

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 Chuck Swan Fire Lookout Tower
Other names/site number Central Peninsula Fire Lookout Tower
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: Main Forest Road
City or town: Sharps Chapel State: Tennessee County: Union
Not For Publication: ☐ N/A Vicinity: ☒ X Zip: 37807

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

Signature of certifying official/Title:

Date

Deputy State Historic Preservation Officer, Tennessee Historical Commission

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 or 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

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	
6	1	buildings
0	0	sites
2	1	structures
0	0	objects
8	2	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/Fire Lookout

Current Functions

(Enter categories from instructions)

OTHER/Fire Lookout

INDUSTRY/Communications Facility

7. Description

Architectural Classification

(Enter categories from instructions.)

OTHER/Standard Plan Aermotor LS-40

Materials: (enter categories from instructions.)

Principal exterior materials of the property:

METAL/Steel; WOOD; GLASS; CONCRETE

Narrative Description

The Chuck Swan Fire Lookout Tower is located in the Chuck Swan State Forest in Union County in Upper East Tennessee. The 100-foot-tall steel structure provided a high, sheltered location for fire observation. The tower is capped by a square cab marked by a ribbon of multi-light windows which provided the observer a 360-degree panoramic view of the surrounding terrain. The property includes seven other contributing buildings and structures significant to the fire tower's historic operation, including the lookout operator's cabin, crew house, maintenance buildings, outhouse, and a vehicle service bay. The property has two non-contributing resources: a radio tower and associated radio control building. The property retains a high level of integrity as conveyed by the extant and intact fire lookout tower and associated contributing resources.

Chuck Swan Fire Tower, ca. 1935 (Contributing Structure)

The Chuck Swan fire tower was constructed ca. 1935 by the Civilian Conservation Corps (CCC). Sited at an elevation of 1,663 feet, the 100-foot-tall, galvanized steel, truss frame structure with bolted connections is supported by four legs secured to one foot eight inches by one foot eight inches concrete footers. The base of the tower measures twenty-two feet by twenty-two feet. Steel X-bracing is affixed to the structural frame at each of the tower's eight levels, spanning the distance between every level of the tower with diagonal support members on each face. The lower portion of each section of X-bracing is further reinforced by T-bracing, which traverses the distance between each leg and is bisected by a single steel member at center.

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Additional steel bracing is installed at the juncture of each level of the tower. Oriented on a horizontal plane, the bracing extends from each of the staircase's eight landings to the opposing section of the tower, thereby forming a rectangular figure.

The tower bears a small rectangular discoloration on one leg that appears to be the former location of an Aermotor Company plaque. The tower exemplifies the design of the Aermotor LS-40 fire tower design, as indicated by its structure, height, cab, and pattern of staircases and landings. The tower tapers in width from the base to its apex and is ascended via an open steel staircase with metal handrails. A series of nine staircases rise diagonally across the interior of the tower to a landing, also constructed of wood planks. The first landing is located at the northwest corner of the tower. The second landing is located at the next level of the structure at the southeast corner. This alternating, dogleg pattern continues through eight landings, with the ninth staircase reaching the cab at the apex of the tower. Each staircase is comprised of a different number of treads: eighteen, eighteen, eighteen, eighteen, seventeen, fourteen, twelve, nine, and nine, respectively from bottom to top.

The observation room is accessed via a trapdoor in the cab's floor. The cab is steel-framed, clad with metal sheeting, and topped with a hipped metal roof. Each elevation contains two, nine-light, pivot metal windows. The windows are oriented side-by-side and encompass the entirety of the width of each elevation, thereby forming an unobstructed 360-degree view of the surrounding terrain.

Lookout Operator's Cabin, ca. 1935 (Contributing Building)

A ca. 1935 lookout operator's cabin is located approximately fifty feet east of the Fire Lookout Tower and once provided temporary shelter for fire spotter personnel. The ten-foot by twelve-foot wood-frame cabin is currently used for storage. The building is one-story, rectangular plan, and sits on a concrete slab foundation. The cabin is clad with board and batten wood siding and is capped by a front-gabled roof covered with corrugated metal.

The gabled, west façade of the building includes a vertical wood plank entry door, which appears to be original. The east elevation of the building is windowless. The eaves feature exposed rafter tails. The north and south elevations each have a single, central window opening that is covered over with a wood shutter. The floor of the building's singular room features a wood plank floor, and interior walls covered with vertical pine boards.

Outhouse, ca. 1935 (Contributing Building)

Situated approximately 110 feet south of the fire tower is a ca. 1935 Outhouse. The building sits on a concrete slab foundation. The four-foot by four-foot wood-frame outhouse is covered with vertical wood boards and capped with a shed corrugated metal roof. A doorway is on the north elevation; the original door is not extant, but wood boards have been installed to limit access. There is no seat extant. However, a rectangular panel constructed of concrete provides a covering for the pit toilet.

Crew House, ca. 1950 (Contributing Building)

Situated approximately 410 feet west of the Fire Lookout Tower is a ca. 1950 crew house that currently functions as office space. The thirty-eight-foot by twenty-six-foot, one-story, rectangular plan wood-frame building sits on a concrete block foundation, is clad with asbestos shingles, and is topped by a side-gable roof covered with asphalt shingles. The east-facing façade features an off-center wood entry door with a concrete stoop. The door is flanked to the north by a pair of two-over-two, double-hung metal sashes, and to

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the south by three windows of the same pattern. This sash type is repeated in four window openings on the south elevation, two windows on the north elevation, and two windows on the west elevation. The west elevation also features two small, one-over-one, double-hung metal sash windows, one of which is at the basement level. All windows are covered by one-over-one storm windows.

The rear, west elevation features a modern addition constructed ca. 1990, set on a concrete block foundation, clad with synthetic material, and covered with an asphalt-shingle shed roof. Fenestration includes a two-over-two, double-hung vinyl sash window on the south elevation, and a similar window on the west elevation. A vinyl door is north of the window on the west elevation.

The interior of the Crew House includes a main room used as a reception area and office space, as well as two offices, a bathroom, and a kitchen. The interior features wood paneling on all walls, wood floors, and drywall ceilings. The modern addition contains a storage room and vestibule.

Workshop, ca. 1935 (Contributing Building)

Situated approximately 640 feet west of the Fire Lookout Tower is the ca. 1935 Workshop, which is used for equipment storage and repair. The one-story, twenty-six-foot by forty-five-foot wood-frame building features a poured concrete foundation, an exterior clad with board and batten wood siding, and a side gable standing seam metal roof with exposed rafter tails, and a small concrete block chimney. The east-facing façade is marked by a three-light, paneled wood door, a second paneled wood door set in a former vehicle bay covered with metal sheeting, and another former open bay that has been covered with metal sheeting. Two two-over-two, double-hung, wood sash windows are situated on the south elevation. This sash type is repeated in a single window on the north elevation, and four windows on the west elevation. All windows feature one-over-one storm windows. The west elevation also has an open bay infilled with vertical wood boards. An additional bay projects from the west elevation, and features a concrete and rough stone foundation, an exterior clad with board and batten wood siding, and a shed roof covered with standing seam metal. A single three-over-one, double-hung, wood sash window pierces the addition's west elevation.

Shed, ca. 1935 (Contributing Building)

Situated approximately forty-five feet north of the Workshop is a ca. 1935 shed. The six-foot by eight-foot wood-frame shed rests atop stone piers, is clad with vertical wood planks, and is topped by a shed roof covered with standing seam metal. Fenestration is limited to a single wood plank door on the north elevation.

Utility Building, ca. 1935 (Contributing Building)

Situated approximately 780 feet west of the Fire Lookout Tower is the ca. 1935 Utility Building. The twenty-nine-foot by 100-foot wood-frame building is comprised of a two-story machine shop area and an attached one-story tractor shed whose south elevation is entirely open bays. The building features a concrete block foundation, an exterior clad with board and batten wood siding, a side-gabled roof topped with standing seam metal, and exposed rafter tails. Three open bays on the south elevation of the machine shop provide vehicular access. A six-light, wood paneled door is situated on the east end of the south elevation. The tractor shed features four open bays on the south elevation. A square window opening is on the east end of the north elevation. The second level of the east elevation features a wood sliding door on a metal track.

Vehicle Service Bay, ca. 1935 (Contributing Structure)

Located approximately fifty feet southeast of the Workshop is a ca. 1935 Vehicle Service Bay which provided service access to the underside of vehicles. The thirteen-foot by seven-foot structure is composed of

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a steel frame topped with wood planks, and features a below-grade work area faced with concrete. The surrounding earth was topped with rough-cut, dry-laid stones to prevent erosion.

Radio Tower, ca. 2013 (Non-Contributing Structure)

Situated approximately 120 feet southeast of the Fire Lookout Tower is a ca. 2013 radio tower under license to the State of Tennessee, Forestry Radio Division to broadcast public safety information to its subscribers.¹ The cantilevered structure is constructed of steel and features a lattice of triangular cross-sections. The tower tapers in height from base to apex. The tower and the associated radio equipment building are surrounded by a chain link metal fence topped with barbed wire. Gravel covers the entire section of ground within the fence enclosure. The tower is non-contributing due to its recent construction date and lack of association with the property's significance.

Radio Equipment Building, ca. 2013 (Non-Contributing Building)

South of the base of the radio tower and located within the chain-link fence enclosure is a ca. 2013 radio equipment building. The walls of the fifteen feet by thirteen feet building are constructed of concrete blocks. The south elevation features two metal doors sheltered by metal awnings. The west elevation features a metal vent, and the east elevation features mechanical equipment. The radio equipment building is non-contributing due to its recent construction date and lack of association with the property's significance.

Site and Setting

The Chuck Swan Fire Lookout Tower is located in the Chuck Swan State Forest on the Central Peninsula in Union County, Tennessee atop one of the tallest hills in the region at an elevation of 1,660 feet. The tower was deliberately sited on the hill to provide an elevated, panoramic view of the surrounding area. The region was reforested during the property's period of significance, and the thick forested surroundings remain today. The property's historic resources are located on the east and west sides of the graveled Main Forest Road. The fire lookout tower, lookout operator's cabin, outhouse, radio tower, and radio equipment building are east of the road, and the remaining resources are west of the road. Gravel roads extend east and westward from Main Forest Road to provide access to the property's resources.

Integrity

The property's principal contributing resource is the Chuck Swan Fire Lookout Tower, and it retains a high level of integrity with no alterations since its construction. The fire tower retains its characteristic design representing the Aermotor LS-40 Plan for fire lookout towers as well as its principal materials including steel frame, wood steps, and metal cab with metal pivot windows and metal roof. All resources remain at their original locations. The forested setting developed during the Period of Significance as federal agencies reforested the Central Peninsula. The other contributing resources retain a high level of integrity of materials, design, workmanship, and association with the property's significant conservation history. The intact fire lookout tower and intact historically associated resources allow the property to have an overall high integrity of feeling. The non-contributing radio tower and equipment building are located at the edge of the property, which minimizes their impact on the property's overall integrity. While the height of the radio tower surpasses the height of the fire lookout tower, it is located far enough away that the fire tower's view is only minimally obstructed.

¹ The Radio Tower and Equipment Building was constructed sometime between April 2012 and November 2013, as indicated by aerial images available on Google Earth.

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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.
- ☐ G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions.)

Architecture

Conservation

Period of Significance

ca. 1935-1971

Significant Dates

1952

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Civilian Conservation Corps

Aermotor Company

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Statement of Significance Summary Paragraph

The Chuck Swan Fire Lookout Tower is locally significant under Criterion A in the area of Conservation. The Civilian Conservation Corps (CCC) built the tower ca. 1935 for the Tennessee Valley Authority (TVA). Sited at a high point on the Central Peninsula in Union County, Tennessee, the lookout tower was originally known as the Central Peninsula Fire Lookout Tower and played a vital role in the TVA's fire management practices to facilitate reforestation on the Central Peninsula. The TVA sold the tower and the surrounding forest lands to the State of Tennessee in 1952 for conservation and recreation purposes. The state renamed the area and tower for Tennessee Department of Conservation Commissioner Charles "Chuck" Swan, who oversaw the purchase. Under the Tennessee Division of Forestry's (TDF) management, the Chuck Swan Fire Lookout Tower joined a network of state-owned fire towers that together oversaw the state's forests and recreational lands to manage and prevent wildfires. The Chuck Swan Fire Lookout Tower is also eligible under Criterion C in the area of Architecture for embodying the distinctive characteristics of the Aermotor LS-40 fire tower design. The Period of Significance begins ca. 1935 with the tower's construction and ends in 1971, about the time when the State of Tennessee ceased to use its fire towers on a continuous basis as new fire identification methods became available.

Narrative Statement of Significance

Significance in Conservation

Historic Context

The Chuck Swan Fire Lookout Tower played a significant historical role in conservation activities on the Central Peninsula in Campbell and Union Counties in Upper East Tennessee. The origin of major conservation activities in the region can be traced to changing conceptions regarding best practices for conservation and fire management, as well as the New Deal-era creation of conservation-minded agencies and programs, particularly the Tennessee Valley Authority (TVA) and the Civilian Conservation Corps (CCC) at the federal level, as well as the state-level Tennessee Division of Forestry (TDF).

The Central Peninsula is an area within Campbell and Union Counties currently bounded by the Clinch River and Norris Reservoir to the south and the Powell River on the north and west. Historically, both counties' primary industry was agriculture, but the timber and mining industries increasingly became profitable toward the end of the nineteenth century, particularly as railroad companies built new lines to facilitate easy transportation of people, goods, and industrial products.² Though these industries provided livelihoods for many Tennesseans, particularly in such rural areas as Campbell and Union County, these practices also led to negative environmental effects, including erosion, soil depletion, and deforestation. Collectively, these effects directly threatened the vitality of these major industries. Erosion and soil depletion threatened the ability of farmers to produce new crops, which often led farmers to cut down timber in search of richer soil and sometimes abandoned the depleted lands. Deforestation contributed to erosion because trees helped to hold soils in place, so their removal allowed soil to shift more easily, such as during wind or rainstorms. Deforestation also meant that the timber industry had no new timber to cut down. Finally, erosion threatened

² Bonnie Heiskell Peters, "Union County," Tennessee Encyclopedia, last updated March 1, 2018, accessed May 4, 2021, <https://tennesseeencyclopedia.net/entries/union-county/>; Adrien Baird, "Campbell County," Tennessee Encyclopedia, last updated March 1, 2018, accessed May 4, 2021, <https://tennesseeencyclopedia.net/entries/campbell-county/>.

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Tennessee's waterways as soils flowed from steep slopes to fill stream beds, which contributed to flooding and inhibited river navigation.³

In the late nineteenth century and early twentieth centuries, an emerging conservation movement advocated for better agricultural and industrial practices, including reforestation to control erosion, restore the ecosystem, aid with flood management, and provide timber products for industry. In response to the growing interest, the United States Congress established a Division of Forestry within the Department of Agriculture in 1881. Tennessee joined the movement in 1914 when the state legislature established the Tennessee Division of Forestry (TDF). R.S. Maddox was appointed as the first State Forester to oversee the state's forests and make recommendations on management practices to revitalize the agriculture and timber industries.⁴

As the federal and state governments took steps to replant the nation's forests, they had to consider how best to manage and protect the forests. Fire was a major concern. A small fire could easily and quickly grow into a conflagration that could consume an entire forest, thereby destroying any work to replant the forests and harming the timber industry. Fires could also spread into populated areas, threatening lives and property. By the time the TDF was created, several major fires throughout the nation had already resulted in numerous deaths and property damage.⁵

To address fire issues, many states developed networks of manned fire lookouts. Essentially, lookout stations were placed at a high vantage point, and a trained spotter would surveil the surrounding terrain using binoculars. If the spotter saw any evidence of a fire, he relayed that information back to a designated office, typically a regional office, using a telephone. The regional office would then coordinate a timely response to investigate the potential fire and ensure it did not spread out of control. Fire towers typically had a visual range of between twelve and fifteen miles, though twenty miles was possible on clear days. Officials typically sited towers so that their visual ranges would slightly overlap, ensuring that the terrain was well covered visually to maximize chances that fires could be quickly spotted and controlled. While Maddox advocated for creation of a Tennessee fire lookout network beginning in 1915, lack of funding for the TDF meant that no comprehensive fire spotting program was developed until the 1930s.⁶

The 1930s was a watershed decade for Tennessee and the conservation movement. As the United States economy suffered during the Great Depression, the federal government took steps to address the situation using a variety of new agencies and programs that collectively were known as the New Deal, some of which still exist today. While every state was affected by the work of New Deal agencies, Tennessee was uniquely affected due to the creation of the TVA in 1933. The TVA was specifically created to address issues within the Tennessee Valley Region, so named because it was the drainage basin for the Tennessee River. Most of the Tennessee Valley is located within the state of Tennessee, but it also includes portions of Virginia,

³ Ted Karpynek, Meghan Weaver, and David Sprouse, "Tennessee Division of Forestry Fire Lookout Towers, 1933-1975," National Register of Historic Places Multiple Property Documentation Form (Washington DC: United States Department of the Interior, National Park Service, 2014).

⁴ Karpynek, et al.

⁵ Ibid.

⁶ Ibid.

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Kentucky, North Carolina, Georgia, Alabama, and Mississippi. The TVA's mission was to improve navigability and flood control of the Tennessee River, reforest and improve use of lands in the region, and facilitate agricultural and industrial development. Congress authorized the TVA to exercise its authority and funding to acquire lands and build infrastructure to achieve its mission. The TVA's most visible exercise of its authority was the construction of hydroelectric dams, which achieved a dual purpose of controlling flooding and generating power to facilitate development of the Tennessee Valley.⁷

TVA in Upper East Tennessee and Construction of the Chuck Swan Fire Tower

The TVA's first dam project occurred on the border of Anderson and Campbell Counties at an area that came to be known as Norris for Nebraska Senator George Norris who authored and championed the TVA Act. As construction proceeded on the dam, beginning in October 1933, the TVA acquired 152,000 acres of land in Union, Campbell, Grainger, Anderson, and Claiborne Counties to facilitate the project, including the creation of a reservoir that eventually extended seventy-three miles up the Clinch River and fifty-six miles up the Powell River. This land area included the Central Peninsula region, which had experienced extensive deforestation.⁸

While the TVA's major activities included dam construction and management, the agency also included divisions devoted to soil erosion, reforestation, and fire management. The TVA Forestry Division partnered with another New Deal program, the CCC, to simultaneously address these issues and provide employment for men out of work. The CCC established several camps in the region. Over the next several years, workers built recreation areas, such as a park near Norris (Norris Dam State Park Rustic Cabins Historic District NR Listed 7/25/2014), planted trees, and implemented best forestry management practices, including construction of multiple fire towers. By the time the Norris Hydroelectric Project (NR Listed 4/12/2016) began operation in 1936, the region had already experienced dramatic changes as families were relocated out of the areas that became part of the Norris Reservoir, new communities such as the Town of Norris were built (Norris District NR Listed 7/10/1975), and the CCC had begun altering the landscape to restore the region's forests.⁹

In August 1935, *The Knoxville Journal* reported that the TVA had received a shipment of four steel fire towers to erect in the vicinity of Norris to protect the surrounding forest lands. Among those towers was Chuck Swan Fire Lookout Tower, as indicated by the description that a tower would "be set up on a high point on the central peninsula." The other TVA towers were to be erected near Norris, along the Clinch

⁷ Karpynec, et al; "The TVA Act," Tennessee Valley Authority, accessed May 4, 2021, <https://www.tva.com/about-tva/our-history/the-tva-act>; Andra Martens, Cathleen Collett, Phil Thomason, and Rebecca Hightower, "Historic Resources of the Tennessee Valley Authority Hydroelectric System, 1933-1979," National Register of Historic Places Multiple Property Documentation Form (Washington DC: United States Department of the Interior, National Park Service, 2015).

⁸ Andra Kowalczyk and Phil Thomason, "Norris Hydroelectric Project," National Register of Historic Places Form (Washington DC: United States Department of the Interior, National Park Service, 2016).

⁹ Martens, et al; Kowalczyk and Thomason; Christine Mathieson, "Norris Dam State Park Rustic Cabins Historic District," National Register of Historic Places Form (Washington DC: United States Department of the Interior, National Park Service, 2014); Herbert L. Harper, "Norris District," National Register of Historic Places Form (Washington DC: United States Department of the Interior, National Park Service, 1975).

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River, and along the Powell River (see Figure 1 for a map showing the geographic distribution of fire towers in the region surrounding the Central Peninsula).¹⁰

The CCC provided the labor to erect fire towers throughout the State of Tennessee, including those owned by the TVA and those owned by the TDF. It is currently unknown which CCC Company built the tower and its associated structures in the Central Peninsula. However, in 1936, within a year after the tower was built, the United States Geological Survey (USGS) recorded CCC Camp 448 TVA No. 13 as the closest camp in the vicinity, about 3.5 miles to the northeast. Camps moved to new locations as necessary, but Camp 448 remained in the vicinity of Sharps Chapel for the next several years. Therefore, it is highly likely that Camp 448 was responsible for construction of the Central Peninsula Fire Tower. Other possibilities include Companies 224 and 492, both of which were based at Camp TVA-22 in the Maynardville vicinity.¹¹

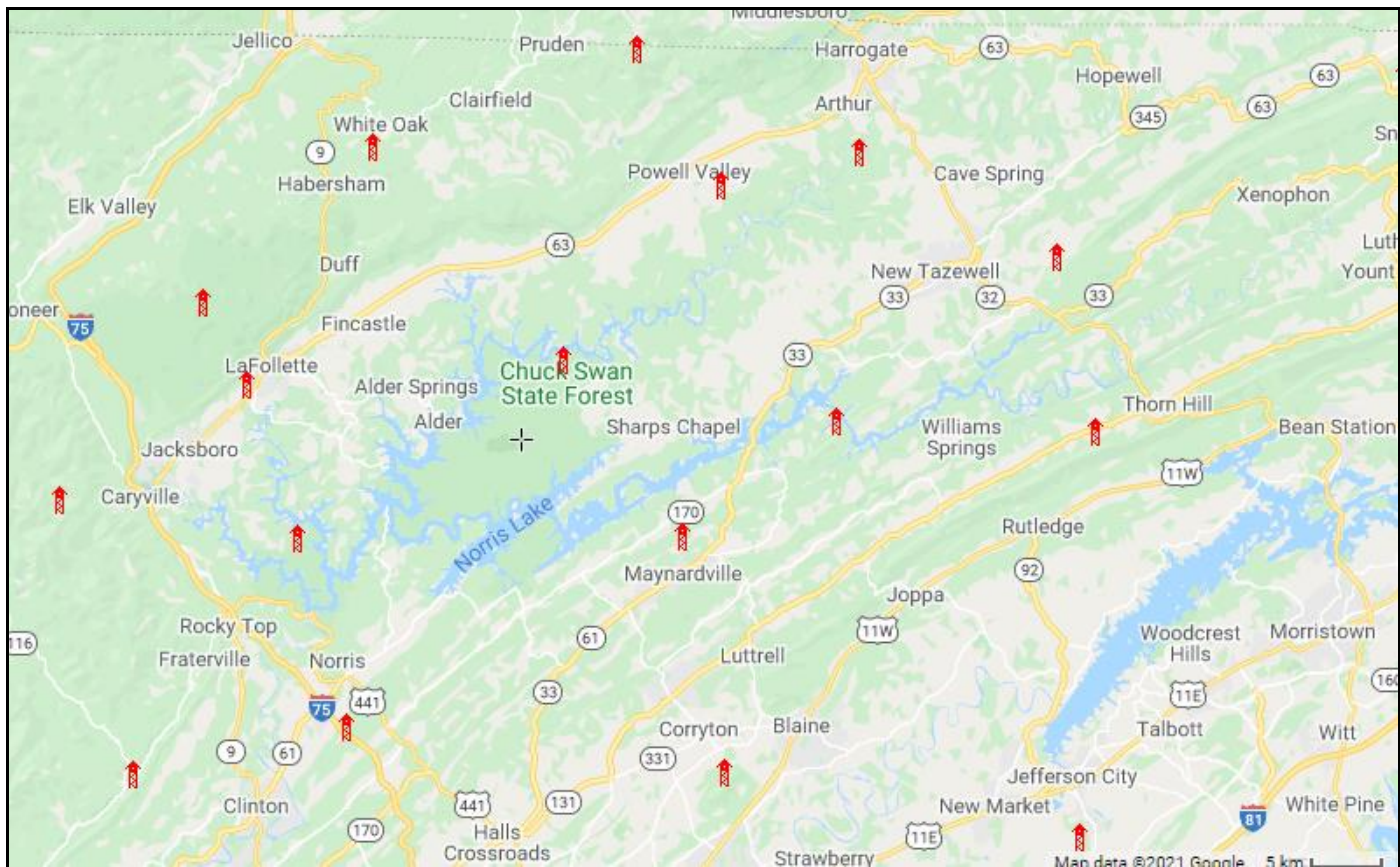


Figure 1: Fire Towers in Upper East Tennessee Region, including those removed and still standing. This map includes fire towers built for the TVA and the TDF. The tower on the label 'Chuck Swan State Forest' is the nominated tower. Imagery from Tom Dunigan, accessed May 4, 2021, <https://tnlandforms.us/towers/googlelwr.php?lat=35.987&lon=-85.935&scale=7&file=towers>.

¹⁰ "TVA Will Erect Four Fire Towers," *Knoxville Journal*, August 1, 1935.

¹¹ Karpynek et al; *McLean Rock Quadrangle Topographic Map* (Washington DC: United States Department of the Interior, United States Geological Survey, 1936).

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At the time of its construction, the tower was known as the Central Peninsula Fire Lookout Tower. The tower played a significant role in conservation activities on the Central Peninsula. The 100-foot steel observation tower included a steel cab with multi-light windows that allowed an unobstructed view of the surrounding terrain. Sited an elevation of 1,660 feet, the tower's location was one of the highest points on the peninsula and allowed it to have a commanding view that could extend up to twenty miles on clear days, but a range of twelve to fifteen miles was more typical. Spotters stationed in the observation cab were trained to scan the surrounding the area using binoculars. They were trained in fire spotting techniques and technologies, including the alidade, which allowed spotters to accurately determine the location of potential fires. Spotters learned how to classify smoke to determine whether it emanated from legitimate sources, such as industry, trains, or campfires, or whether it emanated from a fire out of control. When an out-of-control-fire was suspected, spotters used telephones to contact a designated office, which would coordinate a response team to investigate the fire and undertake fire suppression activities as needed. When not in the observation cab, tower personnel were likely elsewhere in the vicinity of the tower, possibly in one of the associated support buildings. The fire tower retains a lookout operator's cabin, crew house, storage shed, utility building, workshop, outhouse, and vehicle service bay. The lookout operator's cabin provided a small residence for personnel initially. Around 1950, TVA added a Crew House as a larger, more substantial residential building. The property's utility building and workshop provided space to perform maintenance tasks. Vehicles used for fire responses could be serviced at the service bay, while the shed provided storage space.¹²

Tennessee Division of Forestry and the Chuck Swan Fire Lookout Tower

In 1952, the TVA sold 24,000 acres on the Central Peninsula to the State of Tennessee as a recreational and demonstration area.¹³ A report on file at the TDF indicates that the fire lookout tower and its associated structures were purchased from the TVA for \$1,000 at the same time as the surrounding lands were transferred.¹⁴ The Tennessee Game and Fish Commission (later Tennessee Wildlife Resources Agency (TWRA)) and the TDF jointly managed the lands. The area was initially known as the Central Peninsula Wildlife Management Area but was quickly renamed the Chuck Swan State Forest or the Chuck Swan Wildlife Management Area, for Charles "Chuck" Swan who was Commissioner of the Tennessee Department of Conservation when the transfer occurred. The fire tower became known as the Chuck Swan Fire Lookout Tower.¹⁵

The TWRA's involvement primarily focused on efforts to increase deer populations, while also managing recreational hunting and camping activities. Recreation activities added a new dimension to the fire tower's role in conservation. The increased presence of people within the forest increased fire risk as well as the possibility that any fires could harm human life. Wildlife stocking programs also increased the utility of the lands, which added additional justification for a robust fire management program. When transferred to state

¹² Karpynec, et al.

¹³ "Peninsula Title Transferred to Tennessee," *Knoxville Journal*, March 9, 1952.

¹⁴ Evan M. Pitt, Tower #2-10 Central Peninsula Union County, report on file at the Tennessee Division of Forestry, Nashville.

¹⁵ "Chuck Swan WMA," Tennessee Wildlife Resources Agency, accessed May 5, 2021, <https://www.tn.gov/twra/wildlife-management-areas/east-tennessee-r4/chuck-swan-wma.html>; "Chuck Swan State Forest," Tennessee Department of Agriculture, accessed May 5, 2021, <https://www.tn.gov/agriculture/forests/state-forests/chuck-swan.html#:~:text=Size%3A%2024%2C702%20acres%20%2F%209%2C997%20ha,with%20the%20Norris%20Dam%20project;Walter%20Amann,> "Outdoors Around Here," *Knoxville Journal*, October 10, 1952.

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ownership, the Chuck Swan Fire Lookout Tower joined a well-established network of fire lookout towers, with well-trained TDF personnel continuously manning the tower during high fire season. By the mid-1970s, however, forestry employees became more dependent on fire-spotting planes and fire reports from 911 emergency calls. Staff ceased to continuously man the tower, but forestry staff occasionally ascend the tower for maintenance checks or fire spotting as needed.¹⁶

While the fire lookout tower is no longer continually used, it still stands as a prominent symbol of the history of fire management and a key component of the conservation movement in Union County, Tennessee. Constructed by the CCC for the TVA and later managed by the TDF, the Chuck Swan Fire Lookout Tower is a visual reminder of this multi-agency, federal and state-level governmental cooperation for the benefit of forest land in Tennessee. The Chuck Swan Fire Lookout Tower is able to convey its significance in Conservation history and therefore meets the requirements for listing in the National Register of Historic Places.

Architectural Significance

Fire Towers are a distinctive type of architectural design created to serve a singular purpose: fire spotting. While created for a specific use, fire tower designs can range widely in height, placement, materials, and design. The Chuck Swan Fire Lookout Tower is significant under Criterion C for representing the distinctive characteristics of the 100-foot Aermotor LS-40 fire tower design, one of the most popular fire tower designs utilized in Tennessee.

In the United States, the earliest fire towers constructed at the beginning of the twentieth century were built in a variety of designs with a variety of materials. In 1935, the United States Forest Service issued a detailed set of specifications that standardized requirements for federal agencies while allowing for some variation, such as height, depending on the tower site. The specifications also required that towers be prefabricated with all of the pieces shipped to the tower site. The Aermotor Company of Chicago, Illinois became the premier designer of fire towers nationwide. Aermotor originally produced windmills, but they retooled their existing windmill designs to meet the surging demand for fire lookout towers.¹⁷

One of the Aermotor Company's most popular plans was the LS-40. The LS-40 was available in a number of heights, ranging from twenty feet to 100 feet. The LS-40 is characterized by a seven-foot by seven-foot steel cab, and an internal stairway that runs back and forth between two elevations of the tower. Each run of stairs terminates at a large wood plank platform, which was considered to be safer than the landings of the MC-39 fire tower design and led to the increased popularity of the LS-40 in the 1940s and 1950s.¹⁸

¹⁶ Ibid.

¹⁷ Forest Fire Lookout Association, "Fire Lookout Types," <https://www.firelookout.org/fire-lookout-types.html>, accessed April 25, 2021; Bill Starr, *The Five Various Steel Fire Tower Models Utilized in New York State*. 2011. http://nhlr.org/NY_Towers/New_York_Steel_Fire_Tower_Models_by_Bill_Starr.pdf, accessed June 5, 2014; John R. Grosvenor and United States Forest Service. *A History of the Architecture of the USDA Forest Service*. United States Department of Agriculture Forest Service, 1999; Peter L. Steere, "National Forest Fire Lookouts in the Southwestern Region, USDA Forest Service," National Register of Historic Places Thematic Resource Form (Washington, D.C.: U.S. Department of the Interior, National Park Service, 1987); Karpynec et al.

¹⁸ Ibid.

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The Chuck Swan Fire Lookout Tower is an excellent representation of the LS-40 fire tower design, specifically the 100-foot tall model (see Figures 2-4). The tower is primarily a galvanized steel, truss frame structure with bolted connections, supported by four legs. Steel X-bracing is affixed to the structural frame at each of the tower's eight levels, spanning the distance between every level of the tower with diagonal support members on each face. The lower portion of each section of X-bracing is further reinforced by T-bracing, which traverses the distance between each leg and is bisected by a single steel member at center. Additional steel bracing is installed at the juncture of each level of the tower. The tower tapers in width from the base to its apex and is ascended via an open steel staircase with metal handrails. A series of nine staircases rises diagonally across the interior of the tower to a landing, also constructed of wood planks. The first landing is located at the northwest corner of the tower. The second landing is located at the next level of the structure at the southeast corner. This alternating, dogleg pattern continues through eight landings, with the ninth staircase reaching the cab at the apex of the tower. The observation room is steel-framed, clad with metal sheeting, and topped with a hipped metal roof. Each elevation contains two, nine-light, pivot windows constructed of metal. The windows are oriented side-by-side and encompass the entirety of the width of each elevation, thereby forming an unobstructed 360-degree view of the surrounding terrain. The Chuck Swan Fire Lookout Tower retains all its original materials and is easily able to convey its significant design, thereby meeting the requirements to be listed in the National Register of Historic Places.

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9. Major Bibliographic References

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Previous documentation on file (NPS):		Primary location of additional data:	
preliminary determination of individual listing (36 CFR 67 has been requested)	X	State Historic Preservation Office	
previously listed in the National Register	X	Other State agency: Tennessee Division of Forestry	
previously determined eligible by the National Register	X	Federal agency: USDA Forest Service	
designated a National Historic Landmark		Local government	
recorded by Historic American Buildings Survey #		University	
recorded by Historic American Engineering Record #		Other	
recorded by Historic American Landscape Survey #		Name of repository:	
Historic Resources Survey Number (if assigned): N/A			

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10. Geographical Data

Acreage of Property 4.13 USGS Quadrangle White Hollow 145-SW

Latitude/Longitude Coordinates

Datum if other than WGS84: N/A

A. Latitude: 36.372647 Longitude: -83.896396

B. Latitude: 36.372104 Longitude: -83.892712

C. Latitude: 36.371663 Longitude: -83.892811

D. Latitude: 36.372188 Longitude: -83.896397

Verbal Boundary Description

The National Register boundary of the Chuck Swan Fire Lookout Tower property corresponds to a 4.13-acre polygon whose corners correspond with the Latitude/Longitude coordinates noted above. This boundary is depicted on the enclosed National Register Boundary Map.

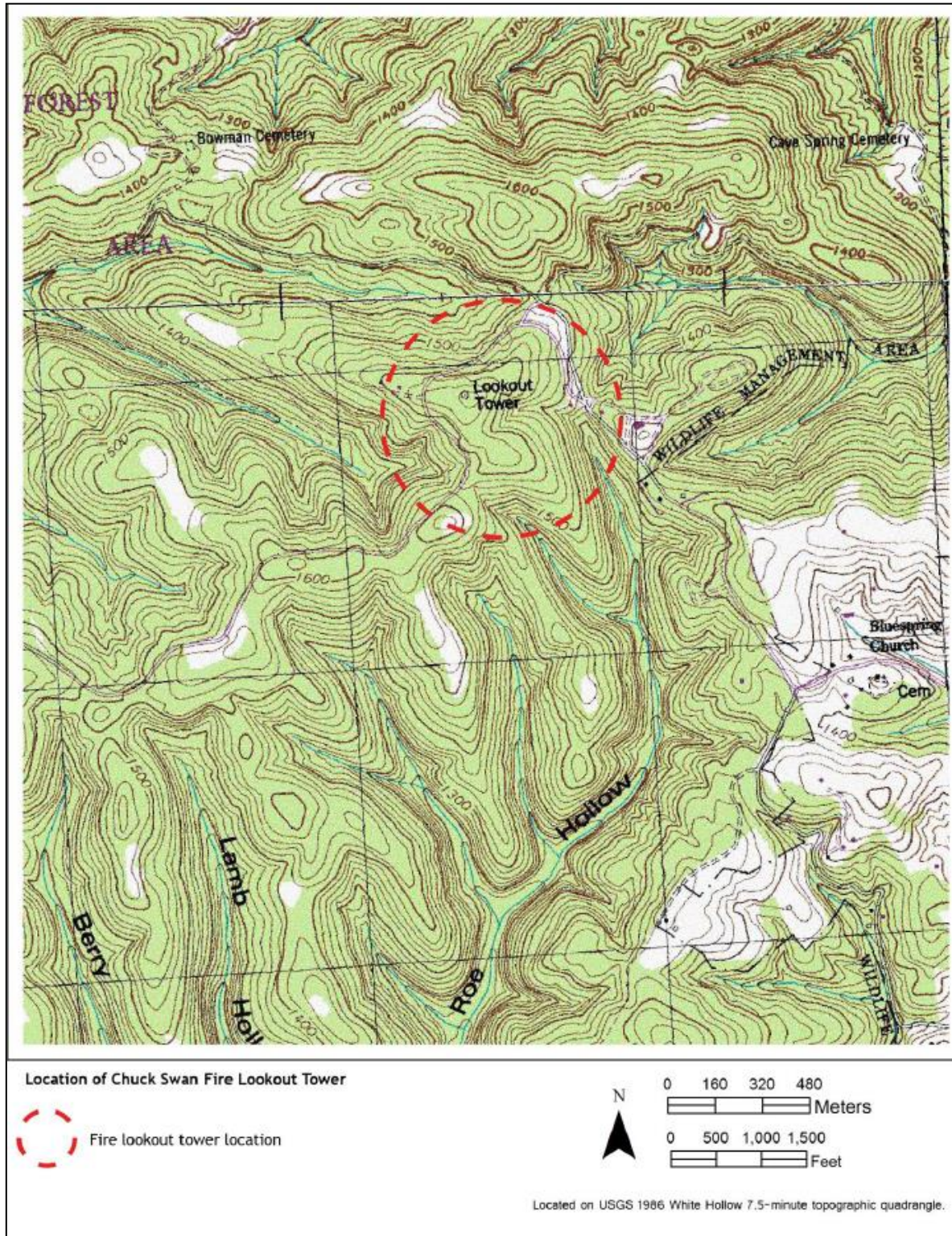
Boundary Justification

The National Register boundary for the Chuck Swan Fire Lookout Tower property includes those resources associated with the fire observation complex.

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USGS Topographic Map



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Chuck Swan Fire Lookout Tower National Register Boundary



Imagery Dated November 2013. Corner Points correspond to the Latitude/Longitude Coordinates
Previously Noted

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11. Form Prepared By

Name	Original 2014 Draft by Ted Karpynek, Meghan Weaver, and David Sprouse (TVAR); Revised by Rebecca Schmitt (THC)		
Organization	Tennessee Valley Archaeology Research/Tennessee Historical Commission		
Street & Number	2941 Lebanon Pike	Date	May 3, 2021
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.

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Photo Log

Name of Property: Chuck Swan Fire Lookout Tower

City or Vicinity: Sharps Chapel

County: Union State: Tennessee

Photographer: Rebecca Schmitt, unless noted

Date Photographed: February 4, 2021, unless noted

- 1 of 18 Chuck Swan Fire Lookout Tower and Lookout Operator's Cabin. Photographer facing west.
- 2 of 18 Chuck Swan Fire Lookout Tower. Photographer facing northwest. Photographer is Jonathan Moseley, taken January 13, 2021
- 3 of 18 Base of the Chuck Swan Fire Lookout Tower. Photographer facing north.
- 4 of 18 Chuck Swan Fire Lookout Tower Staircases, Landings, and Frame. Photographer facing southwest. Photographer is Jonathan Moseley, taken January 13, 2021
- 5 of 18 Lookout Operator's Cabin, oblique view of west façade and north elevation. Photographer facing southeast.
- 6 of 18 Outhouse. Photographer facing south. Photographer is Jonathan Moseley, taken January 13, 2021
- 7 of 18 Lookout Operator's Cabin, base of Radio Tower, and Radio Equipment Building. Photographer facing east.
- 8 of 18 Radio Tower. Photographer facing east.
- 9 of 18 Radio Equipment Building, oblique view of west and south elevations. Photographer facing northeast.
- 10 of 18 Chuck Swan Fire Lookout Tower and Radio Tower. Photographer facing east.
- 11 of 18 Crew House, oblique view of east façade and south elevation. Photographer facing northwest.
- 12 of 18 Crew House, oblique view of north and west elevations. Photographer facing southeast.
- 13 of 18 Workshop, oblique view of south and east elevations. Photographer facing northwest.

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- 14 of 18 Workshop, west elevation. Photographer facing east.
- 15 of 18 Vehicle Service Bay. Photographer facing southeast.
- 16 of 18 Utility Building, south and east elevations. Photographer facing northwest
- 17 of 18 Utility Building, west and north elevations. Photographer facing southeast.
- 18 of 18 Shed, north and west elevations. Photographer facing southeast.

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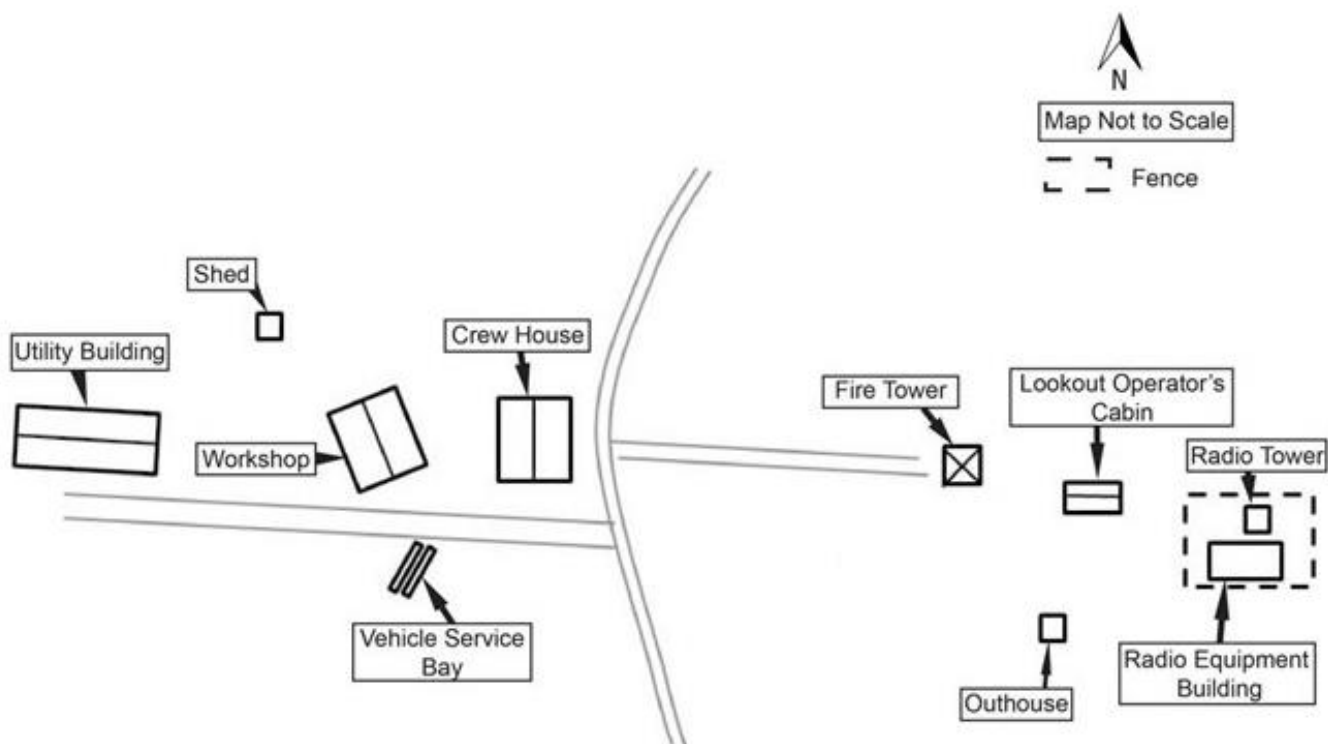
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Site Plan



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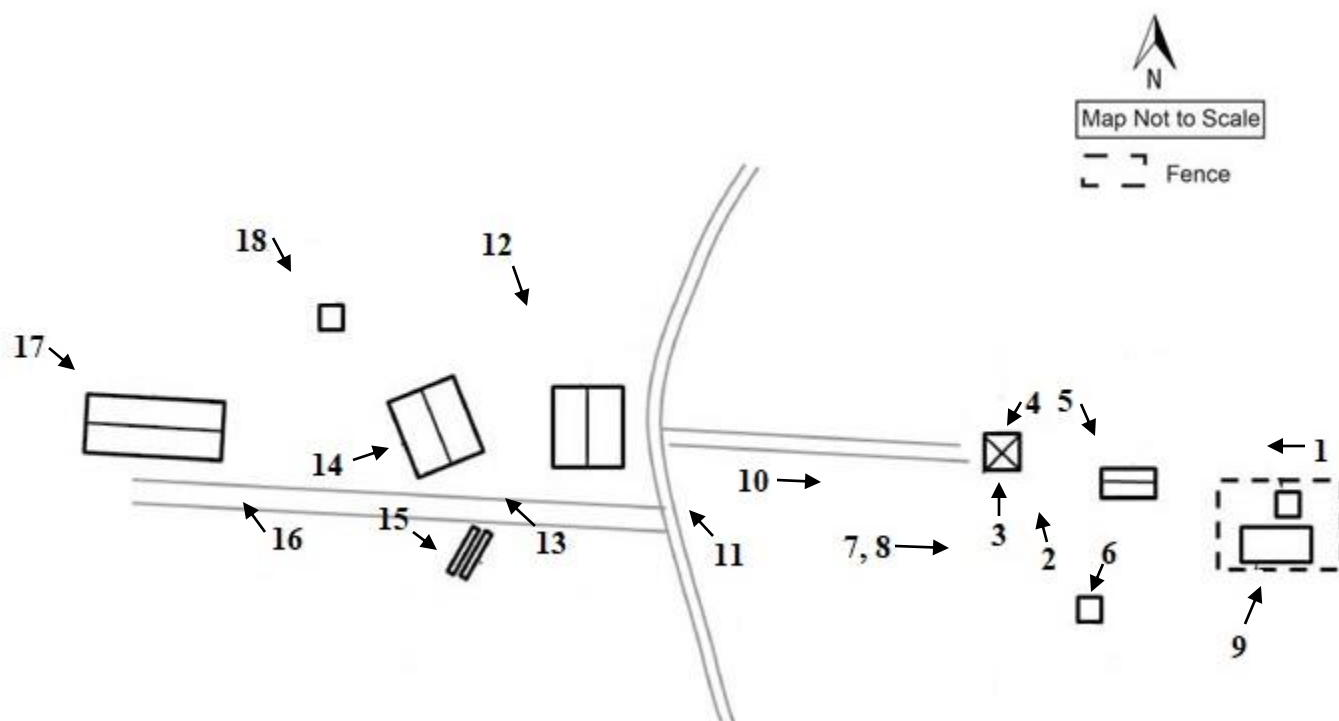
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Site Plan with Photo Key



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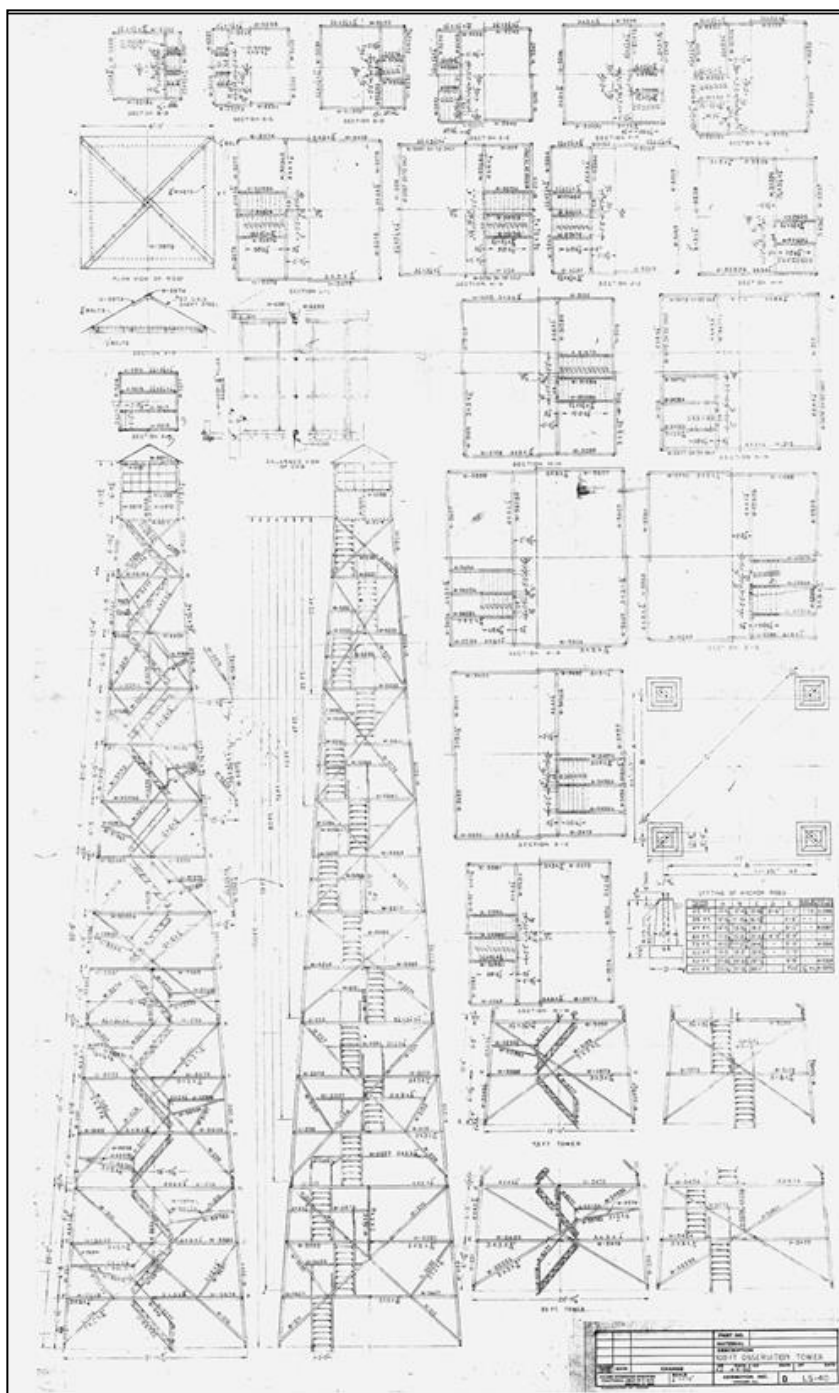
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Figure 2: Aermotor 100-foot LS-40 Lookout Tower Schematic, ca. 1962



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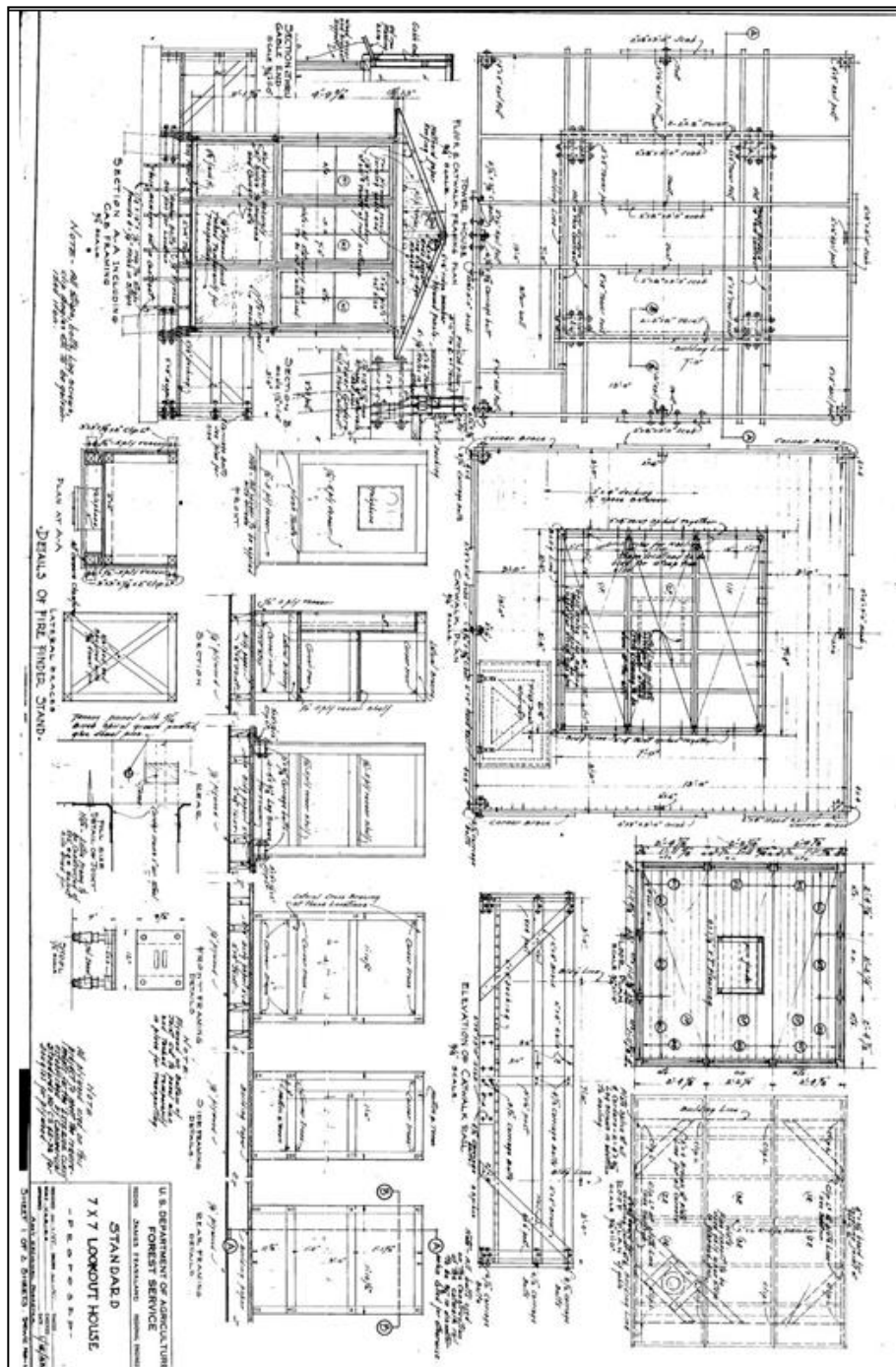
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Figure 3: Aermotor Standard 7x7 Lookout House Schematic, ca. 1943



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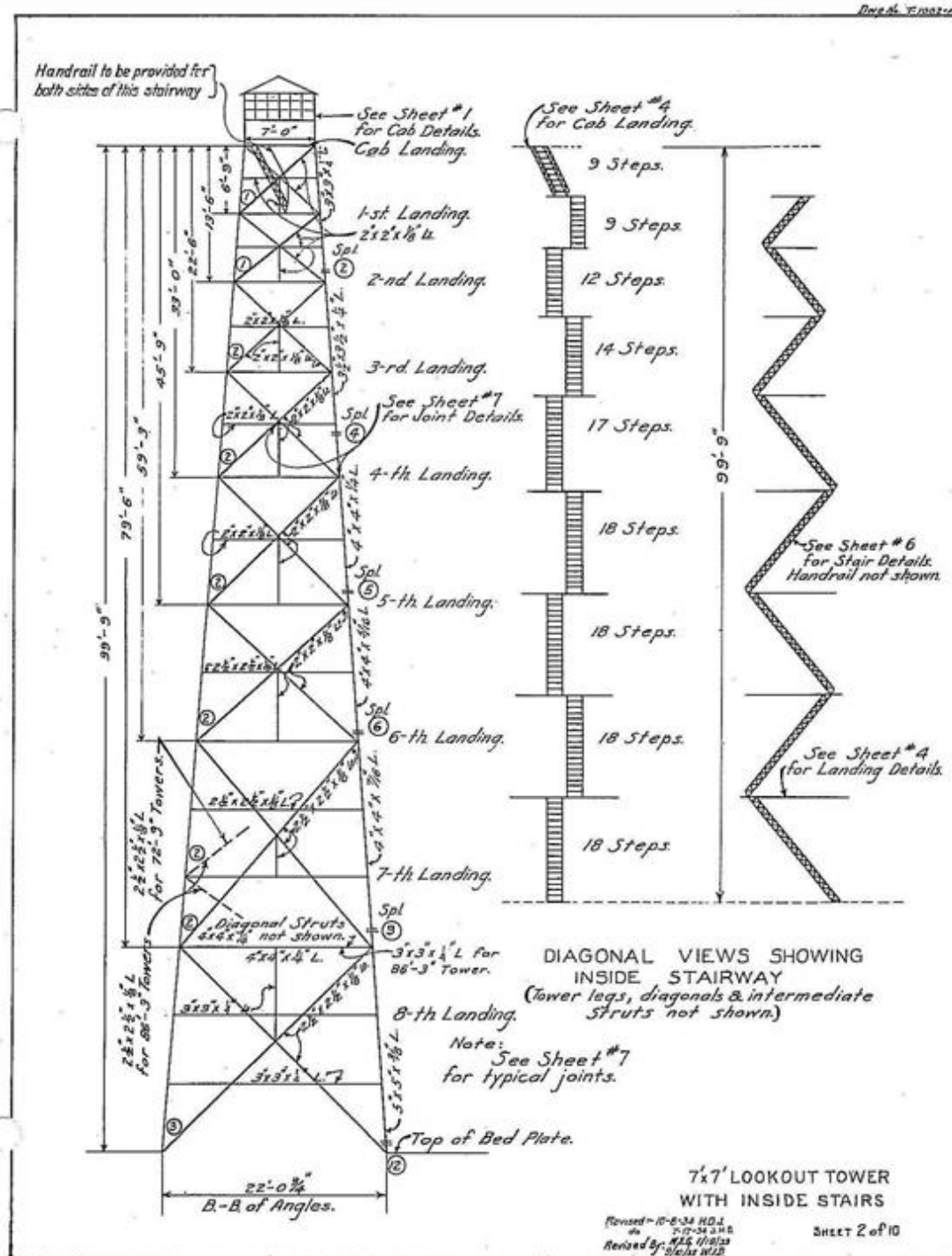
N/A

Name of multiple listing (if applicable)

Section number Photos and Plans

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Figure 4: Schematic of the Standard Steel Tower to be used by the Forestry Service



Property Owner:

(This information will not be submitted to the National Park Service, but will remain on file at the Tennessee Historical Commission)

Name	State of Tennessee, c/o Mr. Tom Womack, Deputy Commissioner, Department of Agriculture		
Street & Number	440 Hogan Road	Telephone	
City or Town	Nashville	State/Zip	TN 37220











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