NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

SENT TO D.C.
12-20-02

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 **West Water Tower and Ground Storage Tank**

other names/site number

2. Location

street & number **310 11th Avenue** _____Not for publication

city or town **Orion** _____vicinity

state **Illinois** code **IL** county **Henry** code **073** zip code **61273**

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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 ___ nationally ___ statewide __X__ locally. (___ See continuation sheet for additional comments.)

William L. Wheeler /SHPO — 12-19-02

Signature of certifying official — Date

Illinois Historic Preservation Agency
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 commenting or other official — Date

State or Federal agency and bureau — American Indian Tribe

4. National Park Service Certification

I, hereby certify that this property is:

Signature of the Keeper

Date of Action

____ entered in the National Register
___ See continuation sheet.
____ determined eligible for the National Register
___ See continuation sheet.
____ determined not eligible for the National Register
____ removed from the National Register
____ other (explain):

5. Classification

Ownership of Property
(Check as many boxes as apply)

___ private
_X_ public-local
___ public-State
___ public-Federal

Category of Property
(Check only one box)

___ building(s)
___ district
___ site
_X structure
___ object

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
___1__	__0__	buildings
___0__	__0__	sites
___1__	__0_	structures
___0__	__0_	objects
___2__	__0_	Total

Number of contributing resources previously listed in the National Register **N/A**

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

N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Government/Public Works

Current Functions (Enter categories from instructions)

Government/Public Works

7. Description

Architectural Classification
(Enter categories from instructions)

Other: **Water Tank**
Storage Tank
Pump House

Materials (Enter categories from instructions)

Foundation **Concrete**

Roof **Steel**

Walls **Steel**

other **Aluminum**

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)

__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 (Mark "X" in all the boxes that apply.)

____ A owned by a religious institution or used for religious purposes.

____ B removed from its original location.

____ C a birthplace or a grave.

____ D a cemetery.

____ E a reconstructed building, object, or structure.

____ F a commemorative property.

____ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

Community Planning & Development
Engineering

Period of Significance **1928-1952**

Significant Dates **1928**

Significant Person (Complete if Criterion B is marked above) **N/A**

Cultural Affiliation **N/A**

Architect/Builder **Vosburgh, James C. Engineer**
Chicago Bridge & Iron

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

9. Major Bibliographical References

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

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 # _____

Primary Location of Additional Data
___ State Historic Preservation Office
___ Other State agency
___ Federal agency
_X_ Local government
___ University
___ Other

Name of repository

10. Geographical Data

Acreage of Property **Less than 1 acre**

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	**15**	**719015**	**4581086**	3	__	_____	_____
2	__	_____	_____	4	__	_____	_____

___ See continuation sheet.

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title	**Lori Sampson**		
organization	**Main Street Orion**	date	**08/05/02**
street & number	**1305 3rd Street**	telephone	**309/526-8139/8524**
city or town	**Orion** state **Illinois**	zip code	**62376**

Additional Documentation

Submit the following items with the completed form:
Continuation Sheets

Maps
A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs
Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name	**Village of Orion, Lori A. Sampson, Village Clerk**		
street & number	**1202 4th Street**	telephone	**309/526-8139**
city or town	**Orion** state **Illinois**	zip code	**62376**

West Water Tower and Ground Storage Tank
Orion, IL

Description

The west water tower and ground storage tank are located on a 60' x 50' parcel in the northwest corner of Lot 4, Block 5 of the Original Town. The tower stands in the heart of the Orion business district. The water tower is a fifty thousand gallon Horton hemispherical bottom steel tank elevated on a four-post trestle tower with lattice channels. The trestle posts are attached to the sides of the tank. A riser pipe enters the bottom of the tank and is enclosed in aluminum casing. The tower and tank have a height of 136.5' from its base to the top of its conical roof.

The tank was somewhat heavier in the tower structure than the standard design of its time for small municipalities due to its having been built in accordance with the Chicago building code. The original tank included a 3/16" conical copper bearing steel roof, a revolving ladder on the roof and the side of the tank, a ladder down one tower post to the ground, an all steel balcony with hand rail, an 8" cast iron flanged riser pipe and a roof manhole.

The original casing around the riser pipe was made of wood but this has been replaced with other material. The casing material is currently aluminum. The west water tower is in good condition in regard to its function. The exterior paint of the tower's tank is peeling, making the tank susceptible to rust. The tower was last painted in 1988.

The 30,000 gallon ground storage tank is made of redwood with a conical roof atop which aeration equipment is attached. Redwood planks are held together in a vertical position by steel bands. The tank sits on top of horizontal 6" x 12" redwood beams, which are placed on top of concrete piers. The roof has been replaced several times, the last being in 2000 when a redwood roof was installed, overlaid with asphalt shingles. Aeration equipment placed on the tank has also been changed since the original design. This was done in the late 1980's or early 1990's. The ground storage tank is in good working order but will leak on occasion.

A brick pump house also sits on the water tower and ground storage tank property. The pump house originally had a flat roof but in 2002, due to a constant leakage problem, a

West Water Tower and Ground Storage Tank
Orion, IL

Description (cont'd)

pitch roof was constructed with a hatch opening to accommodate pulling the well pump. The building houses the well, all pumping equipment and a chlorine room. The pump house, water tower and ground storage tank are all connected by underground piping.

Statement of Significance

History of Water Towers

The West Water Tower and Ground Storage Tank are locally significant under Criterion A for its association with community planning and development in Orion. The structure is also locally significant under Criterion C for engineering as an example of an elevated water tank. The period of significance is from 1928, when the tower was erected, until 1952, the fifty-year cutoff for listing in the National Register.

Elevated water storage tanks became important components of municipal water systems and industrial complexes in the late nineteenth century. Municipalities and private utility companies under contract to communities planned and constructed water works facilities in response to pressures of concentrated populations. As communities grew larger and more dependent on water distribution systems, the need for dependable reserve supplies increased and the tremendous costs of constructing and operating water works resulted in a search for the most efficient means of operation. The construction of elevated reservoirs to insure storage for fire protection and to maintain constant pressure also became an accepted practice for industrial firms in the 1880's.

A water tower is a tank supported on a brick, stone, or concrete tower. A standpipe is a wrought iron, steel, or concrete column rising from a ground level foundation and containing water for its entire length; an elevated tank is a wood or metal tank supported on an open trestle. [1]

These structures also were symbols of industrial or municipal improvement and reflected the prosperity and progressive outlook of their sponsors. Although a single element in an often complex storage and distribution system, the elevated water storage structure was

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

the most visible component of a water works costing thousands of dollars and often employed the most advanced principles of civil engineering. These structures therefore merit examination not only because they were early public works in many communities, but also because they were important in technological and architectural history. [2]

The use of water towers in the United States coincided with the first era of major water works construction around 1800.[3] Between 1870 and 1890, the character of a typical water works system changed dramatically. Increased use of elevated water storage structures was one of these improvements. Between 1880 and 1890, the number of pumping systems employing some form of elevated water storage rose dramatically.[4] Water towers and standpipes were used with increasing sophistication within water systems, resulting in a greater concern in the engineering community about better and more visually appealing elevated water storage structures.[5]

By 1880 a standard formula similar to that used in England had evolved for the water tower in America. The tank itself was fabricated of wrought iron, although steel came into wider use in the eighties. The tank was supported on I-beams or girders and did not include the open shaft or core staircase popular in England.[6] English engineers experimented with a new curved bottom tank at the end of the eighties, combining new engineering features with traditional architectural styles. Because the curved bottom tank used less steel or wrought iron and was more water tight than the flat bottom tank, it was ideal for projects involving large capacities.[7]

Masonry supported tanks were desired by communities because they could be constructed from local materials which could be less expensive than steel or iron for a standpipe shipped long distances. Because local workmen often had a sound understanding of masonry construction techniques, responsible contractors could be more easily located. Also, there was not a waiting period for materials, as sometimes occurred with wrought iron or steel standpipes.[8]

An ambitious design could be expensive – far more expensive than a wooden tank and trestle. The time required to build the foundation and tower, and to allow for setting of

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

the masonry often created delays. Also, it appeared as if the individualized tastes of more prosperous communities and the use of locally available materials ruled out design standardization which might have reduced costs or made problems in tower design more predictable.[9]

In the 1880s, where steel and wrought iron were readily available, the standpipe was also competitive with the masonry water tower. It is important to make the distinction between the water tower and the enclosed standpipe because in the former the masonry work served a critical function – support of the girders and tank – while in the latter its role was not structural, although the enclosure did provide insulation and some protection from high winds.[12]

The standpipe was inexpensive, profitable to iron works contractors in the expanding iron and steel industry, and assumed to be simple to design and erect. Its basic form was a product of the industrial era. The first standpipes were narrow as compared to their height; their function was to provide a cushion of water to pump against to prevent sudden changes in pressure in the distribution system. Despite these benefits, there were also many flaws with the standpipe design. The tall narrow form was more prone to failure because of the extreme pressures within the tube, the variable qualities of wrought iron and steel in the 1870's and 1880's, and the instability of the tall slender form.[10] The action of wind, particularly on an empty standpipe, created a vacuum on the far side of the tube and could collapse the thinner plates of the upper portion. The large exposed surface area of the pipe encouraged ice formation within the tube when temperatures were low and little water was withdrawn or pumped in. Blocks of ice formed on interior features and increased in size until thawing occurred; the falling ice then damaged or destroyed the standpipe.[11]

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

In the first decade of the 20th century, reinforced concrete was heralded as a substitute for steel because it was seen as a durable, inexpensive and attractive water container with the insulating qualities of brick. However, early concrete standpipes were seriously flawed and served as poor publicity. Leakage proved impossible to seal and unsightly efflorescence, which appeared on the exterior, countered the claims of aesthetic superiority made by the concrete industry. It was not until the 1920's that construction techniques were derived to improve water retention by pre-stressing the concrete.[13]

By 1905 the elevated tank was the preferred structure and the more advanced water storage structures of the 20th century derived from the basic 1890s water tower form. The earliest form of all metal elevated tanks remains the most widely used type and is a familiar silhouette on both the urban and rural landscape. This form, the hemispherical bottom tank, or "tin man", consists of a four post trestle tower composed of lattice channels or other solid members and divided into three to five panels braced with tie rods. The trestle posts are attached directly to the sides of a tank of riveted rings of steel plates having a rigid hemispherical bottom; the tank is capped with a conical roof with ball finial. The riser pipe enters the bottom of the tank and may be enclosed in a protective "frost box" casing of board or metal siding. With minor variations, this design has been in use since 1894. [14]

The elevated tank was based on a safe and efficient, relatively inexpensive, design. Elevated tanks had cost advantages over water towers and, eventually, over standpipes. Foundations were required for four posts only, rather than an entire circular area. Open

West Water Tower and Ground Storage Tank
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Statement of Significance (cont'd)

Because of the greater diameter of the tank and better ratio of volume to exposed surface area, the elevated tank presented fewer problems with freezing than the standpipe. Finally, the curved bottom meant that collected sediment could be more easily removed.[16]

The two elements necessary to the development of the elevated tank were the trestle tower and the curved bottom tank. The curved bottom tank was perfected in Europe in the 1880's and first applied to American tank design in 1891. The trestle tower appears to have been derived from a variety of native sources including railroad tank practice, American bridge-building techniques, and from windmill construction in the Midwest. These two aspects of the elevated tank are important because they illustrated American assimilation of European engineering and the diffusion, within the United States, of engineering practices from one type of structure to another.[17] Water works engineers in the early 20th century identified railroad practice and innovative work done in small towns as the inspiration for elevating tanks on trestles.[18]

Standardized designs for the wooden tank and trestle did not attempt to incorporate architectural styles, which could increase costs. Companies instead offered decorative roof finials and brackets, which could be added. The aesthetics of the wooden tank were only called into question in the 20th century when the Chicago Bridge & Iron Works (CBI), in its efforts to discredit wooden tanks, took the position that "to those who appreciate the architectural side of the question, the steel tank with its well proportioned lines is almost universally more pleasing than the angular wooden tub with its steel tower".[19]

The increasing use of the metal trestle tower in the early nineties encouraged experimentation with structural members suitable for trestle posts. The lattice channel was widely adopted by bridge companies like CBI until the welded circular column came into use in the 1930s.

Also critical to the development of the modern elevated tank was the curved bottom tank. This self-supporting rigid tank bottom reduced weight, materials, and overall costs for

Statement of Significance (cont'd)

elevated tanks. Its riveted seams were more even and could be made more watertight than those of the flat bottom steel tank or wood tank, in which the perpendicular joining of the tank sides and bottom created a thick and imperfect connection. The new form of tank bottom improved the appearance of the elevated tank, eliminating the grid of girders and substituting a trim silhouette for the squat flat bottom tank.[20]

Concurrent with the introduction of the spherical or hemispherical bottom tank in the U.S. was that of the conical bottom tank. This tank form was losing popularity in Europe at the time. Nonetheless, the simplest conical bottom form was an innovation in American tank design in 1893.[21] A serious competitor of the hemispherical form in the 1890's, the conical bottom was widely used because the bottom form was easier to fabricate than the hemispherical, which required a double curved surface. Until 1900, the conical form was as popular, perhaps more so, as other forms.[22]

By 1896, engineers had demonstrated that the economic advantage lay with the hemispherical form, which used less material than the conical. Also, CBI's technique for fashioning dished plates hastened the departure of the conical form from the national market. It continued to be used on a regular basis for small capacity tanks.

The hemispherical bottom form gained complete acceptance in the early 20th century for both municipal and factory use. By 1910 the first new tank form of the 20th century, the elliptical bottom, had joined the hemispherical bottom tank. These tanks later became dwarfed by even more elaborate curved bottom tanks with capacities of a million gallons or more. Each of these later 20th century forms was derived from its predecessors; all ultimately owed their existence to Edward Flad's spherical bottom scheme of 1891 and the Laredo, Texas elevated tank of 1893.[23]

The connection of trestle posts to the tank sides was a central issue in early elevated tank engineering. In 1894 a technique was pioneered by Horace Horton of CBI that became

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Statement of Significance (cont'd)

standard practice in elevated tank construction. CBI's method attached the four posts directly to the tank sides rather than to an intermediate member.[24]

Horton's design, employing a full hemisphere connected directly to the sides and posts, omitted the circular girder, the flanging of the tank bottom edge, and the inaccessible space within. The Horton technique was cleaner in design, less complicated in erection, and easier to maintain. CBI's first use of this form of connection was in the Fort Dodge, Iowa elevated tank (1894), the first true hemispherical bottom tank. The striking simplicity of CBI's design was immediately apparent, and their Paris, Illinois elevated tank became a prototype for thousands of elevated tanks in the classic "tin man" form.[25]

The utilitarian aesthetic of the elevated tank, which gained almost immediate acceptance in the United States can be attributed in part to the elevated tank's ancestry in the simpler vernacular wood tanks and trestles of the 1870's and 1880's. Clearly, a market existed for the more artistic elevated tank designs, but this was a secondary specialty tank market. The typical tank customers at the turn of the century were communities where a wooden tank and trestle or standpipe had been the previous water storage structure, and industrial plants and institutions, where elevated tank appearance was not a significant factor. This large market welcomed the standard hemispherical bottom tank.[26]

The next three decades were rich in experimentation, resolving the problems of the classic tin man, and designing new tank forms to meet the greater storage demands of growing communities. The major issue of the ensuing years was that of building safe and efficient tanks with larger and larger capacities within the confines of available technologies. The major aesthetic issue was that of transforming the tin man formula into smoother, more rounded forms as architectural tastes changed in the teens and the 20's. Also, the adaptation of industrial and municipal tanks for advertising purposes transformed the elevated tank into a promotional device and a commercial archeology art form.[27]

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Statement of Significance (cont'd)

The elliptical bottom tank (1907) was the first response to the need to store larger volumes of water while limiting the range of pressure for a full and empty tank. In 1919, CBI reported that the elliptical bottom tank had been adopted widely in the municipal water works field, largely because of its low variation in pressure, self-cleaning features, and absence of maintenance costs. The hemispherical bottom steel tank retained control of the insurance and industrial fields. CBI leaders believed the sturdy, stable appearance of the elliptical bottom tank appealed to community leaders. Its horizontal lines strongly contrasted with the tin man form, whose tank proportions and conical roof had a vertical emphasis appropriate to its later Victorian origins.[28]

Americans moved much more quickly than their European counterparts toward functional water tower designs, using as little material as possible, preferring pleasing proportions, graceful outlines and neat, strong looking details.

This progression can be seen in the elliptical form, which became increasingly rounded in the 1920's, following the softened lines of Art Deco and Moderne architecture. In 1922, the dome roof, which was entirely self-supporting and eliminated the steel framing necessary to the conical roof, was introduced for railway tanks and its use quickly spread to municipal water tanks. In the early thirties the separate roof was altogether eliminated, making the roof a definite part of the tank as regards both appearance and capacity.[29]

One variation of the quest for functional and appealing elevated tanks was the introduction of advertising on elevated tanks. As corporate advertising became more common, company names and symbols were painted on the standard tin man, which had been purchased to store water for factory processes or sprinkler systems. Tanks were transformed into three-dimensional billboards – representations of products ranging from pineapples and tobacco cans to jars of Ovaltine.[30]

A second major innovation in tank bottom design, the radial cone bottom, was introduced twenty years after the elliptical bottom. The design made possible large elevated storage

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Statement of Significance (cont'd)

capacity in a comparatively shallow tank. The first radial cone tank was designed by CBI and erected in Brooklyn in 1930.[31]

As tank size dramatically increased in the later twenties, better overall design was advocated. In 1930, CBI, a major fabricator, sought to develop a general aesthetic improvement in the character of elevated steel water tanks and their supporting structures through an architectural competition.[32] The competition fell into three major categories. The first group represented visual improvements to the popular hemispherical and elliptical tank forms. Simplicity and strong detailing were characteristics shared by the prize-winning designs. First prize was awarded for a tank which successfully unified the tank and tower by giving the tower mass and weight through use of box girders and a wide riser. Vertical movement was suggested by a spiral stair and by carrying the column ribs through to the top of the tank.[33]

The designs judged to be most desirable had identifiable Art Moderne influences: the tank and tower were reduced to basic geometric forms – major horizontal and vertical elements – emphasized by bands of small scale detail. Aside from these architectural associations communicated by massing and manipulation of materials, the work judged to be superior was among the least ornamental.[34]

The engineering community began to perceive a growing need to be responsive to community leaders and affected residents as elevated tanks were sometimes constructed in residential areas on conspicuous hilltops.[35] After 1930, improved styling was sought for tanks of all capacities. This trend is well illustrated by two forms widely used in the 1940's – the pedestal tank or "watersphere" and the fluted column spheroid tank. Widespread use of these two tank types was delayed until welding was reliable for elevated tank construction.[36]

The watersphere was clearly the most popular tank style of the forties – one of the few the architectural community itself took notice of and applauded. It was not a feasible design for tanks in the 1,000,000 to 2,000,000 gallon range, however.[37]

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Statement of Significance (cont'd)

One attempt at beautification of the largest tanks in use in the forties was the invention of the fluted central column. The fluted cylinder created visual interest and acted as a supporting column for the bottom plates and tank contents. Engineers believed the fluted column spheroid tank was a solution to the aesthetic dilemma of the large tank. Although the tank bottom form was different, the architectural treatment borrowed heavily from other all welded tanks. The fluted central column feature was subsequently applied to the pedestal tank.[38]

The tanks identified as "modern" today are drawn from these last three types – the watersphere, the radial cone, and the spheroid tanks. But the tank forms discussed earlier also remain in use today. They provide a significant visual link to the 19th century forms, and, along with their modern counterparts, present to the informed observer a remarkable continuum of elevated tank design.[39]

Some early, elevated tanks are receiving recognition, but most either continue in their original function or have been converted to advertising devices. As one of the more visible aspects of public water works and civil engineering, these structures reflect how critical the control of water has been to the growth of towns and cities in the late 19th and early 20th centuries. Their impact has been immense, affecting both the everyday life and surroundings of most Americans. As preservationist's concepts of cultural resources expand to include new categories of sites and structures, the elevated water storage structure – and especially the elevated tank – will assume a more prominent place in industrial archeology and historic preservation.[40]

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Statement of Significance (cont'd)

History of Orion

The Village of Orion was originally incorporated as Deanington, Illinois in 1853 by Charles W. Dean, a carpenter from Rock Island. The community consisted of a dry goods store, a school, a post office, a hotel and a blacksmith shop. Methodist church services were held in the schoolhouse.

In 1867 three churches were constructed: Methodist, Baptist and United Brethren. A Lutheran church would follow three years later. Late in October, 1870 the first passenger rail services were in operation. The $50,000 in railroad bonds was to prove a tax burden for the community, but it is estimated that the price of land jumped from $20 to $40 more per acre. By 1873 things were booming and the name of the town was changed to the Village of Orion.

The coming of the railroad brought to a halt the development of a business district east of Central Park. Stores east of the park discontinued, or moved with the trend. In several instances the buildings, themselves, were moved. Population in the village continued to increase, along with small business development. The State Bank of Orion was organized on May 20, 1890. Two months prior to that The Farmer's Bank of Orion was organized.

Like most towns, Orion had its share of fires in the last quarter of the century. One of the first serious fires to strike the business district was in 1879 when a fire wiped out several small buildings. In 1888 the entire Crampton Block burned to the ground. In 1890 fire destroyed the mill, and the following year the Rock Island Station and coal and lumber sheds burned. This episode of fires aroused the village fathers to action. A fire engine was purchased in 1892.

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Statement of Significance (cont'd)

At the turn of the century the village population was 584, 40 less than in 1890. This loss was said to have been caused by families moving from the village and being replaced by a retired farmer and his wife. Also, many times one new home replaced two old homes.

The train was the vital link between Orion and the outside world. Orion had a growing telephone exchange and the town was considered to have made good progress in 1900, partly due to the installation of an electric light plant.

The village had a public well at the Opera House, one at the Odd Fellows building and at the State Bank of Orion. They also had a windmill at the northeast corner of the park. Concern arose in the summer of 1901 regarding the possibility the wells were an excellent source for the spread of consumption and other bacterial disease. The troughs were fixed so the extra gallon or so of water that everyone pumped out in an effort to get a cool drink ran back into the well. There were further concerns that the condition was aggravated by customers using the well that were chewing tobacco and sometimes were none too careful. The summer of 1901 was hot and dry, crops were being damaged and water was scarce in the community. Some wells in the village were pumped dry daily.

Automobiles were being purchased by the year 1906, and concrete sidewalks were being considered to replace the old wooden sidewalks. In 1907 the Sanquist building was destroyed by fire. The fire was thought to be caused by lightning. The two tenants of the building, F. H. Ahlstrand and the Golden Rule Store, were thought to have lost around $8,000 in inventory. The building was erected in 1895 by the Sanquist brothers at a cost of $4,200. Mr. A. O. Anderson, the owner of the Sanquist building at the time of the fire, decided to rebuild and by December 19, 1907, a new building had been erected. Mr. F. H. Ahlstrand once again occupied the west half and the new tenant in the east half was Rohrbach & Keel Harness Shop.

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Statement of Significance (cont'd)

Orion suffered a severe loss in 1908, when the electric light plant was razed by fire. The plant was consumed a short time after the fire was noticed. Insurance on the building had expired and hadn't been renewed. The village had about $6,000 invested in the plant and still owed $1,900. Orion returned to kerosene lamps, but having grown accustomed to electric lighting, the situation was intolerable. The Citizen's Electric Light Association was organized and its board went door-to-door, raising $5,000 to rebuild the plant. Work on the plant started in July and in a few months the lights were operating. In 1910 the population of Orion had risen to 655.

October 3, 1916 has been long remembered by the citizens of the village. This is the date a fire started in the J. D. Cederburg store and consumed the entire business block east of the AAA store, along with the Tamme poultry house and cream station north of the Cederburg building, several small buildings north of the AAA, the sheds at the rear of the telephone office, some sheds back of the G. H. Wayne residence, J. D. Soderburg's barn and it disrupted telephone and electric service.

Due to the intense heat caused by the wind fanning the flames, it was impossible to save the block and attention was diverted to saving other buildings. Fire departments from Rock Island and Cambridge responded to help the Orion department fight the blaze. A conservative estimate placed the loss at between $25,000 and $30,000 on buildings and inventory, less than half of which was covered by insurance.

In 1921 the first Orion Community High School building was built. In December, 1924 the village completed the construction of a 350 barrel cistern in the south part of town. The purpose of this cistern was to store water in case of fire. There may have been two other cisterns at this time. Due to devastating fires that seemed to occur with frequency, and the shortage of water from private wells and cisterns, the village voted to contract for the drilling of a well for a village-wide water system in 1927. Water mains were eventually installed to carry water to each household.

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Statement of Significance (cont'd)

In 1939 the village suffered the burning of the Orion High School. Neighboring schools offered the use of their facilities while a new school was built. It was requested by the school district that J. C. Ericson, an Orion contractor, be in charge of inspecting the new construction. The new school was completed in January, 1940. The census for 1940 showed a population of 714, which represented an increase of 94 over the 1930 figures.

In 1947 the voters approved the establishment of the Orion Fire District. Fire fighting would no longer be under the control of the village board. The fire district would also include areas outside the village limits. Also, in 1947 the village passed an ordinance setting out their first zoning regulations. By 1950 Orion was experiencing the greatest building boom so far in its history. Sixteen new structures were built that year and the Lutheran church was erecting a $50,000 addition. The census showed the population of Orion to be 859.

New fire equipment was being purchased in 1951 and mercury-vapor lights were installed in the business district. It was determined this lighting was a marked improvement over the old ornamental-type lighting. [41] The ten years between 1950 and 1960 brought population growth in the village with an increase of 440 residents. The next ten-year period showed the village's greatest growth with an increase of 532 residents. Growth continued through 1980 to a high of 2,013 and has since steadily declined to its current population of 1,713.

History of West Water Tower and Ground Storage Tank

Though the village board began a movement in the spring of 1927 to install a water system in Orion, the idea lay dormant until pressure by citizens in August of that year forced the board to proceed with the matter.[42] The board weighed the factors, comparing the expense of a water system against the resulting savings of fire losses and insurance premiums, along with security against water borne disease and general increases in property values for homes with water service. Without water service the board feared the

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

town would suffer from being considered backward and antiquated instead of progressive and up-to-date.[43]

The answer to the question on whether to go forward with the project seemed simple to the local newspaper. Either way there would be cost to the community: if a water system were installed each person would pay a definite amount and receive all the advantages of the water system. Without a water system, the community would pay the equivalent in additional insurance rates, possible loss of public as well as private buildings and other property due to the lack of modern conveniences, the protection of health, and the back breaking labor of carrying water. It was thought with waterworks you pay for what you get. Without waterworks you pay for it, only you don't get it.[44]

The Orion Times wrote there were no towns with water systems that would reverse their decision. It was the best investment a town could make and very few towns in Illinois of over 500 in population existed without waterworks.[45]

Research was done on Illinois towns and the resulting loss of property due to fire and the lack of a water system. The losses of schools and business properties convinced those communities to proceed with the installation of waterworks.

It was decided to put the issue of a waterworks system to a vote of the public at a special election on October 4, 1927. A bond issue was proposed for $14,000, which was considered more than ample for the expense of sinking the deep well, installing pumping equipment and the large elevated tank. The installation of water mains would be paid for by special assessment, with payments spread over a period of ten years.[46]

All articles printed in *The Orion Times* espoused good things about the installation of a water system in Orion. They repeatedly told readers a water system would promote Orion as a progressive community and attract newcomers. The *Times* also reminded its readers that many other communities were way ahead of Orion in this improvement,

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

particularly the nearby village of Woodhull. Woodhull residents had been enjoying a water system for the past 25 years.

It seemed there was a substantial fear the proposal for the water system would be voted down on October 4th. There was but little talk on the question in public by the people of the community and apparently, little interest was shown in the matter. However, it was the *Times'* opinion that a special village board meeting for the public, presented by the engineering company from Chicago and a special municipal improvement attorney, made believers in the movement. The vote on the issue was a surprise to all, the result being 196 for and 101 against. The town felt the vote was a decided victory.[47]

Work began immediately to arrange for well drilling. The park (Central) was considered as a site but it was discovered the site had been given to the village for park purposes only, and to place the well there might invalidate the deed.

Other locations were considered, and the lots west of the State Bank of Orion on which stands the idle blacksmith shop, formerly known as the Richardson shop, and the building occupied by the Steffen Cleaners, were considered most favorable, and a special meeting of the village board was called to act on the purchase of this site.[48]

The drilling company engaged to drill the well was R. J. Bauereissen of Chicago. They expected to have their equipment at the well site so drilling could begin by January 1, 1928.

Weekly updates were given in the *Times* in regard to how the well drilling was proceeding. Drilling was eventually complete and the first test pumping started March 8, 1928. The well was drilled to a depth of 615 feet.

Bids were taken on the construction of the water tower, along with the pumping equipment and pump house. The board opened bids April 4, 1928 and debated until 1:00 a.m., when an adjournment was taken without making a decision.[49]

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

On April 26, 1928 Larson Bros. was awarded the job of erecting the pump house and building the piers for the tower. The piers for the tower were six feet square at the base and six feet deep, being made of concrete. The contract to Larson Bros. was $897. Chicago Bridge & Iron was awarded the contract for the water tower at a cost of $4,700, and The Keystone Driller Co. was awarded the contract for supplying the pump and other equipment at a price of $2,250.

Chicago Bridge & Iron's proposal to the village was for a fifty thousand gallon Horton hemispherical bottom steel tank, elevated on a tower giving a height of 100 feet to the balcony. The tank was somewhat heavier than their standard design due to its having been built in accordance with the Chicago building code. The tank was originally constructed for a client in Chicago and after a short period of service, was taken down and taken back by Chicago Bridge & Iron due to an enlargement of the customers plant and their need of a larger tank. In written correspondence to the village on April 26, 1928 the contracting engineer of CB&I said the structure was in first class condition throughout and carried the same guarantee as did a new tank. He further indicated the tank would receive a new 3/16" copper bearing steel roof. The riser pipe, frost casing and expansion joint would also be new. The $4,700 bid included the installation of the tower and tank, complete above the foundation, ready for the connection of the horizontal piping.[50]

By August 8, 1928 the pump house was built and the tower erected. The water system was now in working order except for the distribution system. After completion of the distribution system, a 30,000-gallon redwood ground storage tank was installed in 1931. The tank served as extra capacity for the water system, and its aeration system served to dispel the sulfur odor from the water. It remains in use today. The redwood tank was constructed by Challenge Company from Batavia, Illinois at a cost of $1,412.00.

West Water Tower and Ground Storage Tank
Orion, IL

Statement of Significance (cont'd)

Since 1928 the water tower and elevated tank have served the Village of Orion unfailingly. The tank and tower have had routine maintenance and painting throughout their life span. Though Orion's brick pump house has undergone a change in roof design, and old entry doors and windows have been replaced, this building and the water tower and ground storage tank all serve as an example of an important stage in community development. This development served to ensure the health and safety of the citizens in the community. The pump house, water tower and ground storage tank all have sufficient integrity for listing in the National Register of Historic Places.

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[1] 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), pg. 1
[2] Dubie, op. cit. pg. 2
[3] Ibid, pg. 11
[4] Ibid, pg. 8
[5] Ibid, pg. 9
[6] Ibid, pg. 17
[7] Ibid, pg. 23
[8] Ibid, pg. 32
[9] Ibid, pg. 36
[12] Ibid, pg. 53
[10] Ibid, pg. 37-39
[11] Ibid, pg. 41
[13] Ibid, pg. 55-57
[14] Ibid, pg. 59
[15] Ibid, pg. 59-61
[16] Ibid, pg. 61
[17] Ibid, pg. 61-62
[18] Ibid, pg. 63
[19] Ibid, pg. 73
[20] Ibid, pg. 81
[21] Ibid, pg. 87
[22] Ibid, pg. 89
[23] Ibid, pg. 89-91
[24] Ibid, pg. 96

[25] Ibid, pg. 98
[26] Ibid, pg. 108
[27] Ibid, pg. 109
[28] Ibid, pg. 109-112
[29] Ibid, pg. 115
[30] Ibid, pg. 116
[31] Ibid, pg. 117
[32] Ibid, pg. 118-120
[33] Ibid, pg. 120-124
[34] Ibid, pg. 124
[35] Ibid, pg. 134
[36] Ibid, pg. 135
[37] Ibid, pg. 137
[38] Ibid, pg. 138
[39] Ibid, pg. 138-140
[40] Ibid, pg. 146
[41] Wilbur Anderson and Kenneth Norcross, *A History of Western Township, Including A History of Orion*, pgs. 26-99
[42] F. S. Fullerton, Editor, *The Orion Times*, Waterworks Movement Again Being Considered, August 18, 1927
[43] F. S. Fullerton, Editor, *The Orion Times,* What Other Towns Think of Waterworks, Sept. 1, 1927
[44] Fullerton, op. cit., Sept. 1, 1927
[45] Ibid, Sept. 1, 1927
[46] F. S. Fullerton, Editor, *The Orion Times*, Orion To Vote For A Waterworks System, Sept. 8, 1927
[47] F. S. Fullerton, Editor, *The Orion Times*, Waterworks Vote Successful, Oct. 6, 1927
[48] F. S. Fullerton, Editor, *The Orion Times*, Arrangements Underway For Waterworks System, Oct. 20, 1927
[49] F. S. Fullerton, Editor, *The Orion Times*, Many Bids Received For Waterworks Equipment, April 5, 1928
[50] J. C. Vosburgh, Contracting Engineer, Chicago Bridge & Iron, Letter to Village of Orion, April 26, 1928

Major Bibliographical References

Anderson, Wilbur and Norcross, Kenneth, *A History of Western Township, Including A History of Orion*, Orion Post 143 Veterans of Foreign Wars, 1953.
Dubie, Carol Ann, *The Architecture and Engineering of Elevated Water Storage Structures: 1870-1940*, The Graduate School of Arts and Sciences of The George Washington University, 1980
The Orion Times, selected issues 1927-1928
Vosburgh, J. C., Letter to Village of Orion, Chicago Bridge & Iron, 1928

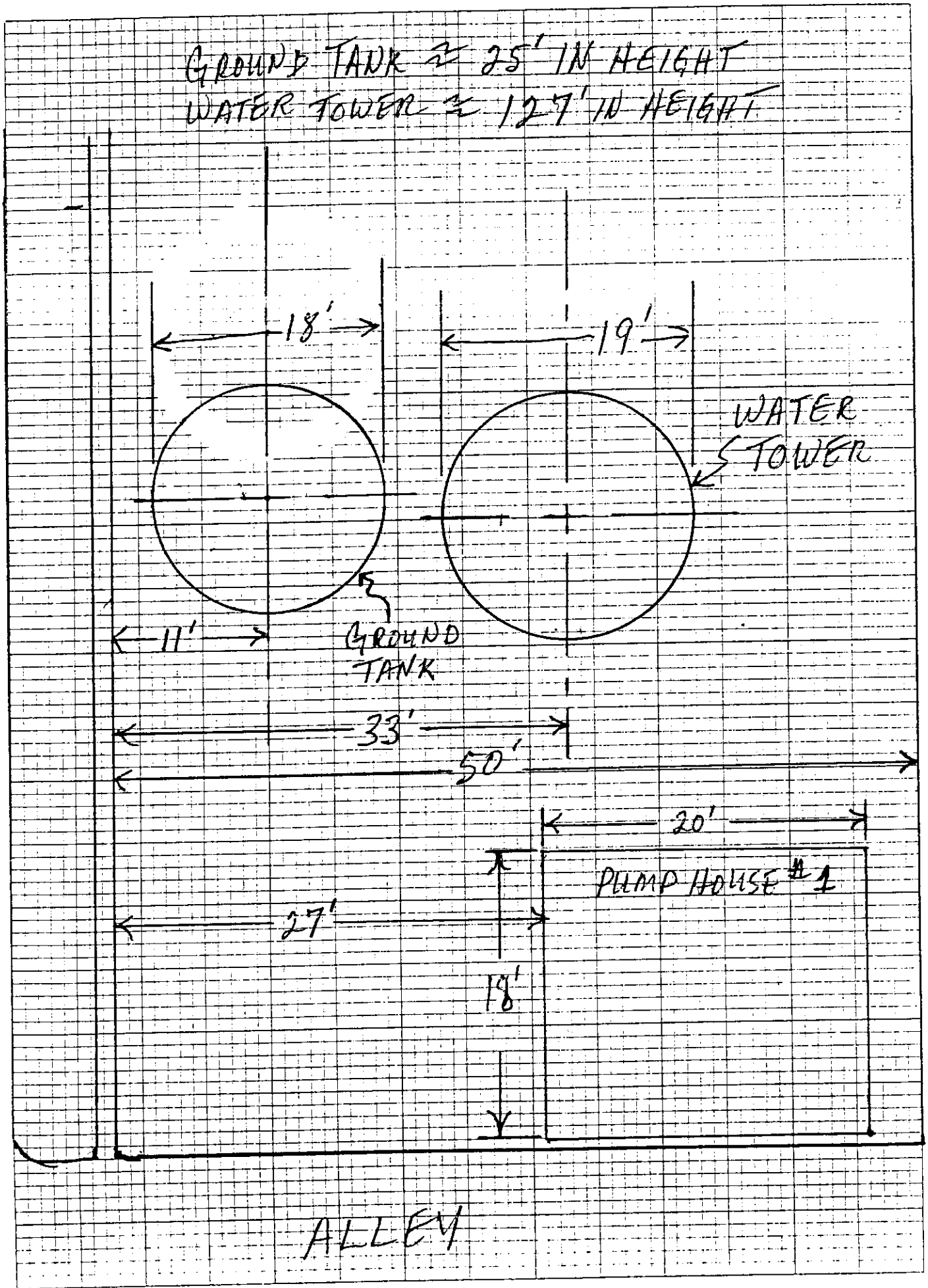
Verbal Boundary Description

A 60' x 50' parcel in the northwest corner of Lot 4, Block 5 of the Original Town.

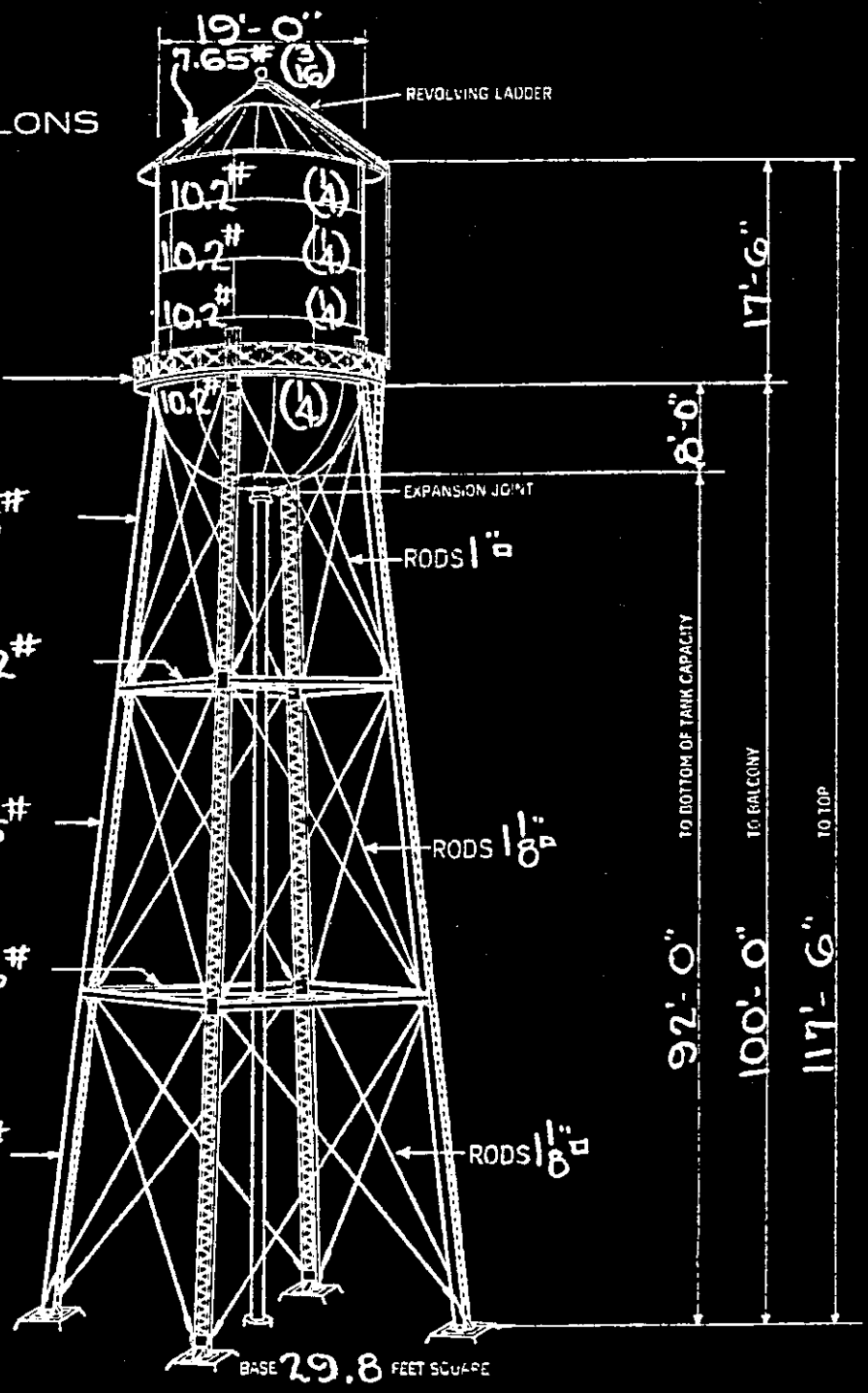
Boundary Description

The nominated property is the original parcel purchased for the placement of the west water tower, ground storage tank and pump house.

GROUND TANK = 25' IN HEIGHT
WATER TOWER = 127' IN HEIGHT



CAPACITY
50,000 GALLONS



PROPOSED

ELEVATED STEEL TANK

FOR

ORION, ILL.

CHICAGO BRIDGE & IRON WORKS

EQUIVALENT SECTIONS MAY BE USED

EST NO 5867 DATE 4-23-28

WEEKLY LIST OF ACTIONS TAKEN ON PROPERTIES: 2/03/03 THROUGH 2/07/03

KEY: State, County, Property Name, Address/Boundary, City, Vicinity, Reference Number, NHL, Action, Date, Multiple Name

ALASKA, JUNEAU BOROUGH-CENSUS AREA,
Sentinel Island Light Station,
Sentinel Island,
Juneau vicinity, 02001407,
LISTED, 12/02/02
(Light Stations of the United States MPS)

CALIFORNIA, LOS ANGELES COUNTY,
Middough Brothers--Insurance Exchange Building,
205 E. Broadway,
Long Beach, 03000002,
LISTED, 2/05/03

CONNECTICUT, FAIRFIELD COUNTY,
Downtown Stamford Historic District (Boundary Increase 2),
Roughly, Bedford St. between Broad and Forest Sts.,
Stamford, 02001744,
LISTED, 1/31/03

FLORIDA, PINELLAS COUNTY,
Jungle Prada Site,
Address Restricted,
St. Petersburg, 03000007,
LISTED, 2/04/03

ILLINOIS, CHAMPAIGN COUNTY,
Women's Gymnasium, University of Illinois at Urbana-Champaign,
906 S Goodwin Ave.,
Urbana, 02001751,
LISTED, 2/05/03
(University of Illinois Buildings designed by Charles A. Platt MPS)

ILLINOIS, CHAMPAIGN COUNTY,
Women's Residence Hall--West Residence Hall, University of Illinois at Urbana-Champaign,
1111W Nevada St.,
Urbana, 02001752,
LISTED, 2/05/03
(University of Illinois Buildings designed by Charles A. Platt MPS)

ILLINOIS, CLARK COUNTY,
First Congregational Church,
202 N 6th St.,
Marshall, 02001753,
LISTED, 2/05/03

ILLINOIS, HENRY COUNTY,
West Water Tower and Ground Storage Tank,
310 11th Ave.,
Orion, 02001754,
LISTED, 2/05/03

ILLINOIS, LAKE COUNTY,
Griffith, John, Store Building,
103-113 E Scranton Ave.,
Lake Bluff, 02001755,
LISTED, 2/05/03

ILLINOIS, ROCK ISLAND COUNTY,