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Nat. Register of Historic Places
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United States Department of the Interior
National Park Service

Kentucky State Tuberculosis Hospitals, 1946 – 1950
Name of Multiple Property Listing

Kentucky
State

National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information.

____X___ New Submission _____ Amended Submission

A. Name of Multiple Property Listing

Kentucky State Tuberculosis Hospitals, 1946 – 1950

B. Associated Historic Contexts

The Anti-Tuberculosis Movement in Kentucky, 1907 – 1977

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D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

Signature of certifying official **Craig Potts** | **State Historic Preservation Officer** Title | 6-16-16 Date

Kentucky Heritage Council
State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper

8.4.2016
Date of Action

Table of Contents for Written Narrative

Create a Table of Contents and list the page numbers for each of these sections in the space below.
Provide narrative explanations for each of these sections on continuation sheets. In the header of each section, cite the letter, page number, and name of the multiple property listing. Refer to *How to Complete the Multiple Property Documentation Form* for additional guidance.

E. Historic Context: The Anti-Tuberculosis Movement in Kentucky, 1907 – 1977

Introduction and Early Treatment, pre-1900

Tuberculosis is a bacterial disease mainly impacting the lungs that is spread through person-to-person contact. Absorbing germs transmitted through sneezing or coughing are the most common ways to contract tuberculosis. Afflicting humans for centuries, this disease was historically known as both consumption and the white plague after the weight loss and pallor commonly associated with it. In 1882, German physician Robert Koch discovered the tubercle bacillus and argued that microscopic organisms helped spread tuberculosis. This laid the groundwork for the germ theory, a new medical paradigm for understanding disease and contagion. Prior to the germ theory, Americans clung to different ideas about the origin of diseases. Many believed that miasmas in low-lying and crowded urban areas contributed to illness; thus, the practice of seeking fresh air in higher elevations emerged in the nineteenth century. While the miasmic theory of disease became antiquated by the 1890s, Americans were not completely accepting of the germ theory. Older notions of dirt and disease remained and fused with the new gospel of germs.

Historian Nancy Tomes argues that Americans combined traditional sanitary science with germ theory to craft a new understanding of sanitation that focused on the sources of germs. Researchers linking specific diseases to germs marked the second period of germ theory. With this better understanding of disease, Americans looked for ways to prevent contagion from spreading in their own homes. Women became an important agent of stopping the spread of disease within the domestic sphere. Physicians downplayed the significance of women in combatting disease. Rather than focus on germs in the home, they advocated for the importance of isolating the sick and developing vaccines. Tuberculosis served as an important case study for this new public awareness of contagion (Tomes, *The Gospel of Germs*).

The development of American tuberculosis sanatoria coincided with public health awareness of tuberculosis as a communicable disease that required both improvements in housing and adequate isolation of the sick. A medical publication, *Sanitary Advice for Keepers of Summer Resorts,* voiced this need for the segregation of the sick from the healthy: “The careful tuberculosis patient may be quite harmless in a summer hotel, but those who are careless and expectorate promiscuously are a positive danger, and while such persons are always to be regarded with consideration and charity, it may become necessary to recommend that they spend their summer in a sanitarium, rather than in a public resort where they may endanger others” (*Sanitary Advice for Keepers of Summer Resorts,* 1912, *Google Books).*

Dr. Edward Livingston Trudeau spearheaded the American sanatorium movement. Trudeau, an American survivor of tuberculosis, took inspiration from German predecessors and created a sanatorium for consumptives at Saranac Lake, New York in 1884. As a prominent physician in the tuberculosis field, Trudeau set the pace for other sanatoria to develop across the United States (Daniel, *Captain of Death*). In the coming years, two distinct sanatorium ground plans emerged: the cottage model with a central administration building and infirmary and bungalow-style accommodations scattered around the grounds to achieve a home-like setting; and the institutional plan, with patient accommodations designed like hospital wards and connected formally through corridors and covered walkways to the administrative center. A commonality in these plans was the importance of centralization, “the administrative center dominated the sanatorium landscape, a natural

consequence of the importance in the cure of supervising the patient's daily life" (Mark Caldwell, *The Last Crusade: The War on Consumption, 1862-1954,* 88).

The Era of Local Tuberculosis Sanatoria, 1907 - 1944

The first sanatoria to arrive in Kentucky were county-operated facilities that catered to local residents. After Hazelwood Sanatorium opened in 1907, similar sanatoria followed suit over the next few years. By 1912 , three sanatoria—Hazelwood, Waverly Hills, and Jackson Hill—existed, as well as tuberculosis wards at the Eddyville Branch Penitentiary and the Western Kentucky Asylum for the Insane (*First Biennial Report of the Kentucky Tuberculosis Commission,* 11- 12). It was at this time that Kentucky first introduced the idea of district tuberculosis sanatoria dispersed throughout the Commonwealth. With the passage of the Acts of 1912, Kentucky formally undertook a state-wide anti-tuberculosis campaign. Chapter III of the legislation specified:

> An Act concerning tuberculosis and to provide for the creation of a commission to be known as the Kentucky Board of Tuberculosis Commissioners, to define its powers and to make an appropriation therefor, and to authorize and provide for the establishment of districts consisting of one, or more than one, county, and to authorize and provide in each district for the location, erection, organization and management of a district sanatorium for the care and treatment of tuberculosis, and authorizing county and district taxations for the purpose of making an appropriation for the purchase of necessary land and construction and equipment of necessary buildings and an annual appropriation for the maintenance of such sanatorium." (*First Biennial Report of the Kentucky Tuberculosis Commission,* 3).

Created by the new legislation in 1912, the Kentucky Tuberculosis Commission set out to study and disseminate research on tuberculosis as well as take necessary measures to prevent its spread. In 1914, the commission published its first biennial report (*First Biennial Report of the Kentucky Tuberculosis Commission*). The early work of the commission included designing a moving picture show to reach rural communities throughout Kentucky. The commission's work furthered that conducted by the Kentucky Association for the Study and Prevention of Tuberculosis. Yet, as optimistic as the Kentucky Tuberculosis Commission strove to be, it failed to carry out the district sanatoria plan conceived by Chapter III of the Acts of 1912. Instead, county sanatoria continued to be the norm.

In 1917, the city of Lexington opened its first tuberculosis hospital, known locally as the Blue Grass Sanatorium. Originally operated by Fayette County, the sanatorium received $125,000 from Leo Marks in 1924 and gained a new name in memory of Leo's father Julius, a former resident of Lexington (AJA Archives, April 1924, Brooklyn: Marks, Leo). This donation allowed the sanatorium to expand into a larger complex featuring a new 60-bed hospital building and eventually a "colored patients building" to serve African American consumptives (Julius Marks Sanatorium Sanborn Map, *Asylum Projects*).

As shown in a circa 1938 postcard, Julius Marks Sanatorium's landscaping reflected health knowledge of the late-nineteenth/early-twentieth century. The immaculate grounds with abundant trees and winding driveways were a throwback to the health resorts of the past that emphasized the therapeutic quality of the environment. The landscape also speaks to racial segregation at the sanatorium. In addition to construction of the African American patient building, one of the sleeping pavilions was moved to the south side of the

sanatorium complex. This sleeping pavilion came to be known as the south ambulatory, located near the African American patient building. The Julius Marks Sanatorium was eventually one of just two sanatoria in Kentucky open to African American patients; the other being the 575-bed Waverly Hills Tuberculosis Sanatorium which contained an annex to segregate patients (Sol Schulman, "Thousands Doomed to Die Get Reprieve From the State," *The Courier-Journal*, August 13, 1944).

The heyday of the Julius Marks Sanatorium, as with other local county-operated sanatoria, finally passed with the establishment of state tuberculosis hospitals in the late 1940s. With a declining patient base, the sanatorium transitioned into an elderly care home and transferred remaining patients to the state hospitals by the end of the 1950s. Waverly Hills followed suit in transferring patients to the state-supported Hazelwood Sanatorium, leaving only two county sanatoria in operation in 1960 (*1960-1961 Annual Report*, 7).

Beginning of a State Effort to Treat Tuberculosis: 1907-1944

For much of the early twentieth century, Kentucky lagged behind many other states in tuberculosis treatment and prevention. Hazelwood Sanatorium helped bridge the gap between the era of county-operated sanatoria and state tuberculosis hospitals. The state's first tuberculosis sanatorium opened in Louisville on September 7, 1907. The ten-bed hospital, known as the Hazelwood Sanatorium, derived its namesake from the nearby Hazelwood Station. The number of consumptive cases in Kentucky quickly overwhelmed the small sanatorium's capacity. Within three years, Hazelwood had expanded to include "three open-air cottages – called "shacks", a sewage disposal plant, a dairy barn, a garden and several tents for the male patients" (C.C. Thomas, *With Their Dying Breaths: A History of Waverly Hills Tuberculosis Sanatorium*, 43). This was just the first of many expansions at Hazelwood. The sanatorium steadily grew from 60 beds in 1914 to 140 beds in 1917. A new two-story building with screened-in porches accommodated the large influx of patients from throughout the state. In order to receive treatment at Hazelwood, Kentuckians had to apply first to their county's fiscal court because counties bore financial responsibility. It was ultimately up to counties to decide if tuberculosis sufferers would be sent to the sanatorium (Thomas).

Monetary problems plagued Hazelwood from its beginning and eventually led to the state assuming ownership in 1920. By 1924, Hazelwood required that all patients pay a weekly rate of fifteen dollars for their treatment. Despite this effort to recover financially, the sanatorium remained overcrowded and fell into disrepair. (Thomas, 44 – 48). The superintendent and medical director, Dr. Paul A. Turner, stated, 'The buildings and equipment at Hazelwood are in such poor condition that unless immediate repairs are made it will have to be closed…If Kentucky, which does less than any other State in curing tuberculosis, allows its only institution for that purpose to close, it will require twenty years to build back where we are today' (as cited in Thomas, 47). Hazelwood Sanatorium managed to weather its financial hardship into the 1940s when it became the surgical center for the newly-built tuberculosis hospitals in Kentucky.

The State Institutional Phase, 1944 – 1970s

The tuberculosis problem in Kentucky eventually overwhelmed Hazelwood Sanatorium and the sparse number of other county-operated sanatoria. It was estimated in 1944 that an annual average of 2,000 Kentuckians died of tuberculosis. One source even cited Kentucky with "the country's highest tuberculosis death rate if precedence of Arizona and New Mexico, health resort States, is discounted" (Schulman). The long-

term care needed for tuberculosis treatment, paired with the contagious nature of the disease, meant most private hospitals rejected tuberculosis patients. As of 1944, only a few places in Kentucky received consumptives. These included 375-bed United States Veterans Hospital in Outwood, the 26-bed Warren County Tuberculosis Sanatorium in Riverside, the 17-bed Kenton County Tuberculosis Hospital in Covington, the 575-bed Waverly Hills in south Louisville, and the 115-bed Julius Marks Sanatorium in Lexington. Hazelwood Sanatorium, home to the State sanatorium, received an annual appropriation of $88,000 while the rest relied solely on local sources and/or patient payment (Sol Schulman, "Thousands Doomed to Die Get Reprieve From the State," *The Courier-Journal*, August 13, 1944).

Health inspections of troops during World War II helped bring to light the hundreds of tuberculosis cases among just the male population. The sentiment among the medical community that a handful of large sanatoria would provide the most efficient way to bring together highly trained staff and modern equipment (Sol Schulman, "Thousands Doomed to Die Get Reprieve From the State," *The Courier-Journal*, August 13, 1944).

Galvanized by public interest in state-funded tuberculosis facilities, the General Assembly of Kentucky passed House Bill No. 147. That legislation divided the state into six tuberculosis sanatoria districts, allowed for the construction of sanatoria, and created the Tuberculosis Sanatoria Commission of Kentucky (*Report on Sites for the Tuberculosis Sanatoria Commission of Kentucky*, 1). Governor Simeon Willis approved the bill on March 17, 1944. Eleven men and one woman formed the Tuberculosis Sanatoria Commission of Kentucky. The act also provided government funding for "six sanatorium districts with at least a 100-bed sanatorium in each district" (Sol Schulman, "Thousands Doomed to Die Get Reprieve From the State," *The Courier-Journal*, August 13, 1944).

Under the auspices of the Tuberculosis Sanatoria Commission, Architect Fred J. Hartstern traveled throughout Kentucky to recommend sites for the five new state hospitals and expansion of the Hazelwood Sanatorium. As dictated by legislation, sites required "an adequate municipal water supply" and "convenient access to utility service and fuel" (*Report on Sites for the Tuberculosis Sanatoria Commission of Kentucky*, 3). The report assumed that most patients would arrive by private automobile, and thus gave little importance to railroad transportation. Potential locations were assigned scores based on the following factors: foundation conditions, roads and grading on site, landscaping (trees only), accessibility, distance from town, elevation of site, and transportation. These factors followed those set forth by T. B. Kidner in his 1921 "Notes on Tuberculosis Sanatorium Planning." In the report, T. B. Kidner of the National Tuberculosis Association outlined the principal factors of tuberculosis sanitarium landscape planning: "(a) accessibility; transportation facilities and distance from a center of population, (b) the topographical features, (c) the exposure (orientation) and shelter from prevailing disagreeable winds, (d) the climatic conditions, (f) soil and drainage facilities" ("Notes on Tuberculosis Sanatorium Planning," *Public Health Reports (1896-1970)* 36, no. 24 (June 17, 1921): 1371).

The potential to house a state tuberculosis hospital in one's community led to a variety of responses, some opposed to and others in favor of. The August 13, 1944 edition of *The Courier-Journal* noted that some communities opposed the construction of TB hospitals near them given the belief by some doctors that "the Veterans Hospital near Dawson Springs killed Dawson Springs as a resort city." Whereas sanatoria had historically been considered a stain on community's wellbeing, the new TB hospitals were actively pursued by

other communities for their economic, symbolic, and health purposes. Hartstern's recommendations culminated in the 1945 *Report on Sites for the Tuberculosis Sanatoria Commission of Kentucky*.

After the *Report* was delivered, further choices were required. For example, Paducah ranked first in the recommendations, but second choice Madisonville ultimately housed District One's tuberculosis hospital that served twenty-two counties in the western part of the Commonwealth. According to September 27, 1950 edition of the *Madisonville Messenger*, local resident Lawrence H. Ashmore, an original member of the state sanatoria commission, advocated for Madisonville's selection. Elaborate, multi-page spreads on TB sanatoria dedications appeared in local newspapers. Some businesses jumped at the chance to align themselves with this tangible symbol of modernity. An excerpt from *The Glasgow Times* dubbed the new hospital as "another progressive step for Glasgow and the community we serve" (*The Glasgow Times*, Thursday, August 24, 1950).

Eventually, the six district hospitals were located in Madisonville (District One), Louisville (District Two), Paris (District Three), Ashland (District Four), London (District Five), and Glasgow (District Six). A new hospital was planned for each district except District Two, where Hazelwood Sanatorium already stood.

Immediately after Louisville's Hazelwood Sanatorium became one of the State's six sanatoria, state funding for patient care dropped, causing some patients to have to pay for a portion of their treatment. Still, the Tuberculosis Commission's creation of five new district tuberculosis hospitals also resulted in increased funding for Hazelwood, providing for a 230-bed addition with forty-three beds reserved for African American patients (Sol Schulman, "Thousands Doomed to Die Get Reprieve From the State," *The Courier-Journal*, August 13, 1944). Waverly Hills Sanatorium, also located in Louisville, with forty beds, remained to serve the residents of Jefferson County (*First Biennial Report of the Kentucky Tuberculosis Commission*, 11-12). Open to both incipient and advanced cases, Waverly Hills charged between three to five dollars per week; however, for those unable to pay, the fee was waived.

Construction on the state tuberculosis hospitals spanned from 1946 through 1950. All five new hospitals adhered to a standard five-building layout – main hospital building, director's residence, staff residence, nurses' residence, and combination boiler house and laundry – designed by architects John T. Gillig and Fred J. Hartstern of Lexington and J. T. Wilson of Louisville and carried out by the construction engineering firm of Warren and Ronald (*Paris Tuberculosis Sanatorium* Survey Form). The initial design of these hospitals failed to meet standards later set forth by the Hill-Burton Act of 1946. Hill-Burton was federal legislation that supported hospital construction nationwide shortly after World War II. In order to gain Hill-Burton funding, Hartstern and members of the Tuberculosis Sanatoria Commission met with the U.S. Health Department in Washington, D.C. This meeting secured an allotment for hospital furnishings and some operation costs (*Ashland Tuberculosis Hospital* National Register, Section 8, Page 9).

Using a revised design, local contractors in each district carried out Gillig-Hartstern and Wilson's plan. This resulted in five identical, $1.5 million hospitals built to accommodate at least 100 patients each. With Hazelwood's 250 beds and an additional 750 beds located in city and county TB sanatoria, Kentucky secured about "1,500 beds to fight an estimated 17,000 cases of tuberculosis in Kentucky" (Ernest Clayor, "Hospital Will Serve 22 West Counties," *Madisonville Messenger*, Wednesday, September 27, 1950).

The dedication of the first opened tuberculosis hospital occurred at Paris on June 14, 1950 followed by the Glasgow Tuberculosis Hospital in late August 1950. Madisonville's dedication on September 29, 1950 marked the opening of the third tuberculosis hospital. The dedication ceremonies presided by government officials concluded at London and Ashland's sanatoria. In order for local citizens to attend the festivities around the dedication, Madisonville opted to close its downtown stores, with most business firms allowing employees to attend the ceremony. The Madisonville High School Band played for the ceremony. Former Governor Simeon Willis and current Governor Earle C. Clements, both responsible for the development of the new sanatoria, attended (Ernest Claytor, *Madisonville Messenger*, Wednesday, September 27, 1950).

Although being newly constructed, the five tuberculosis hospitals required major improvements within their first few years of operation. The *1950-1951 Annual Report* noted a lack of storage space and garage parking for hospital vehicles. In addition to building maintenance, the grounds required landscaping attention. In the *1953-1954 Annual Report*, efforts to waterproof the new hospital buildings remained ineffective and required continual attention from the Division of Engineering (24). In addition to the waterproofing issue, there was the leaking and deterioration of steam lines running from the power houses to the main hospital buildings at each of the new sites (24). Within seven years of opening, the five smaller tuberculosis hospitals required steam line replacements as well as major roof repairs (*1956-1957 Report*, 25).

An initial bed capacity of 100 at each of the five new tuberculosis hospitals steadily increased until it reached 112 by the 1960s. The much larger Hazelwood Sanatorium expanded its own capacity to accommodate transfer patients from Waverly Hills Sanatorium.

Kentucky's decision to open a network of state tuberculosis hospitals was a commitment to progress and modern medicine. The erection of five large hospitals and the expansion of another funneled a substantial amount of state funds into the fight against tuberculosis. Ironically, their opening coincided with new drug treatments, known as the triple therapy, which practically eradicated the long-term need for tuberculosis sanatoria.

The Sanatoria Commission's reaction to these new treatments was predictably conservative. "Despite a steady decline in the death rate in recent years, the number of people who have tuberculosis is increasing. Whether they die or recover, their number is the real index to the problem. Tuberculosis in Kentucky is still public health enemy number one. It is the most unnecessary, most wasteful, and most expensive of all diseases" (The *1950-1951 Annual Report of the Kentucky Tuberculosis Sanatoria Commission*, 9). The development of out-patient clinics and acceptance of tuberculosis patients at general hospitals left sanatoria with a dwindling patient base.

As detailed by the *1960-1961 Annual Report*,

> After the recent closing of the Julius Marks Sanatorium in Lexington and the Waverly Hills Sanatorium in Louisville, we now have only two sanatoria operated by local governments in Kentucky. These are the Warren County Tuberculosis Sanatorium in Bowling Green and the Covington-Kenton County Tuberuclosis Sanatorium in Covington, which have a total of about 70 patients. Since an adequate number of state hospital beds are available for these patients, the citizens of Warren County and Kenton

County should consider transferring these patients to the state hospitals. The transfer of these patients would relieve Warren and Kenton Counties of the financial burden of operating the sanatoriums. (7).

The number of Kentuckians hospitalized with tuberculosis decreased over the course of the 1960s. Aware of the dwindling need for tuberculosis hospitals, the State Tuberculosis Hospital Commission recommended as early as 1963 that the facilities be authorized to treat chronic respiratory diseases (*1967-1968 Annual Report*). The era of tuberculosis sanatoria ended by the mid-1970s as the medical community embraced drug therapy over regimented bedrest in a hospital setting.

As Annmarie Adams observes, "hospitals of the 1950s and 1960s tended to look like office buildings" (Adams, 130), it is fitting that two of the three extant state tuberculosis hospitals eventually found new life as government office buildings. Their transition from medical to office space represents successful adaptive reuse case studies. Created by government funding, the continual presence of the Commonwealth has ensured maintenance over the years. London and Madisonville State Tuberculosis Hospitals remain in good condition with their exteriors relatively unchanged since their creation.

Sanatoria as Historic Properties

The Tuberculosis Sanatoria Commission, later known as the Tuberculosis Hospital Commission, documented the annual operations of the state tuberculosis hospitals in reports from 1950 through at least 1971.These reports detail each hospital's financial costs, patient statistics, educational and outreach programs, maintenance, and other improvements. While the annual reports provide a tremendous amount of information about the state tuberculosis hospitals, there's a lack of documents recording the closing of Kentucky's sanatoria. Glasgow and Paris sanatoria were razed in recent years. Hazelwood Sanatorium now functions as a long-term facility for mentally handicapped citizens and has undergone substantial modifications. Ashland TB Hospital received National Register recognition in 2007, while London and Madisonville sanatoria still serve as government office buildings.

Kentucky's state tuberculosis hospitals are tangible symbols of Kentucky's mid-twentieth century crusade against tuberculosis. Based on standard design, the hospitals encapsulated all that modern medical architecture had to offer. Ashland, London, and Madisonville sanatoria exist as architectural embodiments of the public health campaign against tuberculosis in the Commonwealth. Their shared design and stylistic features, including solariums on each floor, cornerstones, and crosses on the facades, make these hospitals easily identifiable and potent as symbols of the Anti-Tuberculosis Movement in Kentucky.

F. Associated Property Types

Name of Property Type: Kentucky State Tuberculosis Hospital

Description of State Tuberculosis Hospitals:

The five tuberculosis hospitals constructed from 1946 – 1950 adhered to a standard design created by the architectural firms Gillig-Hartstern and Wilson. By the late 1940s, tuberculosis sanatorium planning departed from its earlier emphasis on domestic settings to reinforce good health. Until this period, "hospitals, in fact, relied on the likeness of the big, safe house to convince middle-class city dwellers that their chances were as good there as they were at home" (Adams, xxiii). The sanatorium planning of the mid-twentieth century reflected the ideas and suggestions put forth by the National Tuberculosis Association (formerly the National Association for the Study and Prevention of Tuberculosis that is now known as the American Lung Association).

Main Hospital Building

The standard design for the main hospital building for each site consists of a modified cross/t-shaped plan. Composed primarily of brick in a running bond pattern, the main building is multi-story with the back cross-section the highest at four stories. The hospital's flat roofs are trimmed with coping caps while scuppers filter rain into metal gutters. The combination windows on all elevations contain stone sills. On the two-story front façade, the windows are articulated in bays flanking the main entrance. The metal gutters visually divide bays of window into sections on each elevation. The original solaria, one located on each of the four floors, highlight the use of windows to provide fresh air and a view of the landscaped grounds.

The main entrance to each hospital distinctly identifies it as a tuberculosis sanatorium. A large two-story stone-faced portico prominently displays the bronze seal of the Commonwealth of Kentucky above the entranceway. The date that construction started on each building, under the administration of Governor Simeon Willis, is commemorated through a limestone cornerstone on the façade. A muted row of dentils adorn the lentil above the door. Although the metal words "SANATORIUM" have since been removed from the lentil, the double-barred cross remains etched into the stone flanking the front door as a symbol of the crusade against tuberculosis that was adopted by tuberculosis prevention associations. The two double-barred crosses on the façade mark each hospital building as a tuberculosis sanatorium.

Art Deco influences can also be seen through the use of geometric design elements and steamship glass. The main portico is framed by a geometric cornice carved into the stone. Echoes of this design appear in the parapet brickwork of the front section's roof, cornices of the secondary rear entrances, and the elaborate two-story steamship glass of the rear staircases. While the stone portico served as the original main entrance, six other entrances provided secondary access to the main building. These include four (two rear and two side) on the ground level of the main hospital and two in the front three-story section of the building. The two rear entrances feature graduated brick porticoes with cornices comprised of stone geometric elements. A two-story bay of steamship glass above each rear entrance illuminates the staircase at the ends of the building. One of the rear entrances is pushed into the interior by two bays to accommodate the south-facing solaria at that end. These

large, airy solaria with interior glazed, tile walls represent a modern take on the sleeping porches and sunrooms found in early tuberculosis sanatoria.

Auxiliary Buildings

In addition to the main hospital building, each sanatorium complex was originally outfitted with a set of auxiliary buildings to make the sanatorium a self-sufficient unit. Although the buildings featured similar brickwork and stonework as the main hospital building, the eclectic residential architecture contrasted with the sleek modernism seen in the hospital's style. These buildings consisted of a director's residence, staff residence, nurses' residence, and combination boiler house and laundry. Since the decommissioning of the tuberculosis hospitals, many of the buildings were razed and the number of extant buildings varies at each site. Descriptions of the building types, both razed and extant, can be gleamed from the 1946 *Specifications for Nurses' Residence, Staff Residence, Director's Residence, Boiler House, Laundry and Shop for the State Tuberculosis Hospital Sanatoria.*

The director's residence is a two-story brick house with a poured concrete foundation and low-pitched hipped roof. The roofline contains gutters and a simple wooden cornice. The rectangular building features a combination of three bays and two bays of windows on its elevations. By far the most ornate elevation, the front façade has a flat-roofed portico with decorative metal columns. A transom sits above the large front doorway and a round window sheds light on the central stairway. The two-story house itself has a total of three floors with the full basement serving as the third. The last remaining director's residence is in active use at the Ashland Tuberculosis Hospital site.

Built to house the families of the business manager and assistant director, the staff residence is a flat-roofed, three-story brick building with a poured concrete foundation. As the ground level, the partially excavated basement sits on a half-height poured concrete foundation. The front elevation is five bays wide with a projecting front entrance capped with a classically inspired, gable front pediment. Metal columns support a decorative front portico. Above the portico, a rounded central bay of windows lights the interior stairwell. At the rear of the house is a one-bay-wide, two-bay-deep wing. On the window bays, pairs of four-paned casement windows rest on stone sills. The rear of the wing elevation features a three-part variation (four-paned casement windows flanking a single, central-pane) of the windows seen throughout the other elevations. The staff residence is still extant at both the Ashland Tuberculosis Hospital and Madisonville Tuberculosis Hospital sites.

The nurses' residence is a three-story, split-level apartment building with twenty-three rooms and a low-pitched hipped roof. Long and rectangular, the symmetrical building features seven bays of windows and recessed entryways at its ends. Heavy copper downspouts and eyebrow vents visually divide the seven bays into three parts. The nurse's residence shares similar characteristics, such as the modest wooden cornice, gutter system, running bond brickwork, decorative copper downspouts, and casement windows with stone sills, with the other residential architecture of the sanatorium complex. The last remaining nurses' residence is in active use at the Ashland Tuberculosis Hospital site.

The only non-residential auxiliary building is the two-level, brick combination boiler house and laundry, referred to as the power plant in some newspaper sources. Appearing as a six-bay, one-story structure with a flat roof, the boiler house and laundry contains most of its 20,000 square foot interior below ground through the

innovative use of a steel framework and concrete foundation. The front elevation features sixteen-pane window and a large entrance. Poured concrete dominates the recessed east elevation, where the coal storage and chute originally resided. At the Madisonville Tuberculosis Hospital site, the former boiler house and laundry building is still in active use. It is currently vacant and boarded up at the Ashland Tuberculosis Hospital site.

Significance of the Property Type:

The Kentucky Tuberculosis State Hospitals meet National Register Criterion A. In addition to the individually-listed Ashland Tuberculosis Hospital, the two other extant hospitals are significant for their association with Kentucky's public health campaign to eradicate tuberculosis, as detailed in the historic context, "The Anti-Tuberculosis Movement in Kentucky, 1907 – 1977." Although Kentucky formed a tuberculosis commission in 1912, sanatoria largely remained in the hands of local and county organizations for the next three decades. The construction of five 100-bed tuberculosis hospitals in the late 1940s marked a transition from smaller, county-operated sanatoria to larger, modern district hospitals. Plagued for decades by a large percentage of tuberculosis cases, Kentucky sprang into action after World War II health inspections exposed the poor health of its citizens. In 1945, Kentucky initiated a state-wide effort to curtail tuberculosis deaths in the Commonwealth. Aided by the 1940s discovery of the antibiotic streptomycin, the sanatoria offered a modern cure to thousands of TB patients. The effective triple therapy drug treatment of tuberculosis eventually led to the decommissioning of the tuberculosis hospitals in the 1970s. The sanatoria remaining are a testament a particular era of Kentucky's tuberculosis history. The significance of these hospitals has already been acknowledged through the listing of the Ashland Tuberculosis Hospital on the National Register in 2007.

Annmarie Adams, in *Medicine by Design: The Architect and the Modern Hospital, 1893 – 1943*, notes that a shift in hospital design from home-like facilities to more professional institutions occurred by the mid-twentieth century. Standardization of hospital design improved cost-efficiency and evaluation of hospital performance (Adams, 120). Given that Kentucky's state tuberculosis hospitals received government funding, it was also imperative that a comparatively equal level of services be offered to all citizens throughout the six districts. Their design conveyed an image of hospitals as modern antidotes to the white plague. The use of materials further exemplified the power inherent in these sanatoria:

> In viewing this link in the State's system of sanatoria for the treatment of Kentucky's worst plague, tuberculosis, one is bound to be impressed by the ability of government to do what private citizens would find impossible. A great deal of money has been spent, that is true, but great good can come of it in salvaged lives that previously have been doomed. This money has furthermore been wisely spent from the standpoint of permanency of construction… brick and tile, steel and concrete, even the window sills will resist wear and rotting because they are of marble. (Tuberculosis Hospital Dedication Section, *The Glasgow Times*, Thursday, August 24, 1950.)

In the early twentieth century, it was believed that the tubercle bacilli could survive in household dust and that sunlight offered a way to destroy the bacteria lingering in the built environment. Light and air ultimately became intrinsically linked to the Anti-Tuberculosis Movement. Margaret Campbell, in "What Tuberculosis did for Modernism: The Influence of a Curative Environment on Modernist Design and Architecture," contends that "light and air, and specifically sunlight, were influential in the interpretation of modernist hygienic ideas for the design of flat roofs, balconies, terraces and recliner chairs" (Campbell, 470).

The modernism reflected in the tuberculosis hospitals combined hygienic and environmental knowledge. When the state hospitals were constructed in Kentucky, the medical community and public still directly connected architectural design and environment with the treatment of tuberculosis. That association proved short-lived as the introduction of the triple therapy treatment diminished the need for sanatoria by the 1950s. (Campbell, 487). Despite this poor timing in construction, the Commonwealth's decision to fund state sanatoria, rather than remain in local hands, demonstrated a pervasive view in the power of medical and scientific progress.

The extant state tuberculosis hospitals at Ashland, London, and Madisonville stand as tangible mid-twentieth-century representations of Kentucky's public health campaign to cure tuberculosis. Despite the stigma attached to the contagious disease, communities celebrated the opening of the tuberculosis hospitals as steps of progress and modernity. Local newspapers published lengthy articles and advertisements leading up to the official dedications of the new hospitals. The Wednesday, September 27, 1950 edition of the *Madisonville Messenger* remarked on what a tuberculosis hospital meant for the community:

> We Welcome A New Landmark Dedicated to Mercy! No finer tribute could be paid to Madisonville and Hopkins County than to be selected for District One's Tuberculosis Sanatorium. We extend congratulations to the entire management and staff, and to all those whose efforts made this great monument to the future possible. Best Wishes from Another Who is Proud to Have the Sanatorium in Our Midst!

Registration Requirements:

The nominated resources must have been a tuberculosis hospital located within the present geographic boundaries of Kentucky. To be considered eligible, nominated resources must have been constructed by the Commonwealth from 1946 – 1950. State tuberculosis hospitals should adhere to the standard sanatoria design created by Gillig-Hartstern and Wilson and described in the Property Types section. These hospital buildings must continue to reflect the elements of their healthcare origin to be eligible.

To be eligible for registration under Criterion A, properties must be associated with significant events or trends in history. The state tuberculosis hospitals are tangible manifestations of Kentucky's modern public health campaign to eradicate tuberculosis in the mid-twentieth century. Their significance to healthcare in the Commonwealth qualify these sanatoria for registration under Criterion A.

The seven qualities of integrity (location, setting, design, materials, workmanship, feeling, and association) should be considered to authenticate the historical identity of each property. This requires that the state tuberculosis hospitals maintain the original stylistic character of their primary exterior elevations with new materials not diminishing from the original design. It is also important that the hospitals remain in their original locations as specified by the six-district sanatoria plan. Integrity should be high enough to substantiate the hospital's contribution to the historic context established in Section E of the Kentucky State Tuberculosis Hospital MPS. Those hospitals exemplifying sufficient integrity will be eligible for listing in the National Register of Historic Places. Each tuberculosis hospital will satisfy the integrity requirement if it retains the following characteristics:

The original **location** chosen by the Tuberculosis Sanatoria Commission should be maintained. Featured in the 1945 *Report on Sites for the Tuberculosis Sanatoria Commission of Kentucky,* these locations all scored highly on factors including foundation conditions, roads and grading on site, landscaping, accessibility, distance from town, elevation of site, and transportation. All buildings left at each sanatorium complex have not been moved since their original construction, circa 1946 – 1950.

Although changes may have occurred, the overall **setting** should still reflect the landscaping and site composition of the sanatorium complex. Additional parking lots, public access roads, and off-site development should not compromise the site's integrity of setting.

The architectural **design** created by Gillig-Hartstern and Wilson should be evident in the contributing buildings and undistributed by alterations. As the reports from the Tuberculosis Sanatoria Commission noted, all hospital sites necessitated maintenance and upkeep during their tenure as tuberculosis treatment facilities. Major issues with the roofing, moisture, landscaping, and adequate storage at the sanatoria occurred in the first few years after construction. While the extant main hospital buildings underwent adaptations for new use, they still retain the character-defining elements of their original design. These intact elements include the imposing facades with tuberculosis sanatorium symbols, the south-facing solaria, the steamship glass-lit stairwells, and the hallways. The other contributing auxiliary buildings have also retained the plainer facades and design features original to their construction.

The **materials** and **workmanship** of the original hospital buildings must be sufficiently displayed at the nominated sites. Notable features include decorative brickwork, stonework, and ceramic-tiled hallways. The physical fabric of the exterior main hospital building is of upmost importance as this was the ornate, focal point of the complex.

The **feeling** and **association** of the tuberculosis hospitals are demonstrated through their unique sanatorium appearance and the secluded landscape. While the health-care function of the sites have ceased, their layout and design easily identify the main hospital buildings as former tuberculosis sanatoria. Originally associated to the Anti-Tuberculosis Movement, the double-barred crosses on the front entry portico now share similar meaning with the American Lung Association that has since adopted the symbol. The presence of cornerstones and seals of the Commonwealth of Kentucky also help identify the role of Kentucky in the site's history. The level of development around each historic property boundary is minimal and does not significantly distract from the setting.

G. Geographical Data

This Multiple Property Documentation Form includes buildings, constructed between 1946 and 1950, located within the present geographic boundaries of the entire state of Kentucky.

H. Summary of Identification and Evaluation Methods

During the fall of 2015, a graduate student from Middle Tennessee State University started a doctoral residency at the Kentucky Heritage Council. As part of the doctoral residency, the graduate student was tasked with completing a major professional project that aligned with her dissertation interests in tuberculosis sanatoria. Through research into the Tuberculosis Sanatoria Commission records at the Kentucky Department of Libraries and Archives and related special collections at the University of Kentucky, she decided to produce a multiple-property submission on Kentucky's state tuberculosis hospitals constructed from 1946-1950. Kentucky housed a number of local, county-operated sanatoria in the first half of the twentieth century; however, the five identical tuberculosis hospitals represented a unique set of institutional planned sanatoria built by the Commonwealth to eradicate tuberculosis. The presence of Ashland Tuberculosis Hospital, one of the five, already on the National Register demonstrated the importance of the state tuberculosis hospitals in mid-twentieth century Kentucky.

For the scope of this project, it was determined that the graduate student would nominate the three extant hospitals as a whole in an MPS as well as individually nominate London and Madisonville sanatoria. Although Hazelwood Sanatorium served as the state TB hospital for District Two, it differed dramatically in architectural design and capacity. Hazelwood was a local sanatorium modified to be the sixth hospital in the state-wide sanatoria system and therefore did not adhere to the design standard created for the other sites. Thus, Hazelwood Sanatorium did not fit into the criteria established for this study.

The following chart documents the locations, current uses, status, and other pertinent information for the set of five identical tuberculosis hospitals in Kentucky:

District #	Location	Name of Hospital	Status	Current Use
1	Madisonville	Madisonville TB Hospital	Extant	Government Office Building
3	Paris	Paris TB Hospital	Razed (2011)	N/A
4	Ashland	Ashland TB Hospital	Extant	Mixed Use – Administrative Offices & Domestic Shelter Housing for Safe Harbor of Northeast KY
5	London	London TB Hospital	Extant	Government Office Building
6	Glasgow	Glasgow TB Hospital	Razed (2014)	N/A

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