



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 How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. 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. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name BUNNELL WATER TOWER

other names/site number FMSF# FL00196

2. Location

street & number 100 Utility Street  not for publication

city or town Bunnell  vicinity

state Florida code FL county Flagler code 035 zip code 32110

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this  nomination  request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property  meets  does not meet the National Register criteria. I recommend that this property be considered significant  nationally  statewide  locally. ( See continuation sheet for additional comments.)  
Alissa Totane, Deputy SHPO 12/13/18  
Signature of certifying official/Title Date  
Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State  
State or Federal agency and bureau

In my opinion, the property  meets  does not meet the National Register criteria. ( See continuation sheet for additional comments.)  
Signature of certifying official/Title Date  
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:  
 entered in the National Register  See continuation sheet  
 determined eligible for the National Register  See continuation sheet.  
 determined not eligible for the National Register  See continuation sheet.  
 removed from the National Register.  
 other, (explain) \_\_\_\_\_  
Signature of the Keeper Josh Fuller Date of Action 2/4/2019

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- buildings
- district
- site
- structure
- object

Number of Resources within Property

(Do not include any previously listed resources in the count)

Contributing	Noncontributing	
1	1	buildings
0	0	sites
1	7	structures
0	0	objects
2	8	total

Name of related multiple property listings

(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

Industry/Processing/Extraction: Waterworks

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Current Functions

(Enter categories from instructions)

Industry/Processing/Extraction: Waterworks

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7. Description

Architectural Classification

(Enter categories from instructions)

OTHER: Early Twentieth Century Elevated Steel Water

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OTHER: Pumping Station

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Materials

(Enter categories from instructions)

foundation Concrete

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walls Steel

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roof Steel

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other Cast Iron

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Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

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

- Criteria A, B, C, D with checkboxes and descriptions.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- Criteria A, B, C, D, E, F, G with checkboxes and descriptions.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- Documentation checkboxes: preliminary determination, previously listed, National Historic Landmark, Historic American Buildings Survey, Historic American Engineering Record.

Areas of Significance

(Enter categories from instructions)

ENGINEERING
COMMUNITY PLANNING AND DEVELOPMENT

Period of Significance

1927

Significant Dates

1927

Significant Person

N/A

Cultural Affiliation

N/A

Architect/Builder

Arch: Hotard, N.A. Engineer
Blder: Chicago Bridge & Iron Works

Primary location of additional data:

- Location checkboxes: State Historic Preservation Office, Other State Agency, Federal agency, Local government, University, Other.

Name of Repository

Flagler County Historical Society
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Section number 7 Page 1

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
DESCRIPTION

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**SUMMARY PARAGRAPH**

Towering over the City of Bunnell, Florida, is its most visible and iconic landmark: the City of Bunnell elevated steel water tower with hemispherical bottom (commonly referred to as the “tin man”). It was built in 1926 by Chicago Bridge & Iron Works. Also found on the property is the historic pumping station which provides the water to the elevated tank. The pumping station supplies the tower with potable water that is drawn from five wells in the Floridian Aquifer and treated at the waterworks. The resources found on the property are the water tower, the pumping station, the two 350,000-gallon water storage tanks, the modern water treatment plant, the industrial generator, storage building, the wastewater reservoir, and the chemical supply facility. Only the water tower and the pumping station are contributing historic resources. Just east of the waterworks property is the Gospel Gardens landscape and garden supply business

**SETTING**

The city of Bunnell is located in northeastern Florida south of Jacksonville and St. Augustine, and north of Daytona Beach. Flagler County is bounded on the east by the Atlantic Ocean, on the north by St. Johns County, on the west by Putnam County and parts of Volusia County, and on the south by Volusia County. Interstate 95, U.S. Route 1 and State Route 100 join Bunnell to other communities along the Atlantic coast. The Bunnell Water Works occupies a triangular portion of land bounded by Utility Street on the west, Old Moody Boulevard on the north and State Highway 100 on the south.

**DESCRIPTION**

The water tower is 125 feet high and its elevated steel tank holds 75,000 gallons of water. It was constructed in 1927. The elevated steel water tank includes a conical top with ball finial (Photo 1-2), Horton hemispherical bottom (Photo 3-4), cast iron riser pipe, and is supported by four steel trestle columns (legs) (Photo 5) on concrete foundations which are reinforced with steel cross braces. A ladder on the southwest column provides access to a circular deck with hand rails around the bottom of the central section of the tank, and another ladder leading from the circular deck provides access all the way to the ball finial at the peak of the conical top of the tank. The east and west sides of the elevated tank have black painted signage that read “City of Bunnell, Crossroads of Flagler County” (Photo 2). One of the legs has the original builder’s plate (Photo 6).

The tower and pumping station were constructed as part of a new waterworks system for Bunnell which went into operation in December 1927. The 1927 pumping station (Photo 7-9), measures 33’ x 24’ and houses pumping equipment, electric and electronic control and monitoring equipment. It includes brick walls, nine windows measuring 7’-0” x 3’-6” (two have been enclosed with bricks to make wall space for the installation of modern electric and electronic control and monitoring equipment), double front wood doors measuring 7’-0” x

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3'-6" each, a back wood door measuring 7'-0" x 3'-6", a wood framed hip roof with asphalt shingles and the building stands on a concrete foundation.

Currently, the Bunnell Water Tower is in daily operation, more than ninety years since it was erected and first placed in service, and provides the city with reservoir water pressure during emergencies when electric and generator sources are not available, as the city's two modern 350,000 gallon ground storage tanks (Photo 11) cannot provide water pressure during these types of emergencies. Keeping the Bunnell Water Tower operational is important to the city, especially in times of emergencies, and it undergoes an inspection on a yearly basis and is repainted every five years. The wastewater reservoir (Photo 12) and the chemical supply facility are found at the north end of the waterworks property.

Within the boundary of the waterworks property, only the 1927 Bunnell water tower (structure) and pump house (building) are considered contributing to the National Register nomination. There are seven non-contributing structures and one non-contributing building within the boundary, which all post-date the water tower and pump house. These include the two ground storage tanks, the aerator tank, chemical supply station, generator, in-ground reservoir, and waterworks building (Photo 10). Flagler County Fire Rescue Station 62 is also located on the property of the waterworks, but is located on the west side of Utility Street and is therefore outside the nomination boundary.

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BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
SIGNIFICANCE

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**SUMMARY PARAGRAPH**

The Bunnell Water Tower is significant at the local level under Criterion A in the area of Community Planning and Development and under Criterion C in the area of Engineering. The construction of the Bunnell Water Tower is a significant part of Bunnell's history as it was instrumental in the development and modernization of the area, when it replaced a larger wooden storage tank constructed around 1913 that occupied a plot of land at the edge of Bunnell's business district over a mile from the site of the present waterworks. That facility was demolished in 1928.<sup>1</sup> The period of significance is limited to 1927, the date of construction as part of the modernization of the city's water system associated with the growth of the city. In the 1990s, the waterworks was expanded and further modernized when the water department began constructing other facilities such as the first of two 350,000 ground storage tanks to provide more potable water to the city's customers. The construction of other facilities, such as the water treatment plant continued up until 2015.

The water tower is a prominent landmark that has had an important influence throughout the first 100 years of the city's history and was featured on the 2013 City of Bunnell centennial logo. The elevated steel water tower with its hemispherical bottom is a water storage type commonly referred to as the "tin man."<sup>2</sup> It was built in 1926 by Chicago Bridge & Iron Works, which built numerous other water towers in the United States (at least seven of which are listed in the National Register). The tower was built as part of a new waterworks system for Bunnell that included the water tower, a reservoir building and a pumping station that went into operation in December 1927. First introduced in Europe in the 1880s, the curved bottom trestle tower water tanks were first utilized in the United States in 1891. The elevated trestle tower tanks supported on four legs had cost advantages to towers and standpipes that stood directly on the ground.

**HISTORICAL CONTEXT**

Bunnell is located in Flagler County in an area of northeast Florida encompassing the oldest continuously settled area of European occupation in the United States. Originally part of St. Johns County, Flagler County, together with Escambia County, includes the first political subdivision of the State of Florida in 1821. Andrew Jackson, as military governor of the territory, divided East and West Florida into counties. Escambia County encompassed the area between the Perdido and Suwannee Rivers, and St. Johns County formed the remainder of the territory east of the Suwannee.<sup>3</sup>

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<sup>1</sup> "Old Water Tank Being Torn Down." Flagler Tribune. April 5, 1928.

<sup>2</sup> Carol Ann Dubie. "The Architecture and Engineering of Elevated Water Storage Structures: 1870-1940," a thesis the George Washington University, May 4, 1980, 60.

<sup>3</sup> Historic Property Associates, Historic Preservation Element. Section of Flagler County comprehensive plan. ( St. Augustine, Florida, 1992), 16.

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In 1885, a narrow gauge railroad, established by Utley James White (1845-1917), ran through present-day Bunnell and was the catalyst for the area's economic and population growth in the post-Civil War era. Since there was no established town at that time the area became known as "Bunnell Stop." It was named after an early settler and shingle maker, Alvah Alonzo Bunnell (1854-1944). On October 5, 1892, he was appointed postmaster by the U.S. Postal Service, as the town had enough train traffic and economic resources to support its own post office.<sup>4</sup>

In 1909, the Bunnell Development Company was formed with Isaac I. Moody Jr. (1874-1918) as president and "Major" Lambert (1862-1938) as secretary and treasurer. Moody and Lambert had purchased 30,000 acres of land in the area to expand their turpentine business. They soon realized that their land could be sold for farming and developed into a model community which they called Bunnell Colony. The company opened real estate offices in Bunnell and Chicago and published professional brochures, a monthly newspaper called The Bunnell Home Builder (an early periodical which was published in both Polish and English) and ran advertisements in various newspapers to attract prospective land buyers.<sup>5</sup> Land was advertised as low in price as compared to land all around it. Examples include a 5-acre farm was \$2.50 down and \$2.50 a month, and a 40-acre farm was \$20.00 down and \$20.00 a month. The company also accepted Liberty Bonds (war bonds that were sold in the United States to support the Allied cause in World War 1) as payments. Chartered trains ran from Chicago to Bunnell Stop to bring people to the town. Many visitors stayed in the company's hotel, The Halcyon, which was built on the SE corner of Railroad Street and Lambert Avenue. The first permanent house built by the Bunnell Development Company was built for James Frank "Major" Lambert in 1909. The first church (First United Methodist Church) was constructed in 1909 and the Bunnell State Bank opened in 1910.<sup>6</sup>

The area now called Bunnell was considered by the Florida state legislature to be incorporated as a town on June 2, 1911, but was not officially incorporated as a town until 1913. By this time, Bunnell was taking shape as a developed town and contained new homes, several businesses and planned and landscaped streets. The Florida East Coast Railway Depot was built to accommodate the many visitors coming to the area from out-of-state destinations.<sup>7</sup> Records from the Bunnell Home Builder reported that the farms around Bunnell were small but successful in raising sugar cane, corn, sweet potatoes, cucumbers and hay. This created a livelihood that was based on family, farm and community. These are all at the root of this unique, historic, traditional Florida community.<sup>8</sup>

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<sup>4</sup> City of Bunnell Official Website, [www.bunnellcity.us/citytour/slide2.html](http://www.bunnellcity.us/citytour/slide2.html).

<sup>5</sup> John A. Clegg, *The History of Flagler County*. (Flagler Beach, 1976), 55.

<sup>6</sup> Clegg, 56.

<sup>7</sup> Historic Property Associates, *Historic Preservation Element*. Section of Flagler County comprehensive plan. (St. Augustine, Florida, 1992), 27.

<sup>8</sup> Clegg, 58.



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In November 1915, the Dixie Highway was announced as the first national automobile highway to link the north and south sections of the United States. The historic highway ran through present-day Flagler County, and in 1916 Isaac I. Moody announced an east extension from Bunnell to Ocean City (now Flagler Beach). One of the only stretches of the original brick road is the Dixie Highway-Hastings, Espanola and Bunnell Road (also known as the County Road 13 or the “Old Brick Road”) which is located near Bunnell at Espanola. It was added to the National Register of Historic Places (FL00155) in 2005. The Dixie Highway provided rapid automobile transit that connected Bunnell to many parts of the country.

In 1917, when Flagler County was founded Bunnell was selected as the county seat due to its central location, primary shipping point, many established businesses, roadways and railway access. The Bunnell State Bank Building (also known as the Citizens Bank of Bunnell) was constructed in 1917 and was the only bank in Flagler County from 1917 to 1932. Its Masonry Vernacular architectural styling and Art Deco influence were significant factors leading to it getting added to the National Register of Historic Places (FL0086) in 1992.<sup>9</sup>

In 1924, the City of Bunnell was officially incorporated.<sup>10</sup> By 1925, the town had grown to include a weekly newspaper called The Flagler Tribune, bank, public schools, various church denominations, ice, light and water plants, telephone connections, a post office and a reported population of 700. During 1927 municipal and infrastructure improvements were completed. On July 28, 1927, the Neo-Classical Style Flagler County Courthouse was dedicated, and on December 12, 1927, a modern waterworks system was put into production that included a water tank on tower, reservoir, pumping station, ground water wells and water pipe mains with fire hydrants which greatly improved the quality and taste of the city’s potable water and fire protection capabilities.

The Great Depression brought economic hardships and caused unemployment in Bunnell as it did in most places throughout the United States. President Franklin D. Roosevelt (1882-1945) created new government agencies with the intent on creating jobs and boosting the economy. These agencies became known as the New Deal. The largest of these agencies was the Works Progress Administration (WPA) which was formed on May 6, 1935, and was renamed to the Work Projects Administration in 1939. Several WPA projects were conducted in Bunnell. The Vocational Agriculture Building (Little Red Schoolhouse) was built in 1938 for the Bunnell High School’s Future Farmers of America (FFA) – it was added to the National Register of Historic Places (FL00285) in 2007. The Flagler County Jail built in 1938, and the Bunnell Civic Center (City Hall) built in 1936-1937. These WPA projects brought needed jobs and infrastructure improvements to Bunnell which helped sustain its economy during the hard times of the Great Depression.<sup>11</sup>

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<sup>9</sup> Randy Jaye, Flagler County, Florida: A Centennial History. (St. Petersburg, FL, 2017), 157-159.

<sup>10</sup> The City of Bunnell was officially incorporated in 1924, [www.bunnellcity.us/citytour/slide2.html](http://www.bunnellcity.us/citytour/slide2.html)

<sup>11</sup> Jaye, *Centennial History*, 102-105.

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In 1959, the Interstate 95 (I-95) project started and was part of the National Highway System in the United States. In the early 1960s, the Florida route between Jacksonville and Daytona Beach was completed. Exit 284 (SR-100 Bunnell/Flagler Beach) links Bunnell to this modern national network of controlled-access highways which became a key contributor to economic development and growth in the area.

In 2008, GAI Consultants, Inc. conducted an historic structure survey, financed in part by a historic preservation grant by the National Park Service, U.S. Department of the Interior, administered through the Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State, assisted by the Florida Historical Commission, as a plan to preserve the historic character of its downtown and to enhance the pride of its residents regarding the city's history. A total of 284 resources were surveyed (73 had been previously surveyed and 211 were newly surveyed). The rich and diverse historical structures surveyed in Bunnell include various architectural styles: Bungalow, Colonial Revival, Frame Vernacular, Greek Revival, Highway, Masonry Vernacular, Minimal Traditional, Neo-Classical, Railroad and Ranch.

The estimated population of Bunnell in 2015 was 2,828. As of 2018, as a result of annexing a considerable amount of land, Bunnell is the second largest city, in area, in the state of Florida with 138.6 square miles.<sup>12</sup>

### **History of Elevated Water Towers**

Various types of elevated water towers have been in operation since ancient times. Modern elevated water towers were developed during the nineteenth century when the growth of community populations and industrialization created a demand for pressurized public water systems. By the 1880s, advanced civil engineering techniques were being applied to elevated water systems so a constant water pressure for residential, commercial and fire protection uses could be maintained.<sup>12</sup>

During the 1880s, the metal curved bottom water tank was introduced in Europe and was first utilized in the United States in 1891. The use of the trestle tower to elevate water tanks was influenced from railroad water tank, bridge building and windmill engineering and construction techniques that used wood, masonry and metal materials that were in practice around the United States during the nineteenth century.<sup>13</sup>

The all metal elevated curved bottom tank on trestle tower drastically improved the elevated water storage industry beginning in the 1890s. The trestle tower offered less wind resistance, less potential of freezing as compared to a standpipe (a cylindrical water tank that stands directly on the ground without supporting legs), and the curved bottom allowed collected sediments to be removed more easily as compared to flat bottom tanks.

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<sup>12</sup> Carol Ann Dubie, The Architecture and Engineering of Elevated Water Storage Structures: 1870-1940. (The Graduate School of Arts and Sciences of the George Washington University, 1980), 11.

<sup>13</sup> *Ibid.*, 62.

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Additionally, the all-metal elevated curved bottom tank on trestle tower design provided cost advantages over water towers and standpipes as their foundations only required four posts as compared to an entire circular area. The most widely used form of the curved bottom tank was the hemispherical bottom or “tin man” tank which was in use, with minor variations in its design, since 1894. The hemispherical bottom tanks are elevated on a four column trestle tower that are attached directly to the sides of the tank. This design was an important innovation in early elevated tank engineering, that became standard practice, and was pioneered by Horace Horton of Chicago Bridge & Iron Works. The open legs require less steel and the self-supporting tank bottom does not require metal girders that are needed to support a flat bottom tank which reduces the overall cost and weight of the structure.<sup>14</sup>

A competing design to the hemispherical bottom tank was the conical bottom tank that was first used in the United States in 1893. It became widely used in the 1890s because it was easier to manufacture than the double curved surface hemispherical bottom tank.<sup>15</sup> In 1896, engineers and manufacturers proved that the hemispherical bottom design was more economical as it actually required less material than the conical bottom design. The hemispherical bottom design gained dominating acceptance for municipal and industrial use during the early twentieth century. In 1907, the elliptical bottom design was introduced to address the storage of larger volumes of water and it was able to limit the variance in the range of pressure for an empty and full tank more efficiently as compared to the hemispherical bottom tank. By 1919, elliptical bottom tanks were widely used in municipal water works plants, and the hemispherical bottom tanks remained popular mainly in insurance and industrial fields.

The Art Deco movement influenced the design of elevated water towers in the 1920s as elliptical (more rounded) tanks began to be manufactured. In 1922, the domed roof design was introduced on railway tanks and it eliminated the steel framing that was necessary for the conical roof design.<sup>16</sup> The domed roof design was quickly adopted for municipal water systems. In the early 1930s, the roof became part of the entire tank which increased the water storage capacity and eliminated the need for a separate roof. As the tank sizes increased engineers had to develop these larger structures with aesthetic improvements which led to several new styles. During the 1930s, the radial cone bottom design was introduced which allowed a relatively shallow tank to hold larger capacities of water in an elevated tower.<sup>17</sup> Another landmark in 1930s tank beautification was the first “Colonial” tank, the Tallahassee, Florida radial cone tank of 1932. The introduction of welded plate columns and elimination of diagonal bracing rods and laced channel members simplified the tank silhouette. Changes to

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<sup>14</sup> Ibid., 69.

<sup>15</sup> Ibid., 89.

<sup>16</sup> Ibid., 116.

<sup>17</sup> Ibid., 132.

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color schemes employing aluminum and green graphite paint enabled these tanks to blend against the trees and sky unlike the traditional black tin man.<sup>18</sup>

After 1940 styling improvements became a priority and the pedestal tank “watersphere”, the fluted column spheroid tank and the fluted central column designs all became popular. Elevated water tower structures, regardless of their styling, stand out as marvels of civil engineering achievements that enabled towns, cities and industries of the late nineteenth and early twentieth centuries to grow in size and importance. Many still stand as important landmarks in large and small communities around the country and deserve to be historically preserved and recognized as testaments to industrial archaeology.<sup>19</sup>

**Criterion A: Community Planning and Development**

There were multiple reasons why the City of Bunnell needed a new modern water system in the 1920s. First, residents complained of unpalatable bad tasting hard water with high mineral content from their old water system.<sup>20</sup> Second, the city needed a modern water system to attract new residents and businesses. Third, a new modern water system would reduce the city’s insurance rates. Fourth, a new modern water system would provide higher pipeline pressure and water faster and more reliably in case of fire emergencies by strategically placing fire hydrants in various sections of the city. Fifth, the old water system had a wooden tank that was obsolete and beginning to rot on its tower. And, sixth, a new modern water system would potentially provide uniform pressure and soft, purer and better tasting water.<sup>21</sup>

In 1926, Bunnell the voters approved \$100,000 for an infrastructure improvement that included acquiring a site for an operations plant, constructing, maintaining and equipping a new waterworks system for the city. Bonds were sold to finance the project.<sup>22</sup>

**New Waterworks System Project**

In January 1927, Bunnell signed a contract with the Gray Artesian Well Company of St. Augustine to drill a well approximately 90 feet deep with casing that was suitable for pumping for the new waterworks system. After the well was completed, the water was tested by the Florida State Board of Health who declared it to be of fine quality, pure with no color or taste and with only three hundred to a million hardness. A second well was

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<sup>18</sup> Ibid., p. 137,

<sup>19</sup> Ibid., p. 138.

<sup>20</sup> Randy Jaye, Bunnell Water Tower (Flagler County Historical Society, August 2018), 2.

<sup>21</sup> Ibid., 2-3.

<sup>22</sup> “Paving and Water Works Are Improvements Voted.” Flagler Tribune. October 30, 1926.

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drilled so there would be a sufficient quantity of water for the city as it grew. The contracted price for these wells was \$2,375 each. Bids for furnishing materials, labor and construction for the new waterworks were opened on March 28, 1927. More than fifteen bids were received by Engineer N.A. Hotard. On April 11, 1927, the Bunnell city commission awarded the contract to the Hopper Construction Company.<sup>23</sup>

On July 7, 1927, material began arriving at the site of the new water plant, which was determined by the newly dug artesian wells. F.W. Hopper, of the Hooper Construction Company, stated that the project would most likely be finished in 140 working days and ahead of schedule. Construction of the new water system did move fast and by September 8, 1927 the majority of the main pipes and fire hydrants were installed and concrete forms for the reservoir were nearly completed. Representatives from the Chicago Bridge & Iron Works were working on erecting the steel water tank and its tower. The city purchased the steel water tower structure through the J.B. McCrary Company.<sup>24</sup>

On October 27, 1927, Engineer Paynter, who was leading the construction project of the new waterworks, predicted that the system would be operational by December 1, 1927, despite a pump that was scheduled to arrive late. Paynter also announced that the new system could temporarily be connected to the present water source until the new wells and pumps were available. The potential delay regarding cutting up sections of State Road No. 4 was avoided when chairman of the Bunnell city commission, J.J. McLanahan, announced that a satisfactory agreement with State Road Engineer Thrasher was reached. The agreement details were that four places in State Road No. 4 would be cut up and after the water mains are installed the trenches will be covered and refilled with concrete.<sup>25</sup>

On December 1, 1927, Bunnell City Clerk, John Gerz, announced that due to a few construction delays the new waterworks system should be operational within the next two weeks. Some water meters were still pending installation but Gerz said they would be ready when the new system is ready to be turned on. Bunnell officials said, "this will prove in time [to be] one of the best advertisements for Bunnell that could be named."<sup>26</sup>

**New Waterworks System Put into Operation in 1927**

On December 12, 1927, Bunnell's new waterworks system went operational, and Earl Brockett was placed in charge of the plant. Almost immediately the old system's lines were cut off and all consumers were connected onto the new waterworks system. Bunnell city clerk, John P. Gerz, said that people who did not use the old water system started to submit applications to connect to the new system and expected that the number of new

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<sup>23</sup> "Waterworks Construction Bids to be Opened Monday, March 28," Flagler Tribune, March 17, 1927.

<sup>24</sup> "Work Begins this Week on Town's New Water Plant," Flagler Tribune, July 7, 1927.

<sup>25</sup> "Water System to be Cut in Dec. 15," Flagler Tribune, October 27, 1927.

<sup>26</sup> "Operation of New Water System Soon," Flagler Tribune, December 1, 1927.

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customers to increase. The Flagler Tribune reported on December 15, 1927 that “One of the most important events ever to occur in Bunnell took place this week when the new \$100,000 waterworks system was turned on for the first time...”<sup>27</sup>

The new waterworks system included several miles of 10, 8, 6 and 2 inch mains that were laid under all city streets, fire hydrants, an elevated steel water tank on tower, storage reservoir and a pumping station. After the new waterworks system went operational water samples were taken on a monthly basis and sent to the Florida State Board of Health in Jacksonville to be examined by a chemist. According to a report published in the Flagler Tribune on June 28, 1928 Chief Engineer, E.L. Filby stated, “from the...analytical data we would say that the bacterial or sanitary quality of your water is very good.”<sup>28</sup>

**The Bunnell Water Tower’s Current Usage**

Currently, the Bunnell Water Tower is in daily operation, more than ninety years since it was erected and first placed in service, and provides the city with water pressure during emergencies when electric and generator sources are not available (as the city’s two modern 350,000 gallon ground storage tanks cannot provide water pressure during these types of emergencies). Keeping the Bunnell Water Tower operational is important to the city, especially in times of emergencies, and it undergoes an inspection on a yearly basis and is repainted every five years.<sup>29</sup> The city retains the original blueprints (figure 2) and maintenance instructions (figure 3) for the water tower.

**Criterion C: Engineering**

The Bunnell Water Tower is an excellent, locally significant example of a hemispherical-bottom elevated municipal water tank. The tower and tank were constructed in 1926 by the Chicago Bridge and Iron Works (CBI), a Chicago-based firm founded by Horace Horton, a noted engineer who pioneered the construction of spherical tanks out of formed metal plates that were riveted or welded together. Horton’s company pioneered the standard design for the hemispherical-bottomed tank in 1894, creating a design that was relatively inexpensive, simple to construct, and easy to maintain.<sup>30</sup> Four legs connected by tension rods formed a truss that supported a riser pipe connected to a hemispherical bottom, cylindrical tank topped by a cone. This design would become known as the “tin man” and was constructed across the United States.<sup>31</sup> These tanks became

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<sup>27</sup> “New Water Plant in Operation First of This Month.” Flagler Tribune. December 15, 1927.

<sup>28</sup> “Bunnell Water is ‘Very Good’ says Board of Health.” Flagler Tribune. June 28, 1928.

<sup>29</sup> Jaye, Bunnell Water Tower, 6.

<sup>30</sup> Dubie, 98.

<sup>31</sup> Dubie, 59

**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number   8   Page   9  

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
SIGNIFICANCE

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local landmarks and were often decorated, often with the town's name.<sup>32</sup> The Bunnell Water tower retains all of the character defining features of the tower type, and has been constantly maintained and is currently in use by the City of Bunnell.<sup>33</sup> Prominently painted on the tower is "City of Bunnell Crossroads of Flagler County". Its slender iron and steel legs, pipes, and metal plates clearly express the design and workmanship characteristic of the CBI water towers.

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<sup>32</sup> Dubie, 117, 119.

<sup>33</sup> The tower retains its CBI builders plate, and the city has the original maintenance instructions for the tower from CBI on display in the new water works. The instructions clearly identify the tower as a "Hemispherical Bottom Tanks with Cast Iron Riser Pipe and without a Heating System."

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

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BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
MAJOR BIBLIOGRAPHICAL SOURCES

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New Water Plant in Operation First of This Month. Flagler Tribune. December 15, 1927.

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**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number   9   Page   2  

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
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**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number 10 Page 1

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
GEOGRAPHICAL DATA

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**Verbal Boundary Description**

The nominated property includes all of the parcel described below located between Old Moody Boulevard on the north, State Highway 100 on the south, and Utility Street in the west. The triangular portion of the parcel to the west of Utility Street containing the Flagler County Fire Rescue Station 62 is not included within the boundary of the nomination. See attached map.

Parcel ID: 11-12-30-0650-000C0-0010

Address: 100 Utility Street

Brief Tax Description: 0009.00 ACRES BUNNELL DEV CO SUB BLOCK C TRACT 1 & THAT PART TRACT 4- N OF S.R.11 DEED BK 13/175,176

Acreage: 3.728

Primary Owner: City of Bunnell  
P.O. Box 756

**Boundary Justification**

All of the historic resources associated with this National Register Nomination Proposal are enclosed within the above boundary description.

United States Department of the Interior  
National Park Service

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number      Add. Doc.      Page   1  

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
FIGURES

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Figure 1: Bunnell Water Tower, December 1980.

United States Department of the Interior  
National Park Service

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CONTINUATION SHEET**

Section number      Add. Doc.      Page   2  

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
FIGURES

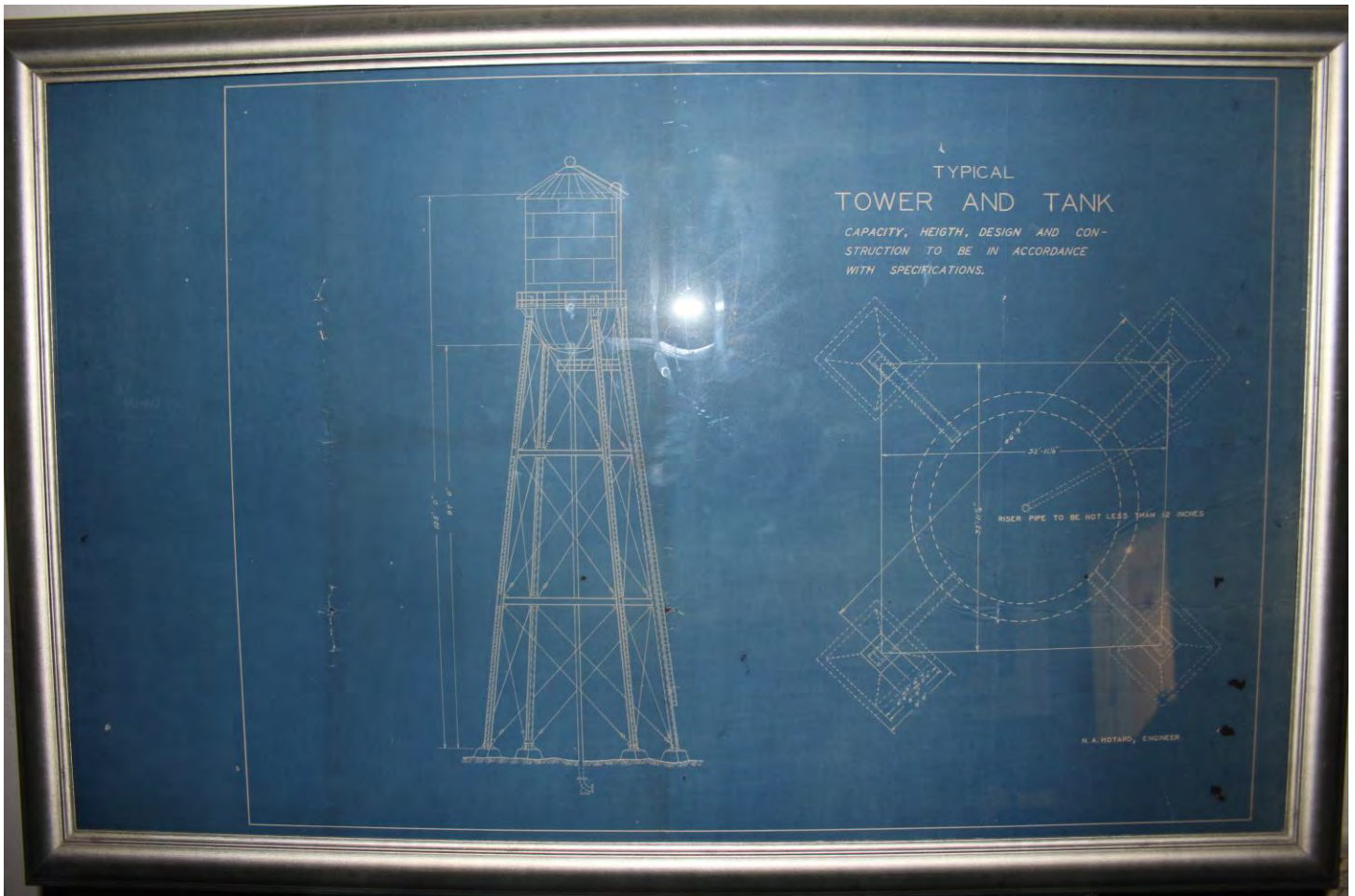


Figure 2: Bunnell Water Tower blueprint, 1927. On display at the current Bunnell City Hall building.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number      Add. Doc.      Page      3

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
FIGURES

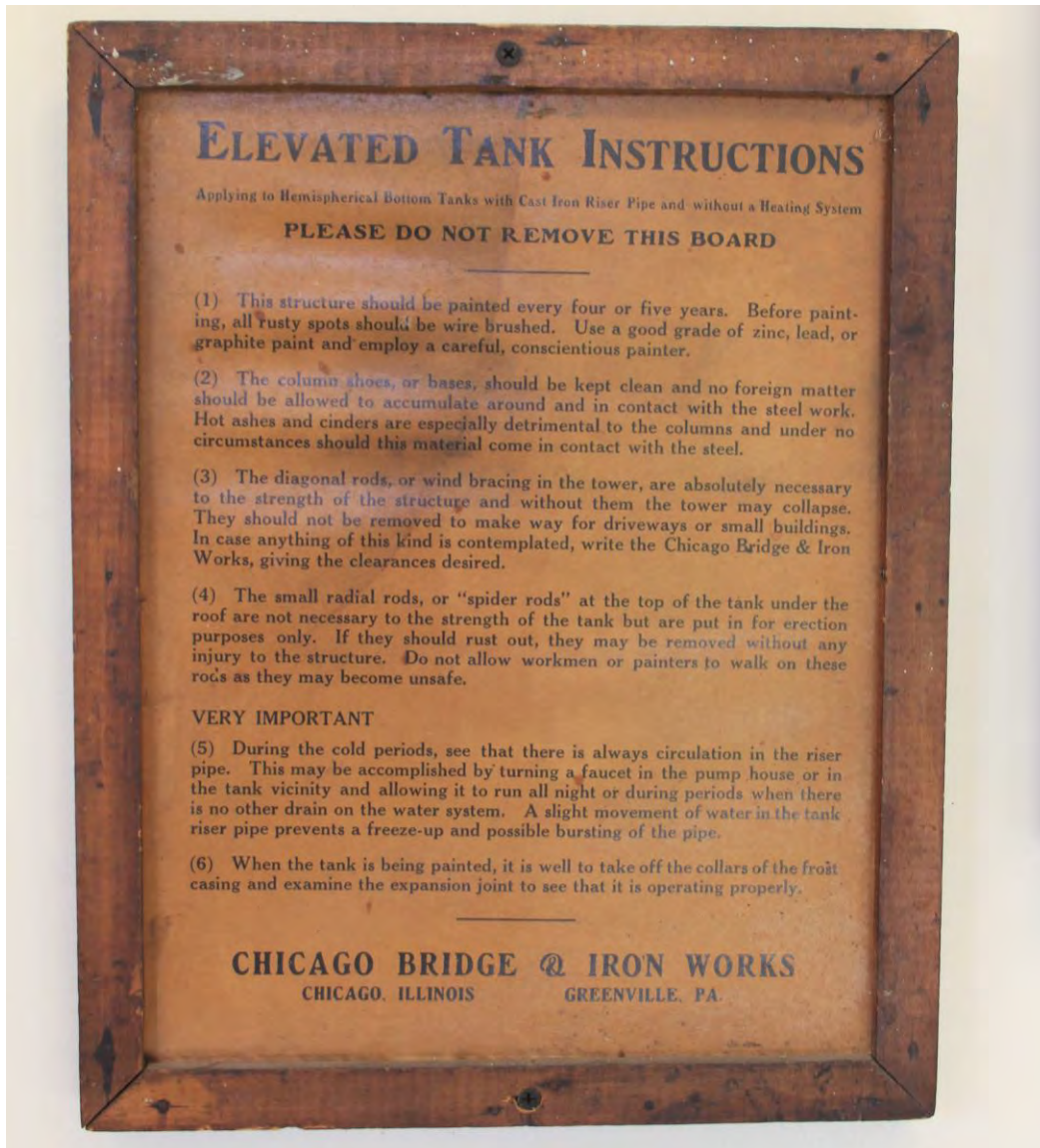


Figure 3: Original maintenance instructions from 1927 for the Bunnell Water Tower. On display at the Bunnell waterworks.

**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number      Photos      Page   1  

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
LIST OF PHOTOGRAPHS

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**LIST OF PHOTOGRAPHS**

1. Bunnell Water Tower
2. 100 Utility Street, Bunnell (Flagler County), Florida
3. Randy Jaye
4. August 2018
5. Flagler Historical Society, Flagler Beach
6. Water Tower. View northeast.
7. Photo 1 of 12

**Sections 3-5 are the same for the remaining photo are the same unless otherwise noted.**

6. Top of Water Tank showing city name. View west.
7. Photo 2 of 12

6. Bottom of Water Tank showing steel lattice legs and access ladder. View skywards.
7. Photo 3 of 12

6. Detail, bottom of water tank. View skywards.
7. Photo 4 of 12

6. Water tower leg detail, with non-contributing waterworks building and aeration tank in background. View northeast.
7. Photo 5 of 12

6. Water tower leg detail showing builder's plate. View southwest.
7. Photo 6 of 12

6. Pump house façade showing main entrance. View northeast.
7. Photo 7 of 12

6. Pump house,  $\frac{3}{4}$  view showing water tower and non-contributing generator. View east.
7. Photo 8 of 12

6. Pump house, interior showing original roof joists and rafters.
7. Photo 9 of 12

**United States Department of the Interior  
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Section number \_\_\_\_\_ Photos \_\_\_\_\_ Page 2

BUNNELL WATER TOWER  
BUNNELL, FLAGLER COUNTY, FLORIDA  
LIST OF PHOTOGRAPHS

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6. Non-contributing Waterworks building and chemical storage shed, with water tower in the background.  
View south.
7. Photo 10 of 12
  
4. 2012
6. Non-contributing eastern ground water tank. View north.
7. Photo 11 of 12
  
6. Non-contributing Wastewater Reservoir. View northeast.
7. Photo 12 of 12

# Photo Site Key: Bunnell Water Tower

100 Utility St.  
Bunnell, Flagler County  
Florida, 32110

## Legend

 Bunnell Water Tower

 Photo marker with number and direction (red arrow)

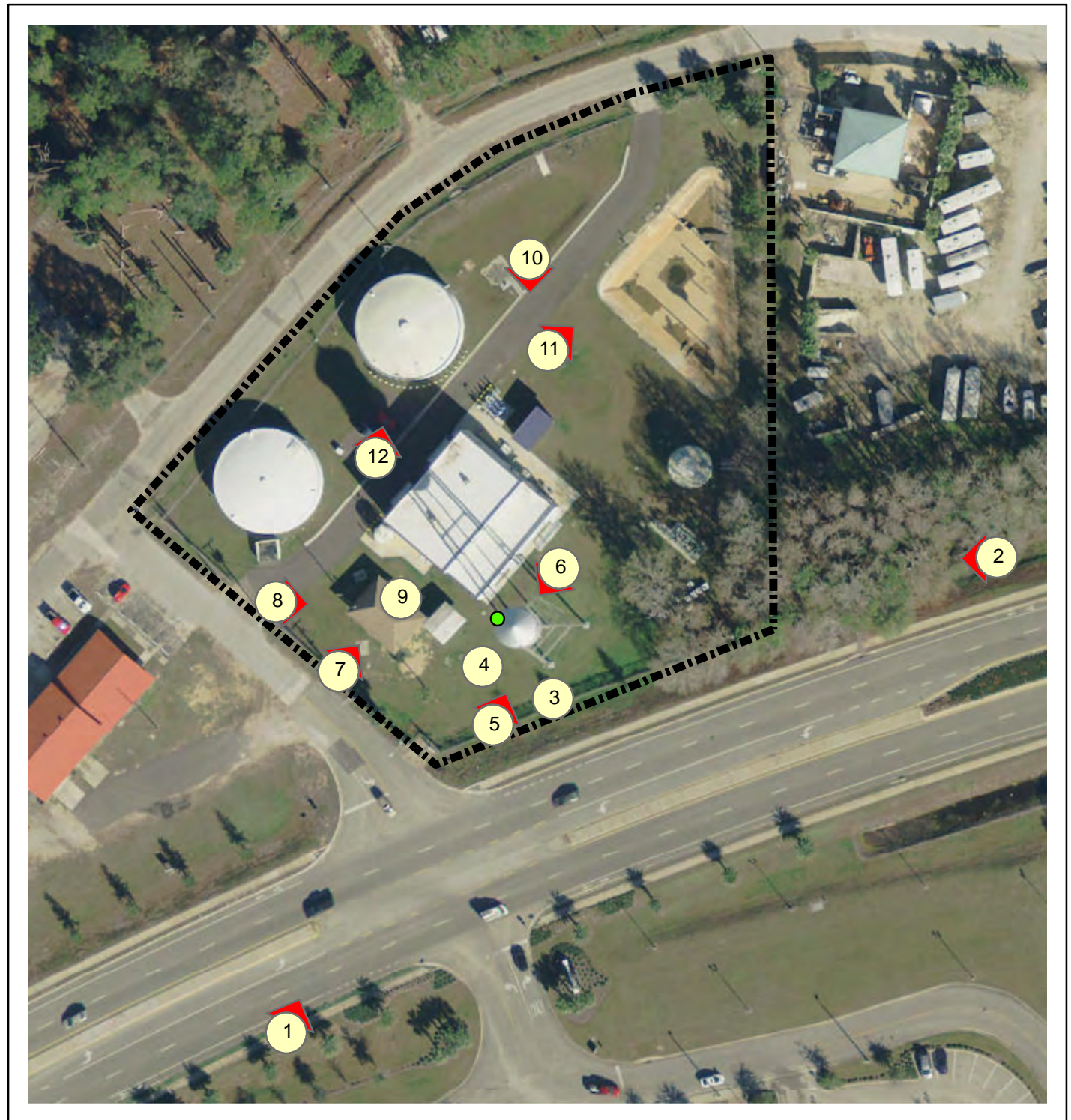
Date: 12/13/2018

1:1,250

0 50 100 200 Feet

0 12.5 25 50 Meters

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community





# Bunnell Water Tower

100 Utility St.  
Bunnell, Flagler County  
Florida 32110

UTM:  
17R 475975 3260639

USGS Quad: Flagler Beach West  
Datum: WGS84

## Legend

 Bunnell Water Tower

Date: 10/26/2018

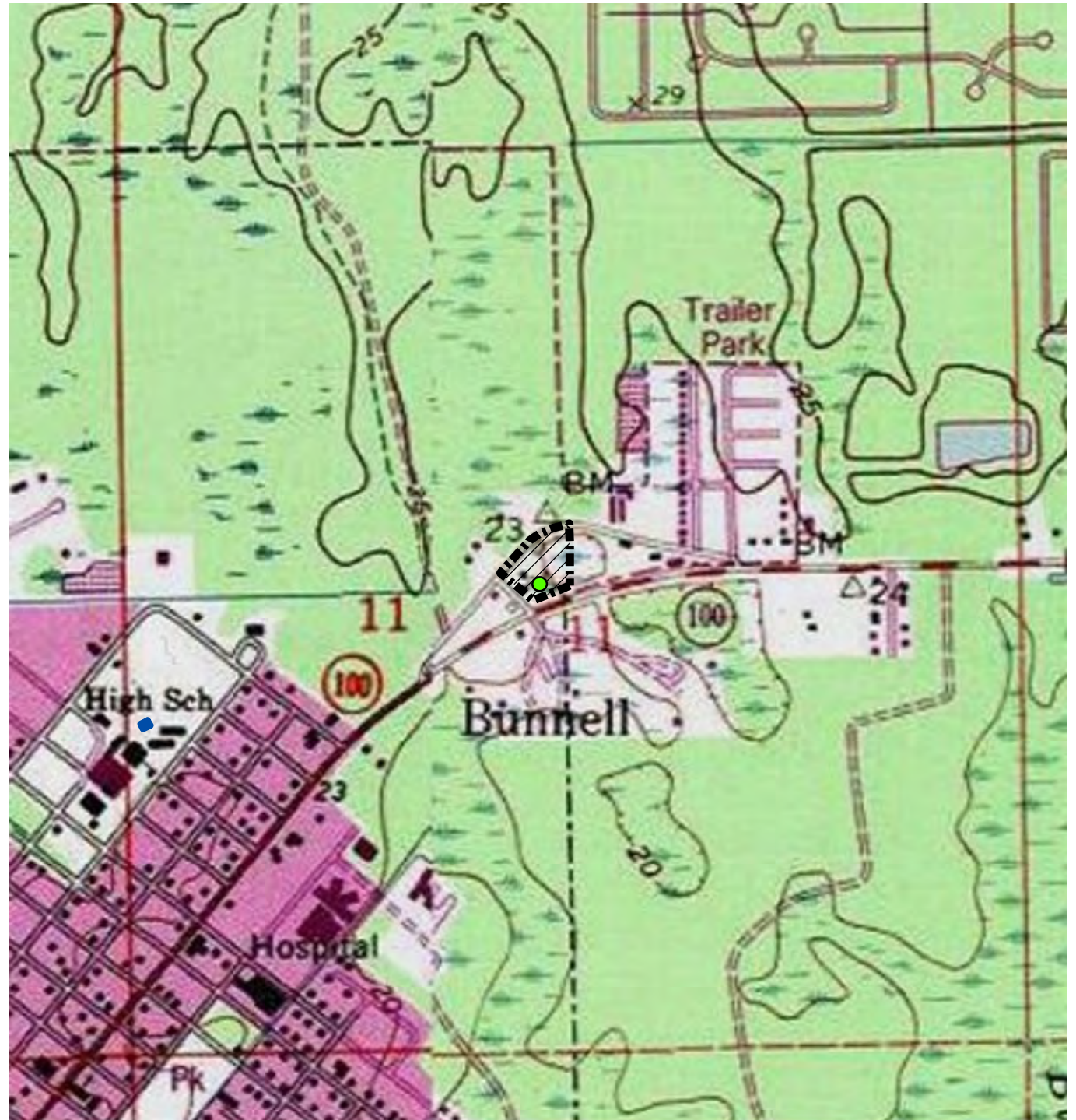
1:12,000



0 500 1,000 2,000 Feet

0 125 250 500 Meters

Source: © 2013 National Geographic Society, i-cubed



# Bunnell Water Tower

100 Utility St.  
Bunnell, Flagler County  
Florida 32110

UTM:  
17R 475975 3260639

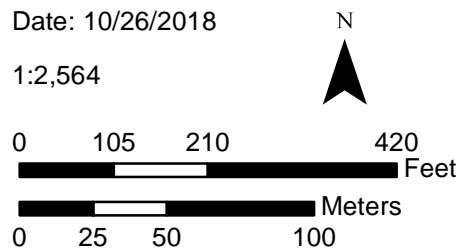
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## Legend

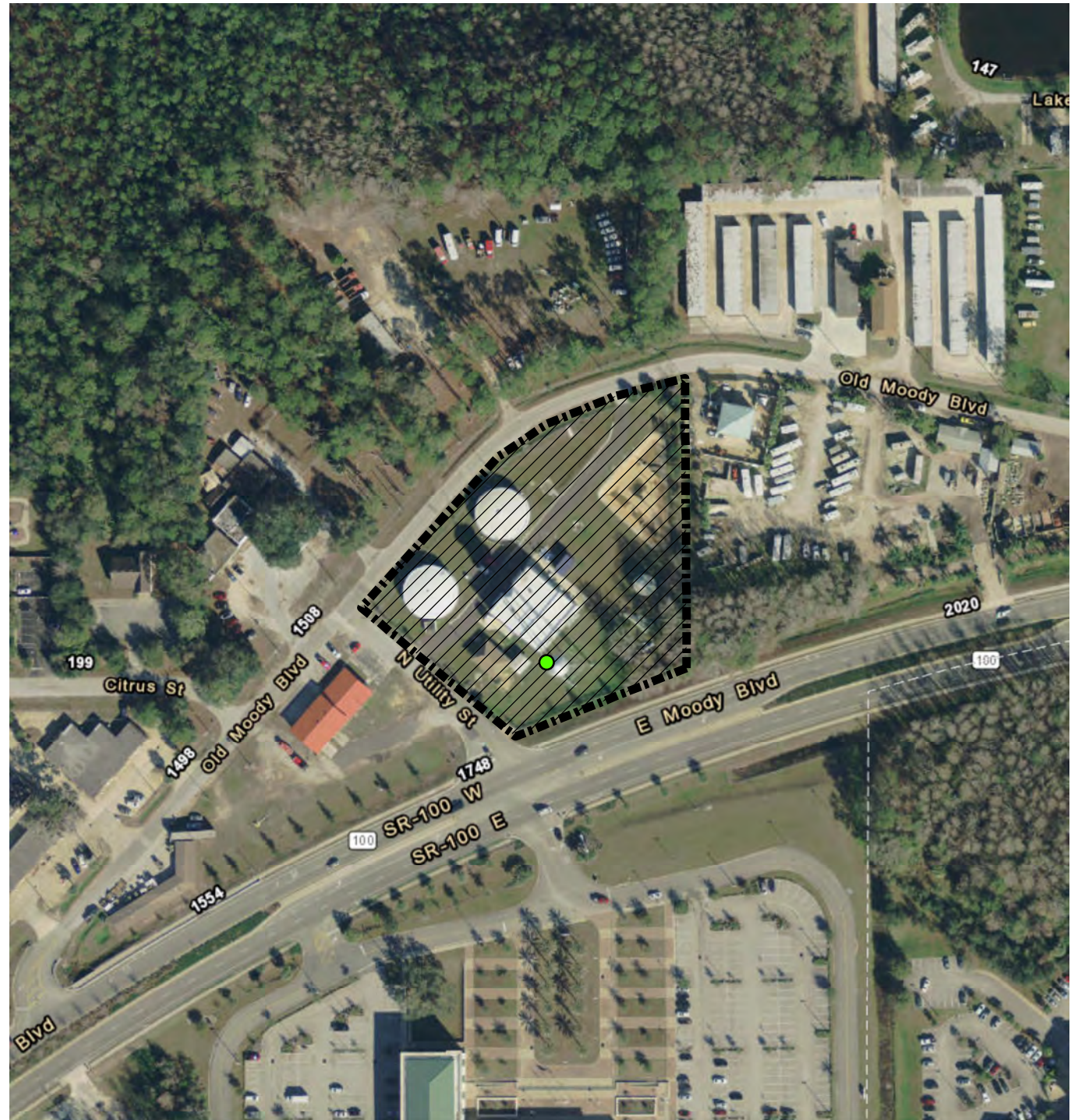
 Bunnell Water Tower

Date: 10/26/2018

1:2,564



Source: Esri, DigitalGlobe, GeoEye,  
Earthstar Geographics, CNES/Airbus DS,  
USDA, USGS, AEX, Getmapping, Aerogrid,  
IGN, IGP, swisstopo, and the GIS User  
Community





City Of  
**BUNNELL**  
Crossroads of Flagler County

BUNNELL  
Flagler County 1908



City Of  
**BUNNELL**  
Crossroads of Hayler County







CHICAGO BRIDGE & IRON WORKS  
BUILDERS  
CHICAGO, ILL.





Architectural pediment above the double doors.

DANGER  
AUTHORIZED  
PERSONNEL ONLY

DANGER  
HIGH VOLTAGE  
KEEP AWAY

Window with blue frame and broken panes.

Concrete pad with a metal grate and a yellow pipe in the foreground.









- 0 -  
- 2 -  
- 4 -  
- 6 -  
- 8 -  
- 10 -  
- 12 -  
FULL



UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES  
EVALUATION/RETURN SHEET

Requested Action:

Property Name:

Multiple Name:

State & County:

Date Received: 12/21/2018      Date of Pending List:      Date of 16th Day:      Date of 45th Day: 2/4/2019      Date of Weekly List:

Reference number:

Nominator:

Reason For Review:

Accept       Return       Reject      2/4/2019 Date

Abstract/Summary Comments:

Recommendation/ Criteria

Reviewer Jim Gabbert      Discipline Historian

Telephone (202)354-2275      Date \_\_\_\_\_

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

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

**Board of County  
Commissioners**

1769 E. Moody Blvd Bldg 2  
Bunnell, FL 32110



[www.flaglercounty.org](http://www.flaglercounty.org)

Phone: (386)313-4001

Fax: (386)313-4101

October 11, 2018

Florida National Register Review Board  
R.A. Gray Building, Rm 307  
500 South Bronough Street  
Tallahassee, FL 32399-0250

Ref: Bunnell Water Tower (FL00196)  
Application to the National Register of Historic Places

Dear Sir/Madam:

On behalf of the Flagler County Board of County Commissioners we are excited that the Florida National Register Review Board will be considering the application for the Bunnell Water Tower as a potential listing on the National Register of Historic Places.

This structure, located at 100 Utility Street, Bunnell, Flagler County, Florida, is a public local structure built in 1927 as a pumping station. The complex has grown from just the pumping station, to include an elevated water tower (built in 1927) with adjacent storage building (built in 1990) and a water treatment plant that was constructed in 2015. The complex has been further enhanced over time, all the while maintaining the original water tower.

The Bunnell Water Tower, commonly been referred to as the "tin man", overlooks the City of Bunnell as an iconic landmark. The structure is a significant part of the City of Bunnell's local history as it was instrumental in the development and modernization of the area. As the County seat, the City of Bunnell and the water tower have played a significant role in the 100 year history of Flagler County.

We look forward to a positive response from the Florida National Register Review Board. Many thanks to you and your committee for consideration of the Bunnell Water Tower nomination.

Sincerely,

Gregory L. Hansen, Chair  
Flagler County Board of County Commissioners

C: Mayor Catherine Robinson, City of Bunnell  
City Manager Alvin Jackson, City of Bunnell  
Flagler County Board of County Commissioners

Charles Ericksen, Jr.  
District 1

Greg Hansen  
District 2

David Sullivan  
District 3

Nate McLaughlin  
District 4

Donald O'Brien Jr.  
District 5





## FLORIDA DEPARTMENT *of* STATE

**RICK SCOTT**  
Governor



**KEN DETZNER**  
Secretary of State

December 13, 2018

Dr. Julie Ernstein, Deputy Keeper and Chief,  
National Register of Historic Places  
Mail Stop 7228  
1849 C St, NW  
Washington, D.C. 20240

Dear Dr. Ernstein:

The enclosed disks contain the true and correct copy of the nomination for the **Bunnell Water Tower (FMSF#: 8FL00196) in Flagler County**, to the National Register of Historic Places. The related materials (digital images, maps, and site plan) are included.

Please do not hesitate to contact me at (850) 245-6364 if you have any questions or require any additional information.

Sincerely,

Ruben A. Acosta  
Supervisor, Survey & Registration  
Bureau of Historic Preservation

RAA/raa

Enclosures