NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE
Office of Archives and History
Department of Natural and Cultural Resources

NATIONAL REGISTER OF HISTORIC PLACES

Mooresville Water Pump and Filter Plant

Mooresville, Iredell County, ID1717, Listed 4/18/2023
Nomination by Mary Ruffin Hanbury, Hanbury Preservation Consulting
Photographs by Mary Ruffin Hanbury, February and May 2022

Pump House & Reservoir, View to NW

Chemical Feed House, View to SW

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

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

1. Name of Property

Historic name: Mooresville Water Pump and Filter Plant
Other names/site number: _____
Name of related multiple property listing:
N/A

2. Location

Street & number: 422 West Moore Avenue
City or town: Mooresville State: NC County: Iredell
Not For Publication: N/A Vicinity: N/A

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this _x_ 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 _x_ 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 __x_ local

Applicable National Register Criteria:

_x_ A ___B _x_ C ___D

Feb. 27, 2023

Signature of certifying official/Title: **Date**

North Carolina Department of Natural and Cultural Resources

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**

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	x
Public – State	☐
Public – Federal	☐

Category of Property

(Check only **one** box.)

Building(s)	x
District	☐
Site	☐
Structure	☐
Object	☐

Number of Resources within Property

Contributing	Noncontributing	
2	2	buildings
0	0	sites
1	0	structures
0	0	objects
3	2	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions

INDUSTRY/PROCESSING/EXTRACTION: waterworks

Current Functions

VACANT/NOT IN USE

7. Description

Architectural Classification
LATE 19TH AND EARLY 20TH CENTURY AMERICAN MOVEMENTS: Commercial Style
MODERN MOVEMENT: Art Deco

Materials:
Principal exterior materials of the property:
Walls: Brick
Foundation: Concrete

Narrative Description

Summary Paragraph

The Mooresville Water Pump and Filter Plant is located north of the downtown commercial core of Mooresville in a low-density residential area. The irregularly-shaped, three-acre parcel sits on the west side of West Moore Avenue, southwest of its intersection with Iredell Avenue. Reed Creek (previously McPherson Branch) borders the parcel at its southern boundary. The pump house (1924, 1949) stands close to the road at the eastern side of the parcel, serviced by a paved semicircular drive. The remainder of the site is enclosed by a tall chain-link fence with a gate accessed by a curb cut north of the pump house. The majority of the site that is within the fence line is paved, and the fencing along West Moore Avenue is screened with large shrubs. Immediately south of the pump house is a cylindrical concrete reservoir (1924). West of the pump house is a concrete chemical feed house (1949). Two metal garage buildings (ca. 1956 and ca. 1983) are located along the northwest portion of the lot. The pump house building was constructed in the Commercial style, as further defined by its industrial use. A plan dictated by machinery and processes, masonry construction, and large windows providing natural light are hallmarks of the style. The building, while utilitarian on the interior, boasts handsome and sophisticated brickwork on the exterior communicating a sense of civic pride in local infrastructure.

Narrative Description

Pump House (1924, 1949 Contributing)

The brick Pump House sits on a portion of the parcel that slopes down from east to west. The east and south elevations are two stories in height. The west elevation has only the upper story is above grade. On the north elevation, one story is above ground toward the west while the entire two story height is above ground at the east end of the north elevation.

The building was originally two bays deep but was expanded by an additional bay with the original rear wall retained within the building. The full-width rear addition was designed and constructed to continue the style and pattern of brickwork, by continuing bond patterns, beltcourse, and cornice.

The building is notable for its sophisticated brickwork. The lower level of the building is rusticated with a five-course brickwork pattern: three courses of running bond, one course of headers, and a projecting running bond course. The upper level is laid in five-course American bond. The upper and lower levels are divided by a broad corbelled beltcourse consisting of two courses of running bond topped by a rowlock course that wraps the building entirely. A brick cornice below the parapet encircles the building. The cornice is composed of an upper projecting rowlock course and a lower projecting running bond course, both supported by five-piece corbelled brick brackets superimposed at a regular interval over two courses of corbelled running bond. Rustication, cornice, and beltcourse are found in the original rear wall, now enclosed within the western addition.

Steel industrial windows vary slightly, but the original core of the building has a generally graduated fenestration pattern with fifteen-light windows in the upper level, and twenty-light windows on the lower level. In the western addition, all windows are twenty-light. Some windows have been covered with protective Plexiglas sheets and/or metal mesh screening.

The facade has a central entrance flanked by windows. The central masonry opening for the entrance appears unchanged, though the void has been framed in to accommodate a replacement single-leaf door accessed by two concrete steps. Flanking the door are twenty-light, steel industrial windows. Three similar but smaller fifteen-light windows are found on the upper level, aligned above the entrance and windows. Masonry openings throughout are framed on the exterior in recessed soldier course brick at the sides and top of the openings. At the juncture of the sides and top, bricks are mitre-cut with a continuous diagonal joint. Windows have projecting rowlock sills or rest on the beltcourse. The original rear exterior wall has three masonry openings, similarly detailed.

The south elevation is somewhat obscured by vegetation. The lower level has two masonry openings. The eastern one houses a window and the western, smaller opening may house a door to a platform elevator that services the upper level of the building. A boarded opening on this elevation, evident on the interior, suggests a twenty-light window in the lower level of the western addition. The upper level of this elevation has three industrial steel windows—two fifteen-light windows in the original core at the east, and one twenty-light window in the western addition.

On the north elevation, there are two masonry openings on the lower level, toward the east of the building. A large, twenty-light industrial window at the east has been altered to accommodate a window air conditioning unit. To its west is a small, six-light metal window, servicing a restroom. On the upper level are a fifteen-light window at the east, which has been adapted to contain a wooden door with a concrete sill that was presumably once serviced by an exterior

stair; a fifteen-light steel window in the center; and in the western addition, a twenty-light industrial window.

The west elevation has one level. A two-light, one-panel, metal, single-leaf door with a gooseneck fixture above is centered on the elevation. Though at grade, the door interrupts the beltcourse. The door is flanked by twenty-light windows set slightly higher in the wall plane.

The simple exterior form belies the building's more complex internal plan, which includes multiple levels. The east side of the building has two stories with the same footprint, stacked upon each other. The west side of the building has a main area with high ceilings, and a basement below. The floor level of the main western area is between the floor levels of the first and second floors on the eastern side of the building.

The primary entrance on the east elevation leads to a central foyer room, created by frame partition walls. The foyer has an acoustical tile ceiling, poured concrete floor, and grooved paneled walls. Obscured on the exterior, an eight-light transom is visible over the primary entrance from this interior room. Flanking rooms of roughly equal size are to the north and south of the foyer.

The room north of the foyer, accessed by a single-leaf door, has a suspended acoustical tile ceiling, vinyl tile flooring, and grooved paneled walls. On its west wall is a single-leaf, one-light, two panel door that leads to a small restroom. This narrow bathroom has a concrete floor and walls, and a suspended drywall ceiling. There is a shower area to the south, and to the north is a wooden partition that creates a single stall. The partition supports a sink to the east and a swinging, four-panel, half-sized door at the west.

The room south of the foyer has a concrete floor and ceiling and exposed brick walls, painted green. Though largely square in plan, the space extends northwest of the foyer's partition wall. In this extended area, a five-panel door on the west wall leads to a partial basement. The partial basement is poured concrete and contains a few secondary areas used as storage and residual parts of machinery of unknown use. On the south side of this south room's west wall is a short flight of concrete steps with metal pipe railings, ascending to the west and leading to a single-leaf, flush wooden door to the main volume of the building.

Entering the western section of the building, from the eastern section, first floor, south room described above, a concrete landing leads to a set of concrete steps that ascend to the north and the main floor level. On this level a central passage on an east/west axis extends from the rear exterior door, through the west addition, passing through an opening in what was the original exterior wall, continuing between flanking concrete filter vats (now covered), to a set of concrete steps with metal pipe rails that provides access to a second floor on the east side of the building.

The floors in this section of the building are concrete, and the walls exposed brick. The original section has two large concrete vats with low walls and excavated areas under their wooden covers. A handful of pendant light fixtures remain. Ceiling finish is plaster on metal lath. The

original rear wall remains and has its rustication, stringcourse, and cornice on what was the exterior. Three masonry openings detailed as on the exterior have been retained, but the windows and door they contained have been removed or perhaps reused in the addition. The rear wing has vats flanking the central passage.

Perpendicular to the central passage in this section is a transverse passage at the east with the previously described steps rising from the lower level to floor level, and then a second set of steps north of the primary passage ascending to a concrete platform, east of the concrete vat, that includes a small, cased-in, frame storage closet at the northeast corner of the room.

The concrete steps with pipe railings centered at the east of the main volume lead to a second level. Angled frame partitions, perhaps later construction, create a recessed entrance to the upper-level rooms with a four-panel, four-light door. The second story rooms have plaster walls applied directly to the brick. Most of this level is a single room. A raised concrete platform and tank are located north of the entrance. A partition wall at the north side of this main room creates a narrow room with a concrete tank at its west side, a hole in the partition wall providing access between the two tanks.

A wall-mounted metal ladder on the south wall of the larger room provides roof access. A door on the south side of the west wall leads to a small platform elevator, which appears to service a subterranean level of the building that is not currently accessible, and perhaps an exterior door at grade on the southern elevation.

Reservoir (1924 Contributing)

South of the pump house is a columnar, poured concrete reservoir. The bulk of the structure is subterranean, but it extends above grade by about three feet and has a slightly domed concrete lid.

Chemical Feed House & Mixing Chamber (1949 Contributing)

The chemical feed house is a one-story, three-by-one bay, concrete building with a flat roof that stands above a subterranean mixing chamber. The sole exterior decorative motif is an Art Deco-inspired pattern of two angled incisions that circumscribe the building above the windows. Exterior doors are single-leaf, two-light, one-panel doors, of which there are three: one centered on the north elevation, and two on the south elevation located in the center and east bays. Windows are steel, nine-light windows with a six-light pivot over three fixed lights, of which there are five: one centered on each of the east and west elevations, two that flank the northern entrance, and one in the west bay of the south elevation.

The interior is spartan with concrete floors, walls, and exposed ceiling beams. The ghost of a partition wall is evident. Per drawings, the partition had no interior door.[1] The larger west room

[1] Piatt and Davis, "Chemical Feed House and Mixing Chamber," drawings, 1948, revised 1949.

housed chemical feed machines, and the smaller east room centrifugal blowers. No machinery remains in the building.

Garage (ca.1956 Noncontributing)

North of the pump house and chemical feed building is a prefabricated metal garage with a gable roof. Built outside of the period of significance, it does not add to the historic associations and architectural qualities of the property and thus is noncontributing.

Garage (ca.1983 Noncontributing)

In the northwest corner of the lot is a second prefabricated metal building that has been significantly altered and expanded over time.

Evolution of the Site

Comparisons of Sanborn insurance maps, the Iredell County GIS system's aerial photos, images on Google Earth Pro, and historic aerials provide insight into the evolution of the site.[2]

The 1925 Sanborn Map shows the plant as a two-story building of fireproof construction (except for beams) housing two electric powered centrifugal pumps; a 500,000-gallon covered concrete reservoir south of the building; a 50,000-gallon elevated water tank north of the building; and a series of exterior filter tanks to the west. [3]

The 1950 Sanborn Map shows the building as expanded: a 500,000-gallon covered concrete reservoir south of the building; filter tanks; a 50,000-gallon elevated water tank north of the building; the chemical feed building; a storage building that is west of the elevated water tank and east of and adjacent to the chemical feed building; and expanded filter tanks.

A 1956 aerial photo shows the complex as displayed on the Sanborn Map with the addition of a second storage building north of the elevated tank, and the first of the extant, prefabricated metal garages.

A 1965 aerial shows a new garage building west of the first garage.

By 1983, a third building that appears to be prefabricated is at the far west of the site, and the second metal garage building has been expanded to the west. The exterior tanks west of the pump building are no longer visible. Field inspection on-site documented an asphalt paving at the east of the building that appears to have covered the tanks, which may remain in some form below the paving.

[2] Sanborn Insurance Company Mooresville Map, 1925, 1925-1950; Google Earth Pro aerials; Iredell County GIS aerials; Netroline, *Historic Aerials*.
[3] Though labeled as filter tanks, they are more properly coagulation basins.

By 2002, the storage building east of and adjacent to the chemical feed house had been demolished. The original eastern section of the second garage had been replaced with a smaller unit, and the 1983 addition had been expanded further west creating a three-part building.

By 2005, the elevated water tank was demolished, as was the storage building that was at its north. By 2012, the third prefabricated building at the far west of the site had been demolished.

Integrity

The Mooresville Water Pump and Filter Plant has not been moved and retains its integrity of location. The immediate setting has evolved over time and has suffered some diminution of integrity, particularly with the loss of the exterior tanks and elevated water tank. The larger context of surrounding low-density residential construction remains. The integrity of design is strong as the building retains the form and utilitarian interior of the Commercial style, wrapped in a more decorative and expressive exterior. The expansion of the building falls within its period of integrity. Much of the exterior continues to express the original design, as does the interior with only modest changes such as fairly insubstantial frame partition walls that are easily removed with limited impact to historic material. The historic plan and circulation patterns remain. Machinery has been removed, but those machines were not fixtures. The building has a high degree of integrity of materials, with historic metal windows, brickwork, concrete floors, and metal pipe railings remaining. The workmanship for the building is also high, with sophisticated masonry detailing intact on the exterior, and functional, utilitarian materials and finishes on the interior. The building with its large windows, concrete vats, and open spaces that accommodated machinery, and the complex as a whole, particularly with the retention of the large concrete reservoir, have a high degree of integrity of feeling and association.

8. Statement of Significance

Applicable National Register Criteria

- [x] 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.
- [x] 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

- [ ] 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

ARCHITECTURE
ENGINEERING

Period of Significance

1924-1949

Significant Dates
1924
1949

Significant Person

N/A

Cultural Affiliation
N/A

Architect/Builder
Gilbert C. White
Piatt and Davis

Statement of Significance Summary Paragraph

The Mooresville Water Pump and Filter Plant is significant at the local level under Criteria A for Engineering and C for Architecture. The period of significance runs from 1924, its estimated date of construction, to 1949 when significant physical improvements were made to the plant. The complex, part of a larger water system, was built during a period when municipal water systems proliferated throughout the state of North Carolina. It reflects early and mid-twentieth century advances in technology and engineering related to water purification and distribution. Though modest in size, the pump house's design includes elegant and complex brickwork evidencing civic pride through the sophisticated design of a government building. The Mooresville plant, designed by Gilbert White, is one of a first wave of water plants that were more constrained in size and design than the later designs of engineers such as William Olsen and others.

Narrative Statement of Significance

Early Public Water Supply Systems in North Carolina

Though the earliest public water system in North Carolina dates to the late eighteenth century, a more popular movement to provide coordinated public systems of water delivery at the local level did not emerge until the late nineteenth century, driven at that point largely by a desire for a consistent, uncontaminated supply for consumption. Concerns about typhus, diphtheria, and other diseases thought to be waterborne sparked a movement away from private and public wells

toward more complex, managed systems that eventually incorporated filtering and treatment as well as the protection of water sources from contamination, notably from sewage.

In 1893, the North Carolina State Board of Health was given responsibility for inspection and protection of water sources, ushering in an era of water safety regulation and oversight, which included legislation in 1911 that required the State Board of Health to approve plans for municipal water and sewer improvements. Despite additional regulation, the number and complexity of water supply systems grew rapidly in North Carolina in the late nineteenth and early twentieth century, creating a boom in the establishment of municipal water supply systems. By 1894, fifteen North Carolina cities had public waterworks, of which six had a system for filtration and purification.[4] By 1902, four additional municipalities had a water system.[5] By 1904 there were thirty public water systems, and by 1905, forty-seven. By the early 1920s, an estimated $10 million dollars had been invested in the state's water infrastructure.[6]

Modern water supply systems such as those begun in North Carolina in the early twentieth century are designed to have a water source, a facility in which to treat the water, and a system and equipment for storage and distribution. While these essential components have remained consistent, most changes over time have come in the types and methods of treatments, and the size and sophistication of delivery systems to meet increased demand. Scientific advances refined processes for water filtration from simple screening and sand filtration to coagulation and mechanical filtration systems.

In the early twentieth century, the addition of chemicals to public water supplies was intended to kill waterborne pathogens. The practice expanded over time in order to improve water taste and to advance public health initiatives through additives, such as fluoride to combat tooth decay.

Early delivery systems that depended on gravity—or in the case of Mooresville's early well-based system, a windmill—were abandoned in favor of steam and electrically powered pumps of increasing complexity.

Mooresville's Water Pump and Filter Plant

In 1909, the Town of Mooresville started a modest municipal water program based on a system of wells. The town financed it through bonds.[7] Town Council minutes from 1910 authorized payment to contractors Tucker and Laxton for the construction of a water works plant.[8] Later that year, the Council amended local ordinances to regulate the municipal water program and outline the responsibilities of the superintendent.

[4] Asheville, Charlotte, Concord, Durham, Fayetteville, Goldsboro, Greensboro, Henderson, New Bern, Raleigh, Salem, Salisbury, Wilmington, Wilson, and Winston.
[5] High Point, Waynesville, Wadesboro, and Southern Pines.
[6] "Water Supply Systems in North Carolina Equal to Any, Says Gilbert C. White," *Asheville Citizen-Times*, August 12, 1923, 40.
[7] HB 93/SB 129, An act to authorize Mooresville to issue bonds for waterworks).
[8] Mooresville Town Council Meeting Minutes, February 28, 1910.

By the early 1920s there was interest in an expanded system. Reports from meetings of the Chamber of Commerce showed interest from the business community despite the need to issue additional municipal debt to institute such a system.[9]

The town hired Gilbert White, who drew up plans for a system. His proposal, dated April 26, 1922, includes the preparation of plans and specifications as well as construction administration.[10] The town accepted his proposal on May 1 of that year. A notice about the proposed facility in the December 20, 1922 issue of *Fire and Water Engineering* described a 44' x 37', two-story, brick and concrete building to house centrifugal pumps as well as a 500,000-gallon concrete reservoir and a reinforced coagulating basin.[11]

In 1923 the Town of Mooresville bought two parcels, one for an intake facility and a second for the pump and filter plant. The intake facility was located on Byers Creek near Perth Road.[12] The town sold the Byers Creek site to Duke Power Company in the early 1960s.[13]

Bids for the pump and filter plant were advertised in April 1923. On May 10, 1923, the *Statesville Record And Landmark* reported that the Mooresville Town Board of Commissioners had approved a contract for a water system and an accompanying tax increase.[14] Construction was to be under the direction of Gilbert C. White of Durham. The town committed to provide electricity to the plant, and local media noted, "This will supply an urgent need for water which has been needed for some time, the town being supplied heretofore by water from drawn wells which are inadequate for a town growing like Mooresville."[15]

The construction contract was let to Quinn and Withers for the "Pumping Station and Filter house, the Auxilery (sic) station, the Coagulating basin, the Storage reservoir, the exterior piping, installing pumping equipment and laying of the pipe."[16] Tucker and Laxton of Charlotte received the contract for filter equipment. Glamorgan Pipe and Foundry Company of Lynchburg, Virginia, won the contract for iron pipe. Morris Machine Works were to provide centrifugal pumps. The Wash Water Tank bid was awarded to Chicago Bridge and Iron Works. The Grinnell Company of Charlotte was to provide valves.[17]

In a mere twenty years, the town realized the need for additional capacity. While the 1920 population of Mooresville was 4,315, by 1940 it was 6,682 and in 1950 it had expanded to 7,121. A bond referendum was passed in 1944, but World War II and its attendant shortages in supplies

[9] "The News of South Iredell," *Statesville Record And Landmark*, February 27, 1922, 6.
[10] Mooresville Town Council Minutes, April 1922.
[11] "Special Business News," *Fire and Water Engineering*, December 20, 1922.
[12] "City of Mooresville Locates Water Plant," *The Charlotte Observer*, April 6, 1923, 23.
[13] *Iredell County Deed Book* 375, 239.
[14] "The News of South Iredell," *Statesville Record And Landmark*, May 10, 1923, 1.
[15] "Mooresville to Have a New Water System," *The Charlotte Observer*, May 10, 1923, 8.
[16] Mooresville Town Council Meeting Minutes, April 2, 1923.
[17] Mooresville Town Council Meeting Minutes, April 2, 1923.

and labor delayed water system construction efforts. Mooresville hired the firm of Piatt and David of Durham to conduct a comprehensive study of the town's water and sewer needs. The extension of new water service to the growing town required expanded pumping and filtering capacity. Plans for an entirely new filter and pump plant were stymied by funding issues and instead an expansion of the existing pump and filter plant, funded in part by the Federal Works Agency, was developed and approved by the state in 1948. The expansion doubled the filter plant capacity to 1.5 million gallons daily with the addition of two new filters, two new coagulation basins, a chemical building and new equipment. The filter plant improvements cost $73,800 and were built by the contractor C. W. Gallant Inc of Charlotte.[18]

The expansion served the town briefly, but to support the existing population and desired growth, a bond referendum was passed in the fall of 1960 to design and build entirely new water facilities designed by O'Brien and Gere of New York City.[19] In May 1961, the project was bid and the construction contract awarded to Gilbert Engineering of nearby Statesville.[20] The new plant opened in September 1962. The Moore Avenue Water Pump and Filter Plant was held in reserve briefly to provide the potential for operational redundancy if needed, but eventually was closed, and machinery evacuated. The site was used for a period by the Town's Public Works department but is currently used for storage.

The Engineering of the Mooresville Water Pump and Filter Plant

The Mooresville system evolved and grew over time to address issues of capacity for a growing town and to incorporate new methods of treatment. The town's initial system, which piped water drawn from wells, provided scant protection against sediment and waterborne pathogens.

The water pump and filter plant incorporated several engineering advances, including exterior coagulating basins that allowed sediment to sink, sometimes with the aid of chemical agents; extensive storage capacity to allow for surplus supply to meet demand beyond the typical supply from the intake facility; and electric-powered centrifugal pumps to provide pressure for distribution.

The 1949 expansion was largely a stopgap measure to address needs for increasing demand. It did, however, add an independent chemical feed house. This allowed for a system that had segregated rooms for chemical feed machines and centrifugal blowers. The building was set above a subterranean mixing chamber, which allowed for large volumes of solutions to be prepared for water treatment in a controlled environment.

The pump and water plant was part of a complex water system that included intake, distribution, and wastewater collection and treatment. The town's system developed, as many did originally, to provide adequate supply for fire protection. It evolved to address pressing issues of public

[18] Piatt and Davis Collections, Rubenstein Library, Duke University.
[19] "Water, Sewer Project Sketches are Submitted," *Statesville Record And Landmark*, November 8, 1960, 1.
[20] "Local Company Sweeps Tallies at Mooresville," *Statesville Record And Landmark*, May 5, 1961, 1.

health, and ultimately grew to support residential and commercial growth and economic development.

Mooresville Water Pump and Filter Plant and the Architecture of Waterworks Facilities in North Carolina

Two engineers/engineering firms were responsible for the design of the water pump and treatment plant: Gilbert White, and Piatt and Davis. White designed the original complex, and Piatt and Davis the addition and the chemical feed house.

A native of Mathews, Virginia, Gilbert C. White (1872-1963) moved to Durham, North Carolina in 1900 to design the city's water system. In 1905 he established what was purported to be the third engineering firm in the southeastern United States.[21] An article published on the occasion of his death states, "With his new firm he became responsible for the construction of the first comprehensive water supply and sewerage systems in practically every city in North Carolina. He designed either water or sewer facilities, or both, for over 150 cities from Hollywood, Fla. to Richmond, Va." [22]

William McKinney Piatt (1879-1957), originally of Tunkhannock, Pennsylvania, moved to Winston-Salem in 1899 and later moved to Durham to become a partner of Gilbert C. White. The partnership was short-lived, as by 1911 Durham city directories show Piatt as having established his own firm with staff.[23] Piatt and Paul Davis founded Piatt and Davis in 1910. Successor firms were known variously as Piatt and Davis, Engineers; Piatt and Davis and Associates; and W. M. Piatt and Company. The firm designed the Durham Waterworks among others.[24]

The building is designed in the Commercial style, a classification of twentieth century buildings defined by their use. It can further be defined as a subvariant of the style known as Industrial, marked by a utilitarian nature, an urban setting, and with a plan that was dictated by processes and machinery. Many Commercial/Industrial buildings adopted steel or reinforced concrete framing and maximized natural lighting through large windows. These buildings are commonly two to three stories in height, rectangular in footprint with a flat roof, and built of brick.

A comprehensive list of Gilbert White's numerous projects in North Carolina has yet to be compiled, though he is known to have been involved with the design of municipal infrastructure in Dunn, Fremont, Weldon, Southern Pines, Hickory, Lexington, and Clinton as well as Mooresville in the first quarter of the twentieth century. The Dunn complex appears to have been demolished undocumented, and the Clinton project has not been identified.

21 "G. C. White, Engineering Pioneer, Dies," *The Durham Sun*, January 14, 1963, 1.
22 "G. C. White, Engineering Pioneer, Dies," *The Durham Sun*, January 14, 1963, 1.
23 Hill Directory Company, *Durham City Directory*, 1911-1912.
24 "W. M. Piatt, Engineer Here, Passes," *The Durham Sun*, May 1, 1957, 1.

Archival survey photos at the NC HPO show that the Weldon Water Plant (HX1660 Mill Street) has some brick corbelling, but lacks the sophistication of the Mooresville plant. The Hickory Waterworks Pumping Station (BK0362 1560 Old Lenoir Rd NW) is of brick construction on a poured concrete foundation. It has a soldiercourse water table and lintels, and steel industrial windows. The City of Lexington Light and Water Office and Warehouse (DV1791 201 East First Avenue) is a one-story brick building with rustication on the main level, large square window openings (with replacement windows) and a drip corbelled cornice. Although both the Hickory and Lexington facilities retain fair architectural integrity, they are not as architecturally sophisticated as the Mooresville facility. The Southern Pines plant has recently been adapted for new use as a yoga studio.[25] It is a two-story brick building, five by two bays. The facade is divided into two parts, with projecting brick pilasters and recessed brick panels topped by corbelled brickwork. Large window openings with industrial style windows are set in openings with rowlock lintels. The building has a terra-cotta cornice, and articles report that portions of the filtration system are visible below newly installed glass floor panels.

Several other surveyed but unattributed water plants from the period share some design aspects of the Mooresville plant. These examples include the (former) Lincolnton Waterworks (LN0290 948 North Aspen Street) which is now demolished, the Statesville Water Works (ID0695 1335 Museum Road) which has lost architectural integrity, the Wake Forest Light & Water Building (WA1593 134 Elm Avenue) which has also lost architectural integrity, and Enfield Electric Power Plant and Water Works (HX0408 105 Plant Street). The former Lincolnton Waterworks appears to have been demolished shortly after its 1985 survey. Archival photos on file at NC HPO show a flat-roofed brick building that is on a grade. It appears to be three by three bays with an addition and with exterior concrete basins. The building has recessed brick panels at each bay, topped by brick corbelling, and features large metal industrial windows. The Statesville Waterworks includes a ca. 1930 filtration plant that is a brick building built on a slope, with both one and two story elevations. It has a flat roof and is three bays by three bays, with each bay housing a recessed brick panel. The building features large window openings now infilled. The Wake Forest building is highly altered, but retains its three by three bay form, recessed brick panels and brick corbelled cornice. The Enfield Electric Power Plant and Water Works is among the largest and most intact of this cohort: a brick, three by six bay brick building on a concrete foundation with recessed brick panels on two elevations, a flat parapet roof with a brick paneled wall above a projecting cornice. Its architectural sophistication is somewhat comparable to the Mooresville plant.

These eight other buildings, some attributed to Gilbert White and others whose designer is yet unknown, share a common vocabulary of construction, form, and detailing with the Mooresville Water Pump and Filter Plant. They are among a wave of early twentieth century water plants, and reflect varying levels of integrity and decorative sophistication. The Mooresville building is the most architecturally complex, retaining the greatest integrity.

[25] "A Look at Workhorse Fitness & Yoga in Southern Pines," The Sway, November 18, 2019, https://itsthesway.com/a-look-at-workhorse-fitness-yoga-in-southern-pines/.

W.M. Piatt artfully expanded the original building in a manner so subtle that it would be difficult to differentiate the expansion from the original. Perhaps Piatt's brief association with Gilbert White allowed him to learn White's design approach. The chemical feed house building, however, is a departure from the early brick commercial style. This small concrete building is built in a stripped Art Deco style. While it lacks some of the playful aspects of Art Deco, such as terra-cotta ornament in bright colors, it includes other aspects, such as its composition of simple geometric forms and its angular ornament of incised parallel lines etched in smooth concrete.

The E.B. Bain Water Treatment Plant (WA4179 1810 Fayetteville Road) and the Elizabeth City Water Plant (PK0625 Wilson Street), both listed on the National Register, were built slightly later by prolific engineer William C. Olsen (1888-1962), and expand on the values of some of the more decorative early plants with an exuberance of high Art Deco and Spanish Mission revival styles. The Mooresville plant, however, is one of a first wave of water plants more restrained in size and design.

Statement of Archaeological Potential

The North Carolina Office of State Archaeology is of the opinion that this property does not contain the potential for archaeological remains to be present.

9. Major Bibliographical References

Bibliography

"A Look at Workhorse Fitness & Yoga in Southern Pines," The Sway, posted November 18, 2019, https://itsthesway.com/a-look-at-workhorse-fitness-yoga-in-southern-pines/.

Armstrong, Ellis L., ed. *History of Public Works in the United States 1776-1976*. American Public Works Association.

Black, David and Beth P. Thomas. "Raleigh Water Works and E. B. Bain Water Treatment Plant," National Register nomination, 1999.

Butchko, Tom. "Elizabeth City Water Plant," National Register nomination, 1993.

"City of Mooresville Locates Water Plant." *The Charlotte Observer*, April 6, 1923.

"Mooresville to Have a New Water System." *The Charlotte Observer*, May 10, 1923.

"G. C. White, Engineering Pioneer, Dies." *The Durham Sun*, January 14, 1963.

"Gilbert C. White, Retired Engineer, Dies Here at 90." *Durham Morning Herald*, January 14, 1963.

Google, Google Earth. Pro aerial photos.

"Here's What Improvements Will Do." *Statesville Record And Landmark*, September 1, 1962.

Hill Directory Company. *Durham City Directory*, 1911-1912.

Howells, David H. "Historical Account of Public Water Supplies in North Carolina." Report No. 244 of the Water Resources Research Institute of The University of North Carolina, 1989.

Iredell County Deed Book 375.

Iredell County GIS, https://iredell.connectgis.com/Map.aspx.

Jones, Everette. "Big Water, Sewer Project Completed in Mooresville." Piatt and Davis Collections, Rubenstein Library, Duke University, undated.

Jones, Everette. "Mooresville Sees Water, Sewer Extension." *The Charlotte News*, February 5, 1948.

Keever, Homer M. "Iredell Piedmont County." Iredell County Bicentennial Commission, 1976

"Local Company Sweeps Tallies at Mooresville." *Statesville Record And Landmark*, May 5, 1961.

"Mammoth $500,000 Water and Sewer Program Completed in Mooresville." *Mooresville Tribune*, March 23, 1950.

Miller, H. E. "Objective, Policy And Procedure Of The North Carolina State Board Of Health In Water Supply," *Journal (American Water Works Association*), Vol. 11, No. 4 (July, 1924): 845-848.

McVarish, Douglas C. *American Industrial Archaeology.* New York: Routledge, 2008.

"Mooresville Will Spend $63,000 for Water System Improvements." *Statesville Record And Landmark*, December 7, 1965.

Netronline, *Historic Aerials*. https://www.historicaerials.com/viewer.

North Carolina Historic Preservation Office. Survey Files, various.

Piatt and Davis. *Additions to Existing Filter Plant* (drawings). Collection of Mooresville Public Library, 1949.

Piatt and Davis, *Chemical Feed House and Mixing Chamber* (drawings). Collection of Mooresville Public Library, 1948, revised 1949.

Piatt and Davis Collections, Rubenstein Library Duke University.

Pierce, Morris. *A Documentary History of American Water-works*. http://www.waterworkshistory.us/index.htm

Sanborn Insurance Company Mooresville Map 1925, 1925-1950.

"Special Business News." *Fire and Water Engineering*, December 20, 1922.

"The News of South Iredell." *Statesville Record And Landmark*, February 27, 1922.

"The News of South Iredell." *Statesville Record And Landmark*, May 10, 1923.

"To Move to Durham." *The Morning Herald*, August 19, 1910.

"Water, Sewer Project Sketches are Submitted." *Statesville Record And Landmark*, November 8, 1960.

"Water Supply Systems in North Carolina Equal to Any, Says Gilbert C. White." *Asheville Citizen-Times*, August 12, 1923.

"Water Works." *The Charlotte Observer*, April 8, 1923.

"Water Works." *The Charlotte Observer*, April 28, 1923.

"W. M. Piatt, Engineer Here, Passes." *The Durham Sun,* May 1, 1957.

Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
____ previously listed in the National Register
____previously determined eligible by the National Register
____designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
____recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

__x__ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other
Name of repository: _____

Historic Resources Survey Number (if assigned): ____ID1717_____

---

10. Geographical Data

Acreage of Property ____3_____

Latitude/Longitude Coordinates
Datum if other than WGS84:_____
1. Latitude: 33.588381 Longitude: 80.814697

Verbal Boundary Description

The boundary of the nominated property is all of that parcel identified as PIN 4667045001.000 in Iredell County, North Carolina GIS and real estate records.

Boundary Justification

The nominated property includes the entire parcel historically associated with the Mooresville Water Pump and Filter Plant.

---

11. Form Prepared By

name/title: _Mary Ruffin Hanbury_____
organization: _Hanbury Preservation Consulting _____
street & number: _PO Box 6049_____
city or town: __Raleigh_____ state: ___NC_____ zip code:__27628____
e-mail: maryruffin@hanburypreservation.com _____
telephone: _(919) 828-1905_____
date: _June 1, 2022_____

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 this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Photo Log

Name of Property: Mooresville Water Pump and Filter Plant

City or Vicinity: Mooresville

County: IREDELL State: NORTH CAROLINA

Photographer: Mary Ruffin Hanbury

Date Photographed: Various – see description below.

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

Pump House, View to NW; February 2022
Photo 1 of 19.

Pump House & Reservoir, View to NW; February 2022
Photo 2 of 19.

Pump House, View to N; February 2022
Photo 3 of 19.

Pump House, View to S; February 2022
Photo 4 of 19.

Pump House, View to SE; February 2022
Photo 5 of 19.

Pump House, Entry Level View to N; May 2022
Photo 6 of 19.

Pump House, Main Level View to SE; May 2022
Photo 7 of 19.

Pump House, Main Level View to E; May 2022
Photo 8 of 19.

Pump House, Main Level, View to W; May 2022
Photo 9 of 19.

Pump House, Main Level View to SW; May 2022
Photo 10 of 19.

Pump House, Main Level View to NE; May 2022
Photo 11 of 19.

Pump House, Main Level View to E/up; May 2022
Photo 12 of 19.

Pump House, Upper Level View to N; May 2022
Photo 13 of 19.

Chemical Feed House, View to NW; February 2022
Photo 14 of 19.

Chemical Feed House, View to SW; May 2022
Photo 15 of 19.

Chemical Feed House, View to EW; February 2022
Photo 16 of 19.

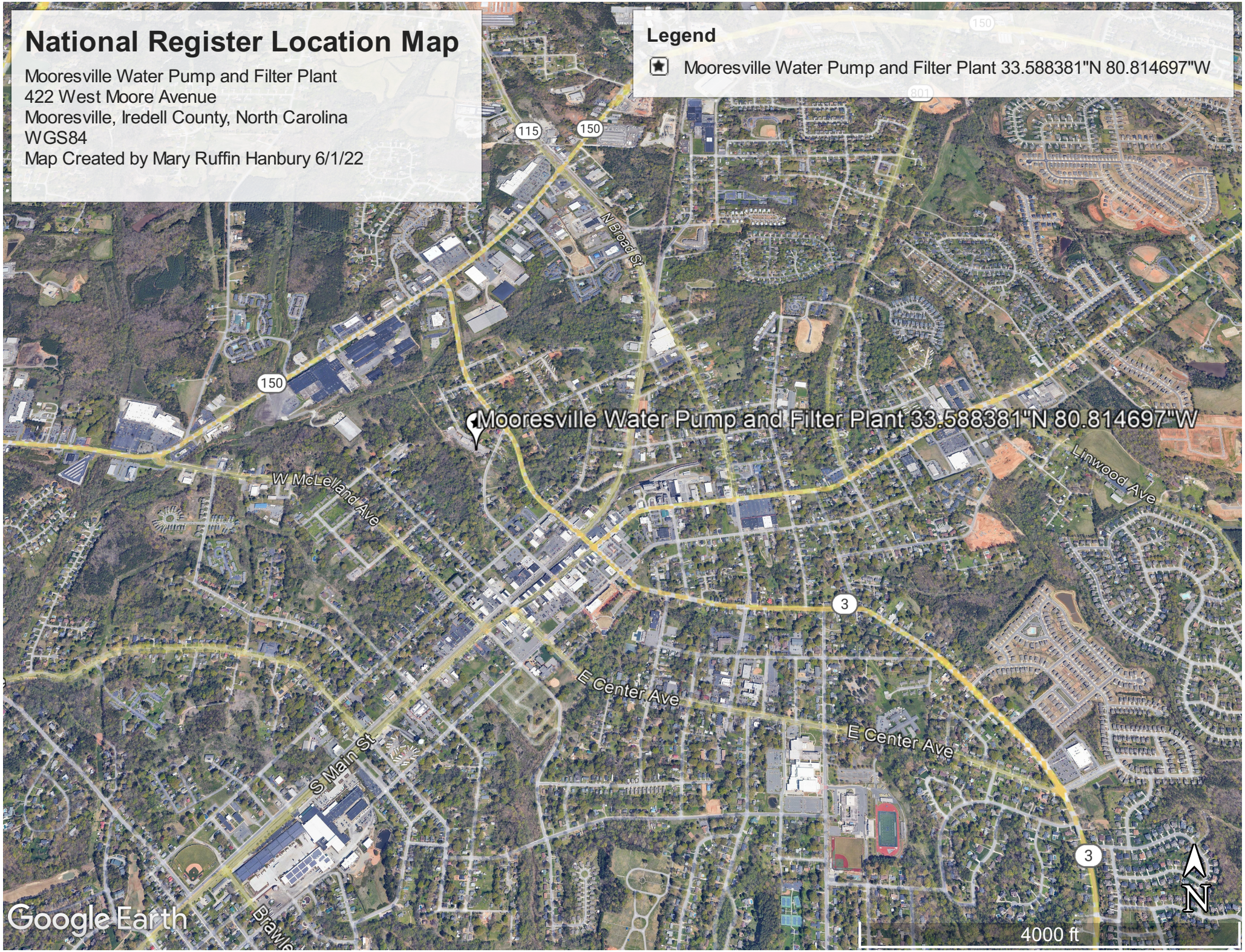
West Garage, View to NE; May 2022
Photo 17 of 19.

West Garage, View to W; May 2022
Photo 18 of 19.

East Garage, View to NE; May 2022
Photo 19 of 19.

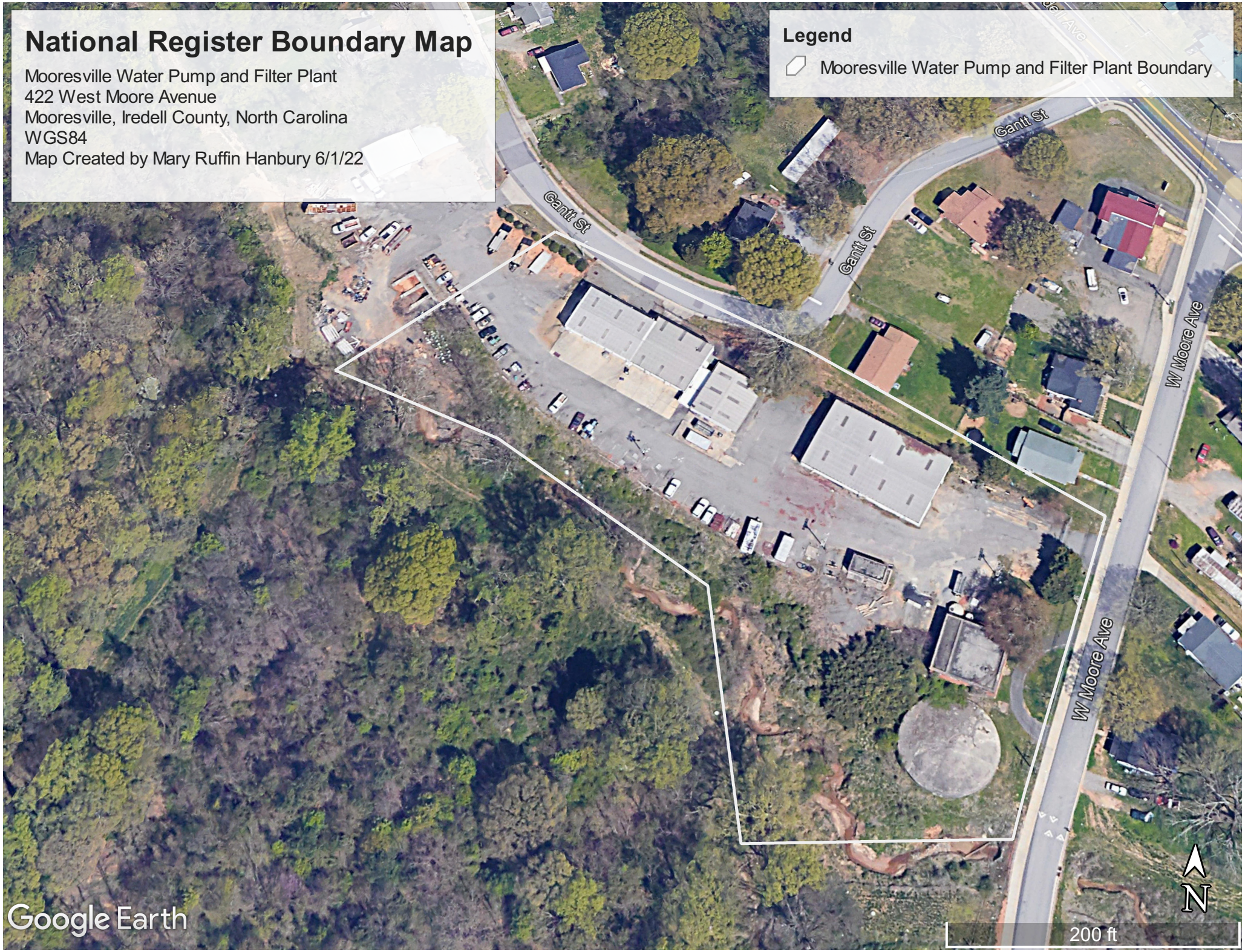
National Register Location Map

Mooresville Water Pump and Filter Plant
422 West Moore Avenue
Mooresville, Iredell County, North Carolina
WGS84
Map Created by Mary Ruffin Hanbury 6/1/22



National Register Boundary Map

Mooresville Water Pump and Filter Plant
422 West Moore Avenue
Mooresville, Iredell County, North Carolina
WGS84
Map Created by Mary Ruffin Hanbury 6/1/22



National Register Site Plan

Mooresville Water Pump and Filter Plant 422 West Moore Avenue
Mooresville, Iredell County, North Carolina WGS84
Map Created by Mary Ruffin Hanbury 6/1/22

NCB Noncontributing Building
CB Contributing Building
CSt Contributing Structure

not to scale