters in available spaces in backyards, basements, or interior rooms of the house, but few people actually had the financial and material means to follow through. Among those few was Hoyt Wooten, whose abnormally large and well-equipped shelter made headline news across the United States and even in the Soviet Union. The Wooten Fallout Shelter stands as a physical reminder of the broad social pattern of civil preparedness during the Cold War era and the lengths to which people went to ensure their survival in the event of nuclear war.

Historic Context: Nuclear Weapons, the Cold War, and Civil Defense

Although the United States and the Soviet Union were allies during World War II, their partnership was a convenient arrangement against a common enemy rather than a true alliance. Wartime tensions continued after the war's end as each country's ideological visions for the post-war world clashed, resulting in competition for spheres of influence throughout the remainder of the twentieth century, particularly in Asia and Eastern Europe.

These tensions were complicated by the development of nuclear weapons. In 1938 German scientists Otto Hahn and Fritz Strassman discovered nuclear fission, the process of using neutrons to bombard the atoms of an element such as uranium, which would split the atom's nucleus and release energy. Scientists theorized that a sustained nuclear fission reaction could result in multiple splits and therefore a larger release of energy. Some quickly realized the process could be harnessed to create atomic weapons. In August 1939, physicists Albert Einstein and Leo Szilard wrote to United States President Franklin D. Roosevelt warning

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him that Germany could develop atomic weapons. In response, Roosevelt created a committee to research the possibility.¹⁰

Meanwhile, atomic research continued across the world. On December 2, 1942, a research team at the University of Chicago achieved the world's first self-sustaining nuclear fission chain reaction at Chicago-Pile 1 (NHL 2/18/1965; NR 10/15/1966), proving the feasibility of the process and providing further evidence of the possibility of harnessing nuclear energy for weaponry. The same year, the United States government secretly began the Manhattan Project to research and create atomic weapons. The project eventually included multiple sites across the United States. Chief among them were the sites at Oak Ridge, Tennessee, which housed uranium enrichment plants and the X-10 Graphite Reactor (NHL 12/21/1965; NR 10/16/1966); Hanford, Washington, which housed the B Reactor (NHL 8/19/2008; NR 4/3/1992) and other plutonium production plants; and the Los Alamos Scientific Laboratory in New Mexico (NHL 12/21/1965; NR 10/15/1966) where research and bomb production occurred.¹¹

Over the next three years, approximately 600,000 people across the country worked in secret at these sites to create the world's first atomic weapons. On July 16, 1945, the world's first plutonium bomb was successfully tested at the Trinity site in New Mexico (NHL 12/21/1965; NR 10/15/1966). Less than a month later, the United States dropped a uranium bomb on Hiroshima, Japan followed three days later by a plutonium bomb on Nagasaki, Japan. Thousands of people died during the initial blast, and tens of thousands more died in the following months and years as a result of radiation exposure and radiation related cancers. In the immediate aftermath the bomb drops led to Japan's surrender and the end of World War II.¹²

The United States initially enjoyed nuclear superiority in the post-war world, but that ended in 1949 when the Soviet Union conducted its first successful nuclear bomb test. The possibility of nuclear war became a reality as the United States and Soviet Union began to use the threat of nuclear annihilation as a tactic in their geopolitical struggle for international superiority. Their struggle came to be known as the Cold War, which continued until the dissolution of the Soviet Union in 1991.

Most Americans experienced the Cold War in the context of fear and uncertainty. The threat of nuclear war with the Soviet Union was always present, resulting in the development of federal civil preparedness policy that sought to give Americans a feeling that they could take steps to survive a nuclear war. This effort turned

¹⁰ "The Manhattan Project," Atomic Heritage Foundation, accessed July 9, 2019, <https://www.atomicheritage.org/history/manhattan-project>.

¹¹ "The Manhattan Project," Atomic Heritage Foundation, accessed July 9, 2019, <https://www.atomicheritage.org/history/manhattan-project>; National Register of Historic Places, First Self-Sustaining Nuclear Reaction Site, Chicago, Cook County, Illinois, National Register #66000314; National Register of Historic Places, X-10 Reactor, Oak Ridge National Laboratory, Oak Ridge, Roane County, Tennessee, National Register #66000720; National Register of Historic Places, Hanford B Reactor, Richland, Benton County, Washington, National Register #92000245; National Register of Historic Places, Los Alamos Scientific Laboratory, Los Alamos, Los Alamos County, New Mexico, National Register #66000893. In addition to the X-10 Graphite Reactor, other important sites at Oak Ridge include the K-25 diffusion plant (non-extant) and Y-12 which included Alpha and Beta Calutron (extant as of 2019). All of these sites were also significant in the creation of atomic weapons. Y-12 retains some sites that the Tennessee Historical Commission (SHPO) has determined eligible.

¹² "The Manhattan Project," Atomic Heritage Foundation, accessed July 9, 2019, <https://www.atomicheritage.org/history/manhattan-project>; National Register of Historic Places, Trinity Site, White Sands Missile Range, Socorro County, New Mexico, National Register #66000493.

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into an “unprecedented national project as federal authorities sought simultaneously to mobilize and naturalize nuclear crisis within the United States.”¹³ Essentially, the federal government educated citizens on the dangers of nuclear war but also assured them that they could take steps to maximize their chances of survival, just the same as if they were taking steps to survive a natural disaster like a flood or earthquake.

Initially policy makers were concerned with maximizing citizen survival of initial bomb blasts. Planning decisions were influenced by the assumption that dense urban areas would be prime targets. Therefore, many of the initial planning during the 1950s focused on dispersing urban populations through suburban development, developing evacuation routes for urban populations, and exploring methods to maximize blast survival in the target areas. One such survival proposal was the creation of federally funded public bomb shelters. However, the expense estimates of \$20 billion to \$240 billion were too expensive, and Congress never appropriated any funds for public bomb shelters.¹⁴

As nuclear weapons became more powerful and destructive throughout the 1950s, it became apparent that any attempt by average citizens to survive a direct blast was futile. Therefore, in the early 1960s, federal civil defense efforts shifted efforts to maximize survival in the aftermath of the blast. Unlike in conventional weapons where survival of the initial blast is the main concern, nuclear weapons are intrinsically different due to the release of radiation which could render a site uninhabitable for years, depending on the level of radiation produced by the blast. The aftermath of the bombings of Hiroshima and Nagasaki provided real-world examples of how long the effects of radiation exposure could last as people continued to be affected by radiation long after the blast, often resulting in death from radiation sickness or cancer months or years later.

Nuclear blasts also produce nuclear fallout, or debris such as dust particles contaminated by radiation. It was believed that fallout would only be dangerous for a few days to a few weeks after the blast due to radioactive decay. However, fallout could be shifted by weather patterns far beyond the initial target, extending the geographical possibility of dangerous exposure. Government publications therefore typically recommended that people be prepared to shelter for at least two weeks after an atomic attack.¹⁵

While there was widespread consensus that Americans should prepare for the possibility of nuclear war and its deadly fallout, there was little agreement on the best strategy. Of particular debate was who should pay for the preparation. On one side of the spectrum were people who advocated for publicly funded preparations, including public bomb and fallout shelters. However, others criticized this approach as too expensive, impractical, or immoral. Others viewed them as communistic and therefore too closely associated with ideologies seen in the Soviet Union.¹⁶

¹³ Joseph Masco, “Life Underground: Building the Bunker Society,” *Anthropology Now: Special Atomic Issue* 1, no. 2 (September 2009): 20.

¹⁴ David Monteyne, *Fallout Shelter: Designing for Civil Defense in the Cold War* (Minneapolis: University of Minnesota Press, 2011), 1-34; Kenneth D. Rose, *One Nation Underground: The Fallout Shelter in American Culture* (New York: New York University Press, 2001), 22-35.

¹⁵ Sarah A. Lichtman, “Do-It-Yourself Security: Safety, Gender, and the Home Fallout Shelter in Cold War America,” *Journal of Design History* 19, no. 1 (Spring 2006): 45.

¹⁶ Monteyne, *Fallout Shelter*, 42, 130-137; Rose, *One Nation Underground*, 145-146, 271.

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To address the funding problem associated with new shelter construction, the federal government encouraged architects and builders to incorporate fallout shelter techniques into structures that they were already building for other purposes, such as apartments, office buildings, hospitals, and schools. Beginning in 1961, the federal government also funded surveys in cities across the country to determine which existing buildings could be used as fallout shelters. Per federal guidelines, the surveys targeted buildings with basements, masonry construction, and buildings with interior spaces that did not touch exterior walls. Earth and masonry construction were thought to be the best physical barriers between human beings and fallout, while interior rooms were thought to perform a similar function of minimizing contact between human beings inside and fallout outside. Any building determined to meet a minimum Protection Factor (PF) was marked with a yellow and black Fallout Shelter sign (see Figure 8). The minimum PF Factor decreased over the years, particularly in response to events that made nuclear war appear imminent. For example, the minimum Protection Factor was initially PF100. However, during the Cuban Missile Crisis it was lowered to PF40 to quickly increase the nation's fallout shelter capacity.¹⁷



Figure 8: Fallout Shelter Sign.
Image from
civildefensemuseum.com/signs/

In Memphis, Tennessee, more than 300 buildings were eventually designated as civil defense shelters. They included such buildings as the Federal Office Building (see Figure 9), the Shelby County Courthouse (NR 11/25/1980 in Adams Avenue Historic District), private commercial buildings, masonry apartment buildings, warehouses, schools, hotels, and hospitals. While these community-oriented approaches ultimately were pursued across the country, they tended to take longer. For instance, the Memphis and Shelby County Civil Defense Agency did not publish a report identifying Community Shelters until November 1968, seven years after the national fallout survey program began and about two decades after the initial calls for nuclear warfare civil preparedness.¹⁸

On the other side of the civil defense spectrum were those who advocated for private home preparation. Responsibility and expense thus fell to individuals, though the government provided extensive advice through printed publications and films. Private home sheltering was even recommended in conjunction with public shelters. For instance, the Memphis 1968 Community Shelters plan identified public shelters in dense urban areas but did not identify shelters in low density residential areas. The pamphlet instead recommended the creation of home shelters in basements or interior rooms for those areas.¹⁹

¹⁷ Monteyne, *Fallout Shelter*, 35-75; Office of Civil Defense, *Fallout Protection: What to Know and Do About Nuclear Attack* (Washington, D.C.: Department of Defense, 1961), 17.

¹⁸ "In Case of Emergency," *The Commercial Appeal*, February 12, 1975; "Courthouse Tagged," *The Commercial Appeal*, November 6, 1962; Memphis and Shelby County Planning Commission, *Community Shelter Plan: Shelby County Tennessee* (Memphis, TN: Memphis and Shelby County Civil Defense Agency, 1968).

¹⁹ Memphis and Shelby County Planning Commission, *Community Shelter Plan: Shelby County Tennessee* (Memphis, TN: Memphis and Shelby County Civil Defense Agency, 1968).

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Throughout the 1960s, one of the federal government's primary focuses for civil defense was on private home preparation. Private publications such as *Good Housekeeping* and *Life* magazine aided the effort by printing cover story praise and plans for fallout shelters alongside encouraging messages from President John F. Kennedy. Manufacturing and construction companies also attempted to encourage fallout shelters by boasting of their economically priced pre-fabricated shelters, displaying them at shopping centers to easily reach consumers.²⁰



Figure 9: Civil Defense Supplies in the Basement of the Federal Office Building in Memphis, 1975.
From *The Commercial Appeal*, February 12, 1975.

Most Americans were aware of the government's efforts to encourage construction of home shelters and actively debated the idea within the home and in public. However, relatively few families actually built their own private fallout shelters. Though government home shelter publications stated that their fallout shelter plans could cost as little as \$75, most experts agreed that even a basic shelter would cost around \$2,500. At a time when the median family income was about \$5,300, most Americans simply did not have enough access

²⁰ Rose, *One Nation Underground*, 81, 102, 146, 186-191.

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to resources or finances to build their own shelters. Others viewed construction of shelters as a morbid affair that brought the possibility of death uncomfortably close to home, which did little to entice them to spend the effort and money constructing their own shelter. By 1965, only an estimated 200,000 family shelters were believed to have been constructed nationwide. Most were constructed by wealthier families who owned their own homes. While bomb and fallout shelters are the best physical representation of the social fears and responses to the threat of nuclear annihilation during the Cold War, purpose-built private fallout shelters are relatively rare, and fewer still survive to the present day.²¹

One such rare example of a purpose-built private fallout shelter is the Wooten Fallout Shelter, designed and built by radio executive Hoyt Wooten. Built between 1961 and 1963 during the height of national discussions of civil preparedness, at a cost of an estimated \$150,000 to \$200,000, the shelter is an abnormally large private shelter, meant to go beyond the typical bounds of protecting a single family.²²

Hoyt Wooten

Born in Mississippi in 1893, Hoyt Wooten founded the state's first commercial radio station, KFNG, which began broadcasting from the Coldwater home of Wooten's father on September 22, 1922. Wooten had previously earned a degree in electrical engineering, and his radio venture quickly allowed him to become proficient in sound engineering as well. In 1925 Wooten opened a retail radio shop in the lobby of the Hotel Peabody (NR 9/14/1977) in Memphis. The following year, Wooten moved KFNG to the Whitehaven area south of Memphis and it was renamed WREC radio station. By 1929, WREC had moved to the basement of Hotel Peabody where it was able to increase its power and transmitting range. The range continued to increase over the years as the station built additional transmitters around the Memphis area.²³

In 1938, as WREC enjoyed increasing success, Wooten purchased twenty-seven acres of land in the Whitehaven area south of Memphis. He immediately began construction on a large, elaborate Spanish Colonial Revival style residence.²⁴ Wooten later bought more land, bringing the estate up to about forty acres. In 1956, WREC expanded to television and began regular programming on Channel 3. On December 31, 1962 it was announced that Wooten had sold WREC for \$8 million to Cowles Communication, Inc. Wooten served as the Chairman of the board of Cowles Broadcasting Service until his death in 1969.²⁵

²¹ *Family Shelter Designs*, Department of Defense (Washington, D.C.: Office of Civil Defense, 1962); Rose, *One Nation Underground*, 10, 186-213; Gene N. Levine and John Modell, "American Public Opinion and the Fallout-Shelter Issue," *The Public Opinion Quarterly* 29, no. 2 (Summer 1965): 270-279.

²² Louise Davis, "How to Survive in Very High School," *The Nashville Tennessean Magazine*, October 6, 1963; *Sign-On: The First 50 Years of WREC Radio* (Memphis, TN: [s.n.], 1972), 42.

²³ *Sign-On: The First 50 Years of WREC Radio* (Memphis, TN: [s.n.], 1972), 9.

²⁴ "Suburban Home Planned by Hoyt B. Wooten," *The Commercial Appeal*, May 1, 1938. The Tennessee Historical Commission (SHPO) has determined that the Wooten House is eligible under Criterion C in the area of Architecture and under Criterion B for its association with Hoyt Wooten. While the Wooten House and Wooten Fallout Shelter were historically associated, they are each significant under different Criteria and Areas of Significance with different Periods of Significance. The house is therefore excluded from this nomination to allow for a narrow focus on the importance of the fallout shelter during the Cold War era.

²⁵ *Sign-On: The First 50 Years of WREC Radio* (Memphis, TN: [s.n.], 1972); Louise Davis, "How to Survive in Very High School," *The Nashville Tennessean Magazine*, October 6, 1963; "Main Feature," *The Commercial Appeal*, February 13, 1975.

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Construction of the Wooten Fallout Shelter

According to Wooten, the idea of building a house underground was a boyhood dream. However, the impetus of the Cold War and threat of nuclear war brought justification to follow through and construct a private fallout shelter. Wooten personally designed his shelter, often working out engineering problems himself, but clearly following advice distributed by federal civil defense authorities. He was aided by his friend and estate manager, Smith Howell. The twelve-inch-thick concrete floors and walls were poured first before equipment for electric generation and communications were lowered in by crane precisely level to match floor fastenings (see Figure 10). To ensure levelness, Wooten reportedly designed a self-leveling hoist bar. He also designed a system that vented plumbing fixtures as well as fumes from the Diesel generators through the same openings. Among his other personally designed elements were the seven-and-half watt lightbulbs that lit the shelter.²⁶



Figure 10: Construction of the Wooten Fallout Shelter and Installation of Generators, ca. 1962. Source: Vance Lauderdale, "Rare Photo: Wooten Bomb Shelter Being Constructed," *Memphis Magazine*, <https://memphismagazine.com/ask-vance/rare-photo-wooten-bomb-shelter-being-constructed/>.

²⁶ "Bomb Shelter Boyhood Idea," *The Commercial Appeal*, March 31, 1963; William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969; Brenda Street, "Their Wedding Reception in Fallout Shelter," *Press-Scimitar*, June 3, 1965.

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Wooten designed the shelter to withstand a twenty-megaton blast eight miles away (the approximate distance between his estate and downtown Memphis which was believed to be a potential target for attack). A twenty-megaton blast is roughly equivalent to 1,000 times the power of the bomb dropped on Hiroshima, indicating the quick escalation of the power and threat of nuclear weapons. While Wooten designed it to withstand a nuclear blast, the shelter was not meant to be a bomb shelter but rather was engineered as a fallout shelter to house the Wooten family and friends for thirty-one days until the danger of radiation from fallout had passed. If somebody arrived to the shelter after being exposed to fallout, Wooten designed a separate decontamination shower area from the main shelter and provided a morgue in that same area due to the possibility that latecomers exposed to radiation fallout would die.²⁷

Wooten designed the fallout shelter large enough to accommodate between fifty-six and sixty-five people for at least thirty-one days. Among those selected to enter the shelter in case of nuclear war were his immediate and extended family, his estate manager's family, servants and their families, three electrical engineers and families, and other unnamed people.²⁸

The interior of the fallout shelter was designed by William Nowland Van Powell, a Memphis area artist, architect, and interior decorator. Van Powell designed multiple buildings for the Greyhound Bus Lines Company. Among his known works are the Greyhound Bus Station in Jackson, TN (NR 2/11/1993); the Greyhound Half-Way House in Waverly, TN (NR 12/17/1999); and the Blytheville Greyhound Bus Station in Blytheville, AR (NR 8/17/1987), all of which exemplify the Streamline Moderne style of architecture. He was also the architect of the Art Deco-style Farnsworth Building in Memphis (NR 5/7/1980 in Gayoso-Peabody Historic District).

Beyond the selection of furniture, Van Powell painted landscape scenes on the walls of the shelter, bordered by shutters to mimic the appearance of exterior windows and create the illusion of an above-ground structure. Similarly, the glass decorative panel above the sink in the kitchen could be backlit to create the illusion of an exterior window. Other decorative finishes were also deliberately picked to comfort the occupants, such as the prolific use of mirrors and pink color schemes in spaces meant to be used by women, such as the Women's Dormitories and Kitchen. The shelter was also furnished with a wide assortment of entertainment pieces, including a billiards table, ping pong table, books, television, and record player.²⁹

Shortly after construction was complete, news of Wooten's fallout shelter spread across the country and internationally. Reportedly, the Soviet Union's official government newspaper *Izvestia* published a front-page story about the shelter, calling it "the atomic fortress of Hoyt Wooten" and theorizing that the U.S. Government would use Wooten's extensive radio communications to broadcast war propaganda.³⁰ While the federal government never used the shelter, multiple officials were impressed by the shelter's extensive

²⁷ "Bomb Shelter Boyhood Idea," *Commercial Appeal*, March 31, 1963; William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969

²⁸ Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963.

²⁹ "Bomb Shelter Boyhood Idea," *Commercial Appeal*, March 31, 1963; Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963; William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969

³⁰ Don McLeod, "Wooten Has Luxury Fallout Shelter," *The Clarksville Leaf Chronicle*, April 4, 1963.

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design. For example, Federal Communications Commissioner Robert T. Bartley described it as the “best engineered, most elaborate private shelter” in the nation.³¹

Since the United States and the Soviet Union never engaged in nuclear war, the shelter was never used for its intended purpose, but it still stands as physical evidence of the social fears and responses to the threat of nuclear war during the Cold War era. The Wooten family used the shelter as a secondary living space, particularly for parties and public tours for journalists, policy makers, and members of the community.³² The federal government actively encouraged families to use their private fallout shelters for recreation purposes or as additional living space as part of efforts to normalize the shelter and justify the expense.³³ Thus, the Wooten family’s usage of the shelter for recreation further represents the social aspects of how fallout shelters represent the broad patterns of civil defense during the 20th century.

Engineering Significance

The Wooten Fallout Shelter is significant under Criterion C in the area of Engineering because it exhibits several key characteristics of fallout shelter design and engineering during the Cold War. Recommendations for the design of fallout shelters were guided by government testing of home materials during bomb testing. Single-family homes of various types were situated at various distances from ground zero of the blast, and civil defense officials studied the resulting destruction to theorize which materials, designs, and distance from ground zero were optimal to maximize chances of civilian survival. Though multi-family or commercial buildings were not tested, the results of the testing on the single-family homes guided the assumptions that government officials used to make engineering and design recommendations for new fallout shelter construction as well as the designation of existing buildings as public shelters.³⁴

One of the main recommended design and engineering characteristics was to use at least twenty-five inches of earth as shielding. In other words, underground shelters were thought to have the most protection against radiation fallout. The next most protective material was concrete, optimally constructed eighteen inches thick to provide as much shielding as possible. Both earth and concrete were believed to only admit one percent of outside radiation. A brick veneer wall was believed to admit fifty percent of radiation, followed by wood sheathing at sixty-six percent and glass at ninety-nine percent.³⁵ While the scientific basis for these recommendations was not necessarily based on extensive testing and therefore have since been questioned, these conclusions are important to keep in mind because they guided federal planning and the recommendations that were then dispersed to the public for use in private home shelter construction during the Cold War.

The Wooten Fallout Shelter represents several of these recommendations. The bottom of the shelter is approximately twenty feet underground with approximately four feet of earth above its roof, thicker than the recommended minimum. The actual shelter is constructed of reinforced concrete twelve inches thick.³⁶ The

³¹ Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

³² Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

³³ Masco, “Life Underground: Building the Bunker Society,” *Anthropology Now: Special Atomic Issue* 1, no. 2 (September 2009): 21-22.

³⁴ Monteyne, *Fallout Shelter*, 26-34.

³⁵ Monteyne, *Fallout Shelter*, 49.

³⁶ William Thomas, “For a Really Good Party, The Air Conditioner Blows Chanel No. 5,” *The Commercial Appeal*, June 22, 1969

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combination of earth and concrete would have exceeded minimum recommendations to maximize survival. Above ground Wooten designed the concrete pyramidal structures to act like shields to reflect fallout radiation and shroud the entrance.³⁷ Even his choice to coat the shields in bright white paint reflects engineering decisions to maximize survivability. As early as 1954 national paint lobbying organizations produced and distributed civil defense films that promoted the abilities of white paint to reflect heat, even from “a searing atomic heat wave.”³⁸ In reality, no amount of white paint can withstand the force of an atomic blast nor protect against the dangerous qualities of fallout, but this recommendation was still a pervasive mid-century design recommendation engineered to maximize survival during and after a nuclear attack. Therefore, Wooten’s use of white paint on the above ground shields further represents the shelter’s significance representing the key design and engineering qualities of fallout shelter design during the Cold War.

The underground shelter was supported by extensive mechanical, electrical, and communication systems that Wooten personally engineered to ensure that the people in the shelter could survive at least thirty-one days, which was believed to be adequate time for survival of initial nuclear fallout. Wooten put his experience in radio engineering to the task designing multiple separate broadcasting systems to maintain contact with the outside the world. Multiple radio antennae extended from the roof of the shelter and was designed that even if a nuclear blast knocked down the tower and its antennae, another antenna built into the concrete shields would theoretically survive and continue to function. The communications system was so robust that Wooten invited local government officials to use his shelter as their headquarters if a nuclear attack ever occurred.³⁹

Security was another important aspect of the shelter’s engineering. The shelter was built to accommodate a maximum of sixty-five people with enough space for sleeping and storage of essential supplies for thirty-one days.⁴⁰ Allowing more people would cause supplies to run out early, which would negatively affect the ability of the shelter to serve its survival purpose.⁴¹ Multiple double-locked steel doors and bars at the entrance served a dual purpose of keeping invited people in and keeping uninvited people out. Wooten deliberately designed the doors to require two keys to ensure that one individual could not unexpectedly leave or let in uninvited people who may introduce contamination or strain resources. Wooten also placed bars across a recessed portion of the pyramidal shields to secure above-ground mechanical venting systems. The bars would prevent sabotage by outsiders and the recession of the systems into the concrete shields would theoretically help protect them from radiation exposure and lessen the chance of mechanical failure.⁴²

The shelter was also designed with a secondary egress in the form an escape hatch. The hatch, originally hidden in a flower bed, was meant to be secret and only used in case of an emergency.⁴³ Like the multiple essential systems, the escape hatch provided a backup system of entrance and exit, which contributed to the maximization of survival chances. The fact that the hatch was hidden also followed shelter recommendations

³⁷ Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

³⁸ Monteyne, *Fallout Shelter*, 28.

³⁹ Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

⁴⁰ Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

⁴¹ Rose, *One Nation Underground*, 93.

⁴² Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

⁴³ William Thomas, “For a Really Good Party, The Air Conditioner Blows Chanel No. 5,” *The Commercial Appeal*, June 22, 1969.

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as it provided additional security from outsiders who may attempt to access the shelter in the event of attack.⁴⁴

Beyond the walls and earth above, the shelter had an additional system to protect against radiation exposure. The bulk of the shelter is sealed off from the stairwell entrance by concrete walls and a steel door. When people arrived at the shelter, they were expected to go to the decontamination room at the bottom of the underground landing but outside of the main shelter. They were expected to remove their clothes, which may be contaminated with fallout, and shower off any radioactive debris (the shower is still extant) before putting on clean clothes and entering the main shelter space. For people who arrived late and were already lethally poisoned by radiation, their bodies could be stored in the morgue, which was in the same area as the decontamination shower.⁴⁵ By designing this area to be separated from the main shelter space, Wooten built in an additional layer of protection to prevent against radiation exposure in the main shelter space and maximize survival chances.

Water for the shelter was pumped from two wells that were located eighty feet below the shelter. Each well supplied its own circuit of water, so if one well system malfunctioned, there would still be another working system. Similarly, the shelter was powered by two generators, which were lowered into the shelter during construction with tools that Wooten custom designed to ensure exact levelness (see Figure 9).⁴⁶ The multiple systems would ensure the shelter's optimal performance but it can also be seen as deliberate engineering and design decisions to maximize survivability. If the water or electrical system failed, the shelter's inhabitants could perish for reasons other than radiation exposure, so the duplicate systems provided enough backup to allow the shelter to function even under the most extreme circumstances of nuclear attack. Wooten designed a secondary system of muffling the noise from the generators and pumps using a system of filters and baffles to provide comfort for the inhabitants from the noise. The mechanical systems were so important that among the people chosen to join Wooten and his family in the fallout shelter were three electrical engineers. As Wooten said, "The engineer is the most important man in this shelter" as they were ultimately believed to be the people who would keep the shelter functioning and ensure survival.⁴⁷

While the essential systems and structure of the shelter are the most obvious representations of the engineering importance of fallout shelter design, decorative finishes also played an important role. A key psychological aspect of fallout shelter engineering was to make the occupants as comfortable as possible in order to ensure that they would stay in the shelter and would not attempt to leave early when there was still a danger of radiation exposure. It was also important to keep people calm and minimize the possibility of panic as well as prevent conflict between occupants. Wooten hired Memphis architect Nowland Van Powell to design the interior of the shelter. The shelter historically included numerous recreation objects, including a billiards table, television, hi-fi equipment, games, shelving to house books, magazines, and other objects to entertain occupants and keep their minds off of the nuclear devastation occurring outside.⁴⁸

⁴⁴ Masco, "Life Underground: Building the Bunker Society," 21-22.

⁴⁵ Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963.

⁴⁶ "Bomb Shelter Boyhood Idea," *Commercial Appeal*, March 31, 1963.

⁴⁷ William Thomas, "For a Really Good Party, The Air Conditioner Blows Chanel No. 5," *The Commercial Appeal*, June 22, 1969; Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963.

⁴⁸ Davis, "How to Survive in Very High Style," *The Nashville Tennessean Magazine*, October 6, 1963.

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Multiple areas of the shelter were aesthetically designed to create the illusion of being above ground. For example, Van Powell painted landscape scenes bordered by shutters on the walls of the recreation room. The scenes and shutters were designed to mimic the appearance of an exterior window and above ground view. In the kitchen was a backlit faux window above the sink in the kitchen. The color of the backlit was designed to mimic the appearance of the sun setting. Designs on the private doors of the restrooms included nature motifs, such as falling leaves and butterflies. These finishes were not incidental but psychologically driven to calm fears. Recommendations to include references to the outside world and to make the shelter aesthetically comfortable were common throughout federal civil defense literature.⁴⁹

Similar to the references to nature and the above-ground world, decorative finishes and colors throughout the shelter were meant to inspire feelings of content. Press articles described the “sunny yellows, accents of coral and blue spices up the soft beige of the central rooms” with objects such as bunk beds and foot lockers painted the same color as the walls. Pink was used prolifically throughout the areas designated for women, including the women’s dormitories, lounge, restrooms, and kitchen. Stylish and high-quality finishes such as parquet wood flooring, wood paneling, and wallpaper were used throughout to make people feel as if they were in a luxurious home rather than below ground in a concrete bunker.⁵⁰

Among the people invited into the shelter were the Wooten’s servants and their families, all of whom were African American. There is no explicitly stated reason as to why Wooten invited the servants, but it is likely that they were invited with the expectation that they would continue to do their normal domestic tasks of cooking and cleaning, similar to how electrical engineers were invited with the expectation that they would work to maintain the shelter’s systems.⁵¹ This would ensure even more comfort for the majority of the occupants in exchange for survival of the servants and their families.

To serve the dietary needs of the large group of people in the shelter, the kitchen was equipped with large industrial-size equipment, including a range and oven, both of which are still extant. Original cabinets and adjacent storage rooms provided enough storage room to store ‘survival meals’ which the Wootens had reportedly tested for quality, value, and keeping qualities in the two years during the shelter’s construction. This also shows the focus on comfort, which psychologically would contribute to optimum achievement of the shelter’s central goal: survivability.⁵²

Conclusion

From the shelter’s structural design above and below-ground to the essential systems and decorative finishes on the interior, the entirety of the Wooten Fallout Shelter was deliberately engineered and designed to serve one purpose: surviving the aftermath of a nuclear attack. The shelter not only stands as a physical representation of the social responses to the threat of nuclear war but also the key design concepts thought to maximize survivability. While the idea of private fallout shelters was a pervasive and highly debated idea

⁴⁹ David Meier, “Fallout Shelters’ ‘Lived-In’ Look”, *Science News-Letter* 80, no. 16 (October 14, 1961): 258-259; William Thomas, “For a Really Good Party, The Air Conditioner Blows Chanel No. 5,” *The Commercial Appeal*, June 22, 1969

⁵⁰ Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

⁵¹ Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

⁵² Davis, ““How to Survive in Very High Style,” *The Nashville Tennessean Magazine*, October 6, 1963.

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during the height of the Cold War in the mid-20th century, relatively few families actually had the means to construct their own shelter. Usually constructed in basements or backyards, fewer still have survived to the present-day. More common was for existing buildings to be designated as emergency shelters, but these buildings were not purpose-built to resist fallout and therefore have limited ability to convey the historical events of civil defense and fallout shelter design. While abnormally large and elaborate for a private home shelter, the Wooten Fallout Shelter represents the majority of the key engineering concepts that defined fallout shelter design. It conveys the extraordinary lengths to which some people went to prepare for the ever-present threat of nuclear attack, which largely defined American society and culture during the Cold War era of the twentieth century. With overall good integrity, the Wooten Fallout Shelter meets the requirements to be listed in the National Register of Historic Places.

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National Register of Historic Places, Los Alamos Scientific Laboratory, Los Alamos, Los Alamos County, New Mexico, National Register #66000893.

National Register of Historic Places, Trinity Site, White Sands Missile Range, Socorro County, New Mexico, National Register #66000493.

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Previous documentation on file (NPS):		Primary location of additional data:	
<input checked="" type="checkbox"/>	preliminary determination of individual listing (36 CFR 67 has been requested)	<input checked="" type="checkbox"/>	State Historic Preservation Office
<input type="checkbox"/>	previously listed in the National Register	<input type="checkbox"/>	Other State agency
<input type="checkbox"/>	previously determined eligible by the National Register	<input type="checkbox"/>	Federal agency
<input type="checkbox"/>	designated a National Historic Landmark	<input type="checkbox"/>	Local government
<input type="checkbox"/>	recorded by Historic American Buildings Survey #	<input checked="" type="checkbox"/>	University of Memphis
<input type="checkbox"/>	recorded by Historic American Engineering Record #	<input type="checkbox"/>	Other
<input type="checkbox"/>	recorded by Historic American Landscape Survey #	Name of repository:	
Historic Resources Survey Number (if assigned):			

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10. Geographical Data

Acreage of Property	Less than 1	USGS Quadrangle	Southwest Memphis TN, AR 404-SE
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Latitude/Longitude Coordinates

Datum if other than WGS84: N/A

A. Latitude: 35.013167	Longitude: -90.023709
B. Latitude: 35.013167	Longitude: -90.023326
C. Latitude: 35.012843	Longitude: -90.023326
D. Latitude: 35.012843	Longitude: -90.023709

Verbal Boundary Description

The boundaries of the Wooten Fallout Shelter are a rectangle that begin at Point A Latitude/Longitude coordinate; proceed east to Point B, south to Point C, west to Point D, and north to meet Point A. Latitude/longitude coordinates are noted above. These boundaries encompass the above-ground shelter features (pyramidal concrete shields and escape hatch) and the entirety of the below-ground concrete shelter. These boundaries include a section of the non-historic surface tennis court surrounding the escape hatch and a small section of the surface parking lot alongside the above-ground structure but exclude the remainder of the tennis court as well as the remainder of the parking lot and surrounding lots that are owned by private homeowners. These boundaries are depicted on the accompanying maps and site plan.

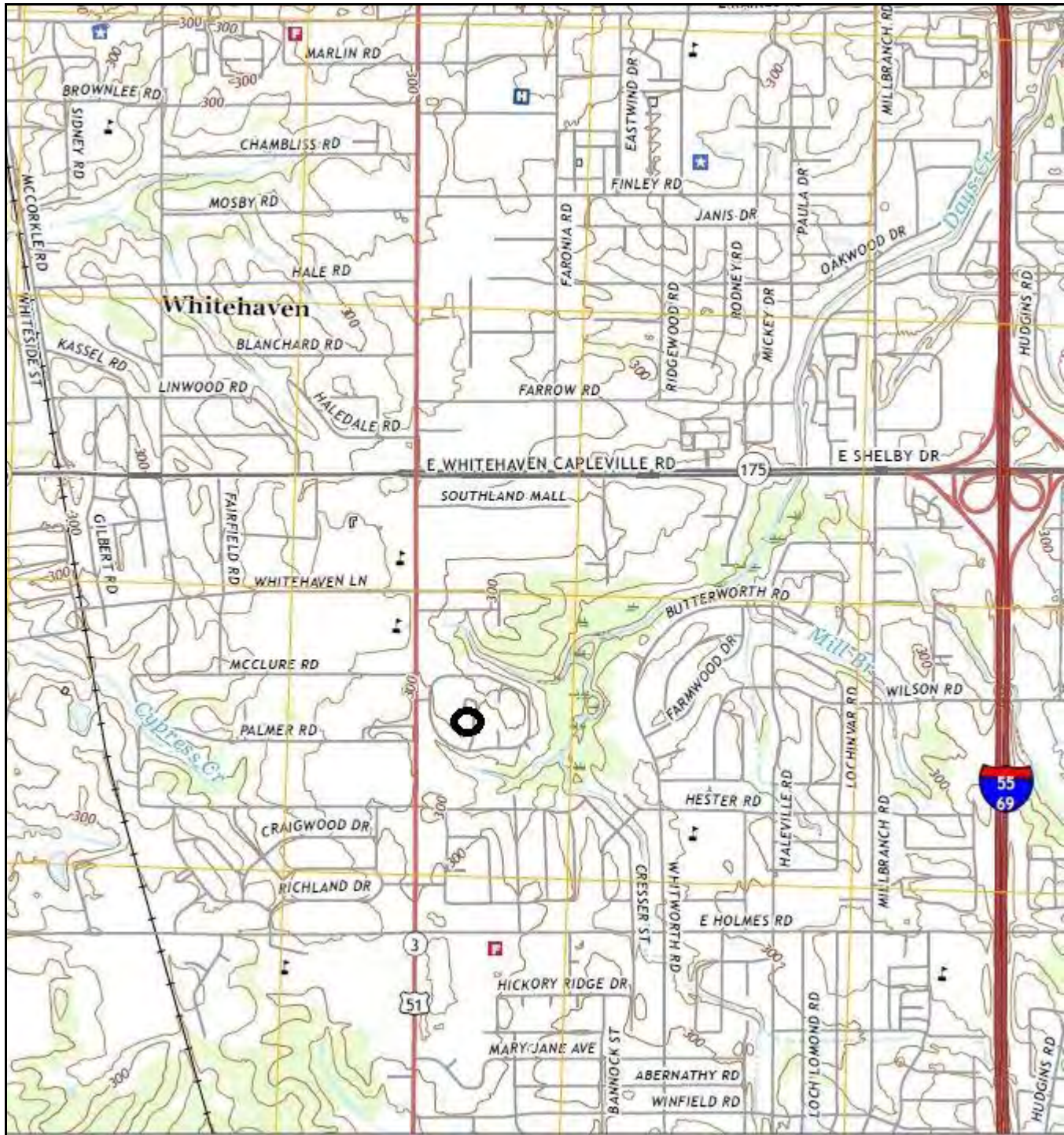
Boundary Justification

These boundaries include all sections of the Wooten Fallout Shelter. They are narrowly drawn to exclude non-historic or non-significant features, such as the majority of an adjacent parking lot, the remainder of a non-historic tennis court, and land that is currently part of the shelter's legal parcel but is unnecessary to convey the shelter's significance.

Wooten Fallout Shelter
Name of Property

Shelby, Tennessee
County and State

USGS Topographic Map with location of Wooten Fallout Shelter circled



Southwest Memphis, TN AR 404-SE Quadrangle, 2019 Scale 1:24 000

Wooten Fallout Shelter
Name of Property

Shelby, Tennessee
County and State

Shelby County Property Tax Map with Wooten Fallout Shelter Boundaries Outlined



Aerial Imagery dated 2015, courtesy of Shelby County, Tennessee.



Wooten Fallout Shelter
Name of Property

Shelby, Tennessee
County and State

Aerial Imagery with Wooten Fallout Shelter National Register Boundaries and Coordinates



Imagery courtesy of Google Earth, 2019. 

Wooten Fallout Shelter
 Name of Property

Shelby, Tennessee
 County and State

11. Form Prepared By

Name	Rebecca Schmitt		
Organization	Tennessee Historical Commission		
Street & Number	2941 Lebanon Pike	Date	8/12/2019
City or Town	Nashville	Telephone	615-770-1086
E-mail	Rebecca.Schmitt@tn.gov	State	TN Zip Code 37214

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to map.
- **Photographs** (refer to Tennessee Historical Commission National Register *Photo Policy* for submittal of digital images and prints)
- **Additional items:** (additional supporting documentation including historic photographs, historic maps, etc. should be included on a Continuation Sheet following the photographic log and sketch maps)

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Wooten Fallout Shelter

Name of Property

Shelby County, Tennessee

County and State

N/A

Name of multiple listing (if applicable)

Section number Photos and Plans Page 35

Photo Log

Name of Property: Wooten Fallout Shelter

City or Vicinity: Memphis

County: Shelby

State: Tennessee

Photographer: Rebecca Schmitt, Casey Lee, and Holly Barnett, unless noted

Date Photographed: February 28, 2019, unless noted

Description of Photograph(s) and number, include description of view indicating direction of camera:

- 1 of 24 Wooten Fallout Shelter. Photographer facing west.
- 2 of 24 Above-Ground Sections of Fallout Shelter. Photographer facing northwest.
- 3 of 24 Above-Ground Section of Fallout Shelter alongside tennis court. Photographer facing north.
- 4 of 24 Escape Hatch in tennis court. Photographer facing south. Photographer unknown. Photo taken in 2003 but still portrays current conditions
- 5 of 24 Gate over Mechanical Systems within Concrete Shields. Photographer facing south.
- 6 of 24 Entry Gate and Door. Photographer facing north.
- 7 of 24 Staircase leading down into the Fallout Shelter. Photographer facing south.
- 8 of 24 Door to Recreation Room in Stairwell Landing. Photographer facing southwest.
- 9 of 24 Door to Morgue/Decontamination Area. Photographer facing south.
- 10 of 24 Decontamination Shower in Morgue/Decontamination Area. Photographer facing east.
- 11 of 24 Morgue/Decontamination Area. Photographer facing north.
- 12 of 24 Recreation Room. Photographer facing east.
- 13 of 24 Doors to Women's and Men's Dormitories from Recreation Room. Photographer facing south.
- 14 of 24 Recreation Room including Van Powell Paintings and Escape Hatch Door. Photographer facing southwest.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Wooten Fallout Shelter

Name of Property

Shelby County, Tennessee

County and State

N/A

Name of multiple listing (if applicable)

Section number Photos and Plans Page 36

- 15 of 24 Women's Lounge. Photographer facing south.
- 16 of 24 Women's Sleeping Quarters. Photographer facing northeast.
- 17 of 24 Men's Lounge. Photographer facing southeast.
- 18 of 24 Men's Restroom. Photographer facing southeast.
- 19 of 24 Men's Sleeping Quarters. Photographer facing northwest.
- 20 of 24 Radio Control Room. Photographer facing north.
- 21 of 24 View of Kitchen from Recreation Room. Photographer facing northeast.
- 22 of 24 Kitchen. Photographer facing west.
- 23 of 24 Storage/Utility Room #1. Photographer facing east.
- 24 of 24 Storage/Utility Room #2. Photographer facing east.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Wooten Fallout Shelter

Name of Property
Shelby County, Tennessee

County and State

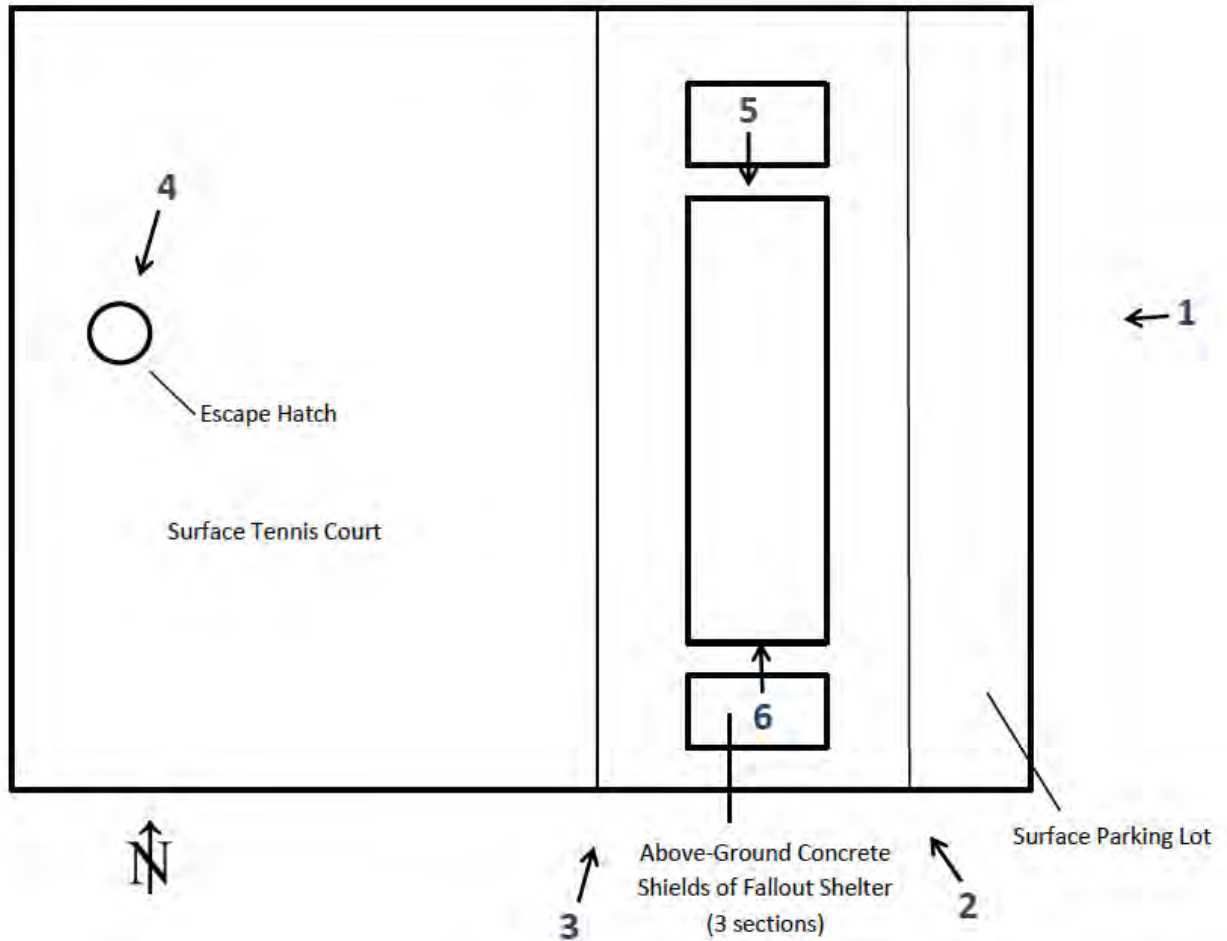
N/A

Name of multiple listing (if applicable)

Section number Photos and Plans

Page 37

Site Plan with Photos Keyed



Not to Scale

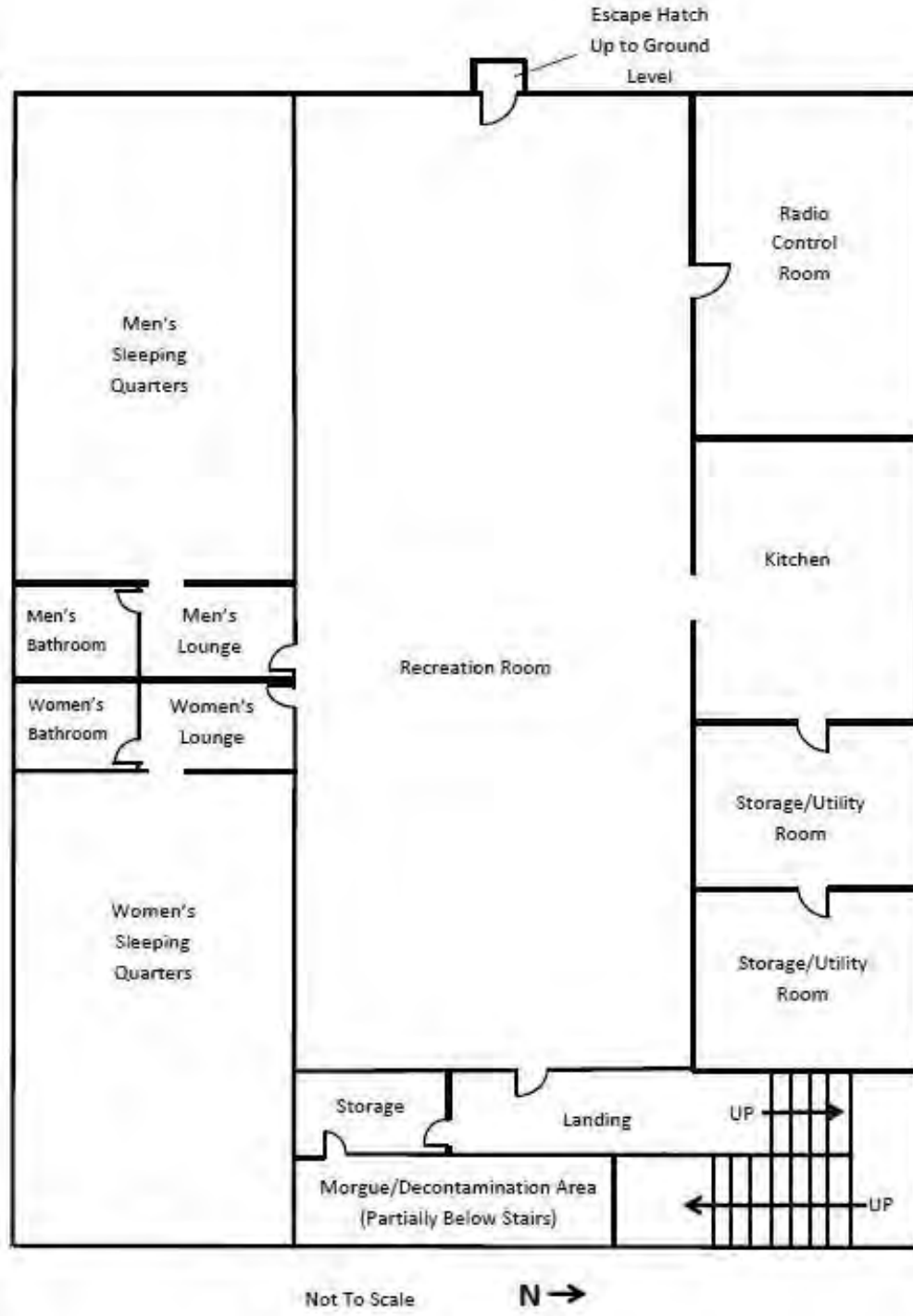
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Wooten Fallout Shelter
Name of Property
Shelby County, Tennessee
County and State
N/A
Name of multiple listing (if applicable)

Section number Photos and Plans Page 38

Floor Plan of Below-Ground Section with Rooms Labelled by Historic Use



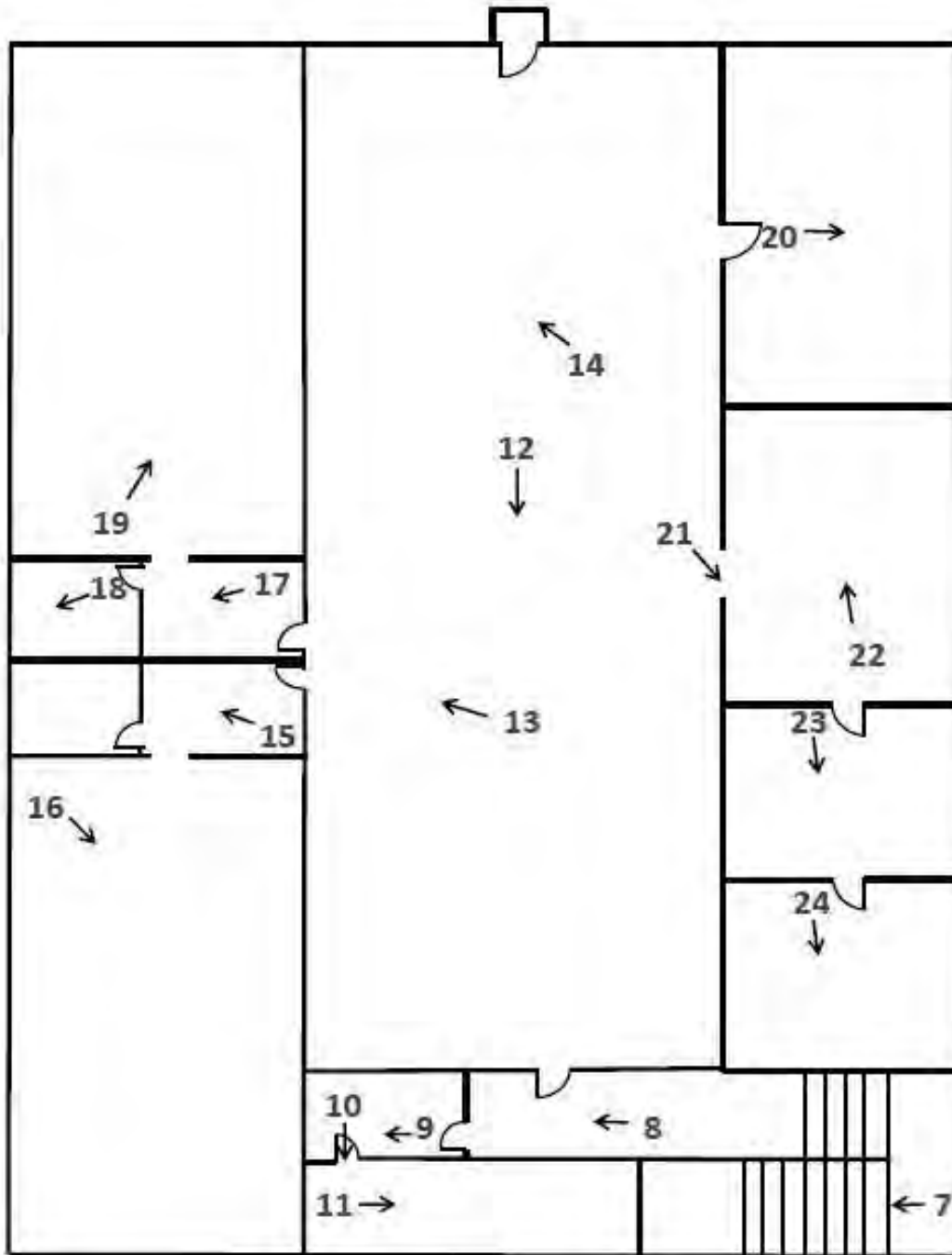
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Wooten Fallout Shelter
----- Name of Property
Shelby County, Tennessee
----- County and State
N/A
----- Name of multiple listing (if applicable)

Section number Photos and Plans Page 39

Floor Plan of Below-Ground Section with Photos Keyed



Not To Scale

N →



























Women

Men



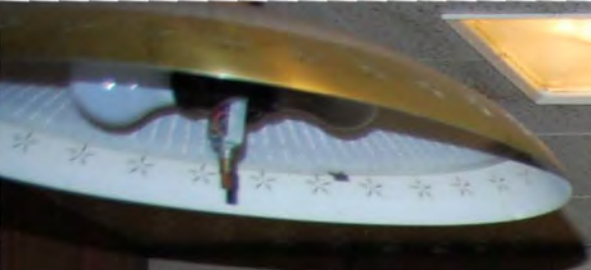




















UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action: Nomination

Property Name: Wooten Fallout Shelter

Multiple Name: _____

State & County: TENNESSEE, Shelby

Date Received: 10/15/2019 Date of Pending List: 11/12/2019 Date of 16th Day: 11/27/2019 Date of 45th Day: 11/29/2019 Date of Weekly List: _____

Reference number: SG100004683

Nominator: SHPO

Reason For Review:

- | | | |
|---|--|---|
| <input type="checkbox"/> Appeal | <input type="checkbox"/> PDIL | <input type="checkbox"/> Text/Data Issue |
| <input type="checkbox"/> SHPO Request | <input type="checkbox"/> Landscape | <input type="checkbox"/> Photo |
| <input type="checkbox"/> Waiver | <input type="checkbox"/> National | <input type="checkbox"/> Map/Boundary |
| <input type="checkbox"/> Resubmission | <input type="checkbox"/> Mobile Resource | <input type="checkbox"/> Period |
| <input checked="" type="checkbox"/> Other | <input type="checkbox"/> TCP | <input type="checkbox"/> Less than 50 years |
| | <input type="checkbox"/> CLG | |

X Accept Return Reject 11/27/2019 Date

Abstract/Summary Comments: Built by the owner of one of Tennessee's early radio (and later TV) pioneers, the shelter was designed by him to accommodate up to 65 persons. The shelter featured a full service kitchen, mens' and womens' dorms, a decontamination shower, a morgue, and a radio transmission station. The interior was designed to create a sense of normality and to calm occupants.

Recommendation/ Criteria: Accept / A & C

Reviewer Jim Gabbert Discipline Historian

Telephone (202)354-2275 Date _____

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.



TENNESSEE HISTORICAL COMMISSION
STATE HISTORIC PRESERVATION OFFICE
2941 LEBANON PIKE
NASHVILLE, TENNESSEE 37214
OFFICE: (615) 532-1550
E-mail: Claudette.Stager@tn.gov
(615) 770-1089



October 7, 2019

Dr. Julie Ernstein
Deputy Keeper and Chief,
National Park Service
National Register of Historic Places
1849 C Street, NW, Mail Stop 7228
Washington, DC 20240

National Register Nomination

- *Wooten Fallout Shelter, Shelby County, Tennessee*

Dear Dr. Ernstein:

The enclosed disks contain the true and correct nomination for listing of the *Wooten Fallout Shelter* to the National Register of Historic Places. We received no comments.

If you have any questions or if more information is needed, please contact Rebecca Schmitt at (615) 770-1086 or Rebecca.Schmitt@tn.gov.

Sincerely,

Claudette Stager
Deputy State Historic Preservation Officer

CS:rs

Enclosures(2)