Intensive Level Survey & Evaluation

OSSEO WATER TOWER

City of Osseo, Minnesota
June 23, 2015

This project has been financed in part with funds provided by the State of Minnesota through the Minnesota Historical Society from the Arts & Cultural Heritage Fund.

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1915 OSSEO WATER TOWER

415 Central Avenue
Osseo, Hennepin County, Minnesota

Completed for the

City of Osseo, MN

June 23, 2015

Completed by

AKAY Consulting
Alexa McDowell, Architectural Historian

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1.0 ABSTRACT

An intensive level survey and evaluation of the 1915 Osseo Water Tower located at 415 Central Avenue in Osseo, Minnesota was undertaken for the purpose of determining whether the structure is eligible for listing on the National Register of Historic Places. The project involved evaluation of the water tower, which is situated on a small, paved site (less than one-acre) adjacent to the Osseo City Hall. No additional historical resources remain adjacent to the tower

The survey looked specifically at the hemispherical type of water tower, of which the 1915 Osseo tower is an example. Because the establishment of a water system is a typical milepost in the evolution of communities across the state of Minnesota, it was anticipated that the water tower would have a significant place in the history of the city's growth and development – in that historic association, any historic water tower should be evaluated for National Register eligibility under Criterion A. That the water tower is a commonplace structure in Minnesota communities complicates the process of making a case for National Register eligibility. As a result, the intensive level survey and evaluation directed considerable effort at identifying Minnesota's hemispherical towers, both non-extant and extant. In this way, one can best understand the significance of the Osseo Water Tower as a representative of a specific water tower type.

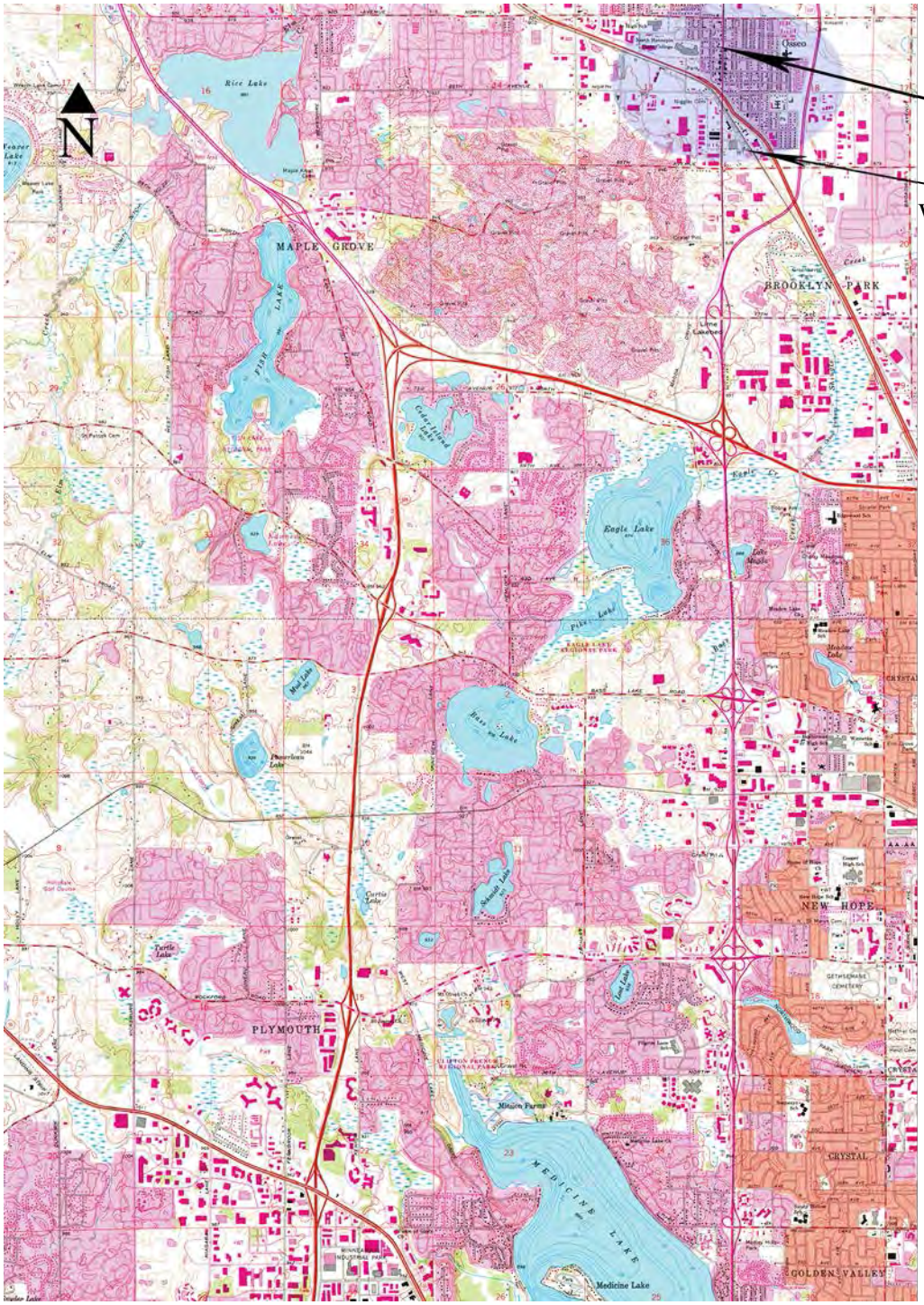
The work to identify hemispherical water towers was undertaken in a variety of ways including a driving survey, Google image search for current towers, satellite maps, an Internet search for historic images, and telephone interviews with City offices. Particular emphasis was paid to incorporated communities located within 50-miles of Osseo. Generally speaking, that radius is dominated by the Minneapolis-St. Paul metropolitan area on the east and by a more rural landscape to the west.

The 1915 Osseo Water Tower was the first of two towers constructed by the City – the second (ca.1955) being of the double ellipsoidal type. The 1915 tower, sited in a prominent position adjacent to the City Hall, was a central component of the city's original water system through the time of its decommissioning. The present survey indicates that the Osseo Water tower stands as only one of five historic hemispherical towers in a 50-mile radius; at one time there having been at least eleven towers of that type within 50 miles.

Given the clear and significant association of the 1915 water tower to the historic of growth and development in Osseo and the increasing rarity of the hemispherical form, the Osseo Water Tower at 415 Central Avenue is considered eligible for listing on the National Register of Historic Places. Recognition of the significance of the Osseo Water Tower is particularly important at this time because, like the Metropolitan area as a whole, the city of Osseo is expanding with some rapidity. As this survey makes clear, historic water towers are commonly replaced by towers with the larger capacities required to serve an expanding population. In addition, the expense associated with retaining a decommissioned tower, often including abatement of lead paint, can be daunting to a City government. For these reasons, the risk to the Osseo Water Tower is clear and present. It is the recommendation of this report that the City of Osseo pursues the National Register of Historic Places nomination of the 1915 Osseo Water Tower.

A report of findings is on file with the City of Osseo, MN and in the Minnesota State Historic Preservation Office, St. Paul, MN.

FIGURE 1. USGS 7.5 Minute Topographic Map – Osseo Quad - 1980



(SOURCE: http://store.usgs.gov/. Accessed 01/15/2015.)

The locations of Osseo's two water towers are indicated.

FIGURE 2. Aerial Site View – 2015

(SOURCE: www.maps.google.com. Accessed 02/25/2015).

The location of the 1915 Osseo water tower is indicated.

2.0 RESEARCH DESIGN AND METHODOLOGY

2.1 *Objectives*

The purpose of the intensive level survey and evaluation of the 1915 Osseo Water Tower was to determine if the structure is eligible for listing in the National Register of Historic Places. The survey evaluated the tower itself, with no associated buildings or structures being extant.

In 2012 this firm successfully nominated the Elk River Water Tower (1922) to the National Register; the work of that process formed the outline for evaluation of the Osseo tower. Like the Elk River water tower, that at Osseo is an example of a hemispherical bottom constructed by the Minneapolis Steel & Machinery Co., although the Osseo Tower pre-dates that at Elk River by 7 years. The Elk River water tower is locally significant under Criterion A in association with the history of community growth and development in the village of Elk River. The tower is also locally significant under Criterion C as an example of a representative form of water tower that, although prevalent from the late 1890s-ca.1940, is quickly disappearing as community populations outgrow the limited holding capacity of the early tanks.

The intensive level survey of the Osseo water tower investigated the case for eligibility under Criterion A relevant to the structure's association with the history of Osseo's growth and development. As a catalyst for growth, it is typical that the establishment of public utilities had a significant impact on a community's ability to grow and prosper. Understanding the factors at play in establishing a water-works system, the process undertaken, and the resulting impact provides an important understanding of the water tower's place in the town's history.

The survey also investigated the case for eligibility under Criterion C as an example of a representative property type – the hemispherical bottom. As a structure that was once commonplace in Minnesota, it was important to establish how rare the form is today.

2.2 *Methodology*

To investigate the case for National Register eligibility under Criterion A the primary research, conducted by principal investigator Alexa McDowell, focused on the history of the development of the Osseo water-works system, of which the tower was the key component. City records were the primary sources for that information. Contextual support was provided by a variety of resources including National Register nominations, South Dakota's statewide survey of water towers, and various relevant historical texts.

In the work of investigating eligibility under Criterion C, undertaken by principal investigator Alexa McDowell, the survey utilized the historical context and typologies developed in the Elk River tower nomination. Most important to the case for eligibility under Criterion C, the Osseo survey and evaluation involved a systematic identification and analysis of municipal water towers of the same form within a specified radius – the previous National Register nominations of Minnesota water towers (including the Elk River tower) having done little to address the question of how many hemispherical water towers once existed in Minnesota and how many of those remain.

To that end, a survey area of 50-miles surrounding Osseo was investigated – the goal being the identification of municipally owned, hemispherical water towers, extant and non-extant. The identification process was undertaken using multiple methods.

1. Driving survey.

   A driving survey was conducted of the portion of the survey area lying within the metropolitan area and of the primary roadways (e.g. MN-10) of the non-metro area within the 50-mile radius.

2. Online search of historic images.

   Multiple sources (both scholarly and non-scholarly) have image collections online. An online search for historic images of hemispherical towers provided one source for identifying towns that historically utilized hemispherical towers. Follow-up was then undertaken to determine which of the historic towers are extant.

3. GoogleEarth search.

   An online aerial search for towers in towns located within the survey area was used to confirm the presence of or lack of an historic water tower.

4. City contact.

   Phone calls to city offices were made to confirm the findings of the previous methods – particularly in the case when historic images document the utilization of a hemispherical tower.

All findings were recorded in a table, with those directly relevant to the case for significance at Osseo incorporated into the report text.

3.0 PROJECT SUMMARY

3.1 *Introduction*

The project involved an intensive level survey and evaluation of the Osseo Water Tower for the purpose for determining National Register eligibility. To that end, contextual research was conducted to place the role of the water tower within the story of Osseo's growth and development. Further, investigation into the occurrence and retention of the hemispherical bottom water tower within a 50-mile radius surrounding Osseo was conducted in order to properly evaluate the rarity of this representative property type.

The project was undertaken with the support of the City of Osseo utilizing funds provided by the State of Minnesota through the Minnesota Historical Society from the Arts & Cultural Heritage Fund.

The project was made possible by the dedicated support of Kathleen Gette and members of the Osseo Heritage Preservation Committee who are responsible the successful application for grant funding. The project was widely promoted by Gette who established the "Save the Osseo Water Tower" Facebook page and solicited media coverage from a variety of metro-area outlets. Her

efforts have contributed significantly to a strong level of local and area support for the tower's preservation and rehabilitation.

3.2 *Property Description*

The community of Osseo, Minnesota is located in northwestern Hennepin County, near the northwest edge of the Minneapolis metropolitan area (Figure 1). The city is situated between the cities of Brooklyn Park on the east and Maple Grove on the west, carrying an historic association with each. The original town of Osseo (including the site of the water tower) is currently wedged between Highway 169, which runs north to south from Minneapolis on the south, and MN-81, which runs diagonally on the west edge of town. The route of the historic Jefferson Highway runs north to south along Central Avenue, bisecting the community.

The 1915 Osseo Water Tower is sited on a .75-acre parcel of city property in the northwest corner of the intersection of Central Avenue and 4th Street NW. The parcel is located on the west side of Central Avenue (Jefferson Highway), across Central Avenue from Boerboom Veterans Park. A 1967 building housing City Hall, the public library, and the fire department is located immediately to the east (Figure 2). A mid-twentieth century, one-story commercial building is situated on the west.

The water tower site is fully paved, the tower pad adjoining parking areas associated with the City property and with the commercial building on the west. With the exception of a small lawn north of the commercial building and the planted parking strip in front (east) of the City Hall, the entire block upon which the Osseo Water Tower is sited has been paved. The tower has an approximate 30-foot setback from 4th Street NW on the south.

The Osseo Water Tower is situated at the north end of the city's historic downtown commercial area, which stretches along the historic route of the Jefferson Highway, three and a half blocks south from the water tower to MN-81. A cross-section of commercial, governmental and residential properties are located in the immediate vicinity of the tower site (Figure 3-4). By-in-large, these properties post-date the water tower, with a number dating to the recent past – this is particularly true north of the tower property where large-scale residential development is underway.

The 1915 Osseo Water Tower features a cylindrical, riveted-steel tank with a suspended, hemispherical bottom. A riveted, conical roof with a finial caps the tank, which is encircled by a girder balcony stiffener (Figure 7). The 50,000-gallon tank is elevated on a four-post, lattice-girder trestle tower that rises to 127-feet, 4-inches. Diagonal tie rods provide additional stability to the tower. The tower's four posts are riveted to a poured-concrete pad. An 8-inch standpipe connects the tank with the underground water system; it is bolted at the base to the concrete pad. A steel plaque reading "1915 Minneapolis Steel and Machinery Co Builders Minneapolis Minn." is riveted to the tower's northeast leg. A caged access ladder rises on the same leg of the tower from a point just above the plaque to the roof peak.

The Osseo Water Tower is currently painted silver with the city name appearing in black, block lettering (Figure 8). Typically, hemispherical water towers of a similar construction period were painted silver (both tower and tank) with a red roof and black lettering. Because it is in black and

white, an historic image of the Osseo Water Tower neither confirms nor refutes that as the historical scheme.

FIGURE 3. Photograph – Site View - 2015

(SOURCE: AKAY Consulting, January 21, 2015)

View of the water tower site, looking east along 4th Street NW from near 2nd Avenue NW.

FIGURE 4. PHOTOGRAPH – SITE VIEW - 2015

(SOURCE: AKAY Consulting, January 21, 2015)

View of the water tower site, looking west along 4th Street NW from near 1st Avenue NE.

FIGURE 5. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

View of the 1915 Osseo water tower, looking northwest from near the intersection of Central Avenue and 4th Street NW. Although now housed in a 1967 building, the Fire Department and City Hall (seen here) remain physically associated with the historic water tower.

FIGURE 6. HISTORIC IMAGE – Undated

(SOURCE: *100 Year History of the City of Osseo,* 69.)

In this view of the historic City Hall/Fire Department looking southwest from Central Avenue, the legs of the 1915 Osseo Water Tower are in view behind the building.

FIGURE 7. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

The Osseo Water Tower is a riveted-steel, hemispherical tank on four lattice legs. The tower, constructed by the Minneapolis Steel and Machinery Co. in 1915, rises to a height Of just over 127-feet with a 50,000-gallon holding capacity.

FIGURE 8. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

In this view, the riveted plates of the tank are visible. The "X" design of the balcony stiffener differentiated towers constructed by Minneapolis Steel from those of its competitors.

FIGURE 9. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

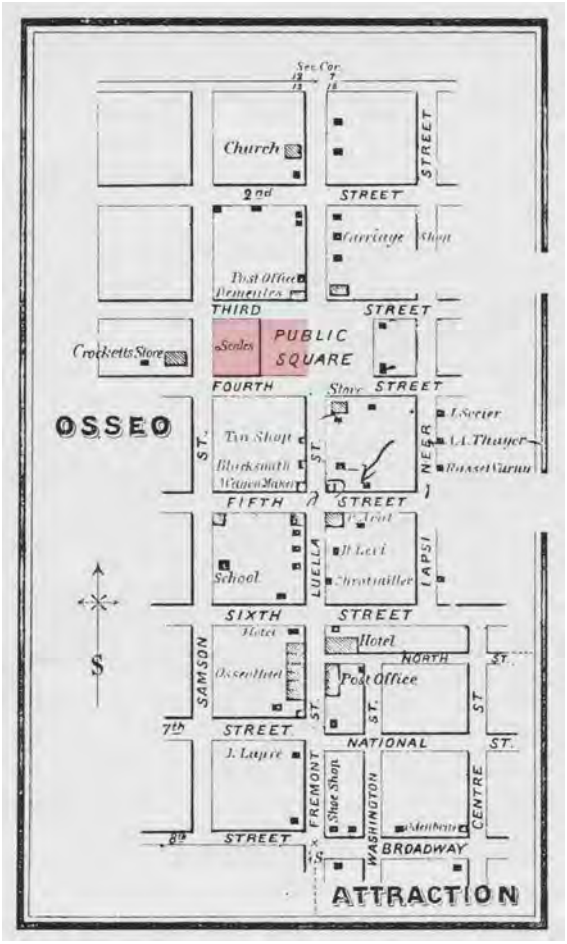
This plaque, bolted to the tower's northeast leg, documents construction. The plaque reads, "1915 Minneapolis Steel and Machinery Co Builders Minneapolis Minn."

4.0 THEMATIC RESEARCH AND BIBLIOGRAPHY

4.1 *Historical Background: Osseo, Minnesota*

In July of 1852, Pierre Bottineau and his companions arrived on the prairie in the vicinity of what became Osseo exclaiming, "This is Paradise." Within a short period, others settled on "Bottineau Prairie" and soon established the necessities for survival and subsequent growth. Warren Sampson opened a general store and post office in 1854. In 1856 the settlement, first known as Palestine, was renamed Osseo and platted. Local histories suggest that Osseo is a Native American name, "Waseia," meaning "there is light" or, more commonly, "son of the evening star." Further speculation about the source of the city's name connects it to poet Henry Wadsworth Longfellow who mentions Osseo in the well-known poem of Indian legends, "The Song of Hiawatha" (*100 Year History,* 6).

FIGURE 10. HISTORIC PLAT – 1873



(SOURCE: *Map of Hennepin County, Minnesota,* 1873)

Osseo, which was platted in 1856, was laid out in a linear fashion with a public square as a central feature. Subsequent to this map, the public square was reconfigured, with a park remaining on the west half of the block on the east side of Luella Street (now Central Avenue). The highlighted block marks the location where the City Hall and water tower were constructed.

Originally governed by the townships of Brooklyn and Maple Grove, on February 24, 1875 Osseo was incorporated as a Village by an act of the state legislature (*100 Year History,* 6). The Common Council was then established with a composition of a president, three councilmen, a recorder and a treasurer. The first Council was sworn in on March 19, 1875 (Village Council Minutes, 62).

The fledgling community continued to grow with French, Canadians, Germans, and Native Americans settling there. With an increased population came the establishment of additional businesses and services. Many in the area relied on the success of potato farming, which impacted both the rural and city community. Histories indicate that as many as 100 carloads of potatoes were shipped by rail to the metropolitan area. A starch factory was constructed in town, which benefited area farmers, particularly in seasons when abundant crops lowered market prices in Minneapolis. At those times, the factory processed an average of 10,000 pounds of crude starch daily and employed 20 men. The encroachment of the metropolitan area eventually pushed potato farmers out of the Osseo area (*100 Year History*, 19).

Beginning in 1914 the Osseo Village Council began to explore the costs associated with establishing electric and water service. Their intent to construct those systems resulted in a petition recorded in the minutes. The petition requested that a plan to bond in the amount of $9,000 for an electric plant and $11,000 for a water system be presented to the voters. A special election was set for January 12, 1915. No report appears in the minutes about the outcome of the special election (Village Council Minutes, 342).

On March 29, 1915, talk of plans to undertake the establishment of a water system in the City reappeared in the minutes of the Village Council meetings. At the March 29 meeting, Mayor Hechtman appointed a committee to arrange for "the issue and sale of the electric light and waterworks bonds" (Village Council Minutes, 351). Ordinance No. 56 (the first reading of which was undertaken at that same meeting) outlined the specifics of the plan for electrification – the bond would contract with the Minneapolis General Electric Co. for the erection and maintenance of "light poles, wires, and other fixtures in the streets, alleys, and public grounds in the Village of Osseo, MN" (Village Council Minutes, 351).

Bids for the Osseo water system were received at the May 04, 1915 council meeting. Companies that submitted proposals included the Des Moines Bridge & Iron Works ($13,400-, not including a well), Ilstrup & Olson ($13,750-, not including the well), C.F. Bosworth ($14,597.39, not including a well), W.D. Lowell ($12,983.50, not including a well), Wm. C. Foster ($13,555-, not including a well), Pastoret Construction Co. ($13,2488-, not including a well), Chicago Bridge & Iron Works ($3,635-, tank only), Hill-Mauring-Whalen Co. ($14,000-, not including a well). Other companies bid for construction of the well. Those included J.F. McCarthy, Iverson (?) Artesian Well Co., and F.J. Kapp, each pricing their services by the linear foot. The Council awarded contracts to the low bids – W.D. Lowell being awarded the tower contract and J.F. McCarthy the well contract (Village Council Minutes, 360).

Specifics of the contract required that the contractor install a Smith-Vaile pump (manufactured by the Platt Iron Works, Co. of Dayton), a Fairbanks-Morse Co. motor, Eddy valves and hydrants, and that the contractor furnish a tower and tank built by the Minneapolis Steel and Machinery Company (Village Council Minutes, 360-1).

FIGURE 11. HISTORIC PLAT – 1913

(SOURCE: *Map of Hennepin County, Minnesota,* 1873)

By 1913 Osseo had extended its boundaries to the east and to the south. The public square had been reconfigured, with Luella Street (which became Wilson Street in 1918 and is now Central Avenue) cut through its center. The arrow indicates the site upon which the water tower was constructed just two years later.

Completion of both the electrical plant and water system being contingent upon a successful bonding process, Osseo residents took to the polls on May 17, 1915. The formal resolution specific to the water system read:

> "Resolved; by the Common Council of the said Village of Osseo, that said village establish, build, construct, and equip a public water works plant for the supply of water for public and private use in said village, and that said village borrow the sum of Fourteen Thousand Dollars ($14,000.00) for the erection and construction of said water works plant and that for said purpose the said Village of Osseo issue it negotiable bonds in the sum of Fourteen Thousand ($14,000) Dollars, Be it."

Results of the special election were positive. With more than 5/8s of duly qualified electors casting their ballot, the measure passed 83 to 22 (Village Council Minutes, 364-366).

FIGURE 12. HISTORIC IMAGE – ca.1916

(SOURCE: AKAY Consulting Postcard Collection)

View of the newly constructed Osseo water tower, looking northwest across Central Avenue.

Village Council minutes in the coming months record the process of paying off the bond debt, which was held by German American Bank in Minneapolis. With 28, $500.00 bonds issued with a 6% per annum rate of interest, the City paid a total debt of $14,670 with bi-annual payments beginning July 01, 1918 (Village Council Minutes, 378-379).

Beginning in April of 1916 city residents paid $6.00 per year for water service.

Fire protection was an important benefit of the newly constructed water works. For many years, fire fighting in Osseo relied solely on a "bucket brigade." By 1900 residents were calling for more effect means of protecting the city from the threat of fire. In response, hand pumps were installed at critical locations. Such pumps required six men, three on each side of the pump, to create a strong stream of water. As small as the city remained at that time, a 300-foot hose reached most buildings (*100 Year History*, 72). The 1913 addition of a "No. 8, 40 gallon Chemical Engine with 50-foot of hose" at a cost to the City of $222.50 was a decided advancement in the city's fire protection capability (Village Council Minutes, 294).

Shortly after the construction of the water works system, Council minutes record the activities related to fire protection. In September of 1915 the Council received communication from the "Department of Insurance relative to the 2% of fire insurance premiums payable to the Village each year, provided a regular fire organization was maintained" (Village Council Minutes, 389). It was the Commercial Club that called a meeting with the State Department of Insurance, resulting in the formal creation of the Osseo Fire Department. Chartered on December 10, 1915, the department had a crew of 36 men led by Chief George Heesen and Assistant Chief, George Neumann (*100 Year History*, 73). The Council supported the newly formed department, with multiple entries reflecting presentations by the Osseo Fire Department requesting equipment, etc. noted over the coming months. In February of 1916, the Council moved to purchase 500-feet of "Helmet" hose from the Eureka Fire Hose Manufacturing Co. at a cost of $.80/foot.

Osseo's first fire truck was purchased in 1929. Where once the ringing of church bells sounded a fire alarm, the construction of the water tower eventually resulted in the location of a siren at that site (*100 Year History*, 73).

4.2 *Historical Background: The Hemispherical Bottom Type*

The concept of storing water at a raised elevation for the purpose of creating sufficient pressure to distribute it to a population has existed in various forms since antiquity. With the advancements of the Industrial Age and the requirements that came with the development of the railway system in America, the concept of water distribution that began with the aqueducts of Rome was transformed into the design of elevated water tanks (a.k.a., water towers). The earliest examples of water towers appeared in the U.S. in the 1880s to supply the boilers of steam engines and, when towns and cities grew up along a railroad line, water tower engineering was refined to provide fire protection and to pipe water to the growing communities. Water tower forms and scale changed through time, a reflection of technological advancements as well as an indication of increased demand resulting from an ever-growing population.

The hemispherical bottom water tower was considered the standard of the industry from the late 1890s to about 1940. The hemispherical form had the significant advantage of reducing stresses. Further, the tank's shape made securing it to the tower easier and provided ready access for ongoing maintenance. The form was also thought to be more pleasing to the eye (*Towers and Tanks for Waterworks*, 178). Hemispherical tanks with a capacity of over 50,000-gallons (a 100,000-gallon elevated tank being considered large through ca.1910) typically had a conical roof of light, steel-plate and a projecting eave. A flagstaff was often used both as ornamentation and to provide rigidity to the roof (*Towers and Tanks for Waterworks*, 197). Ladders were recommended to run along one of the legs beginning near the ground and extending to the roof. Such ladders required steel clip connections at regular intervals (*Towers and Tanks for Waterworks*, 199). The balcony provided access to the tank but, just as importantly, acted as a support girder (often referred to as a stiffener) around the perimeter of the tank. Design guidelines recommended that plate steel with drain holes be utilized for the balcony deck rather than wood (*Towers and Tanks for Waterworks*, 256).

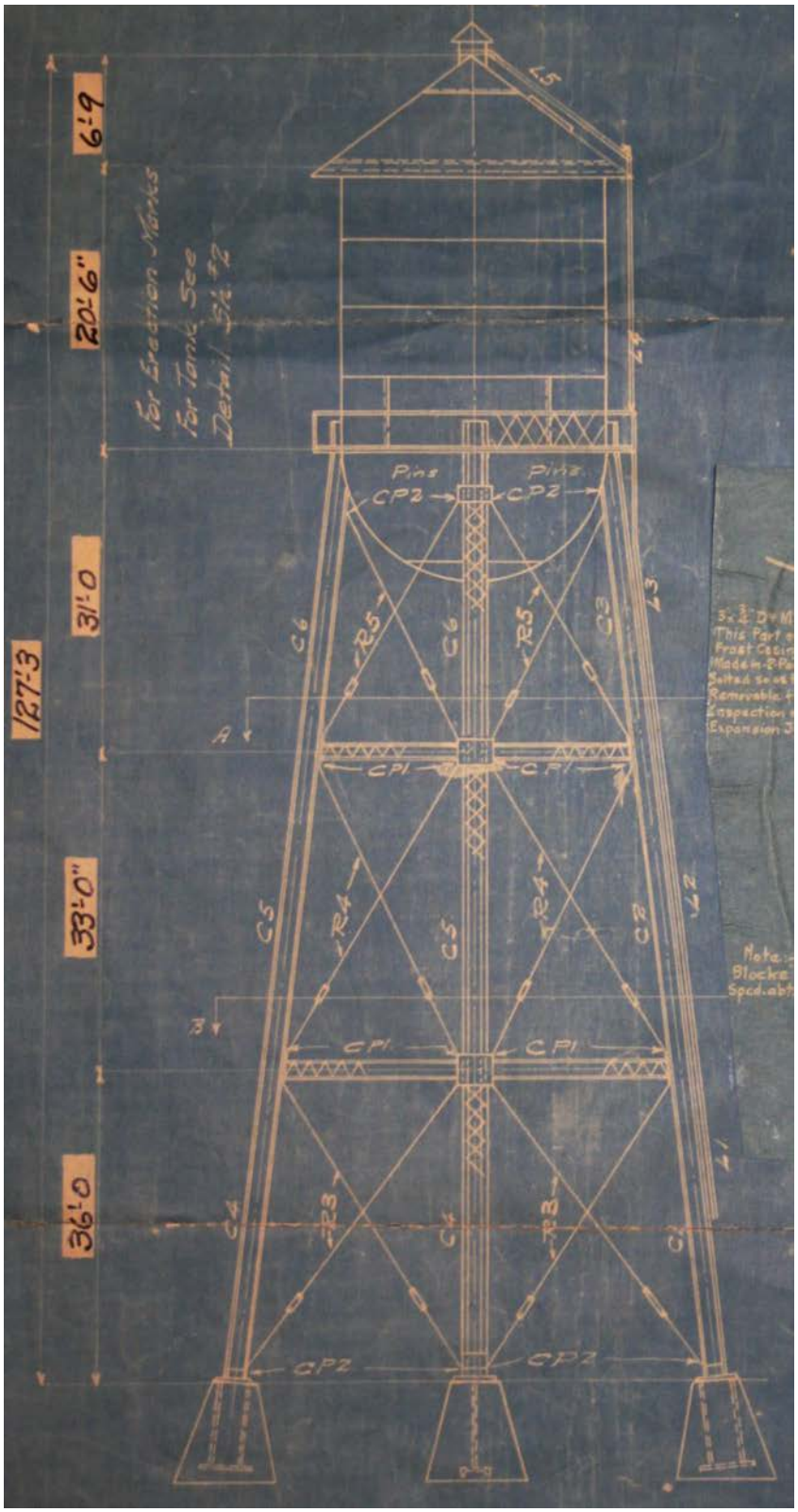
The task of painting the water tower required considerable effort; the proper finish reduced maintenance and assured the longevity of the structure. Beginning with a clean surface was paramount, followed by a primer and a finish coat. Red lead oxide, lampblack, and linseed oil were the primary elements of the paint primer with asphaltic varnish used as the finish coat (*Towers and Tanks for Waterworks*, 256). Most water towers of the period sported a silver tower and tank, black lettering, and a red roof.

The earliest examples of the hemispherical bottom were constructed of riveted plates, with the use of welding technology coming into play with the advent of World War II. The major companies active in water tower construction developed variations on the hemispherical form. In the mid-1920s, the Pittsburgh-Des Moines Steel Company (PDM) began using what they termed an elliptical bottom; by diminishing the elongation of the tank form, the overall height of the tower could be lessened. The structure was otherwise the same as a hemispherical tower, utilizing laced channel columns and a cone roof. At that time, unofficial company trademarks were introduced in the design of the towers' balcony stiffeners. PDM utilized a running "V" while others adopted an "X" or vertical supports. This practice provided a ready means for identifying the builder of the water tower (*Towering Over America,* 39).

The Osseo Water Tower retains all of the hallmark elements of a pre-World War II, hemispherical bottom type, including a riveted tank, conical roof, a four-post lattice tower with cross bracing and a balcony stiffener with a running "X" design, marking the tower as a construction by a company other than the Pittsburgh-Des Moines Steel Company.

Although the Minneapolis Steel and Machinery Co., the builder of the Osseo Water Tower, erected water towers across Minnesota and the Midwest, no comprehensive survey of water towers in Minnesota has been completed to fully document their contributions. It is not known how many were built in Minnesota or, of those constructed by the company, which remain and in what condition. Two other companies, the Chicago Bridge and Iron Company (now CBI, Inc.) and the Pittsburgh-Des Moines Steel Company (now PDM, Inc.), dominated the water tower construction business in the Midwest. As the typological descriptions on the pages to follow indicate, the majority of advancements in water tower engineering are attributed to one or the other of these two dominant companies.

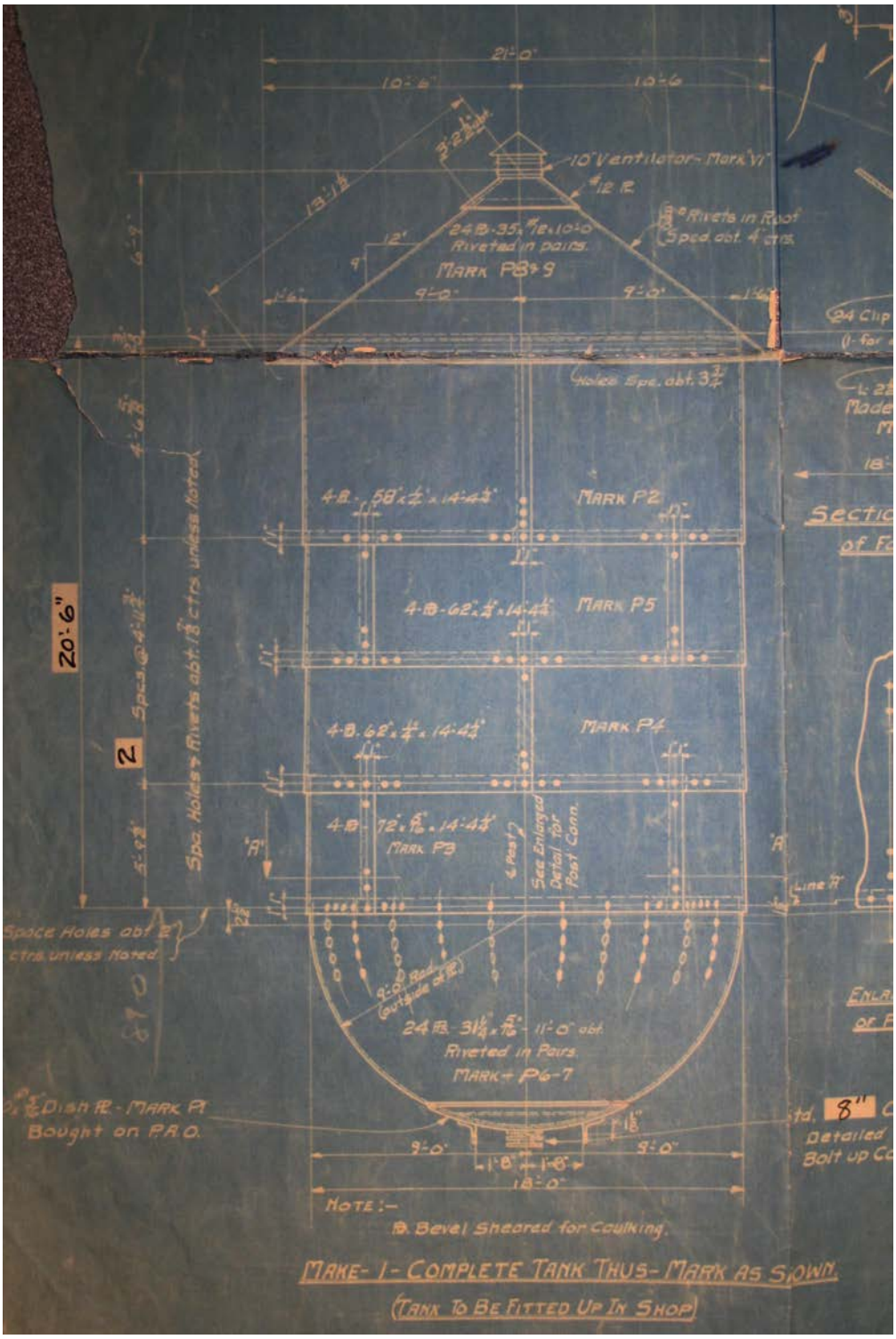
FIGURE 13. OSSEO WATER TOWER PLANS – 1915



(SOURCE: City of Osseo, Vertical Files)

Design plans for the Osseo Water Tower supplied by Minneapolis Steel and Machinery Co.

FIGURE 14. OSSEO WATER TOWER PLANS – 1915



(SOURCE: City of Osseo, Vertical Files)

Water tower construction plans by Minneapolis Steel and Machinery Co. include this detail of the tank.

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5.0 SURVEY RESULTS AND STATEMENT OF SIGNIFICANCE

5.1 *Survey of Hemispherical Water Towers*

The lack of a comprehensive survey of Minnesota water towers limits our ability to make a thorough comparison between the Osseo Water Tower and other towers of the same era and/or type. However, the present survey project identified the water towers in some 168 Minnesota communities. Although the primary goal of the survey was the identification of hemispherical bottom towers (both extant and non-extant) within 50 miles of Osseo, that process also resulted in the documentation of many other towers covering a broad range of locations, types, and construction periods (a complete table of resources is included in the appendices).

Six Minnesota examples of the hemispherical bottom tank are currently listed on the National Register of Historic Places. Five of the six are located in the state's Iron Range, their significance attached, in part, to their historical association with the development of that region. The sixth is located at Elk River, 19 miles northwest of Osseo. Each of those six towers is representative of their period of construction and of the hemispherical bottom type. The following table provides an overview of the six towers along side that at Osseo.

FIGURE 15. NATIONAL REGISTER LISTED, HEMISPHERICAL WATER TOWERS IN MN

Location	Type	Built	Built By	Capacity
Elk River	Hemispherical Bottom: Riveted	1920	Minneapolis Steel & Machinery Co.	100,000 gal.
Trommald	Hemispherical Bottom: Riveted	1918	Minneapolis Steel & Machinery Co.	50,000 gal.
Ironton	Hemispherical Bottom: Riveted	1913	Minneapolis Steel & Machinery Co.	75,000 gal.
Cayuna	Hemispherical Bottom: Riveted	1912	Minneapolis Steel & Machinery Co.	50,000 gal.
Crosby	Hemispherical Bottom: Riveted	ca.1920	Des Moines Bridge & Iron Co.*	100,000 gal.
Deerwood	Hemispherical Bottom: Riveted	1914	Des Moines Bridge & Iron Co.	50,000 gal.

* Des Moines Bridge & Iron Co. is the predecessor firm to the Pittsburgh-Des Moines Steel Company, now PDM.

The work to identify hemispherical water towers was undertaken in a variety of ways including a driving survey, Google image search for current towers, satellite maps, an Internet search for historic images, and telephone interviews with City offices. Particular emphasis was paid to incorporated communities located within 50-miles of Osseo. Generally speaking, that radius is dominated by the Minneapolis-St. Paul metropolitan area on the east and by a more rural landscape to the west.

Within the Twin Cities, a number of historic water towers of the hemispherical and flat-bottom type remain, although none but the hemispherical tower at Robbinsdale is believed to municipally owned. In Minneapolis a tank remains in place atop the Pillsbury A Mill in St.

Anthony Main and across the river on the elevators associated with what is now the Mill City Museum. A hemispherical water tower is located in Arden Hills on the site of the former Twin Cities Ordnance Plant and a flat bottom remains near Bandana Square in St. Paul. Each of these historic towers (along with others associated with commercial, industrial, and railroad interests) has merit and their history and significance bear further investigation.

It is important to state clearly that the present survey and evaluation provides only a start at identifying Minnesota's historic water towers and the role they played in the development of the communities they served as elements of municipal water systems. Although the specifics of transitions from one water type to another is not examined in this document, the overarching reason communities added another tower to their system was that their population outgrew the capacity of an existing tower. How that played out varies from community to community. In some cases, an older tower was supplemented by the addition of a new water tower. In other cases, a high capacity tower replaced an older, smaller tower; this is the dominant scenario in the Metropolitan area, which is now dominated by elevated spheroids and hydropillar type towers with capacities in excess of 1,000,000-gallons.

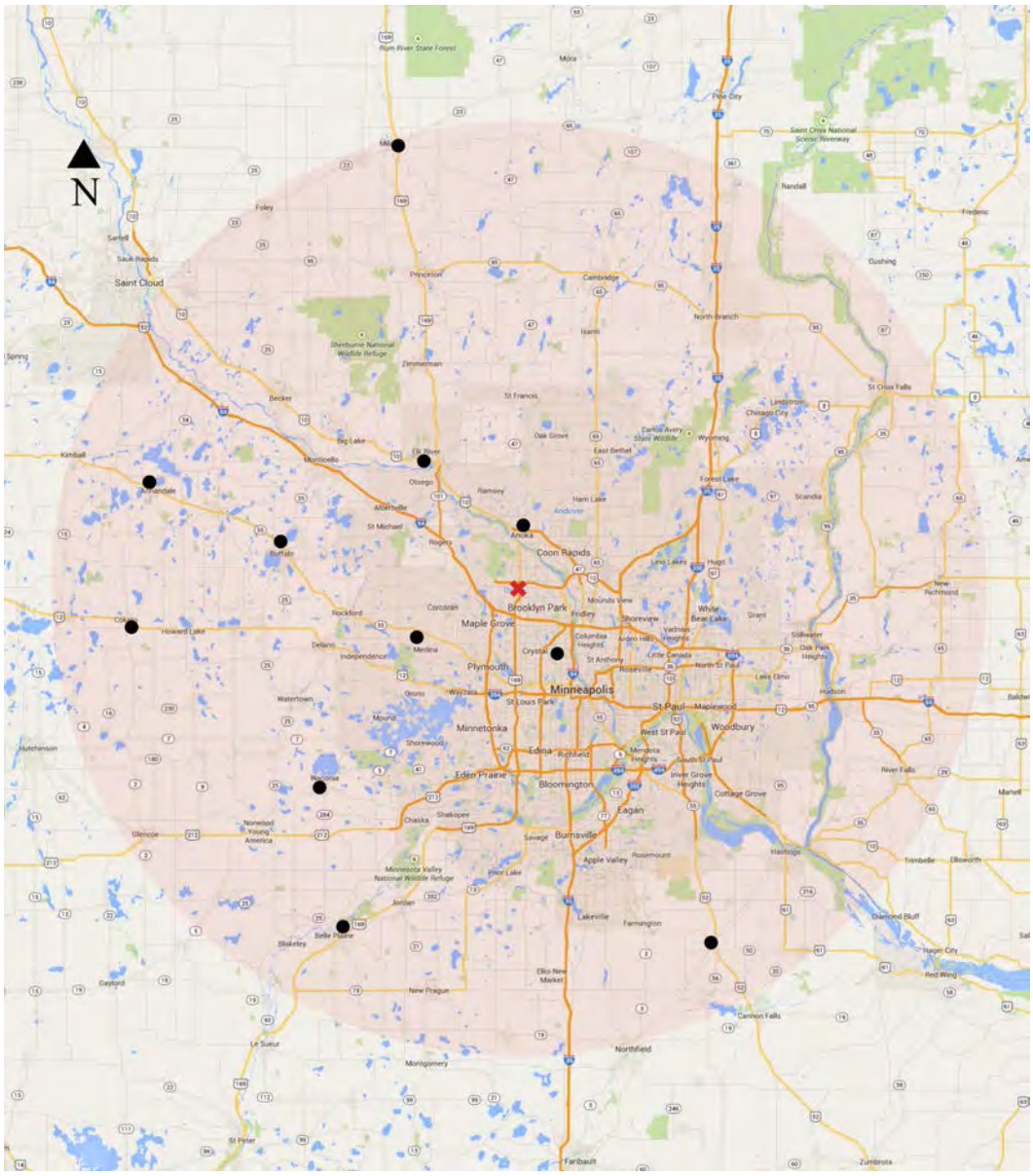
FIGURE 16. BRANDON, MINNESOTA – 2012

(SOURCE: http://1.bp.blogspot.com/-qMBuOzQgXjs/UDPImqZzorI/AAAAAAAABJ8/ mY6ySKKQOIE /s1600/ Dual+Water+towers+by+Plaster.jpg. Accessed 02/27/2015)

In the case of Brandon, Minnesota the ca.1920 hemispherical tower was removed after the elevated spheroid was completed in 2012.

The present survey indicates that the Osseo Water tower stands as one of only five historic, municipal, hemispherical towers within a 50-mile radius; at one time there having been at least eleven towers of that type in a 50-mile radius (Figure 17). It should be noted that the number of non-extant, municipal towers of the hemispherical type is undoubtedly higher – more extensive research into Metropolitan resources is needed to fully appreciate the loss of historic towers of that type.

FIGURE 17. MAP OF HEMISPHERICAL WATER TOWERS WITHIN 50-MILES



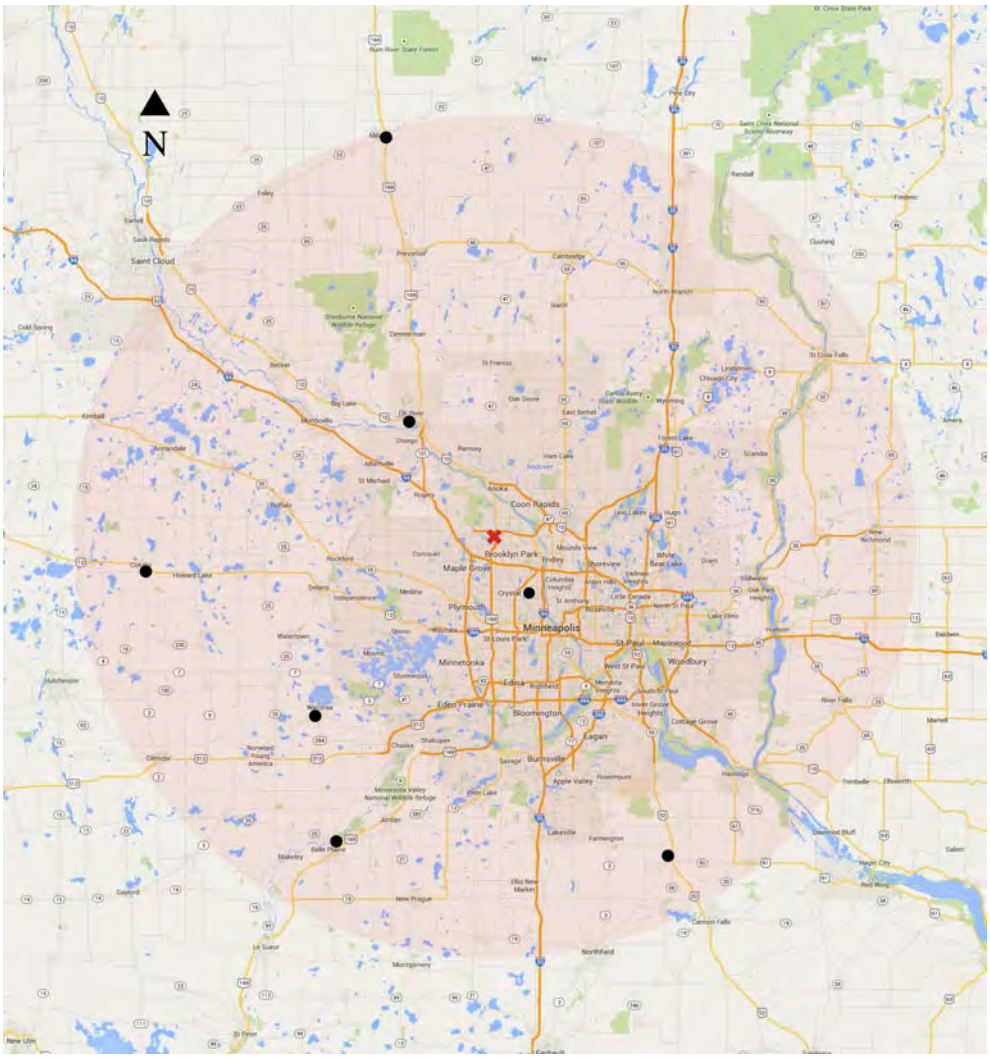
(Base Map: maps.google.com. Accessed 02/01/2015)

Known historic locations of municipal water towers of the hemispherical type are indicated.

FIGURE 18. HEMISPHERICAL WATER TOWERS WITHIN 50-MILES OF OSSEO, MN

TOWN	STATUS	
	Extant	**Non-Extant**
Annandale		**X**
Anoka		**X**
Belle Plaine		**X**
Buffalo		**X**
Cokato		**X**
Elk River	**X**	
Hampton	**X**	
Medina		**X**
Milaca	**X**	
Robbinsdale	**X**	
Waconia	**X**	

FIGURE 19. MAP OF EXTANT HEMISPHERICAL WATER TOWERS WITHIN 50-MILES



(Base Map: maps.google.com. Accessed 02/01/2015)

The locations of EXTANT municipal water towers of the hemispherical type are indicated.

The survey also documented a sampling of hemispherical water towers located from 50 to 100 miles from Osseo (Figure 20). Of the 22 hemispherical water towers identified in that distance range, 13 are extant and 9 are non-extant. An additional 36 water towers of the hemispherical type were identified in towns more than 100 miles from Osseo. Of those 36 towers, 19 (including the five Iron Range towers listed on the National Register) are extant and 17 are non-extant (Figure 21).

FIGURE 20. HEMISPHERICAL WATER TOWERS 50-100 MILES FROM OSSEO

TOWN	STATUS	
	Extant	Non-Extant
Bird Island	X	
Blooming Prairie	X	
Braham		X
Cold Spring		X
Dassel		X
Eden Valley	X	
Fairfax		X
Foley		X
Freeport	X	
Gaylord	X	
Good Thunder	X	
Goodhue	X	
Hamburg	X	
Hinckley		X
Janesville		X
Kellogg		X
Mora		X
Richmond	X	
Silver Lake	X	
Stewart	X	
Wanamingo	X	
Watkins	X	

FIGURE 21. COLD SPRING HEMISPHERICAL UNDER CONSTRUCTION - Undated

(SOURCE: AKAY Consulting Postcard Collection)

FIGURE 22. HEMISPHERICAL WATER TOWERS 100-PLUS MILES FROM OSSEO

TOWN	STATUS	
	Extant	Non-Extant
Ada		X
Albert Lea		X
Alexandria		X
Baudette	X	
Brandon		X
Breckenridge		X
Buhl	X	
Canton	X	
Cayuna	X	
Chisholm		X
Clara City		X
Cloquet		X
Crosby	X	
Danube	X	
Deerwood	X	
Elmore		X
Eveleth		X
Floodwood	X	
Graceville	X	
Harmony	X	
Ironton	X	
Jeffers	X	
Kelliher	X	
Kerkhoven		X
Marble	X	
Milan		X
Morris		X
Murdock	X	
Osakis	X	
Starbuck		X
Trommald	X	
Verndale	X	
Vernon Center	X	
Wabasso		X
Warroad		X
Wheaton		X

FIGURE 23. KERKHOVEN HEMISPHERICAL – Undated

(SOURCE: MNHS Online Collection. Accessed 03/01/2015).

5.2 *Statement of Significance*

The Osseo Water Tower, located in the corporate limits of Osseo in Hennepin County, Minnesota, is an all-steel water tower constructed in 1915 to store water and to maintain water pressure in the city water system. The development of the water system was undertaken for the purpose of providing piped water to the homes and businesses of a growing community and had the added (and significant) benefit of providing adequate fire protection. The water tower is a typical example of the property type of that era, featuring a suspended, hemispherical tank on a four-post, lattice-girder trestle tower. The water tower retains a high level of historic integrity and remains a prominent visual feature on the community's landscape.

The Osseo Water Tower is eligible for listing on the National Register of Historic Places under Criterion A. The tower is considered locally significant in its association with the history of community planning and development in Osseo, specifically as it relates to the development of municipal services to support a growing community.

The development of a water works system is a common element of historic municipal planning. As a result, water towers have been historically and remain today highly visible structures on the Minnesota landscape. Water towers come in a variety of shapes and sizes, the form and scale in a specific community indicative of its era of construction and population of the town. From the 1890s through about 1940, the hemispherical bottom type of water tower was commonly utilized in young communities making them commonplace, but no less indicative of the community in which they were located.

With storage capacities ranging from 50,000-100,000 gallons, the utility of a hemispherical bottom water tower was limited to smaller communities. As a result, they have become obsolete in many cases, particularly in large metropolitan areas like the Twin Cities where towers with storage capacities exceeding 1,000,000-gallons are quickly replacing smaller towers.

Further, the Osseo Water Tower is eligible for listing on the National Register of Historic Places under Criterion C. The water tower is considered locally significant as an example of engineering practices applied to a structure that embodies the distinctive characteristics of a property type of a specific period: the Osseo Water Tower represents a specific type of water tower, the hemispherical bottom, that exemplifies the evolution of water supply systems during the period from the 1890s to about 1940. The elevated steel water tank was developed in the 1890s and by the early twentieth century was the typical type utilized in communities across the state and nation. Once a common landmark on the Minnesota landscape, this particular form of the water tower is quickly vanishing as the requirements of communities grow beyond the capacity of the early tower and are thus replaced by larger capacity structures. The Osseo Water Tower is an excellent representative of the type that featured distinctive characteristics including all steel materials, a conical roof, a riveted tank with a suspended, hemispherical bottom, and a tower of four lattice-channel posts with diagonal tie rods. The retention of a high degree of historic integrity marks the Osseo Water Tower as well-preserved example of a representative and vanishing form.

6.0 RECOMMENDATIONS

The work of the intensive level survey and evaluation provides solid evidence that the Osseo Water Tower is eligible for listing on the National Register of Historic Places and it is the primary recommendation of this report that the City of Osseo undertake the nomination process.

To complete a successful nomination, additional research must be undertaken to more thoroughly support the case for significance under Criterion A. That work should include locating an archive of newspaper holdings of the period (neither the City nor the Osseo Public Library retain those documents) for the purpose of providing a clearer picture of the forces at play in the development of the water-works system. Specifically, were other issues such as pressures from insurance companies that compelled the City to address establish a water-works?

The Osseo water tower is no longer in use and expenditures to maintain it have not been budgeted. The City estimates they will need to invest approximately $200,000 to properly maintain the structure and, without financial support, they do not see that funds can be earmarked for that purpose. It is the hope that National Register listing will open avenues of funding that will allow them to undertake an historic rehabilitation of the water tower.

Given the diminishing number of historic water towers in Minnesota and in the metropolitan area in particular, a statewide survey of towers is recommended. Such a project would provide a more comprehensive understanding of the history of public works (specifically water-works systems), document extant resources, and characterize non-extant resources – that information will be important in the case that additional “representative” forms of historic water towers seek National Register listing.

Because the water tower is ubiquitous on the Minnesota landscape, it is a resource that is largely taken for granted. If adapted to a more concise format, the future of the state's towers would certainly benefit from dissemination of the information included in this report. A small handout made available at the City Hall or public library could help accomplish that. It could also be included on the well-established "Save the Osseo Water Tower" Facebook page. The completion of a statewide survey of historic water towers, if undertaken, should include a well-developed public education component.

The Osseo Heritage Preservation Committee is a small but dedicated group. They have actively engaged the community and City on this particular project, utilizing a variety of approaches to do so. Like all small groups, however, additional support from State resources would be of great use.

APPENDICES

1. Research Design
2. Site Form
3. Typologies
4. Table of Minnesota Water Towers Surveyed
5. Project Press

RESEARCH DESIGN

RESEARCH DESIGN
Intensive Level Survey and Evaluation of the Osseo Water Tower

Objectives

The purpose of the intensive level survey and evaluation of the 1915 Osseo Water Tower is to determine if the structure is eligible for listing in the National Register of Historic Places. The survey will evaluate the tower itself, with no associated buildings or structures extant. A map of the tower site follows.

In 2012 this firm successfully nominated the Elk River Water Tower (1922) to the National Register; the work of that process will form the outline for evaluation of the Osseo tower. Like the Elk River water tower, that at Osseo is an example of a hemispherical bottom constructed by the Minneapolis Steel & Machinery Co., although the Osseo Tower pre-dates that at Elk River by 7 years. The Elk River water tower is locally significant under Criterion A in association with the history of community growth and development in the village of Elk River. The tower is also locally significant under Criterion C as an example of a representative form of water tower that, although prevalent from the late 1890s-ca.1940, is quickly disappearing as community populations outgrow the limited holding capacity of the early tanks.

The intensive level survey of the Osseo water tower will investigate the case for eligibility under Criterion A in the structure's association with the history of Osseo's growth and development. As a catalyst for growth, it is typical that the establishment of public utilities had a significant impact on a community's ability to grow and prosper. Understanding the factors at play in establishing a water-works system, the process undertaken, and the resulting impact will provide an important understanding of the water tower's place in the town's history.

The survey will also investigate the case for eligibility under Criterion C as an example of a representative property type – the hemispherical bottom. As a structure that was once commonplace in Minnesota, it will be important to establish how rare the form is today.

Methods

To investigate the case for National Register eligibility under Criterion A the primary research will focus on the history of the development of the Osseo water-works system, of which the tower was the key component. City records and newspaper accounts will be the primary sources for that information. Contextual support will be provided by a variety of resources including National Register nominations, South Dakota's statewide survey of water towers, and various relevant historical texts.

In the work of investigating eligibility under Criterion C, the survey will utilize the historical context and typologies developed in the Elk River tower nomination. Most important to the case for eligibility under Criterion C, the current survey and evaluation will involve a systematic identification and analysis of municipal water towers of the

same form within a specified radius – the previous National Register nominations of Minnesota water towers (including the Elk River tower) having done little to address the question of how many hemispherical water towers once existed in Minnesota and how many of those remain.

To that end, a survey area of 50-miles surrounding Osseo will be investigated – the goal will be to identify municipally owned, hemispherical water towers, extant and non-extant. The identification process will be undertaken using multiple methods.

1. Driving survey. A driving survey will be conducted of the portion of the survey area lying within metropolitan area and of the primary roadways (e.g. MN-10) of the non-metro area within the 50-mile radius.
2. Online search of historic images. Multiple sources (both scholarly and non-scholarly) have image collections online. An online search for historic images of hemispherical towers will provide one source for identifying towns that historically utilized hemispherical towers. Follow-up will then be undertaken to determine which of the historic towers are extant.
3. GoogleEarth search. An online aerial search for towers in towns located within the survey area will be used to confirm the presence of or lack of an historic water tower.
4. City contact. Phone calls to city offices will be made to confirm the findings of the previous methods – particularly in the case when historic images document a hemispherical tower.

All findings will be recorded in a table, with those directly relevant to the case for significance at Osseo incorporated into the report text.

Expected Results

It is anticipated that the Osseo Water Tower will be found eligible for listing in the National Register of Historic Places under Criterion A and Criterion C. As an integral part of a water-works system, a community's water tower was an important element in a town's effort to grow, both in size and population. In that role, the water tower is an important piece in the record of that shift in a town's history. As a result, a case for significance under Criterion A is likely.

Because water towers were commonplace, the important piece for making a case for listing will be to establish the Osseo Water Tower as an example of a rare (or increasingly rare) representative type. Lacking a statewide survey of historical water towers, we are not able to readily place the Osseo tower within an established context. However, casual observation suggests that the population growth experienced by Minnesota towns, specifically those within or adjacent to the Minneapolis-St. Paul metropolitan area, is resulting in the replacement of small capacity towers (i.e. historical towers) by those with capacities able to serve a larger population. As a result, it is anticipated that a case can be made that the 1915 Osseo water tower is indeed one of a vanishing property type.

Only a statewide survey of historic water towers (of all types) will provide a comprehensive context for evaluating these structures, however, the present survey will establish an initial database of known hemispherical water towers within the prescribed area. It's expected that during the course of identifying hemispherical towers within 50-miles of Osseo numerous other historical towers will also be identified – those resources will also be recorded in an attempt to support the historic record of Minnesota water towers.

Aerial Site View – 2015

(SOURCE: www.maps.google.com. Accessed 02/25/2015).

The location of the 1915 Osseo water tower is indicated.

SITE FORM

Site Inventory Form

State Inventory No. HE-OSC-067 ☒ New ☐ Supplemental
☐ Part of a district with known boundaries (enter inventory no.) ____
Relationship: ☐ Contributing ☐ Noncontributing
☐ Contributes to a potential district with yet unknown boundaries
National Register Status:(any that apply) ☐ Listed ☐ De-listed ☐ NHL ☐ DOE
9-Digit SHPO Review & Compliance (R&C) Number ____
☐ Non-Extant (enter year) ____

1. Name of Property

historic name Osseo Water Tower

other names/site number

2. Location

street & number 415 Central Avenue (aka 25 4th Street NW)
city or town Osseo ☐ vicinity, county Hennepin
Legal Description: (If Rural) Township Name | Township No. | Range No. | Section | Quarter | of Quarter
119 | 22 | 13
(If Urban) Subdivision Original Town | Block(s) 11 | Lot(s) ____

3. State/Federal Agency Certification [*Skip this Section*]

4. National Park Service Certification [*Skip this Section*]

5. Classification

Category of Property (Check only one box)
☐ building(s)
☐ district
☐ site
☒ structure
☐ object

Number of Resources within Property

If Non-Eligible Property Enter number of:		*If Eligible Property, enter number of:* Contributing	Noncontributing	
___	buildings	___	___	buildings
___	sites	___	___	sites
___	structures	1	___	structures
___	objects	___	___	objects
___	Total	1	___	Total

Name of related project report or multiple property study (Enter "N/A" if the property is not part of a multiple property examination).
Title — *Historical Architectural Data Base Number*
McDowell, "Intensive Level Survey & Evaluation", 03/2015

6. Function or Use

Historic Functions (Enter categories from instructions)
WATER TOWER/Municipal

Current Functions (Enter categories from instructions)
NOT IN USE

7. Description

Architectural Classification (Enter categories from instructions)
HEMISPHERICAL BOTTOM

Materials (Enter categories from instructions)
foundation ____
walls (visible material) ____
roof ____
other STEEL

Narrative Description (☒ SEE CONTINUATION SHEETS, WHICH MUST BE COMPLETED)

8. Statement of Significance

Applicable National Register Criteria (Mark "x" representing your opinion of eligibility after applying relevant National Register criteria)

☒ Yes ☐ No ☐ More Research Recommended	A	Property is associated with significant events.
☐ Yes ☒ No ☐ More Research Recommended	B	Property is associated with the lives of significant persons.
☒ Yes ☐ No ☐ More Research Recommended	C	Property has distinctive architectural characteristics.
☐ Yes ☒ No ☐ More Research Recommended	D	Property yields significant information in archaeology or history.

County Hennepin | Address 415 Central Avenue (aka 25 4th Street NW) | Site Number **HE-OSC-067**
City Osseo | District Number

Criteria Considerations

- ☐ A Owned by a religious institution or used for religious purposes.
- ☐ B Removed from its original location.
- ☐ C A birthplace or grave.
- ☐ D A cemetery
- ☐ E A reconstructed building, object, or structure.
- ☐ F A commemorative property.
- ☐ G Less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

COMMUNITY GROWTH & DEVELOPMENT

ENGINEERING

Significant Dates

Construction date

1915 ☐ check if circa or estimated date

Other dates, including renovation

Significant Person

(Complete if National Register Criterion B is marked above)

Architect/Builder

Architect

Builder

Minneapolis Steel and Machinery

Narrative Statement of Significance (☒ SEE CONTINUATION SHEETS, WHICH MUST BE COMPLETED)

9. Major Bibliographical References

Bibliography ☒ See continuation sheet for citations of the books, articles, and other sources used in preparing this form

10. Geographic Data

UTM References *(OPTIONAL)*

	Zone	*Easting*	*Northing*		*Zone*	*Easting*	*Northing*
1				2			
3				4			

☐ See continuation sheet for additional UTM references or comments

11. Form Prepared By

name/title Alexa McDowell
organization AKAY Consulting — date 03/01/2015
street & number 103 West Island Avenue — telephone 515-491-5432
city or town Minneapolis — state MN — zip code 55401

ADDITIONAL DOCUMENTATION **(Submit the following items with the completed form)**

FOR ALL PROPERTIES

1. ***Map:*** showing the property's location in a town/city or township.
2. ***Site plan:*** showing position of buildings and structures on the site in relation to public road(s).
3. ***Photographs:*** representative black and white photos. If the photos are taken as part of a survey for which the Society is to be curator of the negatives or color slides, a photo/catalog sheet needs to be included with the negatives/slides and the following needs to be provided below on this particular inventory site:

   Roll/slide sheet # ____ Frame/slot # ____ Date Taken ____
   Roll/slide sheet # ____ Frame/slot # ____ Date Taken ____
   Roll/slide sheet # ____ Frame/slot # ____ Date Taken ____

   ☐ See continuation sheet or attached *photo & slide catalog sheet* for list of photo roll or slide entries.
   ☐ Photos/illustrations without negatives are also in this site inventory file.

FOR CERTAIN KINDS OF PROPERTIES, INCLUDE THE FOLLOWING AS WELL

1. ***Farmstead & District:*** (List of structures and buildings, known or estimated year built, and contributing or noncontributing status)
2. ***Barn:***
   a. A sketch of the frame/truss configuration in the form of drawing a typical middle bent of the barn.
   b. A photograph of the loft showing the frame configuration along one side.
   c. A sketch floor plan of the interior space arrangements along with the barn's exterior dimensions in feet.

State Historic Preservation Office (SHPO) Use Only Below This Line

Concur with above survey opinion on National Register eligibility: ☐ *Yes* ☐ *No* ☐ *More Research Recommended*
☐ *This is a locally designated property or part of a locally designated district.*

Comments: _____

Evaluated by (name/title): _____ *Date:* _____

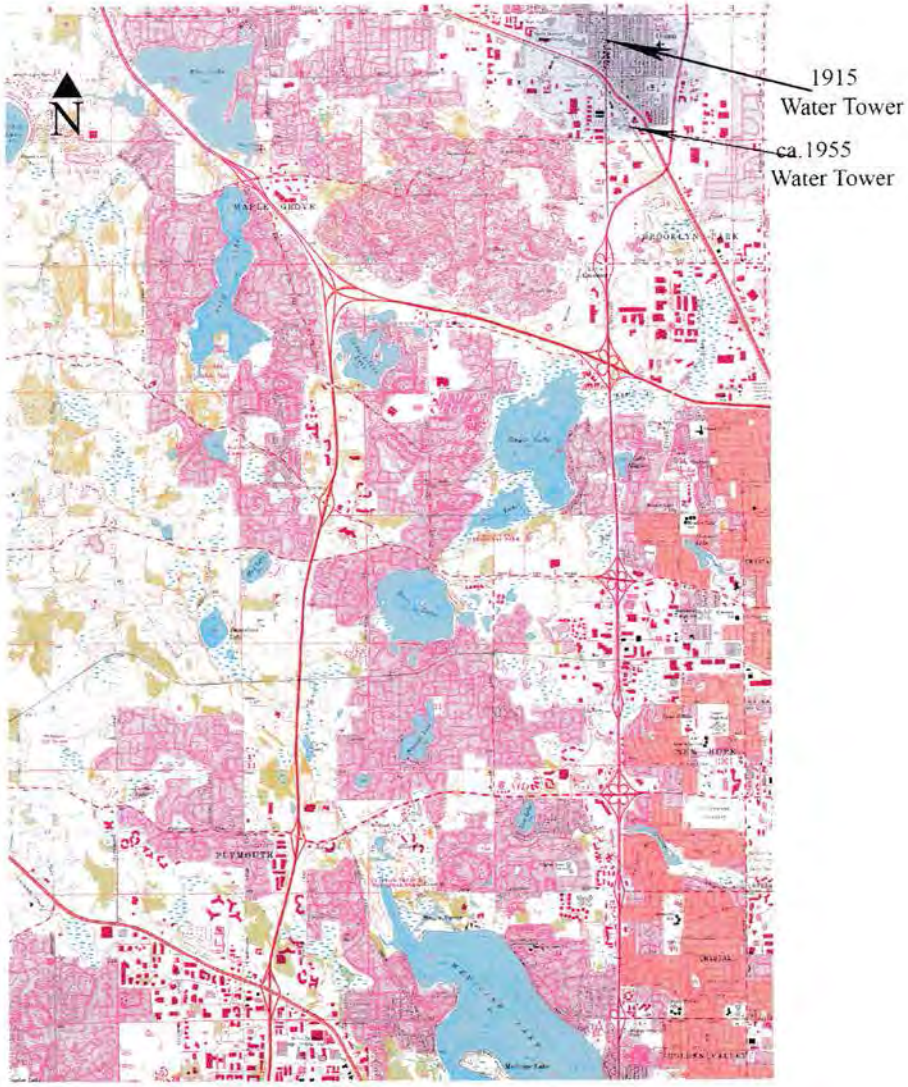
Site Inventory Form Continuation Sheet

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

7. Property Description

The community of Osseo, Minnesota is located in northwestern Hennepin County, near the northwest edge of the Minneapolis metropolitan area (Figure 1). The city is situated between the cities of Brooklyn Park on the east and Maple Grove on the west, carrying an historic association with each. The original town of Osseo (including the site of the water tower) is currently wedged between Highway 169, which runs north to south from Minneapolis on the south, and MN-81, which runs diagonally on the west edge of town. The route of the historic Jefferson Highway runs north to south along Central Avenue, bisecting the community.

FIGURE 1. USGS 7.5 Minute Topographic Map – Osseo Quad - 1980



(SOURCE: http://store.usgs.gov/. Accessed 01/15/2015.)

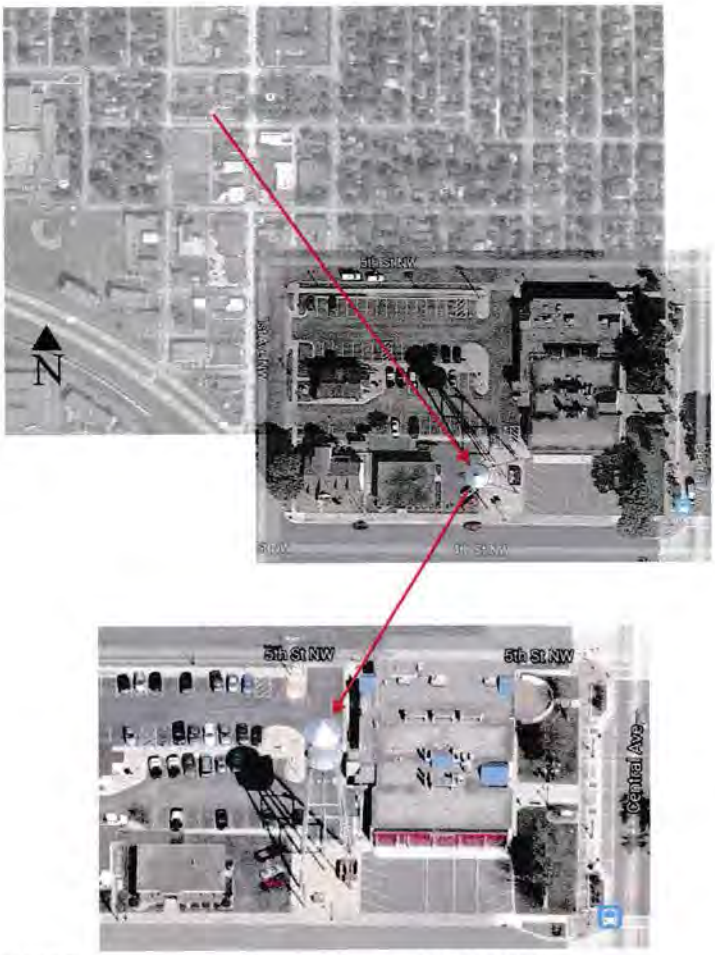
The locations of Osseo's two water towers are indicated.

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

The 1915 Osseo Water Tower is sited on a .75-acre parcel of city property in the northwest corner of the intersection of Central Avenue and 4th Street NW. The parcel is located on the west side of Central Avenue (Jefferson Highway), across Central Avenue from Boerboom Veterans Park. A 1967 building housing City Hall, the public library, and the fire department is located immediately to the east (Figure 2). A mid-twentieth century, one-story commercial building is situated on the west.

The water tower site is fully paved, the tower pad adjoining parking areas associated with the City property and with the commercial building on the west. With the exception of a small lawn north of the commercial building and the planted parking strip in front (east) of the City Hall, the entire block upon which the Osseo Water Tower is sited has been paved. The tower has an approximate 30-foot setback from 4th Street NW on the south.

FIGURE 2. Aerial Site View – 2015



(SOURCE: www.maps.google.com. Accessed 02/25/2015).

The location of the 1915 Osseo water tower is indicated.

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

The Osseo Water Tower is situated at the north end of the city's historic downtown commercial area, which stretches along the historic route of the Jefferson Highway, three and a half blocks south from the water tower to MN-81. A cross-section of commercial, governmental and residential properties are located in the immediate vicinity of the tower site (Figure 3-4). By-in- large, these properties post-date the water tower, with a number dating to the recent past – this is particularly true north of the tower property where large-scale residential development is underway.

The 1915 Osseo Water Tower features a cylindrical, riveted-steel tank with a suspended, hemispherical bottom. A riveted, conical roof with a finial caps the tank, which is encircled by a girder balcony stiffener (Figure 7). The 50,000-gallon tank is elevated on a four-post, lattice-girder trestle tower that rises to 127-feet, 4-inches. Diagonal tie rods provide additional stability to the tower. The tower's four posts are riveted to a poured-concrete pad. An 8-inch standpipe connects the tank with the underground water system; it is bolted at the base to the concrete pad. A steel plaque reading "1915 Minneapolis Steel and Machinery Co Builders Minneapolis Minn." is riveted to the tower's northeast leg. A caged access ladder rises on the same leg of the tower from a point just above the plaque to the roof peak.

The Osseo Water Tower is currently painted silver with the city name appearing in black, block lettering (Figure 8). Typically, hemispherical water towers of a similar construction period were painted silver (both tower and tank) with a red roof and black lettering. Because it is in black and white, an historic image of the Osseo Water Tower neither confirms nor refutes that as the historical scheme.

FIGURE 3. Photograph – Site View - 2015

(SOURCE: AKAY Consulting, January 21, 2015)

View of the water tower site, looking east along 4th Street NW from near 2nd Avenue NW.

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

FIGURE 4. PHOTOGRAPH – SITE VIEW - 2015

(SOURCE: AKAY Consulting, January 21, 2015)

View of the water tower site, looking west along 4th Street NW from near 1st Avenue NE.

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

FIGURE 5. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

View of the 1915 Osseo water tower, looking northwest from near the intersection of Central Avenue and 4th Street NW. Although now housed in a 1967 building, the Fire Department and City Hall (seen here) remain physically associated with the historic water tower.

FIGURE 6. HISTORIC IMAGE – Undated

(SOURCE: *100 Year History of the City of Osseo*, 69.)

In this view of the historic City Hall/Fire Department looking southwest from Central Avenue, the legs of the 1915 Osseo Water Tower are in view behind the building.

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

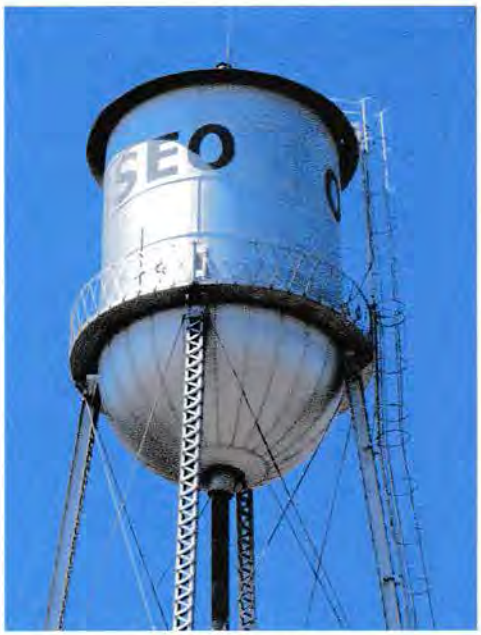
FIGURE 7. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

The Osseo Water Tower is a riveted-steel, hemispherical tank on four lattice legs. The tower, constructed by the Minneapolis Steel and Machinery Co. in 1915, rises to a height Of just over 127-feet with a 50,000-gallon holding capacity.

Osseo Water Tower	Hennepin
Name of Property	County
415 Central Avenue (aka 25 4th Street NW)	Osseo
Address	City

FIGURE 8. PHOTOGRAPH – 2014



(SOURCE: AKAY Consulting – May 28, 2014)

In this view, the riveted plates of the tank are visible. The "X" design of the balcony stiffener differentiated towers constructed by Minneapolis Steel from those of its competitors.

FIGURE 9. PHOTOGRAPH – 2014

(SOURCE: AKAY Consulting – May 28, 2014)

This plaque, bolted to the tower's northeast leg, documents construction. The plaque reads, "1915 Minneapolis Steel and Machinery Co Builders Minneapolis Minn."

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8. Statement of Significance

The Osseo Water Tower, located in the corporate limits of Osseo in Hennepin County, Minnesota, is an all-steel water tower constructed in 1915 to store water and to maintain water pressure in the city water system. The development of the water system was undertaken for the purpose of providing piped water to the homes and businesses of a growing community and had the added (and significant) benefit of providing adequate fire protection. The water tower is a typical example of the property type of that era, featuring a suspended, hemispherical tank on a four-post, lattice-girder trestle tower. The water tower retains a high level of historic integrity and remains a prominent visual feature on the community's landscape.

The Osseo Water Tower is eligible for listing on the National Register of Historic Places under Criterion A. The tower is considered locally significant in its association with the history of community planning and development in Osseo, specifically as it relates to the development of municipal services to support a growing community.

The development of a water works system is a common element of historic municipal planning. As a result, water towers have been historically and remain today highly visible structures on the Minnesota landscape. Water towers come in a variety of shapes and sizes, the form and scale in a specific community indicative of its era of construction and population of the town. From the 1890s through about 1940, the hemispherical bottom type of water tower was commonly utilized in young communities making them commonplace, but no less indicative of the community in which they were located.

With storage capacities ranging from 50,000-100,000 gallons, the utility of a hemispherical bottom water tower was limited to smaller communities. As a result, they have become obsolete in many cases, particularly in large metropolitan areas like the Twin Cities where towers with storage capacities exceeding 1,000,000-gallons are quickly replacing smaller towers.

Further, the Osseo Water Tower is eligible for listing on the National Register of Historic Places under Criterion C. The water tower is considered locally significant as an example of engineering practices applied to a structure that embodies the distinctive characteristics of a property type of a specific period: the Osseo Water Tower represents a specific type of water tower, the hemispherical bottom, that exemplifies the evolution of water supply systems during the period from the 1890s to about 1940. The elevated steel water tank was developed in the 1890s and by the early twentieth century was the typical type utilized in communities across the state and nation. Once a common landmark on the Minnesota landscape, this particular form of the water tower is quickly vanishing as the requirements of communities grow beyond the capacity of the early tower and are thus replaced by larger capacity structures. The Osseo Water Tower is an excellent representative of the type that featured distinctive characteristics including all steel materials, a conical roof, a riveted tank with a suspended, hemispherical bottom, and a tower of four lattice-channel posts with diagonal tie rods. The retention of a high degree of historic integrity marks the Osseo Water Tower as well-preserved example of a representative and vanishing form.

Historical Background: Osseo and its Hemispherical Water Tower

In July of 1852, Pierre Bottineau and his companions arrived on the prairie in the vicinity of what became Osseo exclaiming, "This is Paradise." Within a short period, others settled on "Bottineau Prairie" and soon established the necessities for survival and subsequent growth. Warren Sampson opened a general store and post office in 1854. In 1856 the settlement, first known as Palestine, was renamed Osseo and platted. Local histories suggest that Osseo is a Native American name, "Waseia," meaning "there is light" or, more commonly, "son of the evening star." Further speculation about the source of the city's name connects it to poet Henry Wadsworth Longfellow who mentions Osseo in the well-known poem of Indian legends, "The Song of Hiawatha" (*100 Year History*, 6).

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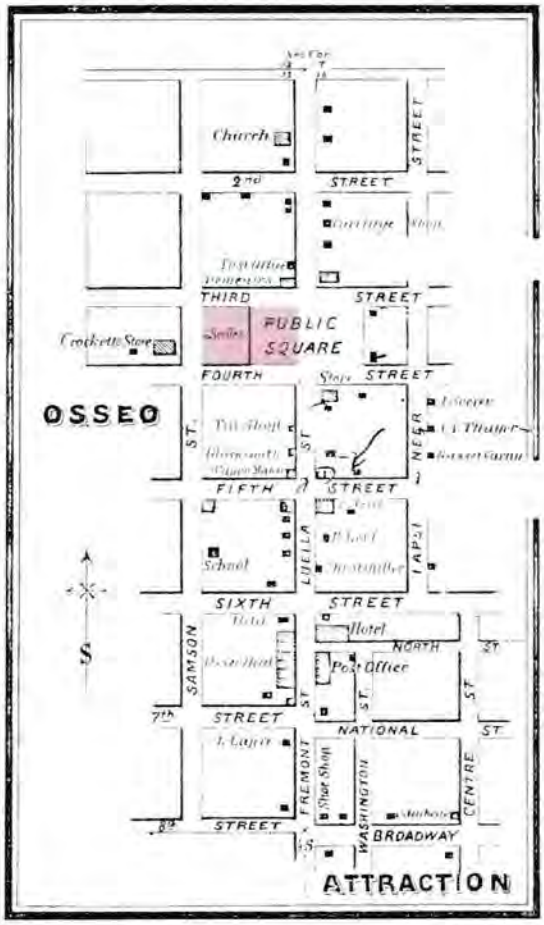
FIGURE 10. HISTORIC PLAT – 1873



(SOURCE: *Map of Hennepin County, Minnesota,* 1873)

Osseo, which was platted in 1856, was laid out in a linear fashion with a public square as a central feature. Subsequent to this map, the public square was reconfigured, with a park remaining on the west half of the block on the east side of Luella Street (now Central Avenue). The highlighted block marks the location where the City Hall and water tower were constructed.

Originally governed by the townships of Brooklyn and Maple Grove, on February 24, 1875 Osseo was incorporated as a Village by an act of the state legislature (*100 Year History,* 6). The Common Council was then established with a composition of a president, three councilmen, a recorder and a treasurer. The first Council was sworn in on March 19, 1875 (Village Council Minutes, 62).

The fledgling community continued to grow with French, Canadians, Germans, and Native Americans settling there. With an increased population came the establishment of additional businesses and services. Many in the area relied on the success of potato farming, which impacted both the rural and city community. Histories indicate that as many as 100 carloads of

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potatoes were shipped by rail to the metropolitan area. A starch factory was constructed in town, which benefited area farmers, particularly in seasons when abundant crops lowered market prices in Minneapolis. At those times, the factory processed an average of 10,000 pounds of crude starch daily and employed 20 men. The encroachment of the metropolitan area eventually pushed potato farmers out of the Osseo area (*100 Year History*, 19).

FIGURE 11. HISTORIC PLAT – 1913

(SOURCE: *Map of Hennepin County, Minnesota*, 1873)

By 1913 Osseo had extended its boundaries to the east and to the south. The public square had been reconfigured, with Luella Street (which became Wilson Street in 1918 and is now Central Avenue) cut through its center. The arrow indicates the site upon which the water tower was constructed just two years later.

Site Inventory Form Continuation Sheet

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Beginning in 1914 the Osseo Village Council began to explore the costs associated with establishing electric and water service. Their intent to construct those systems resulted in a petition recorded in the minutes. The petition requested that a plan to bond in the amount of $9,000 for an electric plant and $11,000 for a water system be presented to the voters. A special election was set for January 12, 1915. No report appears in the minutes about the outcome of the special election (Village Council Minutes, 342).

On March 29, 1915, talk of plans to undertake the establishment of a water system in the City reappeared in the minutes of the Village Council meetings. At the March 29 meeting, Mayor Hechtman appointed a committee to arrange for "the issue and sale of the electric light and waterworks bonds" (Village Council Minutes, 351). Ordinance No. 56 (the first reading of which was undertaken at that same meeting) outlined the specifics of the plan for electrification – the bond would contract with the Minneapolis General Electric Co. for the erection and maintenance of "light poles, wires, and other fixtures in the streets, alleys, and public grounds in the Village of Osseo, MN" (Village Council Minutes, 351).

Bids for the Osseo water system were received at the May 04, 1915 council meeting. Companies that submitted proposals included the Des Moines Bridge & Iron Works ($13,400-, not including a well), Ilstrup & Olson ($13,750-, not including the well), C.F. Bosworth ($14,597.39, not including a well), W.D. Lowell ($12,983.50, not including a well), Wm. C. Foster ($13,555-, not including a well), Pastoret Construction Co. ($13,2488-, not including a well), Chicago Bridge & Iron Works ($3,635-, tank only), Hill-Mauring-Whalen Co. ($14,000-, not including a well). Other companies bid for construction of the well. Those included J.F. McCarthy, Iverson (?) Artesian Well Co., and F.J. Kapp, each pricing their services by the linear foot. The Council awarded contracts to the low bids – W.D. Lowell being awarded the tower contract and J.F. McCarthy the well contract (Village Council Minutes, 360).

Specifics of the contract required that the contractor install a Smith-Vaile pump (manufactured by the Platt Iron Works, Co. of Dayton), a Fairbanks-Morse Co. motor, Eddy valves and hydrants, and that the contractor furnish a tower and tank built by the Minneapolis Steel and Machinery Company (Village Council Minutes, 360-1).

Completion of both the electrical plant and water system being contingent upon a successful bonding process, Osseo residents took to the polls on May 17, 1915. The formal resolution specific to the water system read:

> "Resolved; by the Common Council of the said Village of Osseo, that said village establish, build, construct, and equip a public water works plant for the supply of water for public and private use in said village, and that said village borrow the sum of Fourteen Thousand Dollars ($14,000.00) for the erection and construction of said water works plant and that for said purpose the said Village of Osseo issue it negotiable bonds in the sum of Fourteen Thousand ($14,000) Dollars, Be it."

Results of the special election were positive. With more than 5/8s of duly qualified electors casting their ballot, the measure passed 83 to 22 (Village Council Minutes, 364-366).

Village Council minutes in the coming months record the process of paying off the bond debt, which was held by German American Bank in Minneapolis. With 28, $500.00 bonds issued with a 6% per annum rate of interest, the City paid a total debt of $14,670 with bi-annual payments beginning July 01, 1918 (Village Council Minutes, 378-379).

Beginning in April of 1916 city residents paid $6.00 per year for water service.

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FIGURE 12. HISTORIC IMAGE – ca.1916

(SOURCE: AKAY Consulting Postcard Collection)

View of the newly constructed Osseo water tower, looking northwest across Central Avenue.

Fire protection was an important benefit of the newly constructed water works. For many years, fire fighting in Osseo relied solely on a "bucket brigade." By 1900 residents were calling for more effect means of protecting the city from the threat of fire. In response, hand pumps were installed at critical locations. Such pumps required six men, three on each side of the pump, to create a strong stream of water. As small as the city remained at that time, a 300-foot hose reached most buildings (*100 Year History*, 72). The 1913 addition of a "No. 8, 40 gallon Chemical Engine with 50-foot of hose" at a cost to the City of $222.50 was a decided advancement in the city's fire protection capability (Village Council Minutes, 294).

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Shortly after the construction of the water works system, Council minutes record the activities related to fire protection. In September of 1915 the Council received communication from the "Department of Insurance relative to the 2% of fire insurance premiums payable to the Village each year, provided a regular fire organization was maintained" (Village Council Minutes, 389). It was the Commercial Club that called a meeting with the State Department of Insurance, resulting in the formal creation of the Osseo Fire Department. Chartered on December 10, 1915, the department had a crew of 36 men led by Chief George Heesen and Assistant Chief, George Neumann (*100 Year History*, 73). The Council supported the newly formed department, with multiple entries reflecting presentations by the Osseo Fire Department requesting equipment, etc. noted over the coming months. In February of 1916, the Council moved to purchase 500-feet of "Helmet" hose from the Eureka Fire Hose Manufacturing Co. at a cost of $.80/foot.

Osseo's first fire truck was purchased in 1929. Where once the ringing of church bells sounded a fire alarm, the construction of the water tower eventually resulted in the location of a siren at that site (*100 Year History*, 73).

The Hemispherical Bottom Type

The concept of storing water at a raised elevation for the purpose of creating sufficient pressure to distribute it to a population has existed in various forms since antiquity. With the advancements of the Industrial Age and the requirements that came with the development of the railway system in America, the concept of water distribution that began with the aqueducts of Rome was transformed into the design of elevated water tanks (a.k.a., water towers). The earliest examples of water towers appeared in the U.S. in the 1880s to supply the boilers of steam engines and, when towns and cities grew up along a railroad line, water tower engineering was refined to provide fire protection and to pipe water to the growing communities. Water tower forms and scale changed through time, a reflection of technological advancements as well as an indication of increased demand resulting from an ever-growing population.

The hemispherical bottom water tower was considered the standard of the industry from the late 1890s to about 1940. The hemispherical form had the significant advantage of reducing stresses. Further, the tank's shape made securing it to the tower easier and provided ready access for ongoing maintenance. The form was also thought to be more pleasing to the eye (*Towers and Tanks for Waterworks*, 178). Hemispherical tanks with a capacity of over 50,000-gallons (a 100,000-gallon elevated tank being considered large through ca.1910) typically had a conical roof of light, steel-plate and a projecting eave. A flagstaff was often used both as ornamentation and to provide rigidity to the roof (*Towers and Tanks for Waterworks*, 197). Ladders were recommended to run along one of the legs beginning near the ground and extending to the roof. Such ladders required steel clip connections at regular intervals (*Towers and Tanks for Waterworks*, 199). The balcony provided access to the tank but, just as importantly, acted as a support girder (often referred to as a stiffener) around the perimeter of the tank. Design guidelines recommended that plate steel with drain holes be utilized for the balcony deck rather than wood (*Towers and Tanks for Waterworks*, 256).

The task of painting the water tower required considerable effort; the proper finish reduced maintenance and assured the longevity of the structure. Beginning with a clean surface was paramount, followed by a primer and a finish coat. Red lead oxide, lampblack, and linseed oil were the primary elements of the paint primer with asphaltic varnish used as the finish coat (*Towers and Tanks for Waterworks*, 256). Most water towers of the period sported a silver tower and tank, black lettering, and a red roof.

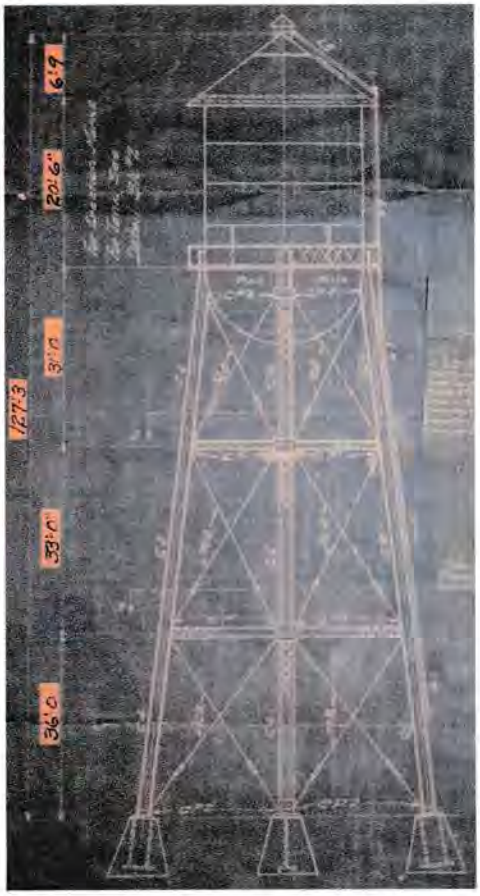
The earliest examples of the hemispherical bottom were constructed of riveted plates, with the use of welding technology coming into play with the advent of World War II. The major companies active in water tower construction developed variations on the hemispherical form. In the mid-1920s, the Pittsburgh-Des Moines Steel Company (PDM) began using what they termed an elliptical bottom; by diminishing the elongation of the tank form, the overall height of the tower could be lessened. The structure was otherwise the same as a hemispherical tower, utilizing laced channel columns and a cone roof. At that time, unofficial company trademarks were introduced in the design of the towers' balcony stiffeners. PDM utilized a

running "V" while others adopted an "X" or vertical supports. This practice provided a ready means for identifying the builder of the water tower (*Towering Over America,* 39).

The Osseo Water Tower retains all of the hallmark elements of a pre-World War II, hemispherical bottom type, including a riveted tank, conical roof, a four-post lattice tower with cross bracing and a balcony stiffener with a running "X" design, marking the tower as a construction by a company other than the Pittsburgh-Des Moines Steel Company.

Although the Minneapolis Steel and Machinery Co., the builder of the Osseo Water Tower, erected water towers across Minnesota and the Midwest, no comprehensive survey of water towers in Minnesota has been completed to fully document their contributions. It is not known how many were built in Minnesota or, of those constructed by the company, which remain and in what condition. Two other companies, the Chicago Bridge and Iron Company (now CBI, Inc.) and the Pittsburgh-Des Moines Steel Company (now PDM, Inc.), dominated the water tower construction business in the Midwest. As the typological descriptions on the pages to follow indicate, the majority of advancements in water tower engineering are attributed to one or the other of these two dominant companies.

FIGURE 13. OSSEO WATER TOWER PLANS – 1915



(SOURCE: City of Osseo, Vertical Files)

Design plans for the Osseo Water Tower supplied by Minneapolis Steel and Machinery Co.

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FIGURE 14. OSSEO WATER TOWER PLANS – 1915

(SOURCE: City of Osseo, Vertical Files)

Water tower construction plans by Minneapolis Steel and Machinery Co. include this detail of the tank.

The Osseo Water tower stands as one of only five historic, municipal, hemispherical towers within a 50-mile radius; at one time there having been at least eleven towers of that type in a 50-mile radius (Figure 15). The city's represented are: Elk River, Hampton, Milaca, Robbinsdale, and Wacona. It should be noted that the number of non-extant, municipal towers of the hemispherical type is undoubtedly higher – more extensive research into Metropolitan resources is needed to fully appreciate the loss of historic towers of that type.

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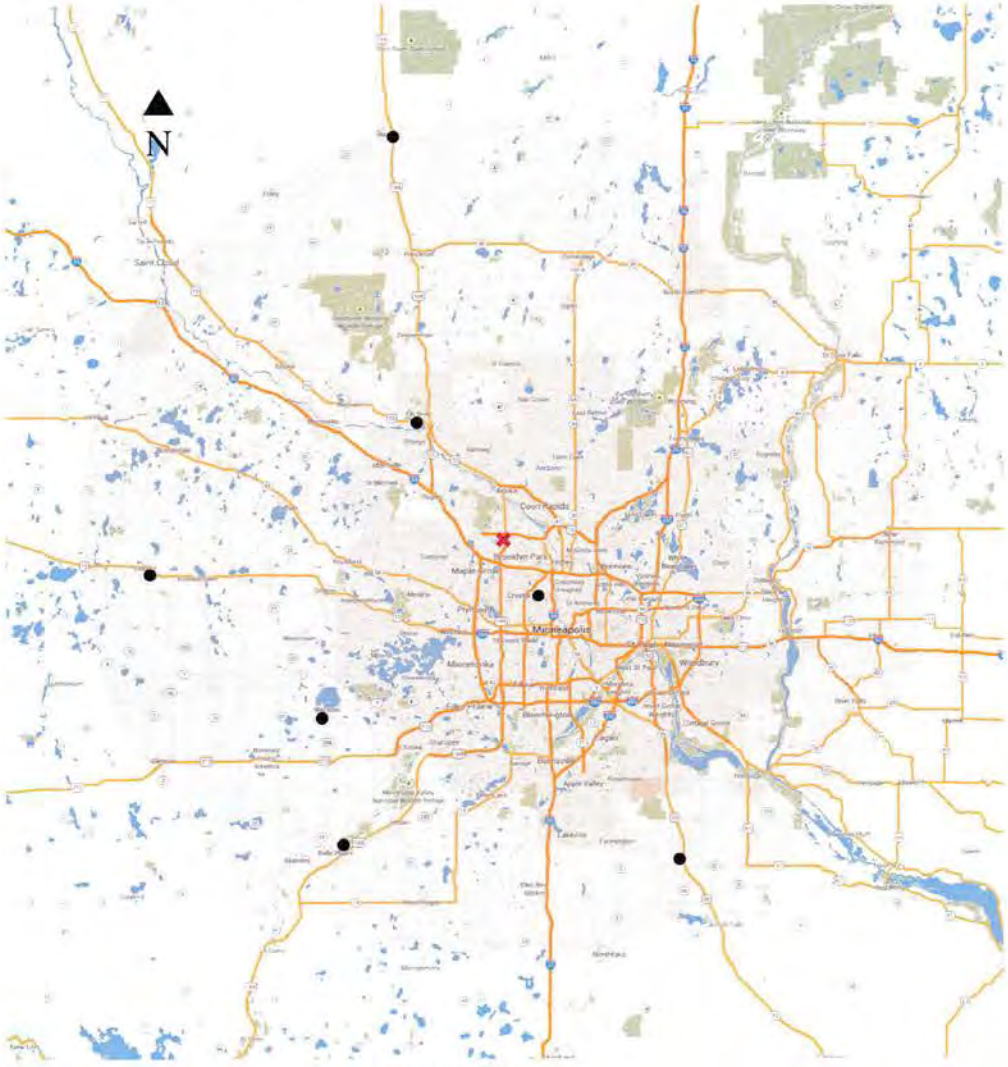
FIGURE 15. MAP OF EXTANT MUNICIPAL HEMISPHERICAL WATER TOWERS WITHIN 50-MILES



(Base Map: maps.google.com. Accessed 02/01/2015)

The locations of EXTANT municipal water towers of the hemispherical type are indicated.

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Name of Property	County
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9. Reference Sources

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10. Geographical Data

Site Coordinates: 45.120504, -93.402918

TYPOLOGIES

WATER TOWER TYPOLOGIES

The use of the hemispherical bottom water tower falls with a continuum of the development of the municipal water system; while dominating the industry for nearly fifty-years the hemispherical bottom form was neither the first nor the last in the evolution of the water tower.

The ***Flat Bottom*** is the earliest American form utilized for elevated water tanks. Such tanks, commonly associated with railroad lines, were generally wood construction – both tank and tower. However, PDM's predecessor firm, Jackson & Moss, constructed a 55,000-gallon wood tank on a steel tower in LaPorte City, Iowa in 1896. The company also erected a flat bottom steel tank on a brick tower in Correctionville, Iowa in 1915. As one would expect, extant examples of the flat bottom type are rare; the Elysian Water Tower at, Minnesota (formerly listed on the National Register of Historic Places) was razed in 1989. A flat bottom with a wood tank in Stewart, Minnesota was replaced in ca.1920 by a hemispherical bottom, which remains today. The survey also found examples of the type were historically used in Anoka, Blooming Prairie, Carver, Cosmos, Elmore, New Prague, Nicollet, and Princeton (all non-exant). Flat bottom, steel tank water towers remain in Beardsley and Lindstrom.

TYPOLOGY 1: FLAT BOTTOM (ca.1870-1890s)

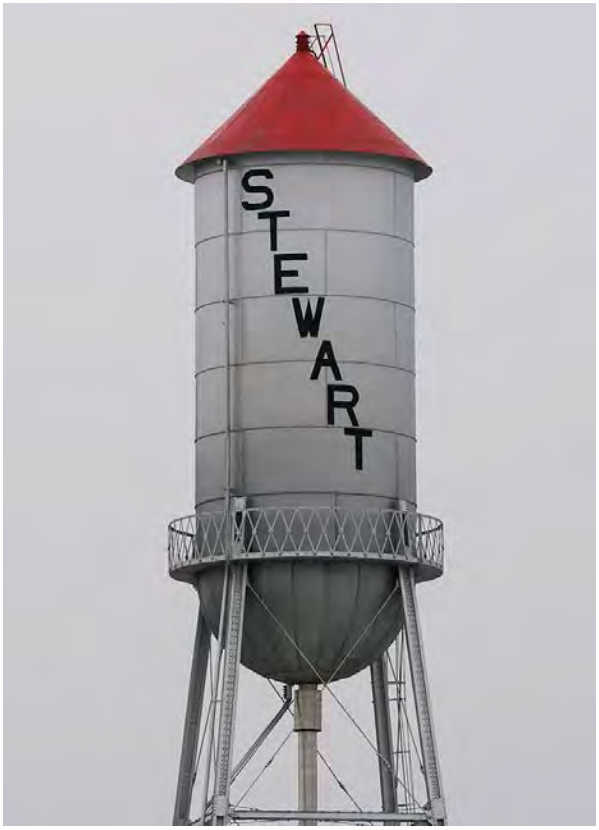
(SOURCE: http://www.loc.gov/pictures/item/mn0103.photos.091440p/resource/. Accessed 03/02/2015.)

As the above image of the Elysian Water Tower at Le Sueur, MN (razed 1989) illustrates, early water towers (in this case, wooden) utilized a flat bottom. In the 1890s, that form gave way the hemispherical tank.

TYPOLOGY 1: FLAT BOTTOM (Elevated)

(SOURCE: http://reflections.mndigital.org/cdm/singleitem/collection/mcc/id/76/rec/7. Accessed 03/02/2015.)

The ca.1900 wood, flat bottom elevated tank at Stewart, Minnesota.



(SOURCE: https://c2.staticflickr.com/4/3581/3334919542_7029b6de7f_b.jpg. Accessed 02/02/2015.)

Stewart's current hemispherical water tower, which replaced the flat bottom tank in ca.1920, remains in use.

TYPOLOGY 1: FLAT BOTTOM

(SOURCE: http://reflections.mndigital.org/cdm/singleitem/collection/nico/id/3410/rec/1. Accessed 03/01/2015).

The towers at Nicollet, Minnesota (ca.1908): flat bottom, wood tank at left and hemispherical bottom at right.

TYPOLOGY 2: HEMISPHERICAL BOTTOM (1890s-ca.1940)

The ***Hemispherical Bottom*** was considered the standard of the industry from the late 1890s to about 1940; the Osseo Water Tower is an example of the hemispherical bottom. The hemispherical form had the significant advantage of reducing stresses. Further, the tank's shape made securing it to the tower easier and provided ready access for ongoing maintenance. The form was also thought to be more pleasing to the eye. Hemispherical tanks with a capacity of over 50,000-gallons (a 100,000-gallon elevated tank being considered large through ca.1910) typically had a conical roof of light, steel-plate and a projecting eave. A flagstaff was often used both as ornamentation and to provide rigidity to the roof. Ladders were recommended to run along one of the legs beginning near the ground and extending to the roof. Such ladders required steel clip connections at regular intervals. The balcony provided access to the tank but, just as importantly, acted as a support girder (often referred to as a stiffener) around the perimeter of the tank. Design guidelines recommended that plate steel with drain holes be utilized for the balcony deck rather than wood.

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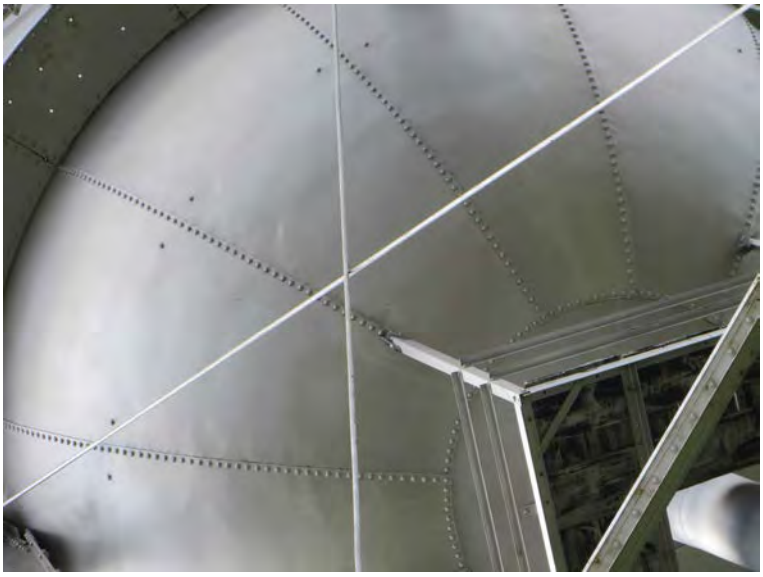
(SOURCE: AKAY Consulting , Floodwood, MN, September 2014)

The hemispherical bottom water tank was the dominant form utilized from the 1890s through ca.1940. The major companies active in water tower construction developed some variations on the hemispherical form. In the mid-1920s, the Pittsburgh-Des Moines Steel Company (now PDM) began using what they termed an elliptical bottom; by diminishing the elongation of the tank form, the overall height of the tower could be lessened. The structure was otherwise the same as a hemispherical tower, utilizing laced channel columns and a cone roof.

TYPOLOGY 2: HEMISPHERICAL BOTTOM



(SOURCE: AKAY Consulting, Floodwood, MN, September 2014)

The tank's riveted construction is seen this detail view of the hemispherical bottom.

(SOURCE: AKAY Consulting, Wanamingo, MN, January 2015)

The hemispherical at Wanamingo, with its historic paint scheme, stands in a prominent location overlooking the historic commercial area.

TYPOLOGY 2: HEMISPHERICAL BOTTOM

(SOURCE: mnhsonlinecollection.org. Accessed 02/27/2015)

Although proportionately varied from the typical hemispherical, the Robbinsdale water tower (extant) is of hemispherical bottom type.

TYPOLOGY 3: DOUBLE ELLIPSOIDAL (1930s-present)

The ***Double Ellipsoidal*** was introduced in the 1930s in response to the demand for larger capacity tanks. Like the hemispherical type, double ellipsoidal water tanks were first constructed using rivets. Beginning during the World War II era, double ellipsoidal tanks more commonly utilized welded construction. The examples illustrate the variation in appearance of the double ellipsoidal tank, reflecting the tanks wide capacity range (50,000 to 500,000 gallons). The type is the most widely seen of those constructed in the post-war era.

(SOURCE: AKAY Consulting Postcard Collection)

As the hemispherical replaced the earlier flat bottom water towers, the hemispherical form was supplanted by the double ellipsoidal. That change is illustrated in this image of the towers in Albert Lea, Minnesota – while the double ellipsoidal (near center) remains in use today, the hemispherical (at left) is non-extant.

The following examples illustrate the variation in appearance of the double ellipsoidal tank, reflecting the tanks wide capacity range (50,000 to 500,000 gallons).

TYPOLOGY 3: DOUBLE ELLIPSOIDAL

(SOURCE: AKAY Consulting, Medina, MN, September 2014)

The double ellipsoidal in Medina is relatively small in scale and capacity. Still, its height makes it an attractive spot for the collocation of telecommunications antennae.

(SOURCE: AKAY Consulting, Big Lake, MN September 2014)

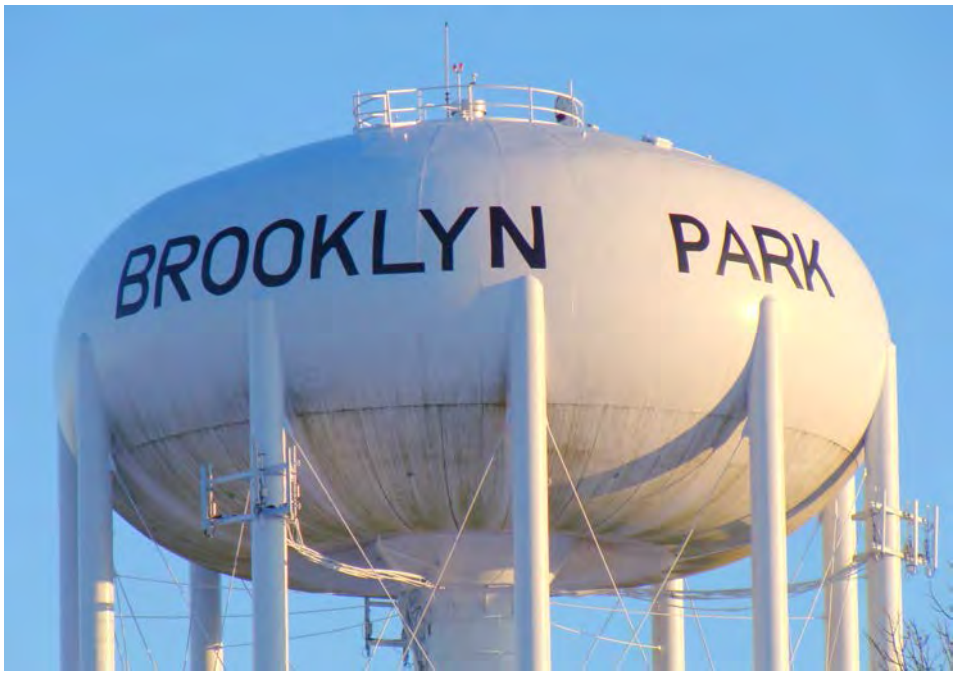
TYPOLOGY 3: DOUBLE ELLIPSOIDAL

(SOURCE: AKAY Consulting, Plymouth, MN September 2014)

Plymouth has four water towers, two of which are categorized as double ellipsoidal in form. The tower in the top image dates to 1961.

TYPOLOGY 4: SPHEROID ELEVATED TANK - TOROSPHERICAL – (ca.1945-present)

The ***Spheroid*** elevated water tank (a sub-type of which is the ***Torospherical***) was introduced post-war and, given its large capacity (2,000,000 gallons), is common in large communities and urban areas. Both the Chicago Bridge and Iron Company and Pittsburgh-Des Moines developed large capacity spheroid tanks. A spheroid tank is comprised of plates of variable curvature with no vertical shell, with plates in tension requiring two sets of supports. As a result, the form can be identified by the use of a large center standpipe with slender outer columns and wind bracing.



(SOURCE: http://www.myfurnaceandac.com/images/brooklynpark_watertower_original.jpg. Accessed 02/20/2015)

(SOURCE: http://mw2.google.com/mw-panoramio/photos/small/16344293.jpg. Accessed 03/01/2015)

TYPOLOGY 5: SPHEROID ELEVATED TANK – PEDESTAL SPHERE (ca.1945-present)

The ***Pedestal Sphere*** came into use with the development of welded technology. Both the Chicago Bridge and Iron Company and the Pittsburgh-Des Moines Company developed this type of spherical tank with capacities of up to 200,000 gallons set on a supporting cylinder enclosing the standpipe. As the examples show, the welded design allowed for considerable variation in the shape of the tank. The pedestal sphere, along with the more economical water ball, replaced the previously dominant hemispherical and elliptical bottom forms.

(SOURCE: http://1.bp.blogspot.com/-qMBuOzQgXjs/UDPImqZzorI/AAAAAAAABJ8/mY6ySKKQOIE/s1600/ Dual+Water+towers+by+Plaster.jpg. Accessed 02/28/2015).

As the image above illustrates, the community of Brandon replaced their ca.1915 hemispherical water tower with an elevated spheroid – the process of constructing the new tower was captured in this image from August of 2012, with the older tower removed shortly thereafter. As the following examples show, the welded designs allowed for considerable variation in shape. The "spaceship" form (like the new tower at Brandon) is now a common element on the Minnesota horizon.

TYPOLOGY 5: SPHEROID ELEVATED TANK – PEDESTAL SPHERE

(SOURCE: AKAY Consulting, Annandale, MN, September 2014)

(SOURCE: http://www.mikiemetric.net/USAPics/Water%20Towers/BlaineDonutTower.jpg. Accessed 03/02/2015)

TYPOLOGY 5: SPHEROID ELEVATED TANK – PEDESTAL SPHERE

(SOURCE: http://smartdrycarpetcleaning.com/wp-content/uploads/2014/02/arlington.jpg. Accessed 02/25/2015)

(SOURCE: http://www.mikiemetric.net/USAPics/Water%20Towers/BlaineDonutTower.jpg. Accessed 02/25/2015)

TYPOLOGY 6: WATERBALL (ca.1945-present)

Like the pedestal sphere, the ***Water Ball***, was a post-war era development. The small tank set on slender posts, was more economical that the pedestal sphere, but its small capacity limited its use to small communities.

(SOURCE: AKAY Consulting, 2009-2010)

The water ball saw limited use and no Minnesota examples were identified in the present survey. Both of those seen above are located in Iowa.

TYPOLOGY 7: HYDROPILLAR (ca.1990s – Present)

The ***Hydropillar*** was developed and patented by PDM in 1962. The hydropillar has a large diameter fluted standpipe supporting a tank with a vertical shell and ellipsoidal bottom and top. The form allowed for a wide range of capacity tanks and created a base that doubled as an enclosed space commonly utilized for storage. As the example shows, a large door at the base provides access to the interior. This tower type is quickly becoming the dominant form in the Metropolitan area – its ability for large capacity storage (a number identified during the survey have capacities in excess of 1,000,000-gallons) make it useful to city's facing an ever-increasing population.

(SOURCE: AKAY Consulting, St. Michael, MN, September 2014)

(SOURCE: AKAY Consulting, Plymouth, MN, September 2014)

TYPOLOGY 8: NOVELTY

(SOURCE: http://media-cache-ec0.pinimg.com/736x/e4/73/21/e47321da4c3a115a6e2ac7a18368b3e9.jpg. Accessed 02/28/2015).

(SOURCE: http://blog.lib.umn.edu/crd/rural_design/Lindstrom.jpg. Accessed 02/20/2015).

The towers at Rochester (top) and Lindstrom are, perhaps, Minnesota's most widely recognized water towers. Worth noting … the paint scheme of the Lindstrom tower post-dates the flat bottom tower by decades; the change coming after the tower was decommissioned.

TABLE OF MINNESOTA WATER TOWERS SURVEYED

	TOWN	MILES FROM OSSEO			HISTORIC IMAGE	WATER TOWER(S)	DATES (S)	CITY CONTACT
		<50	<100	>100				
001.	Ada			239	Hemispherical Downloaded	Hemispherical NON-EXTANT Elevated Spheroid		Public Works 218-784-5537
002.	Albert Lea			112	Hemispherical AKAY Postcard (ca.1945)	Hemispherical NON-EXTANT Double-Ellipsoidal Elevated Spheroid		Public Works 507-377-4325
003.	Albertville	17			None	Hydropillar		Public Works 763-497-3384
.004	Alexandria			118	Hemispherical Google Images	Hemispherical NON-EXTANT Double Ellipsoidal	1936	City 320-763-6678
.005	Andover	14			None	Hydropillar Hydropillar-2		Public Works 763-755-8118
.006	Annandale	43			Hemispherical EBAY Postcard	Hemispherical NON-EXTANT Elevated Spheroid	Unknown	City 320-274-3055
.007	Anoka	6			EBAY Tower at Asylum x 2 (1): Flat-bottomed (1910s), Hemispherical (1940s)	Double Ellipsoidal Hydropillar		Public Works 763-576-2923
.008	Arden Hills	17			None	Hydropillar Hemispherical EXTANT		
.009	Arlington		62		None	Elevated Spheroid, Novelty (Baseball)	1996	
.010	Baudette			293	Hemispherical Downloaded	Hemispherical EXTANT Elevated Spheroid		Municipal Utilities 218634-2432
.011	Beardsley			182	Flat Bottom Downloaded	Flat Bottom EXTANT		
.012	Becker	32			None	Elevated Spheroid (1) Elevated Spheroid (2)		Jeremy Halvorson, Water 763-262-4331
.013	Belle Plaine	46			Hemispherical EBAY Postcard	Hemispherical NON-EXTANT	ca.1907	City 952-873-5553

						Elevated Spheroid Elevated Spheroid-2		
.014	Big Lake	27			None	Double Ellipsoidal Elevated Spheroid	2001	Municipal water (763) 263-2268
.015	Bird Island		96		None	Hemispherical EXTANT		Public Works 320-365-3444
.016	Blaine	12			None	Double Ellipsoidal (modified) (1,000,000 gal.) Elevated Spheroid (mushroom) (1,000,000 gal.) Hydropillar (1,000,000 gal.) Hydropillar (2,000,000 gal.)		Public Works 763-785-6165
.017	Blooming Prairie		97		Flat Bottom (ca.1900) Downloaded None	Flat Bottom NON-EXTANT Hemispherical EXTANT		City Hall 507-583-7573
.018	Braham		52		None	Hemispherical NON-EXTANT Elevated Spheroid		
.019	Brandon			145	None	Hemispherical NON-EXTANT Elevated Spheroid (Spaceship)		Douglas County Public Works 320-762-2999
.020	Breckenridge			187	Hemispherical EBAY Postcard	Hemispherical NON-EXTANT? Double Ellipsoidal		Public Works 218-643-5719
.021	Brooklyn Center	6			None	Double Ellipsoidal		
.022	Brooklyn Park	3			None	Double Ellipsoidal		
.023	Buffalo	26			None	Hemispherical NON-EXTANT Elevated Spheroid (1) Elevated Spheroid (2) Double Ellipsoidal (1) Double Ellipsoidal (2)		City 763-682-1001

.024	Buffalo Lake		82		None	Flat Bottom EXTANT		
.025	Buhl			206	None	Hemispherical EXTANT		
.026	Cambridge	40			None	Double Ellipsoidal Hydropillar		Water (763) 689-1800
.027	Cannon Falls		58		None	Hydropillar		Public Works 507-263-4626
.028	Canton			151	None	Hemispherical EXTANT		None
.029	Carver	32			Flat Bottom Downloaded	Flat Bottom (Railroad) EXTANT Elevated Spheroid		Public Services 952-448-2290
.030	Cayuna			113	None	Hemispherical EXTANT National Register Listed	1912	
.031	Champlain	5			None	Hydropillar		Public Works 763-421-2820
.032	Chisago City	38			None	Hydropillar		Public Works 651-257-4162
.033	Chisholm			209	Hemispherical Downloaded	Hemispherical NON-EXTANT Elevated Spheroid (Spaceship)		Public Works 218-254-7920
.034	Clara City			115	Hemispherical EBAY Postcard	Hemispherical NON-EXTANT Elevated Spheroid	Unknown ca.2000	City 320-847-2142
.035	Clear Lake	41			None	Elevated Spheroid	1978	
.036	Clearwater	41			None None	Elevated Spheroid (1) Elevated Spheroid (2)	2-2003	Public Works 320-558-2233
.037	Cloquet			137	None	Hemispherical NON-EXTANT Downloaded Hydropillar		Public Works 218-879-7762
.038	Cokato	44			None	Hemispherical NON-EXTANT Hydropillar Double Ellipsoidal		Public Works (320) 286-2327
.039	Cold Spring		63		Hemispherical Under Construction AKAY Postcard	Hemispherical NON-EXTANT Elevated Spheroid Elevated Spheroid-2		Public Works 320-685-3524 City 320-685-3653
.040	Columbia Heights	11			None	Elevated Spheroid		Public Works 763-706-3700

.041	Coon Rapids	10			None	Hydropillar		Public Works 763-767-6462
.042	Corcoran	10			None	None		Public Works 763-420-2652
.043	Cosmos		81		Flat Bottom (WPA) nnhsonline.org	Flat Bottom NON-EXTANT Elevated Spheroid (Spaceship)		Public Works 320-877-7345
.044	Crosby			110	None	Hemispherical EXTANT National Register Listed	Unknown	
.045	Crystal	9			None	Unknown		Public Works 763-531-1166
.046	Danube			111	None	Hemispherical EXTANT Downloaded		Public Works 320-826-2563
.047	Darwin		55		None	Double Ellipsoidal		
.048	Dassel		50		None	Hemispherical NON-EXTANT Elevated Spheroid		Public Works 320-275-2454
.049	Dayton	13			None	Hydropillar		Public Works 763-427-3224
.050	Deerwood			106	None	Hemispherical EXTANT National Register Listed	1914	
.051	Delano	24			None	Hydropillar	2002	Public Works 763-972-0580
.052	Duluth			154	None	Flat Bottom (Fitger's)		
.053	Dundas		57		None	Double Ellipsoidal Hydropillar		City Hall 507-645-2852
.054	East Bethel	24			None	Elevated Spheroid		Public Works 763-367-7876
.055	Eden Prairie				None	Hydropillar		
.056	Eden Valley		65		None	Hemispherical EXTANT		Public Works 320-453-5252 No Answer
.057	Elk River	19			Hemispherical AKAY Consulting	Hemispherical EXTANT National Register Listed Pedestal Tower		Municipal Utilities (763) 441-2020
.058	Elko	46			None	Elevated Spheroid (Elko)		
.059	Elmore			138	Flat Bottom AKAY Postcard	Flat Bottom NON-EXTANT Hemispherical		City Clerk 507-943-3236

						NON-EXTANT Elevated Spheroid (Spaceship)		
.060	Eveleth			191	None	Hemispherical NON-EXTANT Double Ellipsoidal EXTANT		Public Works 218-744-7504
.061	Fairfax		99		Hemispherical Reflections.mn digital.org	Hemispherical NON-EXTANT Elevated Spheroid (Spaceship)	ca.1911	City 507-426-7255
.062	Farmington	44			None	Hydropillar		
.063	Floodwood			155	None	Hemispherical EXTANT		City Hall 218-476-2751
.064	Foley		52		Hemispherical MNHS.org	Hemispherical NON-EXTANT Double Ellipsoidal		Public Works 320-968-4082
.065	Freeport		77		None	Hemispherical EXTANT Elevated Spheroid (Spaceship)	 2012	Public Works 320-836-2112
.066	Fridley	10			None	Double Ellipsoidal Hydropillar		Public Works 763-572-3566
.067	Gaylord		72		None	Hemispherical EXTANT Elevated Spheroid	1917 1990	Public Works 507-317-4566
.068	Golden Valley	10			None	Double Ellipsoidal	1962	Public Works 763-593-8030
.069	Good Thunder		99		None	Hemispherical EXTANT		City 507-278-3730
.070	Goodhue		77		None	Hemispherical EXTANT? Elevated Spheroid	 2007	Public Works 651-923-4310 No Answer
.071	Graceville			168	None	Hemispherical EXTANT		City Hall 320-748-7911
.072	Greenfield	16			None	Elevated Spheroid		Public Works Jeremy Ketcher: jketcher@ci.greenfield. mn.us
.073	Hamburg		51		None	Hemispherical EXTANT		
.074	Ham Lake	20			None	No Water Tower		Public Works 763-235-1672
.075	Hampton	49			None	Hemispherical EXTANT		City Hall: 651-437-8846

.076	Hanover	17			None	Hydropillar		Public Works: Scott Vogel 763-497-3777
.077	Harmony			146	None	Hemispherical EXTANT		City 507-886-8122
.078	Hinckley		81		Hemispherical EBAY Postcard	Hemispherical NON-EXTANT Double Ellipsoidal Elevated Spheroid	2003	City 320-384-7491
.079	Hopkins	14			None	Double Ellipsoidal Stand Pipe		Public Works 952-939-1382
.080	Howard Lake	38			None	Elevated Spheroid		Current: Municipal water (320) 543-2318
.081	Hugo	25			None	Elevated Spheroid Hydropillar		Public Works 651-762-6326
.082	Independence	27			None	Unknown		City 763-479-0527
.083	Ironton			111	None	Hemispherical EXTANT National Register Listed	1913	
.084	Isanti	35			None	Hydropillar		Current: City of Isanti (763) 444-5512
.085	Janesville		89		Hemispherical AKAY Postcard	Hemispherical NON-EXTANT Elevated Spheroid	2002	Public Utilities 507-234-5110
.086	Jeffers			148	None	Hemispherical EXTANT		City 507-628-4242
.087	Jordan	40			None	Double Ellipsoidal Hydropillar Hydropillar -2		Public Works 952-492-2535
.088	Kasson		93		Elevated Tank Postcard	Elevated Tank Stone base EXTANT National Register Listed Double Ellipsoidal Elevated Spheroid	1895	Public Works 507-634-7602
.089	Kelliher			243	None	Hemispherical EXTANT		City Hall 218-647-8470
.090	Kellogg		107		None	Hemispherical		City

						NON-EXTANT Elevated Spheroid		507-767-4953
.091	Kerkhoven			123	Hemispherical MNHS Online	Hemispherical NON-EXTANT?		
.092	Kimball		55		None	Double Ellipsoidal		City Hall 320-398-2725
.093	LeRoy			137	None			City Hall 507-324-5707
.094	Lindstrom	41			Flat Bottom EBAY Postcard	Flat Bottom - Novelty Elevated Spheroid		City Hall 651-257-0620
.095	Lino Lakes	19			None	Hydropillar Hydropillar -2		City Hall 651-982-2400
.096	Little Canada	22			None	Hydropillar		Public Works 651-766-4049
.097	Long Lake	19			None	Elevated Spheroid		Public Works 952-476-2855
.098	Lonsdale	48			None			Public Works 507-744-2397
.099	Loretto	17			None	Unknown		City 763-479-4305
.100	Mahtomedi	27			None	Elevated Spheroid-1 Elevated Spheroid-2 Elevated Spheroid-3		Public Works 651-773-9730
.101	Maple Grove	7			None	Hydropillar		
.102	Maple Lake	37			None	Hydropillar		Public Works 320-963-3738
.103	Maple Plaine	24			None	Elevated Spheroid		Public Works 612-490-5828
.104	Marble			177	None	Hemispherical EXTANT		Greenway Township Office 218-247-7318
.105	Medina	15			None	Hemispherical NON-EXTANT Double Ellipsoidal		City Hall 763-473-4643
.106	Milaca	50			Hemispherical MNHS Online	Hemispherical EXTANT Hydropillar		Public Works 320-983-6547
.107	Milan			131	None	Hemispherical NON-EXTANT	1924	City 320-734-4411
.108	Minnetrista	28			None	Double Ellipsoidal Hydropillar		Public Works 952-446-1660
.109	Montgomery		57		None	Hydropillar		Public Works 507-364-5017
.110	Monticello	24			Double	Double Ellipsoidal		Municipal water

					Ellipsoidal Google Images	NON-EXTANT Hydropillar		763-295-2711
.111	Montrose	30			None	Double Ellipsoidal Elevated Spheroid		Public Works 763-575-7422
.112	Mora		64		Hemispherical EBAY Postcard	Hemispherical NON-EXTANT Double Ellipsoidal NON-EXTANT? Hydropillar	ca.1906	City Hall 320-679-1511
.113	Morris			154	Hemispherical Postcard	Hemispherical NON-EXTANT Hydropillar		City Hall 320-589-3141
.114	Mound	25			None	Elevated Spheroid		Public Works 952-472-0614
.115	Mounds View	15			None	Hydropillar		Public Works 763-717-4050
.116	Murdock			127	None	Hemispherical EXTANT		City Hall 320-875-2112
.117	New Market	46			None	Elevated Spheroid		
.118	New Prague	50			Flat Bottom EBAY Postcard	Flat Bottom NON-EXTANT Elevated Spheroid Elevated Spheroid-2		Public Works 952-758-4401
.119	North Branch	45			None	Elevated Spheroid		Public Works 651-674-8493
.120	Northfield		56			Double Ellipsoidal Elevated Spheroid		Public Works 507-645-3015
.121	Norwood-Young America	47			None	Double Ellipsoidal Elevated Spheroid Hydropillar		Public Works 952-467-1830
.122	Oak Grove	19			None	Unknown		Public Works 763-434-1441
.123	Orono	21			None	Hydropillar		Public Works 952-249-4670
.124	Osakis			106	None	Hemispherical EXTANT Elevated Spheroid		Public Works 320-859-2150
.125	Otsego	17			None	Hydropillar		City Hall 763-441-4414
.126	Plymouth	10			None	Double Ellipsoidal El Spheroid	1961	

						Torospherical Torospherical-2 Hydropillar		
.127	Princeton	36			Flat Bottom EBAY Postcard	Flat Bottom NON-EXTANT Double Ellipsoidal Elevated Spheroid		City Hall 763-389-2040
.128	Prior Lake	32			None	Torospherical Hydropillar		Public Works 952-447-9894
.129	Randolph		55		None	Double Ellipsoidal		
.130	Richfield	21			None	Torospherical		Public Works 612-861-9792
.131	Richmond		68		None	Hemispherical EXTANT		City Hall 507-263-3797
.132	Robbinsdale	7			Hemispherical MNSH Online	Hemispherical (Modified) EXTANT Double Ellipsoidal	ca.1935	Public Works 763-531-1202
.133	Rochester			101	None	Novelty – Ear of Corn (Libby Foods Plant) Torospherical		Public Works 507-328-2400
.134	Rockford	19			None	Double Ellipsoidal Elevated Spheroid Hydropillar	1955 1983	Public Works
.135	Rockville		58		None	Double Ellipsoidal Elevated Spheroid		Public Works 320-251-5836
.136	Rogers	9			None	Elevated Spheroid Hydropillar		Public Works 763-428-8580
.137	Rush City		58		None	Elevated Spheroid Elevated Spheroid-2		City Hall 320-358-4743
.138	Scandia	38			None	None		City Hall 651-433-2274
.139	Shakopee	30			None	Hydropillar		Public Works 952-233-9550
.140	Shorewood	24			None	Elevated Spheroid		Public Works 612-861-9172
.141	Silver Lake		55		None	Hemispherical EXTANT		City Hall 320-327-2412
.142	South Haven	48			None	Double Ellipsoidal		City Hall

								320-236-2424
.143	24	23.7			None			City Hall 952-471-9051
.144	St. Francis	22			None	Elevated Spheroid Hydropillar		Public Works 763-753-9881
.145	St.Louis Park	14			None	Stand Pipe (Nordic Ware) Double Ellipsoidal Double Ellipsoidal-2 Hydropillar Hydropillar-2		City 952-924-2500
.146	St. Michael	16			None	Hydropillar Hwy 19 (Main St), N end, es.		Current: Joint Water Board (763) 497-3611
.147	Stacy	37			None	Elevated Spheroid		City Hall 651-462-4486
.148	Starbuck			123	Hemispherical MNHS.org	Hemispherical NON-EXTANT Ground Tank		City Hall 320-239-2525
.149	Stewart		75		Flat Bottom Postcard	Flat Bottom NON-EXTANT Hemispherical EXTANT	ca.1900 ca.1920	City 320-562-2518 Maintenance 320-562-2432
.150	Trommald			115	None	Hemispherical EXTANT National Register Listed	1918	City Hall 218-546-6543
.151	Vadnais Heights	22			None	Elevated Spheroid		Public Works 651-204-6051
.152	Vermillion	47			None	Elevated Spheroid (Spaceship)		City Hall 651-437-8163
.153	Verndale			133	None	Hemispherical EXTANT		City Water 218-445-5400
.154	Vernon Center			105	Hemispherical EBAY Postcard	Hemispherical EXTANT		City Hall 507-549-3240
.155	Victoria	29			None	Elevated Spheroid		Public Works 952-443-4210
.156	Wabasso			134	Hemispherical EBAY Postcard	Hemispherical NON-EXTANT		City 507-342-5519
.157	Waconia	36			None	Hemispherical EXTANT		City Hall 952-442-2184
.158	Wanamingo		73		None	Hemispherical EXTANT		Public Works 507-259-9200
.159	Warroad			330	Hemispherical EBAY Postcard	Hemispherical NON-EXTANT Double Ellipsoidal		City Water 218-386-1873
.160	Watertown	34			None	Double Ellipsoidal		City Hall 952-955-2681
.161	Watkins		61		Hemispherical	Hemispherical		Public Works

					MNHS Online Collection	EXTANT		320-764-6400 No Answer
.162	Waverly	33			None	Elevated Spheroid		Public Works 763-658-4217
.163	Wayzata	16			None	Double Ellipsoidal		Public Works 952-404-5360
.164	Wheaton			170	Hemispherical EBAY Postcard	Hemispherical NON-EXTANT Elevated Spheroid		City Hall 320-563-4110
.165	Winsted	42			None	Elevated Spheroid		City Hall 320-485-2366
.166	Wykoff			134	None	Flat Bottom EXTANT?		City Hall 507-352-4011
.167	Wyoming	33			None	Elevated Water Ball		Public Works 651-462-0580
.168	Zimmerman	28			None	Elevated Spheroid		Public Works 763-856-4088

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PROJECT PRESS

Mother-daughter duo works to save Osseo water tower

There's something about Osseo that drew Kathleen Gette back.

"This is my home. I was born and raised here," says Gette. "I loved coming back and I bought the home I grew up in. It was the best decision I've ever made."

Her childhood home hasn't changed too much and Gette doesn't want the view out her front window to change either. She can see the Osseo water tower and hear its siren sound at noon and 6 p.m. It's part of the small-town charm that she loves about her hometown.

"It's a landmark. It's an icon," says Gette, who is now leading a mission to save the tower. "I would be personally devastated if it was torn down."

The water tower hasn't actually held water in years, but is a very visible and identifiable part of the city's skyline. It is on the city's logo and banners. Now, it needs costly repairs that raise questions if the tower is worth saving.

Gette and her daughter, Lauren Bowe, believe it is and nearly 1,500 followers of their Facebook group Save the Osseo Water Tower are keeping up with their progress. They also make buttons and magnets to sell online to raise awareness.

But perhaps most importantly, Gette, who is a grant writer, is working on paperwork to get the tower recognized by the Minnesota Historical Society. Currently, a grant funded research on the historical significance of the tower. The report is expected to be finished in early spring.

Expensive repairs

Repairing the tower will not be cheap. Removing the lead paint and replacing rusted-out parts could cost hundreds of thousands of dollars. Riley Grams, Osseo's city planner, says it's money the small town doesn't have.

"The Osseo water tower is extremely important here in Osseo," says Grams. "What we're trying to do is save the water tower. It needs repairs and those are expensive repairs, but we're trying to save it as best we can using non-tax dollars from the city."

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Finding money to save the structure that doesn't include taxpayer dollars strikes a chord with Osseo citizens.

"It's nice that it's here, but I can't see spending money because Osseo is a town of a lot of retired people," says Rose Lavallee. "Many of us seniors are on a fixed income and there's no way anybody can afford another tax."

Kathleen Gette insists if the tower gets the appropriate historical status, it can be saved without using taxpayer dollars. She's donating her time to make it happen, perhaps showing that Osseo's small town charm doesn't rest in a landmark, but in people like her who want to save it.

"It's an emotional icon, I think," says Gette. "Osseo does have a certain identity and I think the tower is a big part of that."

Shannon Slatton, reporting
sslatton@twelve.tv
on Twitter: @sslatton

December 18, 2014

Local

Osseo Bands Together To Save 100-Year-Old Water Tower

January 23, 2015 6:00 PM

Related Tags: John Lauritsen, Kathleen Gette, Lauren Bowe, National Register of Historic Places, Osseo, Osseo Water Tower, Water Tower

John Lauritsen
John Lauritsen is a reporter from Montevideo, Minn. He joined WCCO-... Read More

MINNEAPOLIS (WCCO) – The push is on to save one of the oldest water towers in the Twin Cities.

The Osseo water tower turns 100 years old this year, but it no longer serves as the city's main water source. The repairs needed to keep it would cost hundreds of thousands of dollars.

"I describe it as one square mile of paradise," Kathleen Gette said, talking about Osseo.

Gette grew up in the small town, and she likes it so much that, after her mom died 5 years ago, she moved back into the house she grew up in.

“I bought the house. Here I am. Best decision I ever made,” Gette said.

It’s the small-town feel that brought her and her daughter, Lauren Bowe, back. And all of it seems to be held together by a century-old water tower, with a whistle that still blows twice a day.

“I’m always going to Minneapolis to visit all my friends, but when they come up here I always make them drive down Main Street, because it’s just fun because they don’t see that stuff anymore,” Bowe said.

However, the landmark that has become a symbol for the city may no longer have a leg to stand on. The tower is no longer used, as the city gets its water from neighboring Maple Grove.

The repair costs to keep it could cost more than $300,000. Parts of the tower are rusted out, and lead paint is a concern.

So the mother and daughter teamed up. Bowe created a Facebook page — Save the Osseo Water Tower — that shows a picture of the tower when it was just a year old.

“The page has 1,056 likes so far. Osseo about 2,400 residents, so people are responding,” Gette said.

The two have designed buttons to get the word out, and both have gone before the City Council. Gette has volunteered her free time.

A couple years ago she started a process to get the tower recognized by the National Registry of Historic Places, which could lead to grant funds to save and fix the tower.

She’s using the present to fight for the past.

"I realized I'm not the only person that loves the tower. It's a part of my life. I grew up here. I've seen it, I can see it out my front window," Gette said. "Just the thought of losing it is devastating."

A historical consultant is currently writing a history of the water tower to submit to the Minnesota Historical Society in February. That will be key to see if the tower will have a chance to become part of the National Register of Historic Places.

Osseo to inspect old water tower targeted for Historical Registry

By Alicia Miller

August 2, 2012 at 9:27 am

The Osseo City Council debated if approving costs for an inspection of the city's water tower was a smart idea, during its Monday, July 23 meeting.

The council also heard about the signage for directions to the city as part of the Highway 169/County Road 30 project.

Finally, the council approved purchasing water meter reading equipment.

WATER TOWER INSPECTION

City administrator Douglas Reeder told the council cost estimates were in for the inspection of the city's water towers. Inspections would include checking the towers structural and coating conditions. The city would then be advised of any repairs and costs associated.

The Osseo Business Association and Council are interested in listing the water tower next to City Hall on the National Historical Registry. To move forward, the city first needs to know the structural stability of the tower.

Three price estimates were received for the inspection. Prices ranged from $5,000 to $18,292. The inspection will be paid for out of the Water Fund. Reeder said he recommended using the $5,000 proposal from KLM Engineering, as that proposal also included inspecting the south water tower near County Road 81, which the city receives money from renting space for antennas.

Councilor Rick Weber asked if the city does the inspection, where does the council go from there. Public Services Director Randy Korfiatis said the inspection would identify any issues, like if the tank is sound or if it might just need paint. He added this would be a dry tank inspection, as the towers are not in use for water.

Weber added, "Also, we have to, if it was to make to the Historical Registry, then we have to start budgeting for upkeep and maintenance along the lines of that forever."

Mayor Al Lindquist said, "Maybe those aren't decisions we want to make now or ever. Maybe putting this on the Historical Register isn't the best move."

Councilor Duane Poppe noted, "I think it's good information we need. Maybe we need to do minor repairs to the [south tower] to keep the income coming in and this one is bad. We don't know until we have the information."

The council approved 4 to 0 the water tower inspection proposal from KLM Engineering, Inc. fro $5,000. Councilor Mark Schulz was absent.

169/ 30 PLAN

REVIEW

The council also received the 99 percent plan review for the Highway 169 and County Road 30 project.

The proposed project would bridge 93rd Avenue over Hwy. 169 just to the north of current intersection. This project would consist of a half-diamond interchange, providing access to and from the south through loops in the northeast and northwest quadrants.

As part of the city's municipal consent approval for the road project back in April 2011, the city asked the Minnesota Department of Transportation (MnDOT) for several conditions regarding signage to Osseo.

The council approved MnDOT paying for five directional signs, at no cost to the city. The signs would include the following:

• "City of Osseo" exit sign at northbound Hwy. 169 at 85th Avenue N./Bottineau Blvd. This sign would be up no later than May 31.

• "City of Osseo" exit sign at southbound Hwy. 169 at 85th Avenue N./Bottineau Blvd. by no later than the completion of the interchange project or elimination of full access.

• "County Road 30" directional sign at southbound Hwy. 169 at 109th Avenue N. by no later than full-access elimination.

• "County Road 30" directional sign at westbound Hwy. 610 at West Broadway by no later than the full-access elimination.

• "County Road 30" directional sign at eastbound Hwy. 610 at Zachary Lane by no later than the full-access elimination.

The first sign has been installed at northbound Hwy. 169 and 85th Avenue N./Bottineau Blvd. The second through fourth signs are part of the 99 percent plan and will be permanently installed. The last sign mentioned is located outside of the project area, but MnDOT may plan to install the sign themselves when the time is appropriate, according to City Engineer Sarah Rippke.

Osseo city streets are also not designed as official detours during the Hwy. 169 and County Road 30 project. Construction is scheduled to begin in 2013.

Access to St. Vincent's Cemetery during stage one of construction will be routed on North Oaks Drive, as County Road 30 will be closed east of North Oaks Drive. During the second stage of construction, the cemetery, apartment buildings and school detour will be to Fifth Avenue N.E.

WATER METER

READING EQUIPMENT

In other action, the council approved purchasing water meter reading equipment (a computer) from Dakota Supply Group.

Administrator Reeder said the city currently uses a computer to read the water meters around town. This computer is about 13 years old.

Reeder said the new equipment is needed to reduce staff time and improve reading accuracy of the meters. He added the problems with the current reading system are getting worse and the support and repair for the current system are no longer available.

The city did a complete water meter conversion to electronic meters in 2003.

The cost for the new water meter reading equipment is $13,199. There will also be a year maintenance cost of $1,038.

Councilor Poppe asked if multiple source requests were sought. Korfiatis said the manufacture of the meter reading box is the only one that read the meters within the city.

“I was informed the last time around [meter reading], it took us about four days to read the metes,” public works director Korfiatis said. “Normally, you should be able to boot it up, go out and read the meters… the whole process shouldn’t take more an hour and a half to two hours. And we worked four different days on it and re-read [the readings].”

Councilor Weber asked if this was a budgeted item or an emergency item. Reeder said it wasn’t, but the new computer would be paid for out of the water fund budget. He added this could be considered an emergency item.

Poppe added, “This is part of the reason why, in the last street project, why we didn’t take all the cash out of the funds.”

StarTribune

Osseo debates fate of century-old water tower

November 5, 2014 - 11:48 PM

By Kelly Smith • kelly.smith@startribune.com

Drivers see Osseo's water tower branded with its name long before they even hit the small northwest metro city's border.

The tiny pointed-top tower is nearly 100 years old and one of the few of its kind left in Minnesota from the turn of last century. But with the aging structure in need of costly repairs, the town is divided on whether it should stay or be torn down.

"It's an icon of our town," said Kathleen Gette, who's trying to save it. "It's really a way for people to find the town."

Gette, who lives in her childhood home in view of the tower, is leading the effort to add Osseo's tower to the list of more than 20 Minnesota water towers now on the National Register of Historic Places, and will soon find out if it's eligible to make the list.

The tower, built in 1915, hasn't held water for years, but has become a landmark for the northwest metro town of 2,400 residents. On its American-flag-lined Main Street, an image of the water tower graces the welcome banners on streetlights. It's on City Hall and Police Department signs.

But now, the city says it needs an estimated $500,000 in repairs to make it structurally safe and to remove lead paint.

It's also near some of the most significant redevelopment in the town in recent years. From more than 100 new apartments to a new police station, orange construction cones and fencing mark the changes closing in on the tower.

Some residents say the water tower isn't special enough, and that it's cheaper to tear it down, which would cost an estimated $80,000.

"It's going to cost the city too much to maintain," said City Council Member Allan Hartkopf, who has lived in Osseo for 70 years. "It's a waste of money, as far as I'm concerned. You drive around the country and you see these everywhere."

Tower can 'still tell a story'

Compared with other water towers, like the "Witch's Hat" tower in

Lauren Bowe, 24, and her mother, Kathleen Gette, believe there's historical value in their town's old water tower. They are leading the effort to save the iconic structure and add it to the list of 11 Minnesota water towers on the National Historic Registry.

KYNDELL HARKNESS,

Kathleen Gette, left, and her daughter Lauren Bowe, 24, stood near the old water tower in Osseo.] (KYNDELL HARKNESS/STAR TRIBUNE) kyndell.harkness@startribune.com In Osseo, Min., Wednesday, November 5, 2014. With the help of her daughter Lauren resident Kathleen Gette is leading the effort to save the iconic structure and add it to the list of 11 Minnesota water towers on the National Historic Registry.

KYNDELL HARKNESS • kyndell.harkness@startribune.com Kathleen Gette, left, and her daughter Lauren,

Prospect Park or the Highland Park water tower in St. Paul, Osseo's is really utilitarian, said Denis Gardner, the National Register historian with the Minnesota Historical Society.

Lauren Bowe, 24, and her mother, Kathleen Gette, believe there's historical value in their town's old water tower.

KYNDELL HARKNESS • kyndell.harkness@startribune.com,

"[But] there's not many of these left," he said of the water tower style commonly built in the late 1800s and early 1900s, adding that there probably are only six of this style in Minnesota. "This has become a rare kind of water tower. If you were going to be intellectually honest, you recognize history whether it's pretty or not. Some things can be really humble and still tell a story."

That's what Gette is hoping state and federal officials see in Osseo's water tower.

After the city gave approval, she wrote a grant application for money from the state Legacy Amendment. This summer, the city was awarded $6,500 to hire a history consultant, Alexa McDowell. She helped Elk River get its 1920s water tower on the National Register in 2012. The two towers, she said, are probably the only ones left in a 50-mile radius of small metro-area towns.

"They used to be all over the place," she said.

'A way-finding tool'

The water towers didn't just hold water at one point; they also helped indicate the time period of a town's growth, often built next to factories or railroad facilities, McDowell said. Now, they've become a more noticeable town marker than a welcome sign.

"If we drive through the countryside in the Midwest, they're a way-finding tool," she said. "It's a sense of place."

Her report studying the water tower and its history is expected to be completed by February and sent to the Historical Society to review.

She said it has a strong case for being on the National Register, and if the state agrees, the city can decide whether to apply for another Legacy grant for a consultant to do a formal nomination. That would be reviewed by state and federal officials. If Osseo's tower makes the list, Gardner said, it would not only honor the building, but qualify the city for other grants that could help with needed improvements.

Gette says she just wants to make sure the towering structure doesn't disappear from Osseo's horizon as it reaches its 100-year mark.

"Most cities tear their old water towers down," she said, "but this has historical significance."

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