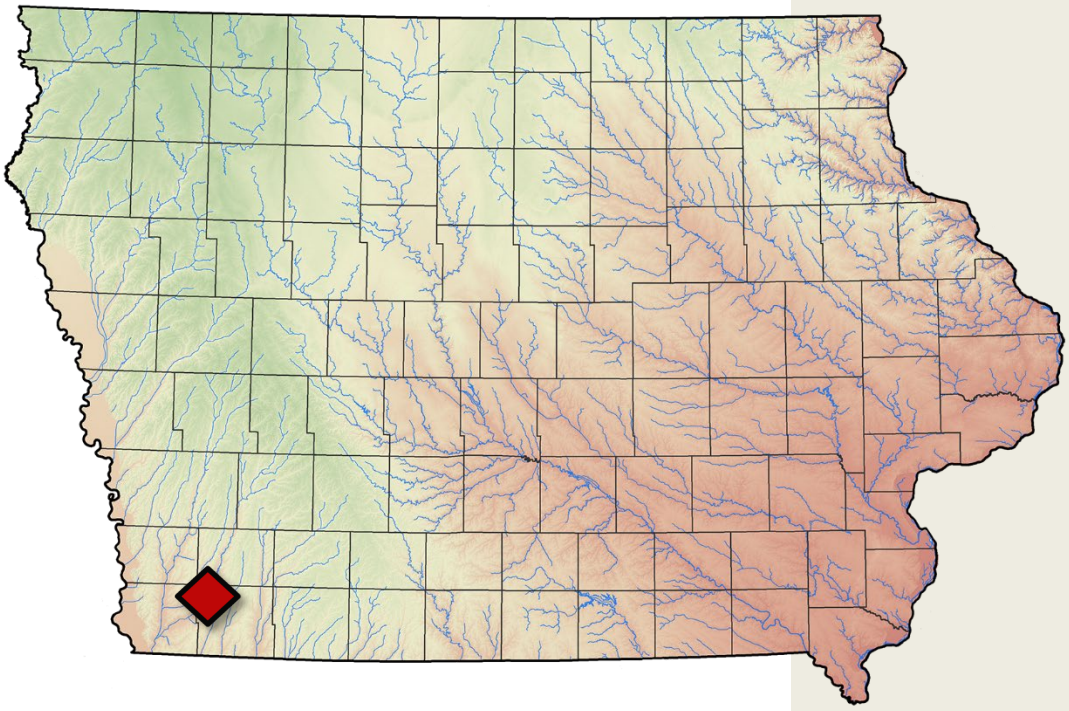
Intensive Level Historic Architectural Survey and Evaluation of the Essex Water Tower in Essex, Page County, Iowa

by Richard J. Carlson



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Technical Report 1774
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Abstract

The Office of the State Archaeologist of the University of Iowa conducted an intensive level historic architectural survey of the Essex Water Tower in Essex, Page County, Iowa, evaluated as part of a proposed project to replace the water tower. Based on the historic architectural investigation, the Essex Water Tower (site 73-00180) is evaluated as eligible for listing in the National Register of Historic Places (NRHP) under Criteria A and C. It is evaluated as eligible under Criterion A in the area of Community Planning and Development as an important component of the waterworks system of Essex, first developed in 1902 and expanded in 1929. The water tower is also evaluated as eligible under Criterion C as an excellent, and relatively rare, example of the type of municipal water tower most commonly built in the first decades of the twentieth century. Its cylindrical form with conical cap and hemispherical bottom, raised on four legs, was the quintessential water tower form throughout the upper Midwest and elsewhere during these decades. Only nine such municipal water towers are known to survive in Page County and the five surrounding counties in Iowa, and one of the nine has substantially reduced integrity. Finally, the water tower appears to be eligible as a contributing resource in a possible NRHP-eligible historic district in Essex, the Falk Addition Historic District. Although the water tower was built just outside the Falk Addition, in the East Side Park Addition, it was built at about the same time as the later houses in the Falk Addition, and decades before any of the houses in the East Side Park Addition. An evaluation of the area of potential effects for indirect effects suggests that the proposed project will not have an adverse visual effect on any historic properties. If the water tower is affected by the proposed project, avoidance or historic mitigation in consultation with the State Historic Preservation Office is recommended.

Introduction

The Office of the State Archaeologist (OSA) of the University of Iowa has prepared this report under the terms of a cultural resource survey agreement between the OSA and the City of Essex, Iowa. This report records the results of an intensive level historic architectural survey and evaluation of one property in Essex, Page County, Iowa: a municipal water tower on the southwest corner of Nebraska Avenue and Victory Street (Figures 1–3). The survey was undertaken because the existing water tower is proposed for removal. A proposed later stage of the project involves replacing the existing water tower with a new water tower in an as yet undetermined location, but this later stage of the project is not included as part of the present survey and evaluation report (Ohnmacht 2021).

The intensive level historic architectural survey was conducted on July 12, 2021, by Richard Carlson, architectural historian. William Whittaker served as project director. Carlson is the report author. OSA Architectural Historian Maria Schroeder created Figures 1, 2, 4, 5, and 6 in the present Technical Report, and Figures 1 and 2 in the accompanying supplemental Iowa Site Inventory Form for site 73-00180.

The OSA is solely responsible for the interpretations and recommendations contained in this report. All records including maps and figures are curated in the OSA Archives. The Historical Architectural Data Base form for Document No. 73-007 is included in the Appendix, together with the supplemental Iowa Site Inventory Form for site 73-00180.

Methods

The intensive level historic architectural survey was conducted on July 12, 2021, by Richard Carlson, architectural historian. The field investigation included a detailed investigation of the water tower, as well as research in Essex city records and interviews with current Essex city employees Kelly Morehouse and Mary Ohnmacht. Additional research in Essex was conducted in the Lied Public Library. The survey was guided by the standards for intensive level historic architectural surveys detailed in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (National Park Service 2021).

Before the field investigation, historical research on Essex and Page County was conducted at the State Historical Society of Iowa library in Iowa City. The historic contexts for Essex and specific information on the water tower were developed using a variety of sources, primarily the histories of Essex and Page County published between 1880 and 1984 (The Centennial Committee 1970; Cunningham 1973; Iowa Historical Company 1880; Page County Genealogical Society 1984) and historical Essex newspapers available online (essex.advantage-preservation.com/). Additional information was gathered from historical newspapers available on the Newspapers.com and NewspaperARCHIVE.com subscription databases; manuscript census records available on Ancestry.com; census figures available on the Iowa State Data Center web site (www.iowadatacenter.org/data/decennial/population); Page County Assessor's records (beacon. schneidercorp.com); historical aerial photographs available on the Iowa Geographic Map Server (ortho.gis. iastate.edu); and aerial photographs and street views available on Google Maps (maps.google.com). All electronic documents were accessed in July 2021.

AREA OF POTENTIAL EFFECTS

Defining the area of potential effects (APE) for a given undertaking is the responsibility of the lead federal agency, but the City of Essex provided no APE for the proposed water tower removal project. Therefore, for the purposes of the present survey, the OSA adopted a provisional APE based on the definition in 36 CFR 800.16(d), which defines the APE as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

In the case of the water tower, the provisional definition adopted for the APE for direct effects includes the water tower itself and the two associated former well houses on the same parcel. It also includes the surrounding area for up to two blocks in any direction (excluding cultivated fields), in order to establish the likelihood that a historic district exists in the area in which the water tower may count as a contributing resource (Figure 4). Finally, the provisional APE for direct effects includes the waterworks system as a whole, to evaluate whether the entire system may be eligible for listing in the National Register of Historic Places (NRHP) as a historic district, with the water tower a contributing resource within that historic district.

The provisional definition adopted for the APE for indirect effects is limited to the current water tower's visual effects on the surrounding area. Specifically, a windshield survey was conducted of properties within the viewshed of the present water tower to identify any properties (a) that appear to be eligible for NRHP listing, and (b) for which integrity of setting plays a significant role in the property's NRHP eligibility, in order to establish the extent to which the removal of the water tower would diminish the integrity of setting of those historic properties.

No information was provided to the OSA on possible short-term effects from vibrations from construction equipment during the removal of the water tower, but any such effects are likely to be limited only to the nearest buildings. The NRHP eligibility of these buildings is considered as part of the discussion of a possible historic district in the area. Other types of indirect effects that may have an adverse effect on historic properties, such as changes to noise levels or traffic patterns, were considered to be, at most, short-

term and negligible in the case of the proposed project. For this reason, no preliminary evaluation of these possible indirect effects was prepared as part of the present report (Figure 5).

Historic Context

HISTORY OF ESSEX

The City of Essex owes its origins to the Nebraska City branch of the Burlington and Missouri River Railroad, later a branch of the Chicago, Burlington and Quincy Railroad. This branch line was built in 1870–1871 from Red Oak, Iowa, to Nebraska City, Nebraska, largely along the valley of the East Nishnabotna River. Between July and September 1870, a post office was established at Essex, the railroad was completed through the future town site, and the town was platted. Since the railroad cuts across only the northwest corner of Page County, Essex is one of only two towns located along this branch line in Page County; the other is nearby Shenandoah. The Essex depot was opened in April 1871. By 1872, Essex was reportedly known as a major livestock and grain shipping point. The city was incorporated in 1876 (The Centennial Committee 1970:4–5, 16; Iowa Historical Company 1880:405; Savage 2007:82).

Early Development of Essex

Essex developed like many other small rural Iowa communities located along railroad lines. The city served primarily as a processing and shipping point for agricultural products from the surrounding area, and developed the range of retail businesses and professional services typically seen in such towns. The city grew quickly during its first decade, from just one or two families in 1870 to 617 people in 1880. The population declined slightly during the 1880s, but rose again from 564 in 1890 to 776 in 1910.

The 1880 population census suggests that Essex had a vibrant trade hub economy at the time. The census lists a wide variety of occupations: merchants, tradespeople, builders, professionals, and laborers, including railroad laborers, as well as women keeping house. Only a handful of heads of household had no current occupation, and several of those were retired farmers. Of the 137 heads of household in Essex listed in 1880, the great majority (106, or 77.4%) were born in the United States, primarily in Ohio (28 heads of household), Indiana (14), Illinois (13), and New York (11). Most of the other heads of household were born elsewhere in the Midwest, the Mid-Atlantic region, or New England. Of the foreign-born heads of household, the largest number (11) were born in Sweden, followed by Ireland (7), England (5), Germany/Prussia (3), and Canada (2), with Denmark, Norway, and Scotland represented by one head of household each. While nearly all of the city's inhabitants were white, two African American families were living in Essex in 1880. Both households were headed by parents who were likely formerly enslaved people who moved north after the Civil War (Ancestry.com 2010; The Centennial Committee 1970:5; State Data Center of Iowa 2021).

Although it was not yet apparent at the time of the 1880 census, the population of Essex would soon become dominated by Swedish-Americans—including both immigrants from Sweden and first-generation Swedish-Americans—who featured prominently in the city's population boom between 1890 and 1910. By 1900, immigrants from Sweden, and a small number of first-generation Swedish-Americans, comprised over 40% of the heads of household in Essex. This represented slightly more than the percentage of heads of household who were born in the United States to two native-born parents. The remaining 17% of the heads of household in Essex in 1900 were born, or had at least one parent born, in a small number of foreign countries, primarily England, Ireland, Scotland, and Germany. By 1930, 63% of the heads of household in Essex were either born in Sweden or were born in the United States to two Swedish-born parents (Ancestry.com 2002, 2004).

The Original Town of Essex was platted in 1870, with two additions platted probably not long afterwards, and certainly by the end of the nineteenth century. The two additions rounded out the Original

Town to a rectangular shape, bounded by Forbes Street on the west, and North Avenue, East Street, and South Avenue on the north, east, and south sides, respectively. The business district developed almost exclusively along Iowa Avenue, an east-west street located a block south of the railroad depot, and extending east from the railroad tracks. By 1900, residential development was concentrated largely along Iowa Avenue east of the business district, and along Nebraska, Omaha, and South avenues south of the business district (The Centennial Committee 1970:60–61).

After the initial boom in the city's population between 1870 and 1880, and a smaller increase between 1890 and 1910, the population essentially leveled off between 1910 and 1970. During that 60 year period, the city's population never fell below 727 (1920) or rose above 806 (1930) (State Data Center of Iowa 2021). The first comprehensive municipal waterworks in Essex was developed during the second period of growth between 1890 and 1910, while the present water tower was built during the 1920s, the only decade between 1910 and 1970 when the city's population increased by more than four people in one decade.

Essex Waterworks

Although Essex was incorporated in 1876, it was not until 1902 that the city developed a comprehensive waterworks system. The first waterworks system was described as follows in a 1928 editorial intended to persuade voters to vote for bonds for a new water tower:

> Our present water works system was established in 1902. Two Steel Tanks 8 feet in diameter and 36 feet long were installed to be used in storing the water, one to be used for commercial purposes and the other to be a storage tank for water to be used in case of fire. These tanks at the time installed were guaranteed for a period of 16 to 20 years. If figuring at the most, they have served 6 years past their guarantee, which is well past the SAFETY LIMIT!!!.
>
> For the past seven years the tanks have been in such a position as to their safety, that they cannot be pumped half-full unless they spring numerous leaks, and require twice as much time in pumping as what it did before. Heretofore when only one tank was used for commercial purposes, both tanks are used for that purpose now, with no extra supply on hand for adequate fire protection. As in the case of the recent storms when the power has been off, the pressure on main street was greatly reduced, while those living on the hill part of town could hardly get the water to run out of the faucets in their homes [*The Essex Independent* 1928a:1].

Under the 1902 system, water had to be kept under pressure at the old pump house, so loss of electricity for the pumps meant reduced water pressure (*The Essex Independent* 1964:1).

The new water tower was intended to provide a sufficient water supply for domestic and commercial use as well as adequate fire protection. The site for the new water tower was selected in August 1928. Although Essex is topographically nearly flat, the area where the water tower was built is among the highest in the city. The bond to fund the project was approved by voters in September 1928 by a vote of 116 to 10, and the $9,050 contract for the new water tower and four new water mains was awarded in October. The project included construction of a 60,000 gallon tank on a 90-ft tower, as well as four blocks of additional water mains. The water tower was completed in early 1929 (*The Essex Independent* 1928a:1, 1928b:1, 1929a:[4], 1929b:1).

The water tower was considered for replacement in 1980, likely because the rapid increase in the city's population during the 1970s, described below, put increased pressure on the city's water supply system (State Historical Society of Iowa 1980). No action was taken at that time to replace the water tower, however, and the water tower today (2021) appears essentially unchanged from its appearance in 1980.

Since 1929, five new wells and well houses have been built in Essex; four wells have been abandoned and plugged; and water mains have been extended to a handful of post-World War II developments on the

periphery of the city. These developments include Victory Street south of the water tower, which was developed between 1956 and 1973. In addition to the two former wells and well houses on the same parcel as the water tower—one probably built in 1928 or 1929, the second in 1947—the City of Essex has drilled four additional wells and built at least three corresponding well houses since 1947. These are Well 3, on the east side of East Street opposite Illinois Street (1954, now plugged); Well 4, on the east side of East Street opposite Prairie Avenue (1968, now plugged); and Wells 5 and 6 (1982 and 1997, respectively, both in use), on the west side of Iowa 48/140th Street, nearly opposite Illinois Avenue (Iowa DNR 2021).

Falk Addition

The water tower was the first structure built in the East Side Park Addition, platted in 1919, but chronologically and in the development of Essex its construction was more closely associated with the development of the Falk Addition, adjacent to the water tower property on the west. The Falk Addition was the first addition in Essex platted after the Original Town had expanded to attain its rectangular form sometime before 1900. The Falk Addition was platted on the east side of the south end of the Original Town in fall 1902, although owner J. F. (Fred) Falk was rumored to have been contemplating such a subdivision as early as March 1901. Lots were offered for sale starting on November 15, 1902 (*The Essex Independent* 1901:[5]; 1902a:[5]; 1902b:[4]).

Based on the date the lots were first offered for sale, assessor's dates, and the architectural styles of the existing buildings in this subdivision, most of the buildings in the Falk Addition appear to have been built between 1902 and 1927. With the exception of one house at 1011 South Avenue, all of the buildings in the subdivision have addresses along Alice Street, and all but one of the primary buildings in the subdivision is residential. The single non-residential building, the former Swedish Mission Church, was built in 1904 at the corner of Alice Street and Nebraska Avenue, on property immediately west of the site of the future water tower. The remaining 17 extant buildings are residences, with 15 of the 17 built between 1902 and 1927. About half of the residences represent forms and styles most popular before about 1910 (the Queen Anne style and 1½-story or two-story, cross-gabled forms), while most of the others represent styles popular in the 1910s and 1920s (Craftsman-style bungalows and Foursquare houses). By 1919, the Essex newspaper reported that "A few years ago the late Fred Falk platted a piece of ground, now the Falk Addition, and the lots with the exception of two or three have been sold and there has been builded thereon some of the finest residences in our little city" (*The Essex Independent* 1919b:1). Only two houses in the Falk Addition were built after 1927, both in the decade following World War II. Assessor's records date these two houses to 1948 and 1955 (Beacon 2021). No principal buildings in this subdivision are known to have been removed, based on historical aerial photographs and other sources.

East Side Park Addition

The East Side Park Addition, where the Essex water tower is located, was platted on land immediately east of the Falk Addition. This land was also owned by the Falk family, but it was sold around 1919 to an out-of-state real estate development company. As described in a newspaper article in late May 1919, evidently a press release by the development company based on its identical wording to an advertisement placed the following week:

> The United States Real Estate and Development Company of Cincinnati, Ohio, have consumated [sic] a deal with the Falk Sisters for that beautiful tract of land located in the southeastern part of the city of Essex, one square east of the city school building. This company has subdivided this beautiful tract of land into thirty high class close in residence lots opened up and graded, new streets through the same, or in other words converted it into the most desirable building lots in Essex. Handsome ornamental Piers have been erected at the entrance to all the streets, shade trees have been set out, in fact we have spared no time and expense in developing East Side Park Addition into

> a desirable and beautiful building place [*The Essex Independent* 1919a:1; see identical wording in 1919c:[6]].

The "handsome ornamental Piers" are non-extant as of 2021. On the same day, another article in the same newspaper gave additional information:

> In the new East Side Park Addition a street will be opened on the north side east to the east side of the addition [the extension of Nebraska Avenue] and a street will be opened in the center extending from north to south [later named Victory Street].
>
> The U.S. Real Estate and Development Company recently developed and sold additions to Shenandoah [Iowa] and at Tarkio [Missouri]. They are men who make this their business and have been very successful [*The Essex Independent* 1919b:1].

The lots were sold at public auction on June 2, 1919. At the auction, a prize was awarded to Miss Eldora Hansen for the "best name presented for the new street running north and south through the new addition and this was 'Victory Street'" (*The Essex Independent* 1919d:1). The name was presumably intended to commemorate the victory of the Allies in World War I several months earlier.

For reasons that are unclear, although Essex saw a modest population increase during the 1920s, none of the new owners of lots in the East Side Park Addition chose to build residences on these lots in the decade following 1919. After 1929, the economic contraction of the Great Depression followed by building supply shortages during World War II significantly limited the amount of building activity in Essex and elsewhere in the United States. As a result, the Essex water tower, built in 1928–1929, was the only building or structure built in the East Side Park Addition until after World War II. In December 1942, a newspaper columnist mentioned that East Park Addition had no residences at that time, but only the water tower and pumping station (Carlson 1942:1).

The first houses in the East Side Park Addition were three houses built along the east side of Alice Street shortly after the end of World War II. Assessor's records date the three houses to 1945, 1950, and 1952. The next oldest house in the East Side Park Addition was built in 1956 on Victory Street, where the remaining houses in this subdivision were built. Assessor's records date all the houses on Victory Street to between 1956 to 1973, with the great majority constructed in the mid to late 1960s.

Later History of Essex

At the time the East Side Park Addition was platted in 1919, the future of Essex looked bright. Although written in a deliberately exaggerated and boosterish fashion to promote the sale of building lots in the new addition, a description of Essex at the time the lots were sold probably reflects the optimistic outlook in Essex at that time:

> Essex stands out pre-eminently as a progressive little city, a city marked with a future, in which many new homes and building blocks have been erected within the past few years, the same located on the Burlington R. R. which alone makes it a vast shipping center for a vast surrounding territory. Also surrounded by the richest farming and dairying communities in the state of Iowa, a city of beautiful homes, modern schools, churches. Equipped with two good, substantial banks, up-to-date merchants carrying well selected stocks, whose well kept stores would be a credit to cities of larger size, showing the progressive spirit of her business men, fine hotel under good management, miles of cement walks, city water, lumber yards. A city well governed and a most desirable place to live. All of which indicates the future growth and rise in real estate values [*The Essex Independent* 1919c:[6]].

Census records seemed to support this optimistic outlook. Although the city's population declined slightly from 1910 to 1920, the population growth during the 1920s was one of the largest in the city's history, and the largest since its last period of rapid growth in the 1890s. However, the city's population of 806 in 1930—the city's all-time high until 1980—represented an older demographic composed in significant part of the retired residents of an earlier heyday. In 1880, the median age of a head of household in Essex was 34 years old, indicating someone in mid-career who was likely the parent of school-age children. By 1930, in contrast, the median age of a head of household in Essex was 58, with many households headed by retired men or widows with no children in the household. Fully 102 of the 246 heads of household in 1930 (more than 41%) had no occupation at the time of the census, in most cases because they were retired and no longer working. While the city still had its share of businesses, even among those heads of household with an occupation in 1930, merchants and business owners formed a smaller percentage than they had in 1880. Many of the occupations in 1930 were the same as they had been 50 years earlier, but 1930 saw an increase in white collar workers, including city government workers and rural mail carriers, and an increase in tradespeople, particularly automobile mechanics, compared to 1880 (Ancestry.com 2002).

While the reasons for this dramatic change between 1880 and 1930 was not investigated, it may reflect the long-term trend seen in many rural communities in Iowa and elsewhere, where greater mobility allowed younger people to seek more rewarding opportunities elsewhere that they could find in their home town. This population loss was especially pronounced among the city's small African American population, which reached an all-time high of 29 people in 1900, but was reduced to only four people in a single family by 1930 (Ancestry.com 2002, 2004). By the early twentieth century, Essex had evidently reached the maximum population that could be supported by its traditional economic base as a local railroad shipping point and commercial hub, and it began losing population to larger cities. As a result of this demographic shift, the population of Essex remained virtually unchanged through four successive decennial censuses, creeping up from 762 in 1940 to 770 in 1970 (State Data Center of Iowa 2021).

Local histories document that the city's history in the mid- to late twentieth century was similar to the histories of many other small Iowa towns with economies dependent primarily on the agricultural sector and railroad shipping. During the mid-twentieth century, Essex was a small but thriving community, with businesses, churches, a school, civic and fraternal organizations, and a railroad depot (The Centennial Committee 1970:61).

During the 1970s, Essex saw its greatest population increase since the city was first established a century earlier. The population rose from 770 in 1970 to 1,001 in 1980, a 30% increase in a single decade. The number of housing units in Essex also increased dramatically during the same decade, from 313 to 416 (*The Essex Independent* 1981:1). This increase by more than 200 people appears to have been primarily the result of the opening of an Eaton Corporation plant in nearby Shenandoah in early 1972. The Eaton Corp., based in Cleveland, Ohio, manufactured heavy-duty truck transmissions. The Shenandoah plant was scheduled to employ some 500 workers, although it employed only 200 at the time the plant opened (Gammack 1972:11-C; *The Malvern Leader* 1972:4). Many of the workers in the new factory chose to live in Essex, located about seven miles from the plant, in part because Shenandoah initially did not have sufficient housing for the new workers, and in part because Essex had lower housing costs and property taxes (*The Malvern Leader* 1972:4; personal communication, Kelly Morehouse and Mary Ohnmacht, 2021).

The farm crisis of the 1980s and periodic economic downturns since 1980 that affected employment levels at the Eaton plant—which recently closed in April 2021—has resulted in a steady decline in the population of Essex since 1980. The most recent census figure, from 2010, was 798, and the present City Clerk reports that the 2020 count will be even lower (personal communication, Kelly Morehouse and Mary Ohnmacht, 2021).

PITTSBURGH-DES MOINES STEEL COMPANY

Most water towers built in the Midwest during the early twentieth century were built as part of municipal waterworks systems designed by a small number of iron and steel design and fabrication firms. One of the most prominent of these was the Pittsburgh-Des Moines Steel Company, which designed the water tower in Essex. This company had its origins in 1892 as a partnership between recent Iowa State University graduates William H. Jackson and Berkley Moss. Originally based in Des Moines, Iowa, this partnership's first contract was the construction of a waterworks system for Boone, Iowa. Waterworks systems, including water towers, became one of the firm's mainstays. In 1893, the partners contributed design features to an innovative water tower designed by James Marston for the Iowa State University campus. Among other innovative features of this water tower were its use of steel rather than wood for the tank, and the tank's hemispherical bottom. Both of these features became ubiquitous for water towers built throughout the Midwest and the nation in the early decades of the twentieth century, although Jackson and Moss did not build their first hemispherical-bottom steel tank until 1897, in Scranton, Iowa.

In 1900, Jackson, Moss, and Des Moines steel manufacturer Edward Crellin formed two related companies named the Des Moines Bridge and Iron Works and the Des Moines Bridge and Iron Company to design, fabricate, sell, and erect steel products for engineering projects. Since the Des Moines Bridge and Iron Works was formed specifically to save on shipping costs of steel from Pennsylvania, where Jackson and Moss had previously obtained their steel, it is ironic that in 1907, the company opened a branch in Pittsburgh, Pennsylvania, so that the firm's prices would be competitive in the eastern United States. By 1910, the Pittsburgh branch had become the heart of the company, and by 1915, the firm was motivated to adopt a less provincial name than "Des Moines Bridge and Iron Company." The company chose the name "Pittsburgh-Des Moines Steel Company," although this name was not made official until a company reorganization in 1916.

By 1915, the company had built more than 1,200 water towers and standpipes in 43 states and eight foreign countries (Foster and Lundgren 1992:3, 9–11, 14, 17–20). No comprehensive survey of the water towers erected in Iowa and elsewhere has been conducted, so the number and period integrity of the surviving towers—either those of the Pittsburgh-Des Moines Steel Company or other companies—is not known (McDowell 2011:14–15).

WATER TOWERS IN PAGE COUNTY AND IN NEIGHBORING COUNTIES IN IOWA

Water towers of the type built in Essex—cylindrical tanks of riveted steel with hemispherical bottoms and conical caps, elevated on four legs constructed of lattice girders—were once a common sight in most towns of any size throughout Iowa and the Midwest. This was the most common type of water tower between the late 1890s and about 1940. Water storage tanks in use before the 1890s were typically standpipes for municipalities and flat-bottomed wooden tanks for municipalities and railroads. Starting in the 1920s and 1930s, still other forms of raised water tanks became popular. But the heyday of the type of water tower found in Essex was the first four decades of the twentieth century (McDowell 2011:14–16).

As cities grew, or as older water towers began to fail in structural integrity, these older water towers were supplemented or replaced by modern water towers, often larger in capacity. As a result, this once common landscape feature is becoming increasingly rare. To determine just how rare this type of water tower is in the Essex area, a survey was made of all incorporated cities in Page County and in the five adjacent counties in Iowa: Fremont, Mills, Montgomery, Adams, and Taylor.

With very few exceptions, the survey was not conducted on site, but instead was based primarily on aerial photographs, including pictometry images, available on county assessors' web sites and Google Maps (www.google.com/maps). These photographs were supplemented where available with photographs from Google Maps Street View, county assessor's records, current and historical photographs found on the internet, and, in a few cases, newspaper articles available on Newspapers.com and other digitized historical

newspaper collections. In addition, a search of Google Maps was conducted for the phrase "[city] water tower," where "[city]" was replaced with the name of a city in the survey area. This search typically showed any water towers in that city and nearby cities that were identified as water towers on Google Maps. The photographs on Google Maps Street View, where available, were typically taken sometime between 2008 and 2020, depending on the location, while aerial photographs available on assessors' web sites and Google Maps were generally taken within the past two years, in or after 2019. All of these web sites were accessed in July 2021. In a few cases, a tower built or removed within the past year or two may not have been identified using this methodology.

Aerial images were consulted for every incorporated city in the six counties, for a total of 44 cities. Coburg, Montgomery County, is counted here as incorporated even though sources differ as to its corporate status (Savage 2007:58; Wikipedia 2021). The aerial images were examined for water towers, standpipes, and ground-level water tanks, and the type of water tower or water tank, if any, in each city was recorded. Specific details such as the number of gallons in each tank or the dimensions of the tanks and towers were not available using this method, but basic information such as the type and shape of the tank and the number of legs used to elevate the tank were recorded in order to categorize the different water tanks. In most cases, the date of construction of a water tower or water tank was estimated based on when that type of water tower was developed or popular rather than on historical aerial photographs or other site-specific evidence.

It should be noted that the search focused only on municipal water towers. At least three additional water towers were observed in two institutions in the area, but non-municipal water towers were not included systematically in the search. Clarinda Correctional Facility in Clarinda, Page County, is shown on aerial photographs to have one older water tower—apparently a hemispherical-bottom water tower like the one in Essex—and one modern water tower. The Glenwood Resource Center in Glenwood, Mills County, has a raised cylindrical tank on six legs, but the precise shape of the tank could not be seen clearly in available photographs. Other water towers may exist on the grounds of other current or former institutions in the area, including former county homes.

While an attempt was made to record every municipal water tower in every city in the six counties, it is possible that one or more water towers were inadvertently omitted from the survey, particularly if they were added or removed within the past two years, or if they were located well outside a city's corporation boundary. In the case of modern water towers or water tanks, no systematic attempt was made to determine whether the modern structure replaced an earlier water tower or whether it was the first one built in a city or on its site. Such information was recorded when it was discovered, but it was not sought systematically. More research is required to determine how many earlier water towers in these six counties are no longer standing.

Based on the survey of existing water towers in Page, Fremont, Mills, Montgomery, Adams, and Taylor counties, it was found that 30 of the 44 cities in the six counties are home to a total of 35 water towers. Glenwood has three water towers, in addition to the one in the Glenwood Resource Center not included in the present count. Sidney, Stanton, and Prescott each have two water towers: an earlier tower that appears to have been retained in all cases, and a recent replacement made between 2015 and 2019. The Stanton water tower no longer retains integrity of location, setting, design, feeling, or association from the period it was used as a water tower. The tank was modified in 1971 to resemble a coffee pot, since Stanton was the hometown of Virginia Christine, who played Mrs. Olson on television commercials for Folgers Coffee popular in the early 1970s. The tank was then removed from its original tower and moved to a much lower support structure in 2015 when the new water tower was built (Munson 2014; Roadside America 2021). The older Sidney and Prescott water towers have been retained on their original sites. The remaining 26 cities were identified as having one municipal water tower each.

Only Taylor County, which has eight cities, has a water tower in every city. In the other five counties, all of which have between four and eleven cities each, anywhere from one to five cities (usually among the smallest in population) had no observable water tower, for a total of 14 cities in the six counties (Table 1).

Of the 35 water towers in the six counties, just nine (25.7% of the total), including Essex, are of the type found in Essex, with a hemispherical bottom with four legs. These nine towers are located in Blanchard, Coin, and Essex (Page County); Farragut and Sidney (Fremont County); Glenwood (Mills County); and Elliott, Stanton, and Villisca (Montgomery County). As noted above, the former water tower in Stanton no longer retains integrity. No such towers are located in either Adams or Taylor County. Another 11 water towers (31.4% of the total) appear to be older than 50 years, but are not of the type found in Essex. They appear generally to date to the mid-twentieth century, and typically are cylinders with ellipsoidal bottoms. The remaining 15 towers or tanks (42.9% of the total) are either modern or are cylindrical tanks not elevated above the ground. Evidence from historical aerial photographs indicates that the earliest of the non-elevated tanks had been built by the 1930s, but most of the water tanks or water towers in this category post-date 1990 (Table 2; Figure 6). For more on the different types of water towers built between the 1890s and the 2010s, see McDowell (2011:15–16).

Of the modern towers, several are known to have replaced one or more earlier water towers or standpipes. Only one—located in Lenox, Taylor County—is known to have replaced an elevated tank with hemispherical bottom of the type found in Essex. However, because all of the cities in the six counties investigated were incorporated between 1857 and 1912, and because the hemispherical-bottom type of water tower was by far the most prevalent type of water tower during the early twentieth century, when most of these cities first established or expanded their waterworks systems, it is likely that many or most of the cities with an earlier water tower had one of the hemispherical-bottom type. For these reasons, it appears likely that the nine hemispherical-bottom water towers surviving in these six counties is substantially lower than the number that once existed. Based on a similar estimate conducted for a water tower in Monona County, the nine surviving towers in or near Page County almost certainly represent less than half of the total number of hemispherical-bottom water towers that were ever built in these six counties, and they possibly represent less than one third of the total number. As these water towers age, they experience more significant and more frequent maintenance problems. Some cities with a growing population find their earlier small-capacity water towers inadequate to their current needs. For these reasons, individual cities and the state have pushed to have the older water towers replaced with modern towers, a trend that has been ongoing for at least the past 50 years. The result is the steady loss of hemispherical-bottom water towers of the type found in Essex.

Findings

The intensive level historic architectural survey of the Essex Water Tower (site 73-00180) resulted in an evaluation of the water tower as possessing sufficient historical and architectural importance to be eligible for listing in the National Register of Historic Places (NRHP) individually, and likely also as a contributing resource in a possible Falk Addition Historic District. The argument for the NRHP eligibility of the water tower is described in detail in the Iowa Site Inventory Form for site 73-00180, and is summarized below. The anticipated effects of the proposed removal of the Essex Water Tower on historic properties located within the provisional area of potential effects (APE) adopted here is also described below.

AREA OF POTENTIAL EFFECTS FOR DIRECT EFFECTS

Water Tower and Associated Former Well Houses

The Essex Water Tower is evaluated as eligible for listing in the NRHP under Criterion A in the area of Community Planning and Development as an important component of the waterworks system of Essex, developed in 1902 and expanded in 1928–1929. The construction of this waterworks system showed the

surrounding area that Essex was a progressive city, and it was an important amenity that helped make Essex an attractive community to new residents. The water tower is also evaluated as eligible under Criterion C in the area of Engineering as an excellent, and relatively rare, example of the type of municipal water tower most commonly built in the first decades of the twentieth century. Its cylindrical tank with conical cap and hemispherical bottom, raised on four legs, was the quintessential water tower form throughout the upper Midwest and elsewhere during these decades. Only nine such water towers, including the one in Essex, survive in the six Iowa counties closest to Essex—Page, Fremont, Mills, Montgomery, Adams, and Taylor. The Essex water tower retains a high degree of period integrity, with no identified changes made to it since the 1920s other than routine maintenance and painting. It is an example of a water tower designed and built by the Pittsburgh-Des Moines Steel Co., one of the most prolific water tower manufacturers of the early twentieth century. The two associated well houses—one probably built in 1928 or 1929, the other in 1947—are counted as contributing resources. The significance of the water tower is at the local level.

Possible Essex Waterworks Historic District

It is possible that the Essex waterworks system as a whole is eligible under Criterion A as a historic district. If so, the Essex Water Tower would certainly be a contributing resource within the historic district. The importance of the waterworks system to Essex has been described above. The waterworks system currently includes the water tower; a system of iron water pipes dating largely to the early decades of the twentieth century, with some later pipes laid in developments on the periphery of the city; and six wells and their associated well houses. The four wells that are more than 45 years old (built in 1976 or earlier) are now plugged and no longer in use. Two additional wells on the west side of Iowa 48/140th Street, both currently in use, are less than 45 years old, and would probably be evaluated as noncontributing to any waterworks historic district. The water tower, older pipes, and older well houses would likely be evaluated as contributing resources, provided they retain integrity. It was beyond the scope of the present survey to evaluate the NRHP eligibility of the Essex waterworks system as a whole, but the results of the reconnaissance level historic architectural investigation suggest that the older parts of the waterworks system retain sufficient integrity to be eligible for NRHP listing.

Possible Falk Addition Historic District

In addition to its individual eligibility, the Essex Water Tower also appears likely to be eligible as a contributing resource in a possible Falk Addition Historic District. The Falk Addition, platted in 1902, contains 18 buildings, including 17 residences and one church (Figures 7–16). Sixteen of the 18 buildings were constructed between 1902 and 1927, with two residences built in 1948 and 1955. All of the pre-1927 residences—which represent the late Queen Anne style, Craftsman style, and Foursquare form—retain essentially their original massing, roofline, and fenestration pattern, and many also retain their original wood siding, brick or rock-faced concrete block foundations, most or all windows, and some ornamental woodwork, including imbricated shingles and knee brace brackets. With the exception of two two-story Foursquare houses and a one-story 1950s ranch-style house, all of the houses in the Falk Addition are one and one-half stories tall. Many share a similar form, suggesting that they were designed from similar plans, perhaps drawn by the same builder or a small number of builders. The construction of nearly all of the Falk Addition houses within a 25-year period; the similarity in architectural form and style among many of the houses; and the high integrity of most of the remaining houses, all suggest that this subdivision is likely to meet NRHP eligibility criteria as a historic district.

Although the water tower was not built on a lot in the Falk Addition, it is located on an adjacent lot and was built a year after the last recorded pre-World War II house in the Falk Addition. The construction of the water tower is therefore closely related to the development of the Falk Addition, since both were a response to the population increase in Essex in the early decades of the twentieth century. In contrast, the East Side Park Addition, where the water tower is located, was not developed as a residential subdivision

until after World War II, primarily in the 1960s, decades after the water tower was completed. Another building that is not located in the Falk Addition—but which is located just outside the addition and could logically be included in a possible Falk Addition Historic District—is the Falk family house at 1001 Nebraska Avenue, reportedly built in 1903 and located kitty-corner from the Falk Addition to the northwest (Beacon 2021) (Figure 17).

The properties in the possible Falk Addition Historic District are listed in Table 3, including preliminary NRHP evaluations based on their exterior appearances. In order to conduct a preliminary evaluation of the NRHP eligibility of these properties, a reconnaissance level historic architectural survey of the Falk Addition and adjacent areas was conducted on July 12, 2021. Properties are evaluated as contributing if they were built during the period of significance (1902–1929); if they retain essentially their original massing, roofline, and fenestration pattern; and if at least some original material remains exposed, such as foundations, windows, doors, window and door trim, and ornamental woodwork. Based on these evaluation criteria, only three of the 20 principal buildings or structures in the proposed historic district—two post-World War II houses and the substantially altered Swedish Mission Church—were evaluated as noncontributing. As shown by a comparison of Figures 15 and 19, the Swedish Mission Church (now Faith Evangelical Covenant Church) has large, probably modern additions on the east and south, and its three large Gothic-arched stained glass windows have been removed. If the historic district is eligible under Criterion A as well as Criterion C, however—in the area of Community Planning and Development, for example, for its importance in addressing the early twentieth century population growth in Essex—then it is possible that the church could be eligible under Criterion A but not Criterion C.

The boundaries of a possible Falk Addition Historic District are clear, since the possible district is bounded on all sides by buildings the represent different historic contexts. The only built properties to the east of the Falk Addition are residences constructed in 1945 or later in the East Side Park Addition, all of which belong to the historic context of post-World War II housing rather than early twentieth century housing. South Avenue marks the south end of the Falk Addition, as well as the south edge of the platted area of Essex. A farmstead located on the south side of South Avenue opposite the Falk Addition belongs to an agricultural historic context rather than a residential one.

The west side of the Falk Addition abuts the eastern edge of the Original Town plat of Essex, and specifically abuts parcels on the east side of East Street between South and Nebraska avenues. The buildings in this area are typically either large institutional buildings on large lots—the Swedish Lutheran Church at 104 East Street and the Essex Community School property adjacent to the church property on the north—or are residences similar to those found in the Falk Addition and East Side Park Addition: one Queen Anne-style house, one Foursquare house, and one 1968 ranch-style house. The residential sections of the Original Town plat were developed somewhat earlier than the Falk Addition, and contain many houses built in the Italianate or Queen Anne style, although the later houses are contemporary with those in the Falk Addition. Because the Falk Addition was developed over a narrow time period in the early twentieth century, and contains only a single non-residential building on a small lot that is little larger than a house lot, the character of the Falk Addition is different from the character of neighboring East Avenue, where older buildings and larger institutional buildings prevail. For this reason, the west boundary of the possible Falk Addition Historic District is taken to be the west boundary of the Falk Addition.

Across Nebraska Avenue on the north side of the Falk Addition is the Young Subdivision, platted in 1978. With one exception, the Young Subdivision contains modern houses built in 1978 or later, so Nebraska Avenue forms a clear northern boundary for the possible Falk Addition Historic District. The one older house in the Young Subdivision, 1105 Nebraska Avenue, is an older one-story house with modern siding and a large modern garage addition on the east (Figure 18). The original part of the house may date to the period of significance of the Falk Addition (1902–1929), but if so, it appears to have been modified in the middle decades of the twentieth century. Moreover, at only one story in height, it is smaller than any

of the principal buildings in the Falk Addition. For these reasons, the house is not included in the possible Falk Addition Historic District.

Identification of Historic Properties in and Adjacent to East Side Park Addition

The Essex Water Tower is located in the East Side Park Addition, so the APE for direct and indirect effects also includes buildings in and adjacent to the East Side Park Addition. As described above, this addition was platted in 1919, but, with the exception of the water tower and related well houses, no buildings or structures were built in this subdivision until 1945. The subdivision was developed slowly at first, with only five of the 20 residential lots developed between 1945 and 1962. The remaining 15 lots were developed between 1962 and 1973, primarily in the mid to late 1960s. The East Side Park Addition therefore has the feeling of a 1960s residential suburb, composed almost entirely of one-story ranch-style houses; see Figures 20–25 for representative examples. Although the subdivision was developed over a relatively short period, with two-thirds of the houses built between 1962 and 1969, it was not found to represent any significant historic context aside from a general postwar housing context. For example, the city was not undergoing a significant population increase at the time the majority of the houses were built (the rapid growth of the 1970s had not yet started); the houses were built too long after the end of World War II to have been built as housing for returning veterans; and as a small city, Essex was not in need of new housing to replace significant areas of former housing redeveloped as part of urban renewal or other large-scale municipal projects. The houses were simply modern, one-story houses, built to replace earlier housing stock, and they appear to have been built in the East Side Park Addition primarily because it was one of the few platted subdivisions in Essex that had not yet been substantially developed by the 1960s. For similar reasons, a small amount of vacant land on the north side of Nebraska Avenue north of the water tower was developed into residential house lots within the past 50 years, with houses built between 1979 and 1995 according to county assessor's records (Beacon 2021).

Architecturally, the houses in the East Side Park Addition are representative rather than notable examples of their types. With the exception of one Cape Cod-style house at 104 Alice Street, reportedly built in 1950, all of the houses in the subdivision are one-story ranch-style houses. While most appear to retain essentially their original massing, roofline, and fenestration pattern, many houses in the East Side Park Addition have replacement or cover-up siding (typically vinyl), and many appear to have replacement windows and front doors. Several of the houses are constructed of (or more likely veneered in) red or yellow brick, but the majority are frame houses with vinyl or other modern siding. The most distinctive house architecturally in the East Side Park Addition is 104 Victory Street, built in 1967, which is notable for its use of Roman brick veneer and a prominent stone projection on the facade (Figure 24). However, the house does not appear to be individually eligible for NRHP listing based on its architecture.

For the reasons described here, the results of the reconnaissance survey of the buildings in the East Side Park Addition indicate that no individual building in the subdivision, nor the subdivision as a whole, possesses the historical or architectural importance required to meet NRHP eligibility criteria. As a result, no historic properties were identified in the East Side Park Addition aside from the Essex Water Tower.

AREA OF POTENTIAL EFFECTS FOR INDIRECT EFFECTS

As described above, the only indirect effects considered for the proposed removal of the Essex water tower are visual effects on known or likely historic properties that may diminish the integrity of setting of those historic properties. The visual effect of the water tower on properties immediately adjacent to the water tower is substantial, but the relationship between the tower and those nearby resources is discussed above under the APE for direct effects. Other than properties immediately adjacent to the tower and those located no more than about two blocks west along Nebraska Avenue, the visual effect of the water tower is negligible or non-existent for the platted sections of Essex. Tree cover and buildings completely or almost

completely obscure the view of the water tower from nearly all of Essex, as well as from much of Iowa 48/140th Street, the principal approach to Essex. The water tower is visible primarily from the north and east, where cultivated fields rather than buildings and trees separate the water tower from nearby roads and buildings.

In order to evaluate the indirect (visual) effect of the water tower on any possible historic properties in the indirect APE of the proposed project, a windshield survey was conducted that focused on the areas north and east of Essex. The windshield survey, supplemented with information from county assessor's records, was conducted of properties within a half-mile radius of the water tower. Beyond this distance—the same distance adopted by the Federal Communications Commission in a Nationwide Programmatic Agreement for the visual effects of communications towers up to a height of 200 feet—the visual effect of the water tower was considered to be negligible. Few built resources were identified within a half mile of the water tower to the north and east. Most of the properties are modern rural residences or current or former farmsteads. The farmsteads all have modified residences and modern outbuildings, and none appears likely to be eligible for NRHP listing, either individually or as part of a rural historic district. No architectural resources in the APE for indirect effects outside of the platted areas of Essex have been previously recorded by the Iowa State Historic Preservation Office (SHPO). Indeed, SHPO records document only eight properties in all of Pierce Township outside of Essex: two cemeteries and six non-extant bridges. While neither cemetery lies within the half-mile visual APE, Essex Cemetery is located a short distance outside the visual APE, and the water tower is visible from the cemetery, so the possible NRHP eligibility of Essex Cemetery is discussed below.

Essex Cemetery (site 73-00311) is located approximately 0.7 miles northeast of the Essex Water Tower, outside the corporate boundary of Essex, on land surrounded on all sides by cultivated fields. This cemetery was not investigated during the windshield survey because it is located outside the half-mile visual APE, far from the main roads. It is accessible by means of a long driveway extending approximately 1,500 feet east from E Avenue (county highway M41), which forms the eastern corporation boundary of Essex. The cemetery is divided into a grid pattern with orderly rows of gravestones surrounded by a peripheral drive and three interior drives. Its dozen or so trees are concentrated almost entirely in the east half of the cemetery. A modern storage shed is located at the southwest corner of the cemetery (Figures 26–27).

Information on Essex Cemetery on the Find A Grave web site indicates that the cemetery is actually two cemeteries, with Essex Cemetery comprising the west half and St. John's Lutheran Cemetery comprising the east half (Find A Grave 2021). For the purposes of the present discussion, the two cemeteries are treated as the same property, since both are now owned by the City of Essex, but further investigation may reveal that the different histories of the two halves result in different NRHP eligibility evaluations. Essex Cemetery was evidently established at about the same time that Essex was platted in 1870. The earliest gravestones in the cemetery that appear to be original (weathered marble gravestones rather than granite gravestones) are four gravestones for people who died in 1871 or 1872. With the exception of the small Franklin Grove Cemetery, also in Pierce Township, Essex Cemetery appears to be the only extant cemetery in the Essex vicinity, and the principal burial place for residents of Essex. The cemetery therefore appears likely to meet Criterion A in the area of Community Planning and Development for its importance as the principal or only community burial place in Essex. It likely also meets Criteria Consideration D for cemeteries because of its age, since it appears to date back to the earliest years of Essex. It may also meet Criteria Consideration D if further research indicates that the cemetery contains the graves of persons of transcendent importance in the history of Essex. The cemetery's simple grid plan, flat topography, and minimal landscaping suggest that it is unlikely to be eligible under Criterion C.

Because the cemetery appears likely to meet NRHP eligibility criteria, the visual effect of the removal of the Essex water tower on the cemetery's integrity of setting is evaluated here, although the cemetery is located a short distance outside the visual APE. The location of the cemetery more than half a mile away from any of the platted areas of Essex, and surrounded on all sides by cultivated fields, suggests that its

rural setting is an important component of the cemetery's integrity of setting. However, its location within the viewshed of the Essex water tower—which was built almost 60 years after the cemetery was established—does not appear to be a significant component of the cemetery's integrity of setting, although the water tower has been within sight of the cemetery for more than 90 years. For these reasons, although the Essex Cemetery appears likely to be eligible for NRHP listing under Criterion A, at least, it does not appear likely that the removal of the water tower will significantly diminish the cemetery's integrity of setting.

Management Recommendations

The Office of the State Archaeologist of the University of Iowa conducted an intensive level historic architectural survey of the Essex Water Tower in Essex, Page County, Iowa, evaluated as part of a proposed project to replace the water tower. Based on the historic architectural investigation, the Essex Water Tower (site 73-00180) is evaluated as eligible for listing in the National Register of Historic Places (NRHP) under Criteria A and C. It is evaluated as eligible under Criterion A in the area of Community Planning and Development as an important component of the waterworks system of Essex, first developed in 1902 and expanded in 1929. The water tower is also evaluated as eligible under Criterion C as an excellent, and relatively rare, example of the type of municipal water tower most commonly built in the first decades of the twentieth century. Its cylindrical form with conical cap and hemispherical bottom, raised on four legs, was the quintessential water tower form throughout the upper Midwest and elsewhere during these decades. Only nine such municipal water towers are known to survive in Page County and the five surrounding counties in Iowa, and one of the nine has substantially reduced integrity. Finally, the water tower appears to be eligible as a contributing resource in a possible NRHP-eligible historic district in Essex, the Falk Addition Historic District. Although the water tower was built just outside the Falk Addition, in the East Side Park Addition, it was built at about the same time as the later houses in the Falk Addition, and decades before any of the houses in the East Side Park Addition. An evaluation of the area of potential effects for indirect effects suggests that the proposed project will not have an adverse visual effect on any historic properties. If the water tower is affected by the proposed project, avoidance or historic mitigation in consultation with the State Historic Preservation Office is recommended.

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Table 1. Cities in Page County and Four Adjacent Counties with Known Municipal Water Towers/Tanks.

County	Number of Cities in County	Number of Cities with Known Water Towers/Tanks	Total Number of Water Towers/Tanks in County
Page	11	6	6
Adams	4	3	4
Fremont	8	6	7
Mills	7	3	5
Montgomery	6	4	5
Taylor	8	8	8
Total	44	30	35

Numbers approximate, based on water towers or water tanks identified on aerial photographs available through Google Maps, county assessors' web sites, and other sources.

Table 2. Known Water Towers/Tanks in Page County and Five Adjacent Iowa Counties by Type.

County	Cylindrical Tank with Hemispherical Bottom (ca. 1900–1940)	Other Mid-Twentieth Century Types (Ellipsoidal Bottom, etc.) (ca. 1930–1970)	Non-Elevated Tanks, Modern Standpipes, and other Modern Types (Pedestal Sphere, Hydropillar, etc.) (ca. 1970 to present)	Cities with No Known Water Tower/Tank
Page	3	2	1	5
Adams	0	1	3	1
Fremont	2	1	4	2
Mills	1	1	3	4
Montgomery	3	1	1	2
Taylor	0	5	3	0
Total	9	11	15	14
Percentage	25.7%	31.4%	42.9%	

Numbers approximate, based on water towers or water tanks identified on aerial photographs available through Google Maps, county assessors' web sites, and other sources. Note that at least two water towers characterized here as Mid-Twentieth Century based on their form were erected in the early 1980s, and at least two Non-Elevated Tanks were built in or before the 1960s, one as early as the 1930s.

Table 3. List of Properties in Possible Falk Addition Historic District, Essex, Page County, Iowa.

Address	Building Type	Estimated Date of Construction (visual estimate or County Assessor)	Preliminary NRHP Evaluation (C=Contributing; NC=Noncontributing)
103 Alice St.	Craftsman-style house	1921	C
105 Alice St.	Queen Anne-style house	1905	C
106 Alice St.	Craftsman-style house	1927	C
107 Alice St.	Craftsman-style house	1920	C
109 Alice St.	Queen Anne-style house	1910	C
110 Alice St.	Craftsman-style house	1917	C
111 Alice St.	Ranch-style house	1955	NC
112 Alice St.	Side-gabled house	1948	NC (due to age, but stylistically similar to contributing buildings)
114 Alice St.	Craftsman-style house	1920	C
201 Alice St.	Queen Anne-style house	1905	C
203 Alice St.	Queen Anne-style house	1910	C
204 Alice St.	Queen Anne-style house	1905	C
205 Alice St.	Queen Anne-style house	1910	C?
206 Alice St.	Foursquare house	1917	C
208 Alice St.	Foursquare house	1915	C
209 Alice St.	Cross-gabled house	1905	C
210 Alice St.	Church building	1904	NC (under Criterion C; possibly contributing under Criterion A)
1001 Nebraska Ave.	Queen Anne-style house	1903	C
1011 South Ave.	Queen Anne-style house	1905	C?
SW corner Nebraska Ave. and Victory St.	Essex Water Tower	1929	C

Properties are evaluated as contributing if they were built during the period of significance (1902–1928); if they retain essentially their original massing, roofline, and fenestration pattern; and if at least some original material remains exposed, such as foundations, windows, doors, window and door trim, and ornamental woodwork. The two properties evaluated as "C?" meet the minimum threshold for contributing status defined here, but they have been altered more substantially than other contributing resources in the possible historic district.

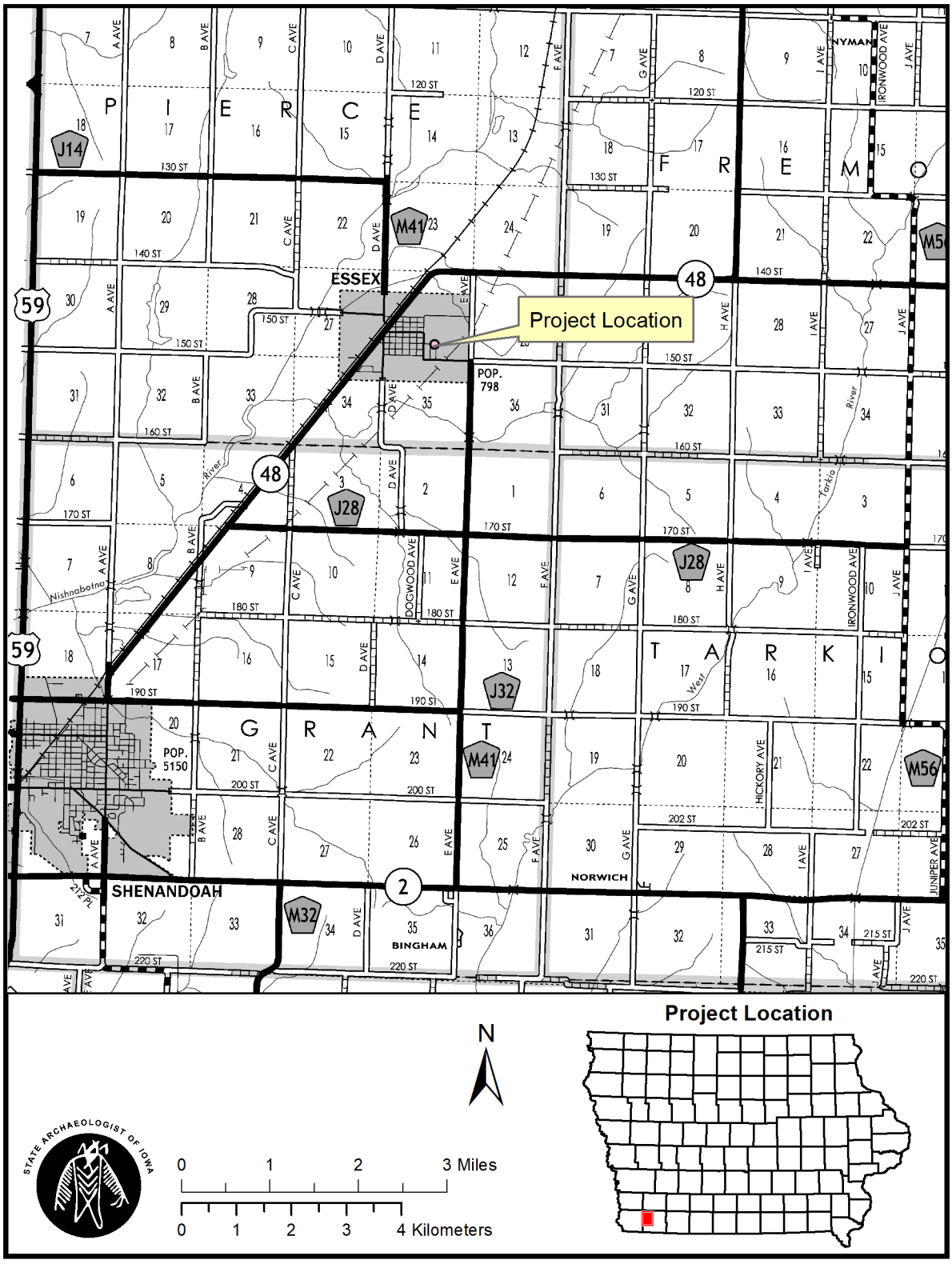

Figure 1. Project location. Source of base map: Iowa Department of Transportation (2020).

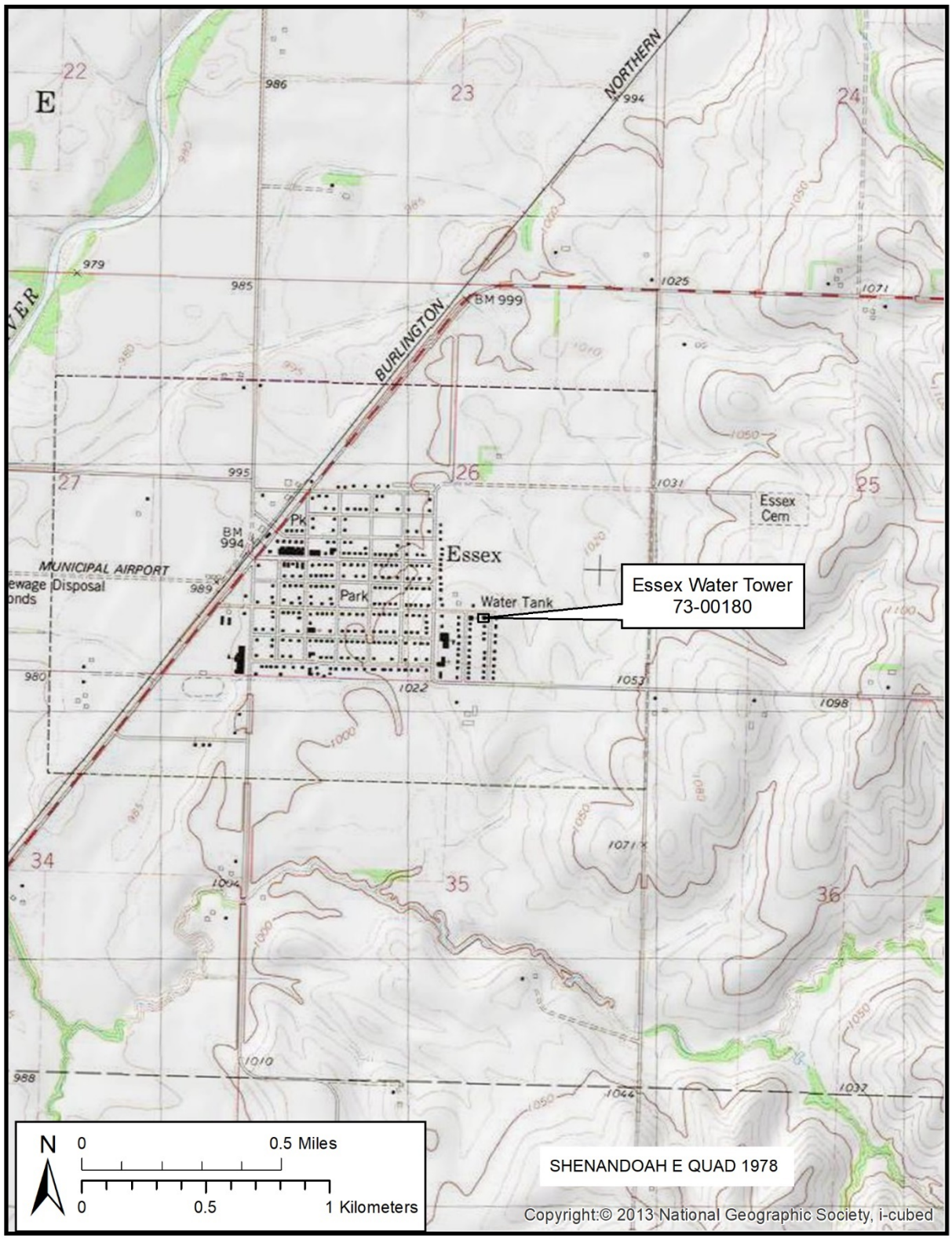

Figure 2. Survey area in relation to surrounding topography. Source of base map: USGS Shenandoah East, Iowa, (1978), 7.5' series quadrangle map.

Figure 3. Essex Water Tower (site 73-00180), facing southeast. Well houses I and II also shown. Photograph by Richard Carlson, July 12, 2021.

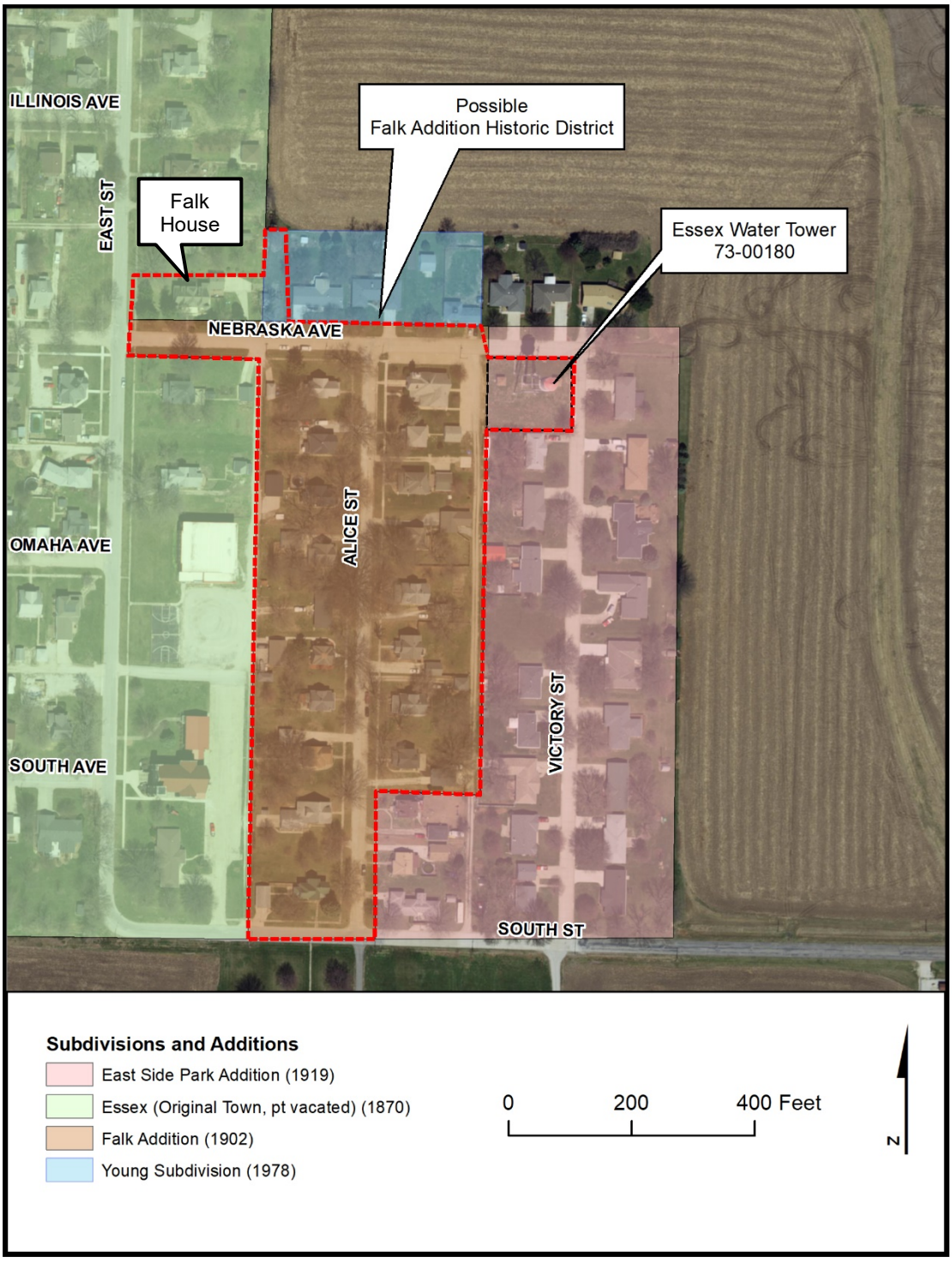

Figure 4. Map showing subdivisions in southeast Essex and recommended boundary of possible Falk Addition Historic District (dotted red line). The provisional APE for direct effects adopted in this report comprises the two subdivisions closest to the water tower—East Side Park Addition and Falk Addition—as well as the Falk House, located outside the Falk Addition but within the recommended boundary of the possible Falk Addition Historic District. Source of base map: 2016–2018 aerial photograph, ISUGISSRF; accessed July 2021.

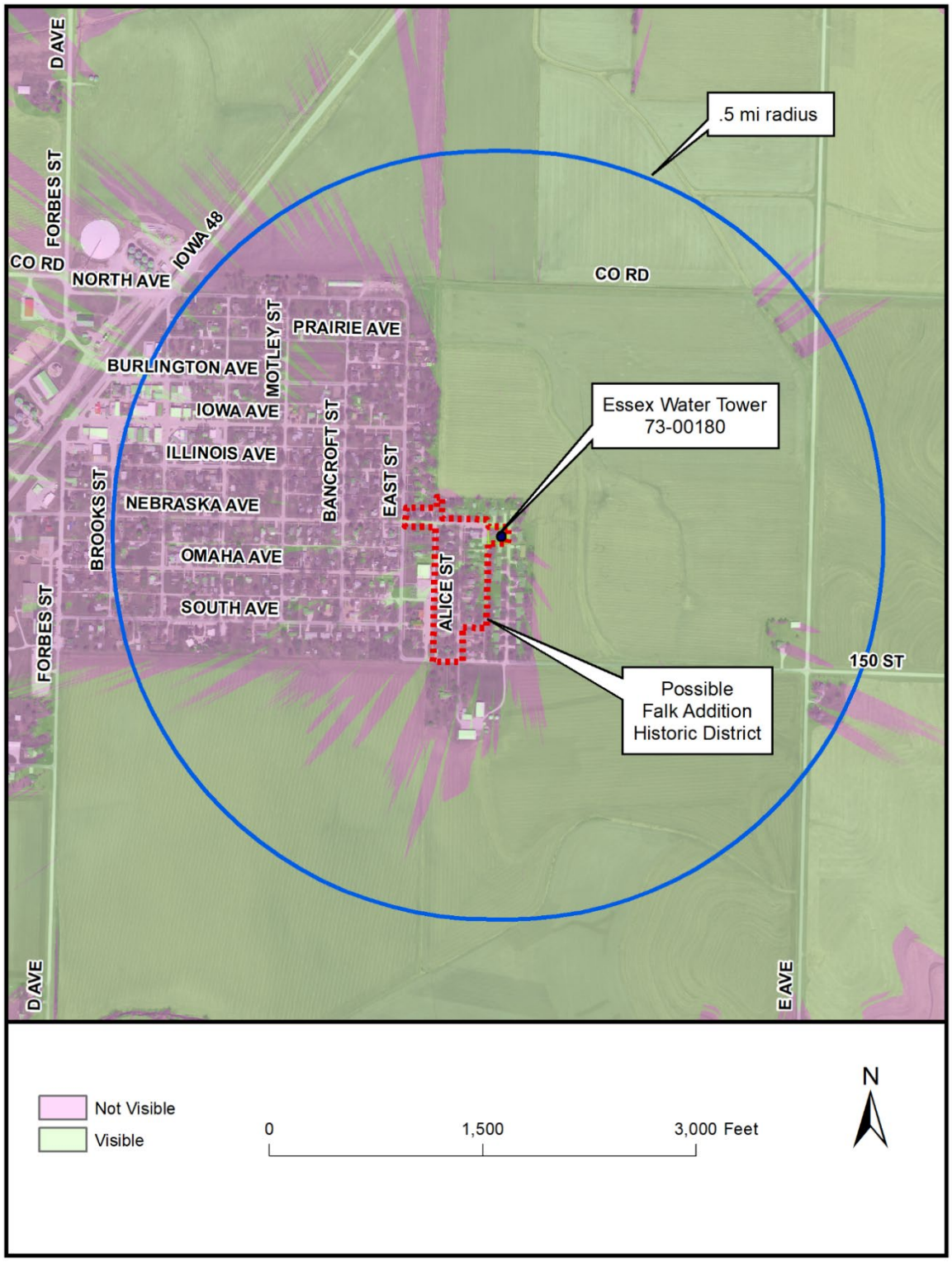

Figure 5. Map of provisional area of potential effects (APE) for indirect (visual) effects, indicated by the half-mile-radius ring around the water tower. The map also shows the possible Falk Addition Historic District, part of the provisional APE for direct effects shown in Figure 4. Note that the water tower is not visible from most of the platted areas of Essex. Source of base map: 2016–2018 aerial photograph, ISUGISSRF; accessed July 2021.

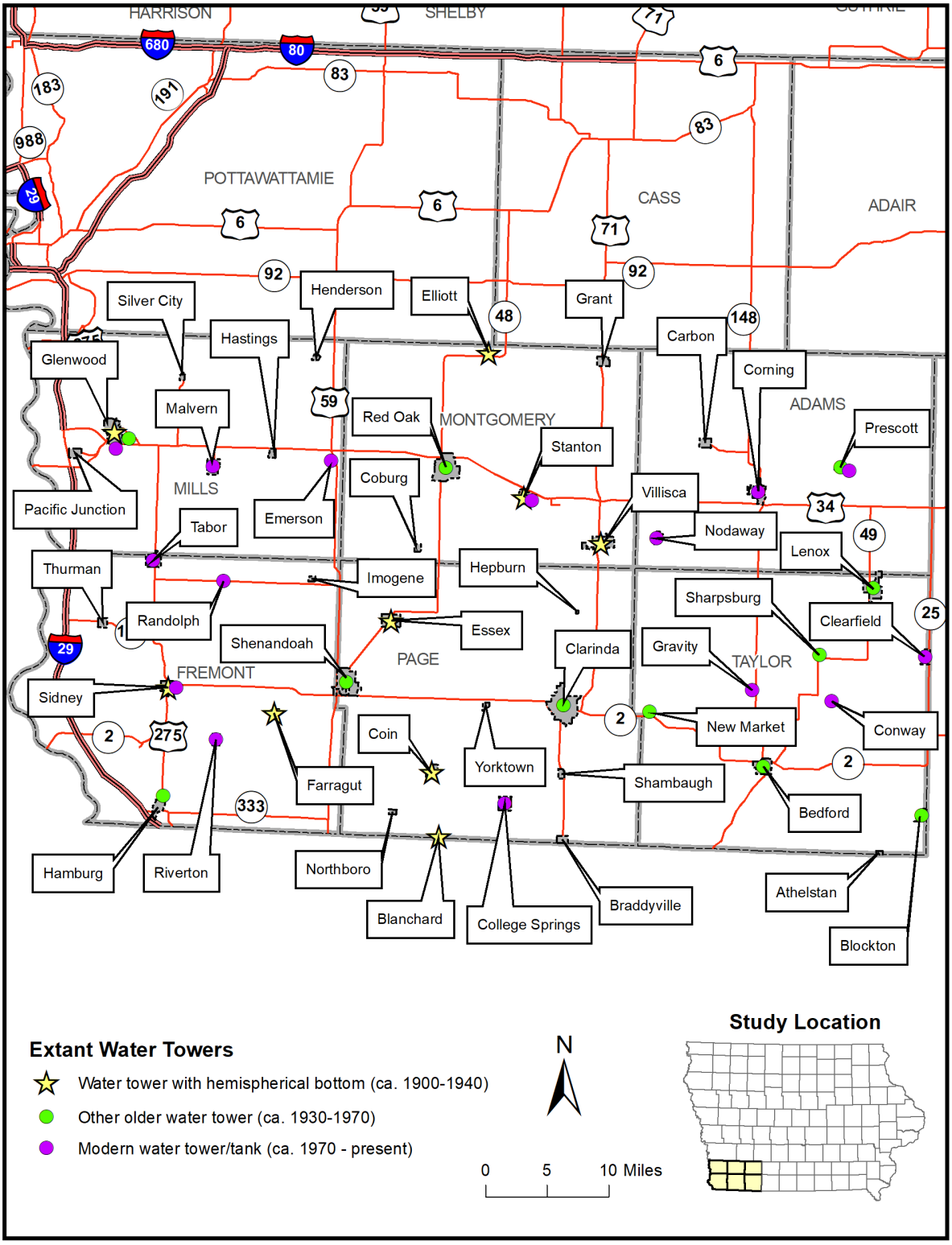

Figure 6. Map of Page, Fremont, Mills, Montgomery, Adams, and Taylor counties, Iowa, showing the locations of extant municipal water towers and water tanks as of about 2021. Those indicated with a star are hemispherical-bottom towers of the type found in Essex, Page County. Multiple water towers are shown in Glenwood, Prescott, Sidney, and Stanton. Source: base map from ISUGISSRF 2021.

Figure 7. Upper: 103 Alice Street, facing northwest. Lower: 105 Alice Street, facing northwest. All photographs included as Figures 7–18 in this Iowa Site Inventory Form were taken by Richard Carlson, July 12, 2021.

Figure 8. Upper: 106 Alice Street, facing southeast. Lower: 107 Alice Street, facing southwest.

Figure 9. Upper: 109 Alice Street, facing southwest. Lower: 110 Alice Street, facing southeast.

Figure 10. Upper: 111 Alice Street, facing southwest. Lower: 112 Alice Street, facing southeast. Although both houses were built in the decade following World War II, 112 stylistically reflects the earlier Craftsman style (compare it with 106 Alice Street, Figure 8), while 111 represents the ranch style.

Figure 11. Upper: 114 Alice Street, facing northeast. Lower: 201 Alice Street, facing northwest.

Figure 12. Upper: 203 Alice Street, facing northwest. Lower: 204 Alice Street, facing northeast.

Figure 13. Upper: 205 Alice Street, facing northwest. Lower: 206 Alice Street, facing southeast.

Figure 14. Upper: 208 Alice Street, facing northeast. Lower: 209 Alice Street, facing northwest.

Figure 15. Upper: Swedish Mission Church, 210 Alice Street, facing southeast. Lower: church, facing east-northeast. For a historical view of this church, see Figure 19.

Figure 16. Upper: 1011 South Avenue, facing north. Lower: same house, facing southwest.

Figure 17. Upper: Falk House, 1001 Nebraska Avenue, facing east-northeast. Lower: same house, facing northeast.

Figure 18. 1105 Nebraska Avenue, facing northeast.

Figure 19. Historical view of Swedish Mission Church, 210 Alice Street, facing northeast. The photograph is undated, but the photograph and the postcard on which it was printed appear to date to shortly after the church was built in 1904, and probably no later than the 1910s. Source: Historical photograph collection, Lied Public Library, Essex, Iowa.

Figure 20. Upper: 102 Alice Street, facing southeast. Lower: 104 Alice Street, facing northeast. These are the two oldest houses in the East Side Park Addition, built in 1945 and 1950, respectively. The Cape Cod-style house at 104 Alice Street is the only house in the subdivision that is not a one-story, ranch-style house.

Figure 21. Upper: 101 Victory Street, facing northwest. Lower: 103 Victory Street, facing northwest. These adjacent houses are among the oldest and newest in the East Side Park Addition, built in 1956 and 1971, respectively.

Figure 22. Upper: 109 Victory Street, facing southwest. Lower: 201 Victory Street, facing northwest.

Figure 23. Upper: 205 Victory Street, facing northwest. Lower: 207 Victory Street, facing southwest.

Figure 24. Upper: 102 Victory Street, facing southeast. Lower: 104 Victory Street, facing northeast.

Figure 25. Upper: 106 Victory Street, facing northeast. Lower: 110 Victory Street, facing northwest.

Figure 26. Location of Essex Cemetery in relation to Essex corporation boundary (indicated by green outline) and Essex Water Tower (site 73-00180). Source of base map: Beacon 2021.

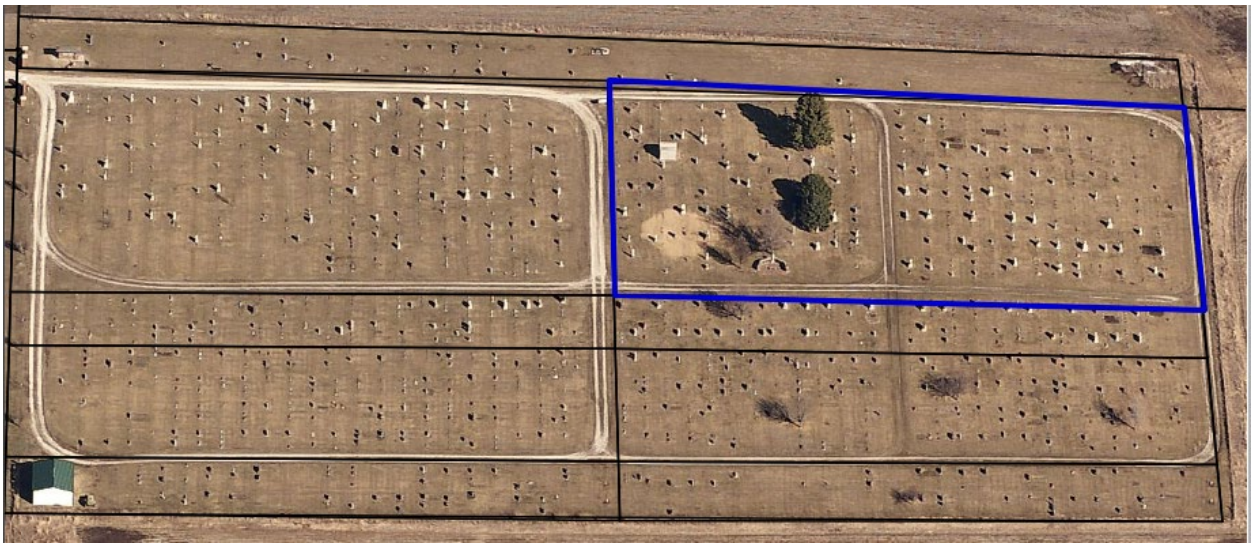

Figure 27. Pictometry view of Essex Cemetery, facing north. The black and blue outlines represent parcel boundaries. Essex Cemetery is located in the west half (left) and St. John's Lutheran Cemetery is located in the east half (right). Source of base map: Beacon 2021.

Appendix: Historical Architectural Data Base (HADB) and Iowa Site Inventory Forms

Historical Architectural Data Base (HADB)
Document No. 73-007

Iowa Site Inventory Form

73-00180

Historical Architectural Data Base

Data Entry Form for Studies and Reports

Doc. No.: 73-007

Source of Study: ☐ Certified Local Government Project ☒ Section 106 Review & Compliance Project
☐ Historical Resource Development Program Project ☐ Other

Project Reference #: _____

Authors/Editor/Compiler/Originator:
Carlson, Richard J.

Author Role: ☒ Consultant ☐ Private Researcher/Writer ☐ Teacher ☐ Student
☐ Project employee/volunteer ☐ Site Administrator ☐ Other: _____

Title of Work:
Intensive Level Historic Architectural Survey and Evaluation of the Essex Water Tower in Essex, Page County, Iowa

Year Issued: 2021

Type of Work Performed:
(*check one only*)

Survey:
- ☐ Windshield survey minimum level documentation
- ☐ Reconnaissance survey to make recommendations for intensive survey(s).
- ☐ Intensive survey
- ☒ Mixed intensive and reconnaissance survey

Plan:
- ☐ Planning for Preservation/Survey
- ☐ Community Preservation Plan

Property Study:
- ☐ Iowa Historic Property Documentation Study
- ☐ Historic American Building Survey (HABS)
- ☐ Historic American Engineering Record (HAER)
- ☐ Management or Master Plan
- ☐ Historic Structure Report
- ☐ Feasibility/Re-use Study
- ☐ Architectural/Engineering Plans and Specs.

National Register:
- ☐ Multiple Property Documentation Form

Other (e.g., private research, school project, video): _____

Intensive Level Historic Architectural Survey and Evaluation of the Essex Water Tower in Essex, Page County, Iowa 73-007

Kind of Work Produced:
(*fill in one section only: Report or Monograph or Chapter, etc.*)

Report: Published/produced by: Office of the State Archaeologist
Place issued: Iowa City
Client: City of Essex, Iowa
If applicable, include:
Series Title: Technical Report
Volume #: _____ Report #: 1774

Monograph: Publisher Name: _____
Place: _____

Chapter: In: _____ First pg. #: _____ Last pg. #: _____

Journal: Name: _____ Vol. _____ No. _____ Pages: _____ to _____

Thesis: Degree (check one): ☐ Ph.D. ☐ LL.D. ☐ M.A. ☐ M.S. ☐ B.A. ☐ B.S.
Name of College/University: _____

Paper: Meeting: _____
Place: _____

Other: _____

Geographic Scope of Study:
☒ City/town ☐ Township(s) ☐ County ☐ Region of Iowa ☐ Statewide ☐ Other: _____

State:	IA	__	__	__
County:	Page	_____	_____	_____
Town:	Essex	_____	_____	_____
Township:	____	____	____	____
Range:	___	___	___	___

Time Focus: (check any decades that receive particular attention)
☐ before 1830 ☐ 1830s ☐ 1840s ☐ 1850s ☐ 1860s ☐ 1870s ☒ 1880s ☐ 1890s
☒ 1900s ☒ 1910s ☒ 1920s ☒ 1930s ☐ 1940s ☐ 1950s ☐ 1960s ☒ 1970s ☐ 1980/later

Keyword: (Index of any subjects, topics, or people given prominent attention in the report)

Page County, Iowa _____
Essex, Iowa _____
Falk Addition, Essex _____
East Side Park Addition, Essex _____
water towers _____
waterworks systems _____
Pittsburgh-Des Moines Steel Company _____
Essex Cemetery _____

Site Inventory Form

State Historical Society of Iowa
(November 2005)

State Inventory No. 73-00180 ☐ 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 Essex Water Tower

other names/site number Water Tower & Trunk Main

2. Location

street & number southwest corner of Victory Street and Nebraska Avenue
city or town Essex ☐ vicinity, county Page
Legal Description: (If Rural) Township Name ____ Township No. ____ Range No. ____ Section ____ Quarter ____ of Quarter ____
(If Urban) Subdivision East Side Park Block(s) ____ Lot(s) 44 & 45

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	2	__ buildings
__	sites	__	__ sites
__	structures	1	__ structures
__	objects	__	__ objects
__	Total	3	__ 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: Carlson 2021, Technical Report 1774
Historical Architectural Data Base Number: 73-007

6. Function or Use

Historic Functions (Enter categories from instructions)
10C02 INDUSTRY/waterworks/water tower
04I03 GOVERNMENT/public works/waterworks/water tower
____

Current Functions (Enter categories from instructions)
10C02 INDUSTRY/waterworks/water tower
04I03 GOVERNMENT/public works/waterworks/water tower
____

7. Description

Architectural Classification (Enter categories from instructions)
01 NO STYLE/hemispherical-bottom water tower
____
____
____

Materials (Enter categories from instructions)
foundation 10B CONCRETE/poured
walls (visible material) 05F METAL/steel
roof 05F METAL/steel
other ____

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 Page Address southwest corner of Victory Street and Nebraska Avenue
City Essex Site Number **73-00180** 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)

07 COMMUNITY PLANNING AND DEVELOPMENT

12 ENGINEERING

Significant Dates

Construction date
1929 ☐ check if circa or estimated date
Other dates, including renovation
1947

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

Architect/Builder

Architect
Pittsburgh-Des Moines Steel Co.
Builder
Pittsburgh-Des Moines Steel Co.

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 Richard J. Carlson/Architectural Historian
organization Office of the State Archaeologist date 7/2/2021
street & number 700 Clinton Street Building telephone 319-384-0732
city or town Iowa City state IA zip code 52242-1030

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 # N/A 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:* _____

Essex Water Tower	Page
Name of Property	County
southwest corner of Victory Street and Nebraska Avenue	Essex
Address	City

6. Narrative Description

Under "Historic Functions" and "Current Functions," this water tower is categorized under Industry only because Industry is the only category in the Iowa Site Inventory Form instructions under which water towers specifically are listed. The Essex Water Tower has always been municipally owned and operated, and was never associated with industry.

7. Narrative Description

Water tower. This steel water tower is located at the southwest corner of Nebraska Avenue and Victory Street at the eastern edge of Essex (Figures 1–5). It is situated on the East Nishnabotna River floodplain, on land that is elevated slightly relative to most other parts of Essex. The water tower consists of a 60,000-gallon cylindrical tank constructed of riveted steel with a conical cap and a hemispherical bottom. The tank is elevated to a height of 90 ft on four legs constructed of lattice girders. The water level at the top of the tank is reportedly 128 feet above the ground (Morehouse ca. 2020). The legs stand on poured concrete footings (Figure 6). The riser pipe is enclosed by a frost jacket with an inspection cover and hinged opening near the base (Figures 7–8). The steel I-beams used in the legs were supplied by Inland Steel Company (Figure 9). A balcony extends around the tank just above the hemispherical bottom (Figures 10–11). The balcony railing is constructed of a simple sawtooth (repeating "V") pattern of angles that support a handrail. The water tower is painted silver on all metal parts aside from the conical roof, and the roof is painted red. This color scheme is the one most commonly seen on this type of water tower. The name "ESSEX" is painted on the north side of the tank. A modern overflow pipe extends down the side of the tank and the northwest leg of the tower.

The legs are stabilized by means of horizontal girders that extend between adjacent legs to form a square footprint. Two levels of these horizontal girders stabilize the legs between the ground and the tank. This divides each "face" of the tower support into three "panels" framed by the tower legs and horizontal girders. Each "panel" is further stabilized by means of a pair of diagonal eye bars that extend in a "X" shape across the panel. The tension in the eye bars is adjusted by means of turnbuckles. Another "X" shape of diagonal bracing extends horizontally from the riser pipe out to the legs at each of the two horizontal girder levels. An open ladder extends up the northwest leg of the tower. The base of the riser pipe extends into a concrete pad.

Well house I. Located east of the water tower, well house I may have been built at the same time as the tower. It appears to have been in place by 1938, based on aerial photographs, although it is first shown clearly only in 1950 (USDA 1938, 1950). The well house sits on a poured concrete foundation. Its walls are constructed of smooth-faced clay tile blocks. Its pyramidal roof is covered in composition shingles. The only fenestration consists of a door centered on the south side. The door includes a former window now filled by a plywood panel; a narrow wood panel near the center; and a modern plywood panel covering the lower part of the door. The metal knob appears to be a modern replacement. The well has been abandoned, and the well house is now used for storage (Mary Ohnmacht, e-mail to Richard Carlson, July 15, 2021).

Well house II. Located west of the water tower, well house II was built in 1947 to shelter a backup well to supplement the well in well house I. The well house sits on a poured concrete foundation. Its walls are constructed of textured clay tile blocks with fine horizontal striations. Its pyramidal roof is covered in composition shingles. The only fenestration consists of a metal slab door centered on the south side, although a chipboard panel attached to the exterior of the north side may indicate the location of a former window opening. The well has been abandoned, and the well house is now used for storage (Mary Ohnmacht, e-mail to Richard Carlson, July 15, 2021).

Integrity. This water tower retains a high degree of integrity from its period of significance 45 or more years ago. It has excellent integrity of *location*, since it has not been moved since it was first completed in 1929. Its integrity of *setting* is also high from 1975, since it remains on slightly elevated ground surrounded by subdivisions of post-war ranch-style houses on the north, east, and south, and ca. 1900s to 1920s dwellings and a 1904 church on the west. Aside from five houses on the north side of Nebraska Avenue, all of the primary buildings on the lots along Victory Street, Alice Street, and Nebraska Avenue in the vicinity of the water tower were built before 1975. Cultivated fields abut the residences to the north and east of the water tower, as they did historically. The water tower also retains a high degree of integrity of *design*, *materials*, and *workmanship*. While documentation of the tower is sparse between its construction in 1929 and 1980, photographs taken in 1980 show no significant differences between the tower as it appeared then and its present appearance. Finally, because it retains a high degree of integrity in its other aspects, and because it remains an integral part of the waterworks system of Essex, the water tower also retains excellent integrity of *feeling* and *association*.

8. Statement of Significance

This water tower was built in 1928–1929 by the Pittsburgh-Des Moines Steel Company (mistakenly called the "Pittsburg Steel and Iron Works of Des Moines, Iowa" in one article) (*The Essex Independent*, October 19, 1928, p. 1; October 19, 1928, p. [8]). Among its many activities, the Pittsburgh-Des Moines Steel Company was a prolific designer and builder of water towers throughout the Midwest and elsewhere in the early decades of the twentieth century. The company adopted the name "Pittsburgh-Des Moines Steel Company" in 1915 to replace its earlier name, "Des Moines Bridge and Iron Company." For more on this company, see the accompanying Technical Report and a history of the company published in 1992 (Carlson 2021:8; Foster and Lundgren 1992).

The new water tower was intended to provide a sufficient water supply and adequate fire protection for Essex. The site for the new water tower was selected in August 1928. The bond to fund the project was approved by voters in September by a vote of 116 to 10, and the $9,050 contract for the new water tower and four new water mains was awarded in October. The project included construction of a 60,000 gallon tank on a 90-ft tower, as well as four blocks of additional water mains. Work was scheduled to begin on or before November 1, 1928, and to be completed by February 1, 1929. The water mains were laid in November, but the tower was not shipped to Essex until late November or December. The base of the tower was completed by late December, and the base of the tank was nearing completion at the same time. The tower was completed by February 1, on schedule. The Henningson Engineering Company of Omaha, Nebraska, acted as advisors to the City Council during the planning and construction

of the water tower. The Henningson Engineering Company inspected the new tower in early February 1929, and the City Council approved the tower for use on February 12. When the tower was completed, the local newspaper reported that "[t]he increased water supply and pressure tends to permeate a feeling a security among the people of our community that has been lacking during these windy days and nights. . . . Had a bad fire broke out in the day or night there is no telling what the damage would have been. . . . [W]e have yet to hear any one to say that the new tower was a wrong investment as to the security and protection of our citizens" (*The Essex Independent*, August 17, 1928, p. [8]; September 21, 1928, p. [4]; October 19, 1928, p. 1; November 23, 1928, p. 1; December 28, 1928, p. 1; February 1, 1929, p. 1; February 8, 1929, p. [4]; February 15, 1929, p. 1).

The water tower was built in the East Side Park Addition to Essex, which was platted in 1919. For more on this addition, see the accompanying Technical Report (Carlson 2021:5–6). Although the addition was platted in 1919, for more than 25 years the 1929 water tower and well house I were the only buildings or structures built in this subdivision. As late as 1942, the East Park Addition had no residences, but only the water tower and well house I (identified as a "pumping station") (*The Essex Independent*, December 24, 1942, p. 1; USDA 1938).

Three years after it was built, the water tower was painted by Hoxie Brothers, west of Shenandoah, Iowa. The tank was sandblasted and painted both inside and out. The exterior was painted silver, with the name "Essex" on the north side (*The Essex Independent*, August 26, 1932, p. 1). News reports on the tower located in Essex newspapers from 1928 to 2017 and in City of Essex records from the late 1980s to the present indicate that, aside from regular maintenance and painting, no substantial work was done to modify the water tower since it was built. In 1983, for example, the City hired Clear Lake Water Tower Co. to repair the tower by sandblasting the interior and applying an epoxy (*The Essex Independent*, February 17, 1983, p. 1; see also City of Essex 2021).

It is possible that the casing around the riser pipe was added as a frost jacket sometime after the tower was built, although it could also be original to the water tower. It had certainly been installed by 1980, when the earliest available photograph of the tower from ground level was taken (State Historic Preservation Office 1980). It had probably been installed by 1936, when a newspaper reported that the riser pipe was four feet in diameter, a diameter that appears to include the frost jacket and not just the riser pipe (*The Essex Independent*, March 16, 1995, p. 1).

The water tower was considered for replacement in 1980, likely because the rapid increase in the city's population during the 1970s, described in Carlson (2021:7), put increased pressure on the city's water supply system (State Historical Society of Iowa 1980). No action was taken at that time to replace the water tower, however, and the water tower today (2021) appears essentially unchanged from its appearance as documented in 1980.

Well house I, located east of the water tower, may have been built at the same time as the water tower. It was likely in place by 1938, when aerial photographs depict something on this site that may be the present building. It was certainly in place by 1950, when it is shown clearly on aerial photographs (USDA 1938, 1950). Well house II was built in 1947. In October 1947, the local newspaper reported that "The Town of Essex has been having another well drilled by the stand tower, so as to have two wells. If either should go bad in the future there will be one well to fall back on. There will be a complete set of new equipment installed at the new well" (*The Essex Independent*, October 30, 1947, p. 1).

The Essex Water Tower is evaluated as eligible for listing in the National Register of Historic Places under Criteria A and C. It is significant under Criterion A in the area of Community Planning and

Essex Water Tower	Page
Name of Property	County
southwest corner of Victory Street and Nebraska Avenue	Essex
Address	City

Development as an important component of the waterworks system of Essex, first developed in 1902 and expanded in 1929. Additional wells and pipes have been built since 1929, but no other substantial changes have been made to system since that time. The waterworks system was first established to provide water to the city's buildings and for fire protection. The construction of a waterworks system, and its expansion in 1929, showed the surrounding area that Essex was a progressive city, and it was an important amenity that helped make Essex an attractive community to new residents. The water tower is also evaluated as eligible under Criterion C as an excellent, and relatively rare, example of the type of municipal water tower most commonly built in the first decades of the twentieth century. Its cylindrical form with conical cap and hemispherical bottom, raised on four legs, was the quintessential water tower form throughout the upper Midwest and elsewhere during these decades. As described in greater detail in Carlson (2021:8–10), only nine such municipal water tower survive in the six Iowa counties closest to Essex—Page, Fremont, Mills, Montgomery, Adams, and Taylor—down from probably at least double or triple that number originally. The nine water towers include the one in Essex, as well as one in Stanton, Montgomery County, that has been greatly modified and no longer retains integrity from its period of significance. Finally, the water tower may be eligible as a contributing resource in a possible Falk Addition Historic District. Although the water tower was built just outside the Falk Addition, in the East Side Park Addition, it was built at about the same time as the later houses in the Falk Addition, and decades before any of the houses in the East Side Park Addition. It therefore represents a historic context that is sufficiently similar to that of the houses in the Falk Addition to count as a contributing resource in any historic district that might be present there.

9. Major Bibliographic References

Carlson, Richard J.
2021 *Intensive Level Historic Architectural Survey and Evaluation of the Essex Water Tower in Essex, Page County, Iowa*. Technical Report 1774, Office of the State Archaeologist, The University of Iowa. Copy available at the Office of the State Archaeologist, The University of Iowa, Iowa City.

City of Essex, Iowa
2021 Watertower. File folder containing documents relating to the Essex water tower dating from about 1989 to 2021. Located in City Hall, Essex, Iowa.

The Essex Independent (Essex, Iowa)
1928 Council Proceedings. August 6, 1928. *The Essex Independent*, August 17, 1928, p. [8].
1928 Essex To Have Water Tower. *The Essex Independent*, September 28, 1928, p. [4].
1928 Work to Begin Right Away on New 60,000 Gal. Tank & Tower. *The Essex Independent*, October 19, 1928, p. 1.
1928 Special Meeting. Town Council. October 15, 1928. *The Essex Independent*, October 19, 1928, p. [8].
1928 Work Has Commenced on New Mains. *The Essex Independent*, November 23, 1928, p. 1.
1928 Base of Water Tower Completed. *The Essex Independent*, December 28, 1928, p. 1.
1929 Water Tower Is Now Completed. *The Essex Independent*, February 8, 1929, p. [4].
1929 Local Happenings. *The Essex Independent*, February 8, 1929, p. [4].

1929 Water Tower Accepted. *The Essex Independent*, February 15, 1929, p. 1.
1932 Painting of Water Tower Has Been Completed. *The Essex Independent*, August 26, 1932, p. 1.
1942 John G. E. Carlson, About Town column. *The Essex Independent*, December 24, 1942, p. 1.
1947 Essex Has New City Well. *The Essex Independent*, October 30, 1947, p. 1.
1983 City Accepts James Dobbs' $4,000 Bid for Old City Hall. *The Essex Independent*, February 17, 1983, p. 1.
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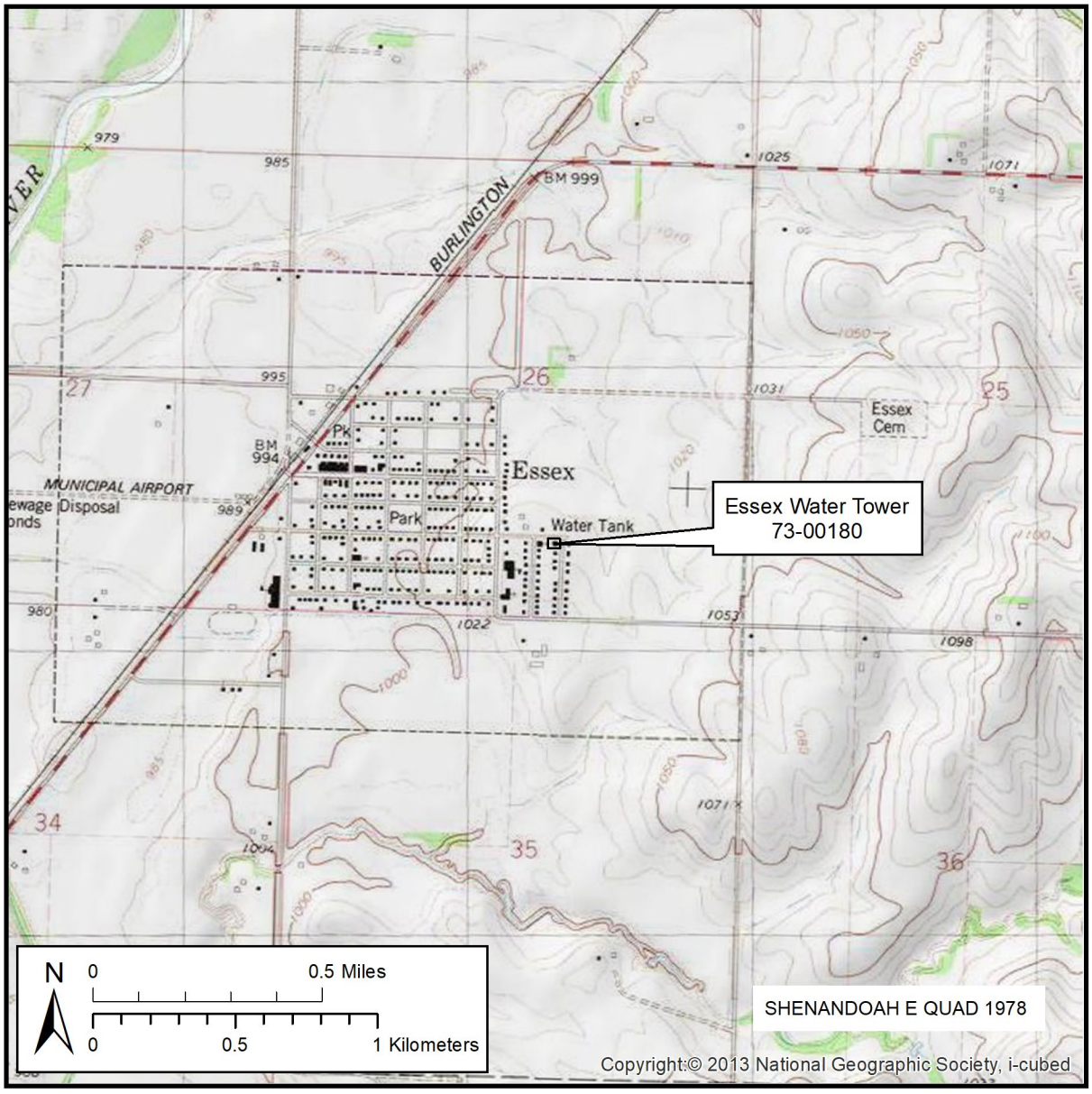

Figure 1. Location of the Essex Water Tower (site 73-00180), southwest corner of Victory Street and Nebraska Avenue, Essex, Iowa. Source: USGS Shenandoah East, Iowa, (1978), 7.5' series quadrangle map. Scale 1:24,000.

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Figure 2. Site plan of the Essex Water Tower (site 73-00180), southwest corner of Victory Street and Nebraska Avenue, Essex, Iowa. Source of base map: 2016–2018 aerial photograph, ISUGISSRF; accessed July 2021.

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Figure 3. General view of the south side of Nebraska Avenue showing the Essex Water Tower (site 73-00180), southwest corner of Victory Street and Nebraska Avenue, Essex, Iowa, facing east-southeast. All photographs in this Iowa Site Inventory Form by Richard Carlson, July 12, 2021.

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Figure 4. General view of the Essex Water Tower (site 73-00180), showing Faith Evangelical Covenant Church in the foreground, facing east-southeast.

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Figure 5. View of Essex Water Tower (site 73-00180), facing northwest.

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Figure 6. Detail of concrete pier under northeast leg of Essex Water Tower (site 73-00180), facing south-southwest. The small cross in the north east corner (indicated by an arrow) is evidently a bench mark elevation to establish centerline grades of streets in Essex; see Public Notice: Town of Essex, Iowa, Ordinance No. 91, The Essex Independent*, November 21, 1968, p. 8.*

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Figure 7. Detail of inspection cover at base of frost jacket of riser pipe on Essex Water Tower (site 73-00180), facing southwest.

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Figure 8. Detail of hinged opening at base of frost jacket of riser pipe on Essex Water Tower (site 73-00180), facing northwest.

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Figure 9. Detail of "INLAND" stamp on steel I-beam in northwest leg of Essex Water Tower (site 73-00180), facing northeast.

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Figure 10. View up northwest leg of Essex Water Tower (site 73-00180), facing southeast, showing built-in ladder and raised tank.

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Figure 11. Detail of raised tank on Essex Water Tower (site 73-00180), facing southeast.

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Figure 12. Well house I on site of Essex Water Tower (site 73-00180), facing northwest.

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Figure 13. Well house I on site of Essex Water Tower (site 73-00180), facing southeast.

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Figure 14. Well house II on site of Essex Water Tower (site 73-00180), facing northeast.

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Figure 15. Well house II on site of Essex Water Tower (site 73-00180), facing southwest.

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Figure 16. Historical image of the upper part of the Essex Water Tower (site 73-00180), as it appeared in 1980, facing south. Source: State Historical Society of Iowa 1980.

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Figure 17. Historical image of the lower part of the Essex Water Tower (site 73-00180), as it appeared in 1980, facing south. Source: State Historical Society of Iowa 1980.

Figure 18. Historical image of well house I on the site of the Essex Water Tower (site 73-00180), as it appeared in 1980, facing southeast. Source: State Historical Society of Iowa 1980.