

56-2120

National Register of Historic Places Registration Form

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



1. Name of Property

Historic name: The Bruce-Macbeth Engine Company

Other names/site number: Eclipse Iron Works, Macbeth & Company

Name of related multiple property listing:

N/A

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

2. Location

Street & number: 2111 Center Street

City or town: Cleveland State: OH County: Cuyahoga

Not For Publication:

Vicinity:

3. State/Federal Agency Certification

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

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide X local

Applicable National Register Criteria:

X A ___ B ___ C ___ D

<u>DSHPO Inventory & Registration</u> <i>Barbara Power</i> <u>12/22/2017</u>	
Signature of certifying official/Title:	Date
Ohio Historic Preservation Office, Ohio Historical Society _____	
State or Federal agency/bureau or Tribal Government	

In my opinion, the property ___ meets ___ does not meet the National Register criteria.	
Signature of commenting official:	Date
Title :	State or Federal agency/bureau or Tribal Government

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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:)

Patrick Andrews

2/14/2018

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public - Local
- Public - State
- Public - Federal

Category of Property

(Check only one box.)

- Building(s)
- District
- Site
- Structure
- Object

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>1</u>	<u>0</u>	buildings
<u> </u>	<u> </u>	sites
<u> </u>	<u> </u>	structures
<u> </u>	<u> </u>	objects
<u>1</u>	<u>0</u>	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

INDUSTRY/PROCESSING/EXTRACTION

Current Functions

(Enter categories from instructions.)

COMMERCE/TRADE

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7. Description

Architectural Classification

(Enter categories from instructions.)

LATE 19TH AND EARLY 20TH CENTURY AMERICAN MOVEMENTS

Materials: (enter categories from instructions.)

Principal exterior materials of the property: Stone, Brick, Wood

Narrative Description

Summary Paragraph

The Bruce-Macbeth Engine Company is located at 2111 Center Street, situated on approximately 1.45 acres on the west bank of the Cuyahoga River in the Flats section of Cleveland. The sloped parcel is adjacent to the former New York, Lake Erie & Western (New York, L.E. & W.) Railroad spur at the south end of the property (which has been converted to a paved path as part of the Centennial Lake Link Trail), Winslow Avenue to the west, Center Street to the north, and Washington Avenue to the east. The façade is located along Center Street with a rear parking lot accessed from Washington Avenue. The evolution of the original foundry illustrates the growth and development of the Bruce-Macbeth Company. The foundry was enlarged with the addition of a machine shop in 1890 and 1905 and stockroom and blacksmith shop in 1909. The last addition to the building occurred in 1965. The industrial nature of the company is reflected by the open, functional design of the interior and concrete, brick and steel construction.

The Cleveland Centre Historic District (NR #13001117) is to the east of the Cuyahoga River, with a small portion of the district located along the west bank of the river. The Woodland Avenue and West Side Railroad Powerhouse is to the north of the building (NR #79001810). The west bank of the Flats consists primarily of foundry buildings, either under-utilized or abandoned. Some industrial activity remains along the river, with dry docks located closer to the mouth of the river at Lake Erie. Some buildings have been rehabilitated to office, housing, and retail commercial. The 1937 Lakeview Terrace Estates Cuyahoga Metropolitan Housing Authority public housing project is to the south at Mulberry Street.

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Narrative Description

FOUNDRY, CA. 1898

The foundry was constructed for the Eclipse Iron Works at the southeast corner of Winslow Avenue and Center Street. (Photo 1) A fire occurred on January 23, 1898 starting at the south end and gutting the building interior, leaving the brick walls standing according to newspaper reports.¹ The core of the nominated building was likely reconstructed in the same year. The one-story load bearing red brick monitor type industrial building rests on a sandstone foundation, likely atop bedrock due to its proximity to the river. The one-story building appears to be two-stories in height at Center Street and recedes to the south into the hillside. (Photos 2-3) The three-bay foundry façade has a central large arched opening of multi-paned sash bookended with projecting brick piers. There are two elongated semi-arch topped window openings with stone sills in the adjacent bays. The pattern of fenestration is somewhat repeated at the second-floor height with single more regular size openings, again with semi-arched top and stone sills. The fenestration on the façade is 9/9 and 4/4 double hung replacement sash with semi-arch infill at the top, mimicking the historic configuration. (Photo 5)

The false front parapet is stepped at the center with corbelling and terra cotta coping. The south side of the parapet has been chamfered, which may be explained by the fire of 1898. The roof line of the foundry is typical to the monitor industrial building type, with a gabled roof and center monitor to provide much needed natural light, fresh air and ventilation. The two-story height allows for hoists and cranes to support and move the heavy castings.² Cupolas (tall stack furnaces) were centrally located and flanked by coal ovens with two separate roof monitors, before the fire.³ (Historic Images, Figure 3) The 1912-13 & 1952 Sanborn Fire Insurance maps show a single monitor running from the north end to about half-way from the south end, where it met the coke/coal ovens and cupola. (Historic Images, Figure 7) Today, the single monitor at the north end remains with full panel glazing, while four skylights which span both sides of the gable at the south end were added sometime after 1952. (Historic Images, Figures 5,7) The west elevation, located along Winslow Avenue is twelve bays long with a repeated pattern of bays. (Photos 2,3) The first six bays had steel industrial sash as indicated in historic photographs, which have been infilled with concrete and glass block above the canopy, which extends over the sidewalk. (Historic Images, Figure 8) This area has always served as a dock. Elongated semi-arch openings have a combination of 9/9, 6/6 and 4/4 double hung replacement sash with semi-

¹ *Plain Dealer*, 24 January 1898.

² Palmer, R.H., "Foundry." *American Machinist*, Vol. 25, 4 December 1902.

³ Sanborn Fire Insurance Map, 1896.

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arch infill at the top, mimicking the historic configuration. An aluminum roll-up garage door is located at the fourth bay under the canopy. An arched opening, similar to the one on the façade is located at the fourth bay from the south. A man door opening located in the southern most bay has glass block infill and is covered with a metal screen. The east elevation is directly adjacent to later additions. A ca. 1900 two-story wood addition to the south end appears to have been added after the 1898 fire to store coal and coke for fueling the cupolas, easily unloaded from the railroad to the rear. (Photo 4, 15, 17, 18) (Historic Images, Figure 5)

The interior of the foundry is completely open. (Photo 19-23) (Historic Images, Figure 9) The concrete floor and exposed brick walls support the elaborate truss system which spans 60'. Webbed steel columns are located along the perimeter which support a crane beam. Additional webbed steel columns at the south end likely supported a jib crane. Large arched openings lead into the adjacent additions. A large rolling fire door leads into the 1890 machine shop addition described below. (Photo 20)

MACHINE SHOP, 1890 and 1905

The 1890 machine shop addition was constructed for the Eclipse Iron Works along the east wall of the foundry as a machine shop, patterns shop and blacksmith shop. The western five bays of the machine shop were originally three-stories in height. (Photo 6) The eastern four bays were only one story in height. (Photo 9) The originally three-story bays are accented by slightly projecting brick piers and corbelling. In 1905, Macbeth & Company enlarged the one-story wing with two additional stories, bringing it up to the current three-story configuration.

The load-bearing red brick addition rests on a sandstone foundation. Iron tie-rods with star escutcheon plates are located at the second and third floor levels. Semi-arched topped openings with stone sills, projecting brick piers and corbelled parapet characterize the architectural language of the machine shop addition. Openings on the first and second floor have been infilled with painted concrete and brick with steel industrial sash while the windows at the second floor are replacement paired double hung sash. The main entrance has a contemporary aluminum and glass storefront with paired doors and flanking sidelights and a transom above. The two-story addition fenestration is slightly larger in both height and width, but generally follows the floor levels. Tie rods are sporadically located on the elevation, along with additional hardware which likely served to hold canopies or overhead doors. (Photos 7, 8) There is no corbelling on the 1905 two-story addition. The rear of the machine shop is adjacent to the 1909 stock room and 1909 blacksmith shop. The 1909 blacksmith building was later merged into the foundry by roofing over the space in between the main building additions and the blacksmith building. (Photo 15,18)

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The interior of the machine shop consists of concrete floors on the first floor and large plank rough cut flooring at the second and third floor. The interior is a combination of both exposed and painted brick. The floor joists and under decking are a combination of both exposed and painted brick. Steel trusses are exhibited in the two-story space. Tall wood piers are exhibited with steel cranes and exposed piping. Although the machine shop is three-stories in height, only the north space has a second and third floor. The remaining area is open to below. (Photo 25-27) The second floor houses office space comprised of exposed brick walls and partially exposed ceilings with gypsum dividing walls and contemporary finishes. The stair, columns, and ceiling exhibit packed wood. (Photos 28-30) The third floor is occupied by an open office with wood floors and large timber lambs tongue columns constructed of packed wood, exposed brick walls and wood under decking. (Photos 31-32)

STOCK ROOM, 1909

The 1909 stock room addition was constructed for Bruce-Macbeth Engine Company and is integral to the building. It is composed of part of the foundry's east wall and located to the rear and south of the machine shop. Otherwise, it is non-descript red brick load-bearing construction. Openings lead into it from the north and south sides. The floor is concrete and walls are painted brick. The area served as restrooms for the building in recent years. (Photo 24)

BLACKSMITH, 1909

The 1909 Blacksmith portion of the building was constructed for the Bruce-Macbeth Engine Company and was originally built as a freestanding brick building south of the stock room. It is now incorporated into the building with a small roofed over the corridor separating it from the east elevation of the foundry. The load-bearing red brick blacksmith portion profile is similar in design to the foundry with gabled roof supported by metal trusses and central monitor, with full glazing replacement sash in the monitor. (Photos 17,18) Arched openings are located on the west elevation. Steel beams were added along with garage size openings into the foundry's east wall to provide access to and from the spaces. The original earth floor has been finished with concrete. Otherwise, it is non-descript brick load-bearing construction. Large arched openings lead into it from an in-fill roofed over corridor from the machine shop to the north. (Photos 21-22)

TENK MACHINE & TOOL COMPANY ADDITION, ca.1965

The ca.1965 Tenk Machine & Tool Company addition comprises the eastern most section of the building. It was constructed in 1965, outside the period of significance, by the Tenk Machine & Tool Company. The load-bearing blond brick building is two-stories in height with a single garage entrance on the north elevation and two steel industrial style sash windows at the east end of the second story level. (Photos 10-11) The west elevation adjoins the machine shop. The east

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elevation extends into the hillside at the south end. (Photo 12) The second story level is composed of eleven bays of steel industrial sash resting on stone sills. A single man door is located at the south end. The south elevation fenestration is composed of three steel industrial sash resting on stone sills. (Photos 13,14,16) The interior is non-descript painted concrete block and concrete floors, with exposed ceilings systems.

INTEGRITY

The Bruce-Macbeth Engine Company building demonstrates some deterioration and minor modifications, yet it is in good condition maintaining a significant level of historic architectural integrity for this late and early nineteenth century foundry building representative of the iron and steel industry in the city of Cleveland. The masonry one-story open floor plan monitor building type is typical of foundry buildings during the late 19th and 20th centuries. The monitor provided much needed light, fresh air and ventilation. The great height allowed for the room required for a hoist, and cranes to support and move the heavy castings as well as for venting for operation of the cupolas and coke ovens. This is exhibited in both exterior and interior architectural elements of the industrial load-bearing brick building that was constructed to withstand the weight of the manufacturing process and to prevent fires. Although original windows have been compromised over the years, the fenestration pattern remains. Interior exposed structural elements with lack of decoration and finished wall surface demonstrate the retention of historic fabric, materials, and craftsmanship, representing the industrial and utilitarian use of the building. The building remains in its historic location and the architectural language retains the historic feeling and association as noted in historic images of the building in its original historic setting.

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8. Statement of Significance

Applicable National Register Criteria

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

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

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

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

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Areas of Significance

(Enter categories from instructions.)

INDUSTRY

INVENTION

Period of Significance

1898-1954

Significant Dates

Significant Person

(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder

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Statement of Significance Summary Paragraph

The Bruce-Macbeth Engine Company foundry is locally significant under Criterion A in the area of industry as representative of the dominance of Cleveland in the iron and steel industry during the nineteenth and early twentieth century. The Bruce-Macbeth Engine Company is strategically located on the west bank of the Flats at the mouth of the Cuyahoga River along Lake Erie where Great Lakes freighters deposited loads of iron ore, coal and coke for distribution by rail to Cleveland foundries. The Bruce-Macbeth Engine Company operated as a foundry for almost 85 years producing iron architectural components necessary to the building trade, iron forge work and cast engines. In addition, the building is significant under Criterion A in the area of invention as representative of the innovation of the company at the turn of the twentieth century adapting their foundry and casting skills for the manufacturer of patented high quality, and well-crafted large scale commercial gas engines essential to Industrial era in Cleveland and which remain highly collectible today.

The period of significance begins in 1898 with construction of the existing foundry at the corner of Center Street and Winslow Avenue. It continues through the formation of Macbeth & Company in 1890, and consolidation with Bruce-Meriam-Abbott Co. in 1909 to create the Bruce-Macbeth Engine Company which is represented with additions constructed after 1909. The period of significance ends in 1954 with cessation of operation of the company and sale of the building.

Narrative Statement of Significance

Cleveland, Ohio became a national industrial center during the industrial era and into the first quarter of the twentieth century largely due to the flow of raw materials into the city in correlation with a flourish of entrepreneurial activity. Cleveland was ideally situated along the shore of the Great Lakes allowing access to iron ore deposits off Lake Superior, resulting in the growth of large shipping, materials-handling, and shipbuilding industries emanating from the demand for iron ore.⁴

The success of the steel and iron industry in Cleveland began with the discovery in 1844 of iron ore in the Lake Superior region of Michigan. Because of the geographic isolation of the Lake Superior ore districts with no nearby market, iron ore could not be profitably smelted to pig or

⁴ Miller, Carol Poh. Wheeler, Robert A. *Cleveland A Concise History 1796 – 1996*. Bloomington: Indiana University Press, 2cd ed., 1997, 79-80; Van Tassel, David R. and Grabowski, John J. eds. *The Encyclopedia of Cleveland History*, “Iron and Steel Industry,” Bloomington: Indiana University Press, 1996. Also available at www.ech.case.edu.

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bar iron. Samuel Mather pioneered the iron ore trade by founding the Cleveland Iron Mining Company in the 1850s, with his son Samuel following suit forming Pickands, Mather & Company in 1882. Both companies operated mines in the Lake Superior district with large fleets of bulk carriers dominating the shipping industry on the Great Lakes. Ore was transported in bulk to blast furnaces on the lower Great Lakes. The opening of the Sault Ste. Marie Canal in 1855 marked the beginning of ore shipment in quantity with movement of ore mined in the Lake Superior region and carried by rail to the shipping ports where it was transported to lower lake ports, unloaded and transferred into railroad cars and onto industrial blast furnaces.⁵

The *Cleveland Leader* in 1858 claimed that Cleveland enjoyed advantages even greater than Pittsburgh for the manufacture of iron, "[w]ith [the cost of] transportation added, iron can be made \$7 a ton cheaper in Cleveland than made at Pittsburgh and brought here. . . . Would it not be wise to start blast furnaces in Cleveland?" In 1860, only 374 men were working in three bar and sheet iron establishments in Cuyahoga County.⁶ By 1880 the annual output of the Lake Superior mines had risen to almost two million gross tons.

With ships concentrating at the port of Cleveland to deposit their loads, the question of how to efficiently unload became more pressing. The problem was lessened by Alexander Brown, when he invented a mechanical hoist to reduce inefficient hand labor. George Hulett later improved the system in 1898 with his patented electrically powered Hulett unloader which came to dominate the skyline along Lake Erie and the Cuyahoga River [(HAER) No. OH-18, (ASME) Historical Mechanical Engineer Landmark #199].⁷

By 1884 and according to the annual report of the *Cleveland Board of Trade*, there were 147 establishments in Cleveland devoted to the manufacture of iron and steel products. This represented a combined capital investment of \$21.5 million and an average work force of 14,000, with products valued at a combined total of \$25.2 million. In addition to 11 manufacturers of iron and steel products as the primary industry employing 5,665 workers, these figures included 30 establishments producing hardware and tools (2,292 employees), 4 producing sewing machines (1,110 employees), 48 producing boilers and machinery (1,333 employees), 13 foundries (1,217 employees), and 9 producing nuts, bolts, and other fasteners (960 employees).⁸

The west bank of the Flats is conveniently located at the mouth of the Cuyahoga River at Lake Erie with inland railroad access, prompting a concentration of iron and steel related businesses.

⁵ Van Tassel, David R. and Grabowski, John J. eds., "Iron and Steel Industry."

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

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(Historic Images, Figure 1) In 1898, iron ore leases dominated the west bank of the Flats along the Lake Erie shoreline, with foundries established in the area. Pig iron, ore, and coal piles were deposited in bulk along the perimeter of the river, providing easy access to the surrounding foundries. (Historic Images, Figure 4a,4b) Businesses in the west bank of the Flats included: People's Gas Light & Cook Company; Globe Iron Works Company; Cleveland Cooperative Stove Company; Cleveland Burial Case factory; The Cleveland Spring Company; Bourne & Knowles Manufacturing Company; Kundtz Sewing Machine; GAB Works; Kundtz's Bending Company; Cleveland Ship Building; and Eclipse Iron Works, consolidating as Macbeth & Company.⁹

In 1900, Cuyahoga County produced 968,801 tons of iron and steel, ranking fifth nationally behind Allegheny County, Pennsylvania; Cook County, Illinois; Mahoning County, Ohio; and, Jefferson County, Alabama.¹⁰

Foundry Building Design & Process

The design of foundry buildings for cast iron production began to evolve at the end of the nineteenth century. As the production of machine castings became more mechanized and the machinery itself was perfected, limitations were traced to foundry building design. New design employed brick and steel to replace earlier wood buildings vulnerable to the ever-present danger of fire. Attention was given to needs including improved lighting, facilities for handling large castings and economy in power and labor. Monitors were added at the roof for lighting and ventilation. Cranes were introduced along with improved lifting mechanisms with greater height added to the foundry building allowing for installation. The monitor designed foundry became popular with an open main floor through the center of the building allowing for a variety of cranes for heavy and light work. Raw materials were kept in close proximity for easy access, saving on labor costs. Cupolas were arranged for ease of delivery of iron and coke with the overall design of the building towards economy and efficiency.

The cast iron process begins with the blast furnace, which is a metallurgic furnace used for smelting to produce pig iron from iron ore. The purpose of the furnace is to chemically reduce and physically convert iron oxides into liquid metal. The molten pig iron from the blast furnace is then used by foundries.¹¹ Foundries re-melt pig iron in an air furnace or cupola (tall stack furnace) turning it into cast iron products. The process begins with the design and creation of a model or pattern for the desired product. The model or pattern is then pressed into specially

⁹ G.M. Hopkins Map, 1898.

¹⁰ Van Tassel, David R. and Grabowski, John J. eds., "Iron and Steel Industry."

¹¹ "How a Blast Furnace Works." American Steel and Iron Institute. Available at <http://www.steel.org/making-steel/how-its-made/processes/how-a-blast-furnace-works.aspx>

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treated sand in a box, which makes an outline of the casting with two halves joined to make one hollow piece. A cupola is prepared, composed of a sand floor and tap hole at the bottom, forced air inlets on the middle and an opening at the top. Layers of coke (distilled coal) and pig iron (refined iron ore) are then burned in the cupola. Fuel and iron are added at the top (charging) as molten metal is drawn off the bottom. Hand carried ladles of molten metal are then used to pour small molds, or overhead cranes for large molds. After the castings are cooled, they are shaken out (removed) from the mold and put through a series of cleaning and grinding steps for finishing. The cupola is then cleaned of slag and sand which are hauled away, and the cupola set up for the next casting.¹² This process allowed for the manufacture of a wide array of durable metal cast products.

Eclipse Iron Works and Macbeth & Company

By 1870, John Macbeth, John Stoney, Robert Chambers, and Thomas Harrison had purchased lots 702-707 and lots 713-716 at the southeast corner of Center Street and Second (Winslow) Avenue, on which they constructed their Eclipse Iron Works foundry for a combined purchase price of \$6,235.¹³ These enterprising men saw the advantages of locating the Eclipse Iron Works in the Flats with easy access to iron ore at the banks of the Cuyahoga River and a spur of the New York, Lake Erie & Western (New York, L.E. & W.) Railroad line to the rear of the property. (Historic Images, Figures 1-4b) The company specialized in architectural iron work during a time of robust construction in Cleveland. In 1878, the Eclipse Iron Works reorganized under the ownership of Robert Chambers and John Macbeth, with John Stoney and Thomas Harrison having sold their interests.¹⁴ The company continued to expand acquiring Lots 717 & 718 to the rear of the foundry in 1881 to accommodate their growing business.¹⁵

In 1886, Macbeth and Chambers parted ways and dissolved Eclipse Iron Works. John Macbeth took over the company with his son Thomas Macbeth as partner.¹⁶ In 1890, John Macbeth sold the foundry buildings to his three sons Andrew, Thomas and Joseph Macbeth, with the company

¹² "How a Foundry Works: A Brief Explanation." Available at

http://www.dec.ny.gov/docs/remediation_hudson_pdf/foundry.pdf.

¹³ Cuyahoga County Deed from Hiram Little to John Macbeth, John Stoney, Robert Chambers, and Thomas Harrison dated 26 January 1867 (Lots 702-707); Cuyahoga County Deed from John Hudson to John Macbeth, John Stoney, and John Chambers (Lots 713-716).

¹⁴ Cuyahoga County Deed from Eliza Harrison to John Macbeth dated 30 January 1871; Cuyahoga County Deed from John Stoney to John Macbeth and Robert Chambers dated 2 July 1878; *Plain Dealer*, 9 September 1878.

¹⁵ Cuyahoga County Deed from Thomas Stanton to Eclipse Iron Works, John Macbeth and Robert Chambers dated 19 September 1881.

¹⁶ *Plain Dealer*, 19 June 1886.

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becoming known as Macbeth & Company.¹⁷ At the same time, the company expanded along Center Street to the east on lots 708-710 continuing in the business of architectural iron work.¹⁸ In 1898, the company suffered a large fire leaving only the walls of the foundry building standing, destroying company paperwork and books.¹⁹ The company rebuilt and John Macbeth passed away the following February of 1899.²⁰ In 1901, the company formally incorporated as Macbeth & Company with capitalization of \$100,000, by incorporators Thomas Macbeth, Charles W. Kelly, and E.A. Foote.²¹ The 1908 City of Cleveland directory indicated the company was doing business as “Engineers, Founders and Machinists.”²² They produced blowing engines, defined as large stationary steam engines or internal combustion engines directly coupled to air pumping stations used to provide air blast for furnaces and other forms of smelter.²³

Macbeth & Company and Bruce-Meriam-Abbott Company become Bruce-Macbeth Engine Company

In the early twentieth century, Macbeth & Company saw opportunity in the natural gas engine forging business. Their skill at iron forge work and blowing engines could be combined with the expertise of the Bruce-Meriam-Abbott Company in the production of gas powered commercial engines, which were fueling the growth of industrialization and manufacturing nationwide. In 1876, German Nickolaus Otto (1832-1891) patented and produced the world’s first four-stroke engine setting the standard of the times. Between 1880 and 1900, different processes were invented to accomplish the task of converting liquid fuels to vapor including carburetion, hot bulb vaporization, and the diesel engine where gas ignites itself.

By the turn of the twentieth century, internal combustion engines were in wide spread use throughout industrial plants in Europe and America. The natural gas engine had marked advantages over steam, as more efficient, particularly in small industry, and cleaner, with an automated feed saving the labor of shoveling coal. Early motors were fixed in location. When liquid petroleum fuels were developed, the motor could be mobile.²⁴ The creation of the internal

¹⁷ City of Cleveland Directory, 1890.

¹⁸ Cuyahoga County Deed from Rodolphus & Lisa Doty to Macbeth & Company, Andrew Macbeth, Joseph Macbeth, and Thomas Macbeth dated 1 November 1890. City of Cleveland Directory, 1891-1898.

¹⁹ *Plain Dealer*, 24 January 1898

²⁰ *Plain Dealer*, 5 February 1899.

²¹ *Plain Dealer*, 24 July 1901.

²² City of Cleveland Directory, 1908.

²³ *The Iron Trade Review*, “Among Machinery Makers,” Cleveland: The Penton Publishing Company Vol. 44, 10 June 1909, 1068.

²⁴ Hinshaw, John and Peter Stearns, *Industrialization in the Modern World*, Vol.1. Santa Barbara: ABC-

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combustion engine revolutionized industries and the processes used by manufacturers during the industrial revolution and at the turn of the twentieth century. In 1903, Henry Ford created the Ford Motorcar Company to produce affordable automobiles. Henry Ford's motor car company was the first automobile manufacturer to solely utilize the internal combustion engine as its power plant, which cemented the internal combustion engine as the industry standard.

The Meriam-Abbott Company was organized in 1900 and was one of the pioneers in the manufacture of a commercial natural gas engine.²⁵ The Board of Directors of the company voted to consolidate with the Bruce Company with capitalization of \$100,000 in 1904, and the Bruce-Meriam-Abbott Company was incorporated on June 15, 1904.²⁶ Directors of the company were: W.C. Bruce, president; H.G. Schowe, vice president; F.E. Abbott, secretary and treasurer; F.P. Root; N.P. Bowler; Joseph B. Meriam, chief engineer; and Peter Gerlach. Products included the manufacture of the Meriam-Abbott gas engine and the Bruce-Collins gas engine, as well as general engineering business.²⁷

In June 1909, the Macbeth Iron Company and the Bruce-Meriam-Abbott Company, were consolidated. The name of the new company became the Bruce-Macbeth Engine Company. It was reported that both companies had been long established in Cleveland, and "their recent amalgamation makes them one of the largest and strongest companies of its kind."²⁸ It was the purpose of the Bruce-Macbeth Engine Company to integrate the business of both of the former companies on a much larger scale. The new company concentrated the two present plants into the former plant of the Macbeth & Company on Center Street. It was reported that "alterations to the present buildings were being made and several new buildings constructed to accommodate the enlarged business and the combined equipment of the two companies in one plant will make a very complete and modern shop."²⁹ (Historic Images, Figure 5, 11a) The officers of the company were President W.C. Bruce, VP C.W. Kelly, secretary and treasurer C.J. Snow, and manager C.E. Curtiss. Along with the above, A.D. Macbeth, J.B. Meriam, and F.B. Abbott constituted the Board of Directors. Bruce was formerly president of Bruce-Meriam-Abbott Company; Kelly, Snow, and Curtiss retained the same positions formerly held at the Macbeth

CLIO, 241-242.

²⁵ *The Iron Trade Review*, "Among Machinery Makers," Cleveland: The Penton Publishing Company Vol. 44, 10 June 1909, 1068.

²⁶ Bruce-Meriam-Abbott Company Secretary of State of Ohio, Business Incorporation, Entity No. 69159.

²⁷ *The Engineer*, 1 January 1905, 186.

²⁸ *The Iron Trade Review*, "Among Machinery Makers," Cleveland: The Penton Publishing Company Vol. 44, 10 June 1909, 1068.

²⁹ *Ibid.*

The Bruce-Macbeth Engine Company

Name of Property

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Iron Company³⁰ C.E. Curtiss's name is found on company patent drawings for the Bruce-Macbeth Engine Company. (Historic Images, Figure 10)

The same year Bruce-Macbeth Engine Company was created, it was invited to exhibit a "fine gas engine" at Cleveland's first Industrial Exposition of 1909, which showcased Cleveland's manufacturing products. In the early 1900s Cleveland was one of the nation's principal industrial cities, but the industrial output had never been showcased. The City's leaders and the Chamber of Commerce decided to host an exposition of the many new inventions and industrial advancements developed in the region. It was held in a temporary building on the current site of City Hall with more than 250 exhibitors. The Expo featured many different engine types powered by water, steam, air, and gas.³¹ Average attendance was 20,000 people per day, showing the fascination with the products of industry.³²

The trade journal, *Industry Week*, reported in 1910 that despite machinery dealers and manufacturers feeling a "dullness" in the marketplace, Bruce-Macbeth reported a considerable quantity of work with recently booked orders including: one (1) 135 H.P. 4 cylinder natural gas engine directly connected to a Crocker-Wheeler generator for the Monongah Glass Company, Fairmont, West Virginia; one (1) 135 H.P. 4-cylinder gas engine to operate a belt driven pump for the Salamanca Water & Light Works, Salamanca, New York; and two (2) 80 H.P. twin cylinder natural gas engines for belt drive to the C.I. Flaccus Glass Co, Tarentum, Pennsylvania. It was reported that these orders were fourth and fifth repeat orders.³³

In 1910, Bruce-Macbeth Company opened a branch office in the Drexel Building, Philadelphia, PA, headed by M.E. Jackson "who will be prepared to furnish complete information relative to gas engines, producers and complete gas-powered plants."³⁴ In 1911, the company announced sales of vertical natural gas engines powering a variety of companies and facilities including steamship, lumber, glass, iron works, incubator, ignition, spring, ice & cold storage, brass companies, and a municipal lighting plant:³⁵

³⁰ Ibid.

³¹ Kessinger, Michael. "The Industrial Exposition of 1909," *Cleveland Historical*. Available at <https://clevelandhistorical.org/items/show/707>.

³² *The Iron Trade Review*, "Great Success Is the Cleveland Industrial Exposition-Interest in Machinery," Vol 46, 17 June 1909, 1107.

³³ *The Iron Trade Review* "Live Machinery News", Cleveland: The Penton Publishing Company, Vol. 47, 24, November 1910, 973.

³⁴ *Electrical Review and Western Electrician*, Vol. 56, No.2, 8 January 1910, 117.

³⁵ *Live Machinery News*, 10 August 1911, Vol XLIX, Cleveland: Penton Publishing Company, 261.

The Bruce-Macbeth Engine Company

Cuyahoga County, OH
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<u>Customer</u>	<u>Engine</u>
Pittsburgh Steamship Company, Conneaut, OH	55 H.P., 2-cylinder
Canton Lumber Company, Canton, OH	55 H.P., 2-cylinder
H.C. Fry Glass Company, Rochester, PA	150 H.P., 4-cylinder
Van Dorn Ironworks, Cleveland, OH	150 H.P., 4-cylinder
Harshaw, Fuller & Goodwin Co, Elyria, OH	115 H.P., 4-cylinder, and 35 H.P. 2-cylinder
Prairie State Incubator Company, Homer, PA	115 H.P., 4-cylinder
K-W Ignition Company, Cleveland, OH	90 H.P., 4-cylinder
Perfection Spring Co, Cleveland, OH	80 H.P., 2-cylinder
Consumers Ice & Cold Storage Co, Lexington, KY	75 H.P., 4-cylinder
Municipal Light Plant, Canal Dover, OH	300 H.P., 4-cylinder (repeat order)
Monongah Brass Co, Fairmont, WV	350 H.P., 4-cylinder (6 th order by company)

In 1913, Bruce-Macbeth engines were advertised for use in refrigeration machinery with a “variable speed, to meet variable power requirements at different times of the day, different days and different seasons,” which was possible with a Bruce-Macbeth engine connected directly to the ice machine. The company advertised that it was no longer necessary to use clutches or to connect engine to dynamo, dynamo to motor, and motor to machine in-order-to obtain variable speed, with those practices never having been wholly satisfactory. This development effected economy in fuel costs and greatly improved the adaptability of the gas engine for variable speed work. This gave the well-designed Bruce-Macbeth engines a distinct advantage for use in ice cream plants, with fuel savings as a result of variable speed control.³⁶ The innovation of the company included patents acquired in 1912-1913 including but not limited to: a Gas Engine Valve, Patent No. 1,046,210, granted 3 December 1912 to J.B. Meriam & H.L. Allen; and a Flexible Coupling, Patent No. 1,069,454 granted 5 August 1913 to J.B. Meriam.

In 1915, Bruce-Macbeth marketed the cost savings of gas operating engines for manufacturing with gas power the most economical form of power. The company advertised that a gas power plant could be operated at from 25 to 75 percent less than a steam engine plant, and in most localities, was far less expensive than purchasing “current” from a central station company. Standard, high-grade gas engines were regarded as of the highest reliability and efficiency, and in universal use among the largest and most successful manufacturing concerns. In addition to the decided economy of a gas-powered plant, another advantage was the small amount of space it occupied, requiring minimum fuel space, and being clean and smokeless, with a minimum of attendance in operation. The Bruce-Macbeth vertical, multi-cylinder gas engine was one of the

³⁶ *The Ice Cream Trade Journal*, Advertisement. New York: The Cutler-Williams Company, Vol. IX, No.1, January 1913, 53

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highest-grade engines on the market with the best standing among the trade. Bruce-Macbeth Engines were selected by The East Ohio Gas Company, Cleveland, for their new office and exhibition building, the engine room of which was to demonstrate a gas power plant engine room in every detail. In addition, among the Bruce-Macbeth gas engine installations in the clay working and allied industries were the following in 1915:³⁷

<u>Customer</u>	<u>Engine</u>
Farr Brick Company, Cleveland, OH	18 & 15 H.P.
Delaware Blue Limestone Quarries Company, Delaware, OH	60 H.P.
Swint Brothers, Fremont, OH	40 H.P.
B.W. Saxe Pottery Company, Cleveland, OH	45 H.P.
Empire Marble Company, Cleveland, OH	90 H.P.
Gottrom Bros., Fremont, OH	40 H.P.
Medina Granite & Marble Company, Medina, OH	30 H.P.

The Bruce-Macbeth Engine Company advertised to be at the disposal of anyone interested in the reduction of power costs. They offered a thorough investigation of the requirements in any particular case and offered recommendations covering the outfit and method of installation that will give best results for the service required; they would also give a definite estimate of the annual cost of operation. They offered that the matter of power afforded one of the best opportunities for cutting production and increasing the efficiency of high-priced equipment.³⁸ In 1924, Ward's Wonder bakery was included as a customer employing a vertical 4-cylinder Bruce Macbeth gas engine to power their newly completed facility in Cleveland.³⁹)

Patents and Later Years

In 1927, the Company continued to advertise as "Builders of Vertical Multi-Cylinder Gas Engines for Stationary power plants, factories, electric plants, water works, etc. Natural, Producer and Artificial Gas and Gasoline." (Historic Images, Figures 8,9,11b) In 1930, at the beginning of the Depression, the company advertised not only vertical multi-cylinder engines, but Bassett Oil Gas generators suitable for furnaces, ovens and all industrial purposes.⁴⁰ The Company acquired patents from 1924 to 1936 indicating a move to include gasoline powered engines including but not limited to:

³⁷ *Brick and Clay Record*, Semi-Annual Index, "Machinery and Equipment," Chicago: Kenfield-Leach Company, 20 July 1915, 122.

³⁸ *Brick and Clay Record*, Semi-Annual Index, "Machinery and Equipment," Chicago: Kenfield-Leach Company, 20 July 1915, 122.

³⁹ *Plain Dealer*, 10 October 1924.

⁴⁰ *City of Cleveland Directory*, 1930.

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- Internal Combustion Engine, Patent No. 1,503,640; granted 5 August 1924 to C.E. Curtiss et al. (Historic Images, Figure 10)
- Mixing Device for Oil Gas Apparatus, Patent No. 1,688,320; granted 23 October 1928 to A.J. Bassett
- Oil Gas Apparatus, Patent No. 1,694,910; granted 11 December 1928 to A.J. Bassett
- Oil Gas Apparatus, Patent No. 1,698,525; granted 8 January 1929 to A.J. Bassett
- Method of Manufacturing Oil Gas, Patent No. 1,698,526; granted 8 January 1929 to A.J. Bassett
- Method of Cleaning and Cooling Gas Scrubbing Water and Apparatus Therefor, Patent No. 1,923,135; granted 22 August 1933 to H.L. Allen
- Valve Element and Method of Forming the Same, Patent No. 2,056,160; granted 6 October 1936 to H.L. Allen

Thomas Macbeth had served as president of the company, passing away in 1938.⁴¹ John “Donald” Macbeth, son of Thomas Macbeth and grandson of founder John Macbeth became president of the company in 1941 and served until sale of the Company facility in 1954, marking three generations of the Macbeth family. The Bruce-Macbeth Engine Company was sold to Walter Schott brothers of Cincinnati in 1951 and recognized as a “landmark of the old Ohio City days”, continuing operation as Bruce-Macbeth Engine Company.⁴² (Historic Images, Figure 7) In 1952, the company advertised as offering welding services including open capacity on plate fabrication and heavy welding and flame cutting equipment with an entire working area covered by a 40 ton bridge crane.⁴³ The building was sold in 1954 to Center Street Inc. owned by Carl Tenk, head of Tenk Machine & Tool Company. After completing an addition to the building in ca. 1965 on Lots 711 & 712, Tenk Machine & Tool Company moved into the building. The building has mostly remained vacant since Tenk Machine & Tool Company sold it in 1994.

Conclusion

The Bruce-Macbeth Engine Company represents the strength of the booming iron and steel industry and entrepreneurial spirit in Cleveland during the Industrial Age and into the mid-twentieth century. The Bruce-Macbeth Engine Company foundry is strategically located on the west bank of the Flats at the mouth of the Cuyahoga River along Lake Erie where Great Lakes freighters deposited loads of iron ore, coal, and coke for distribution by rail to Cleveland blast furnaces and foundries. The New York, L.E. & W. Railroad spur which once ran to the south of the property allowed for delivery of raw materials and the distribution of finished products.

⁴¹ *Plain Dealer*, 12 September 1938.

⁴² *Plain Dealer*, 19 July 1951.

⁴³ *Plain Dealer*, 24 August 1952.

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The foundry design that utilized the high monitor window feature for light, ventilation and large mechanical function allowed for efficient and economical operation of the family owned business for almost 85 years beginning with production of iron architectural artifacts popular in the building trade, iron forge work and evolving to produce cast engines. The innovation represented by company at the turn of the twentieth century demonstrates their ability to adapt their foundry and casting skills for the manufacturer of patented high quality and well-crafted large scale commercial gas cast engines that were essential for manufacturing during the Cleveland industrial age. Bruce-Macbeth engines remain highly collectible today.

The Bruce-Macbeth Engine Company

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9. Major Bibliographical References

Primary

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The Bruce-Macbeth Engine Company

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Name of Property

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National Register Nominations & Historic American Engineer Record

Cleveland Centre Historic District, Cleveland, OH (NR #13001117).

Hulett Ore Unloaders, Cleveland, OH (HAER No. OH-18, ASME Historical Mechanical Engineer Landmark #199).

Woodland Avenue and West Side Railroad Powerhouse (NR #79001810).

The Bruce-Macbeth Engine Company

Name of Property

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Previous documentation on file (NPS):

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

Primary location of additional data:

- State Historic Preservation Office
 - Other State agency
 - Federal agency
 - Local government
 - University
 - Other
- Name of repository: Cleveland Public Library

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 1.45acres

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

- | | |
|--------------|------------|
| 1. Latitude: | Longitude: |
| 2. Latitude: | Longitude: |
| 3. Latitude: | Longitude: |
| 4. Latitude: | Longitude: |

Or

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Name of Property

UTM References

Datum (indicated on USGS map):

NAD 1927 or NAD 1983

- | | | |
|-------------|-----------------|-------------------|
| 1. Zone: 17 | Easting: 441092 | Northing: 4593675 |
| 2. Zone: | Easting: | Northing: |
| 3. Zone: | Easting: | Northing: |
| 4. Zone: | Easting: | Northing: |

Verbal Boundary Description

The nominated property is situated in the City of Cleveland, County of Cuyahoga, and State of Ohio. The boundary of the historic Bruce-Macbeth Engine Company building follows Cuyahoga County Parcel #003-18-020.

Boundary Justification

The nominated boundary includes the property parcel historically associated with the building.

11. Form Prepared By

name/title: Wendy Hoge Naylor, Diana Wellman
organization: Naylor Wellman, LLC
street & number: 92 East Washington Street
city or town: Chagrin Falls state: OH zip code: 44022
e-mail: naylor@naylorwellman.com; wellman@naylorwellman.com
telephone: 440-247-8319
date: July 1, 2017

The Bruce-Macbeth Engine Company

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Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Photographs

Photo Log

Name of Property: Bruce-Macbeth Engine Company

City or Vicinity: Cleveland

County: Cuyahoga **State:** OH

Photographer: Diana Wellman & Wendy Naylor

Date Photographed: July 2017 (Photographs 3, 11, 12, 15, 16, 21, 22, 24-32) & November 15, 2017 (Photograph # 1, 4-10, 13, 14, 17-20, 23)

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

1. (OH_Bruce-Macbeth Engine Company_0001): Foundry Façade, camera direction SE.
2. (OH_Bruce-Macbeth Engine Company_0002): Foundry Façade, camera direction SE.
3. (OH_Bruce-Macbeth Engine Company_0003): Foundry West Elevation, camera direction SE.
4. (OH_Bruce-Macbeth Engine Company_0004): Foundry West Elevation, camera direction NE.
5. (OH_Bruce-Macbeth Engine Company_0005): Foundry Façade, camera direction S.
6. (OH_Bruce-Macbeth Engine Company_0006): Foundry Façade, camera direction SE.
7. (OH_Bruce-Macbeth Engine Company_0007): Foundry Façade, camera direction S.

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8. (OH_Bruce-Macbeth Engine Company_0008): Foundry Façade, ca. camera direction SE.
9. (OH_Bruce-Macbeth Engine Company_0009): Foundry Façade, 1890/1905, camera direction S.
10. (OH_Bruce-Macbeth Engine Company_0010): Foundry Façade, camera direction SW.
11. (OH_Bruce-Macbeth Engine Company_0011): 1965 Addition, camera direction SW.
12. (OH_Bruce-Macbeth Engine Company_0012): 1965 Addition, camera direction NW.
13. (OH_Bruce-Macbeth Engine Company_0013): 1965 Addition, camera direction N.
14. (OH_Bruce-Macbeth Engine Company_0014): 1890/1905 Addition, camera direction NW.
15. (OH_Bruce-Macbeth Engine Company_0015): 1890/1905 Addition, camera direction N.
16. (OH_Bruce-Macbeth Engine Company_0016): 1890/1905 Addition/ca.1965 Addition, camera direction NW.
17. (OH_Bruce-Macbeth Engine Company_0017): Foundry, camera direction NE.
18. (OH_Bruce-Macbeth Engine Company_0018): 1909 Blacksmith, camera direction N.
19. (OH_Bruce-Macbeth Engine Company_0019): First Floor, Foundry, camera direction N.
20. (OH_Bruce-Macbeth Engine Company_0020): First Floor, Foundry, camera direction NE.
21. (OH_Bruce-Macbeth Engine Company_0021): First Floor, 1909 Blacksmith, camera direction SE.
22. (OH_Bruce-Macbeth Engine Company_0022): First Floor, Foundry, camera direction SE.
23. (OH_Bruce-Macbeth Engine Company_0023): First Floor, Foundry, camera direction S.
24. (OH_Bruce-Macbeth Engine Company_0024): First Floor, Foundry from 1890 Addition, camera direction W.
25. (OH_Bruce-Macbeth Engine Company_0025): First Floor, 1890/1905 Addition, camera direction S.
26. (OH_Bruce-Macbeth Engine Company_0026): First Floor, 1890/1905 Addition, camera direction NW.

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27. (OH_Bruce-Macbeth Engine Company_0027): First Floor, 1890/1905 Addition, camera direction N.

28. (OH_Bruce-Macbeth Engine Company_0028): Second Floor stairs, 1890 Addition, camera direction E.

29. (OH_Bruce-Macbeth Engine Company_0029): Second Floor, 1890 Addition, camera direction N.

30. (OH_Bruce-Macbeth Engine Company_0030): Second Floor, 1890 Addition, camera direction E.

31. (OH_Bruce-Macbeth Engine Company_0031): Third Floor, 1890 Addition, camera direction SW.

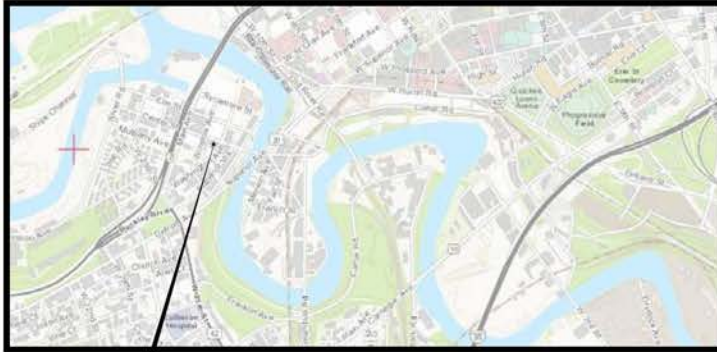
32. (OH_Bruce-Macbeth Engine Company_0032): Third Floor, 1890 Addition, camera direction W.

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National Park Service

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**National Register of Historic Places
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Section number Additional Documentation - Location Map-SITE Page 1

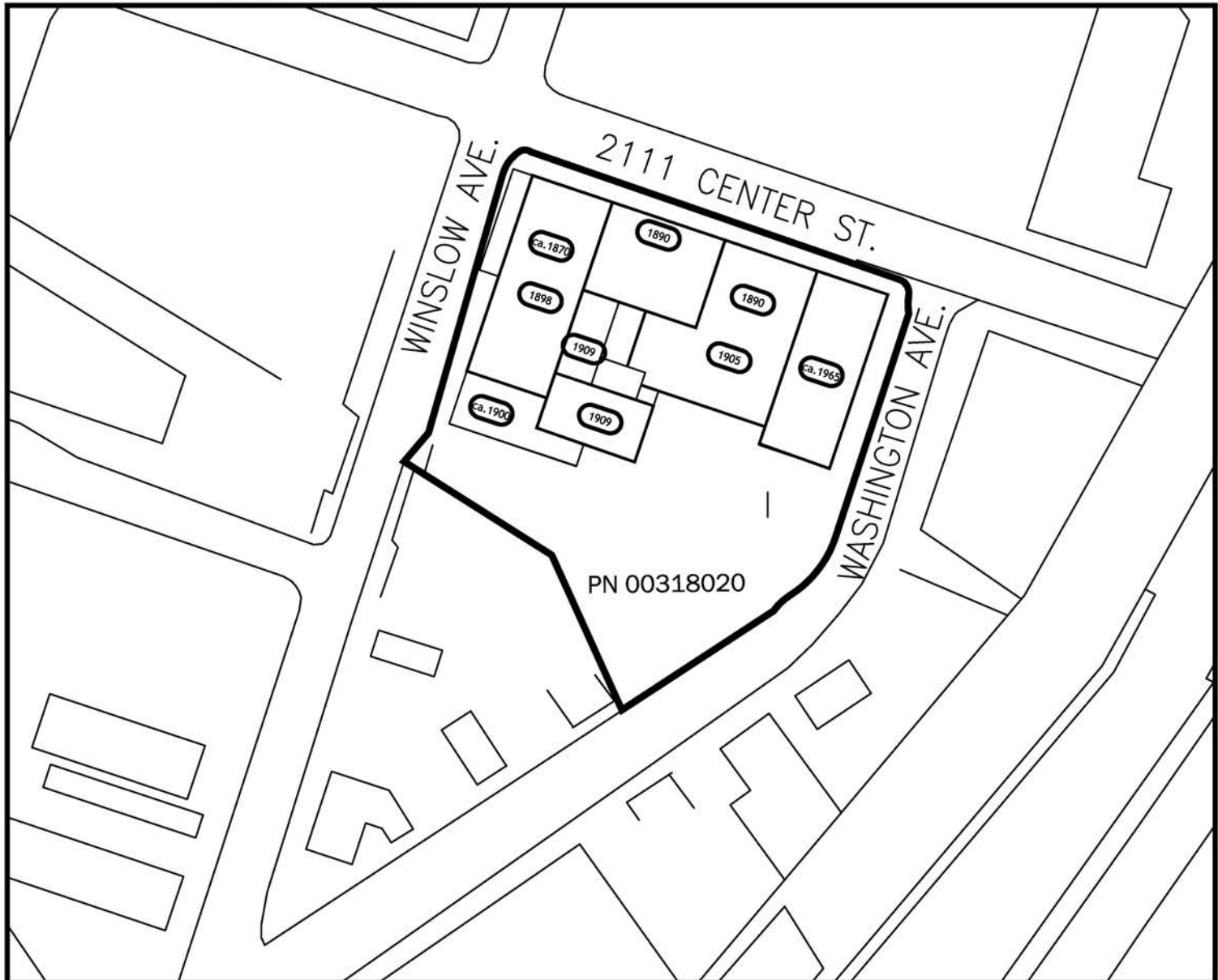


LEGEND 
Not to Scale

-  BUILDING
-  PARCEL BOUNDARY
- PN = xxxxxxxx PARCEL NUMBER
-  PHOTO-KEY ARROW
-  CONSTRUCTION DATE

AUGUST 2017

LOCATION MAP USGS/ESRI Map 2017



United States Department of the Interior
National Park Service

BRUCE-MACBETH ENGINE CO.
Cuyahoga County, Ohio

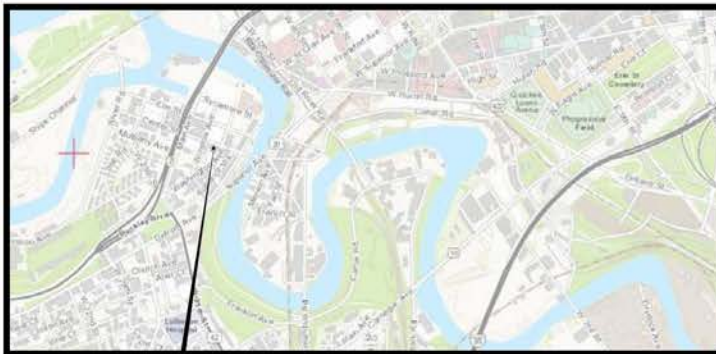
**National Register of Historic Places
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Section number Additional Documentation - USGS Map

Page 2



LOCATION MAP
USGS CLEVELAND SOUTH QUADRANGLE



USGS/ESRI Map 2017

LEGEND

 Not to Scale

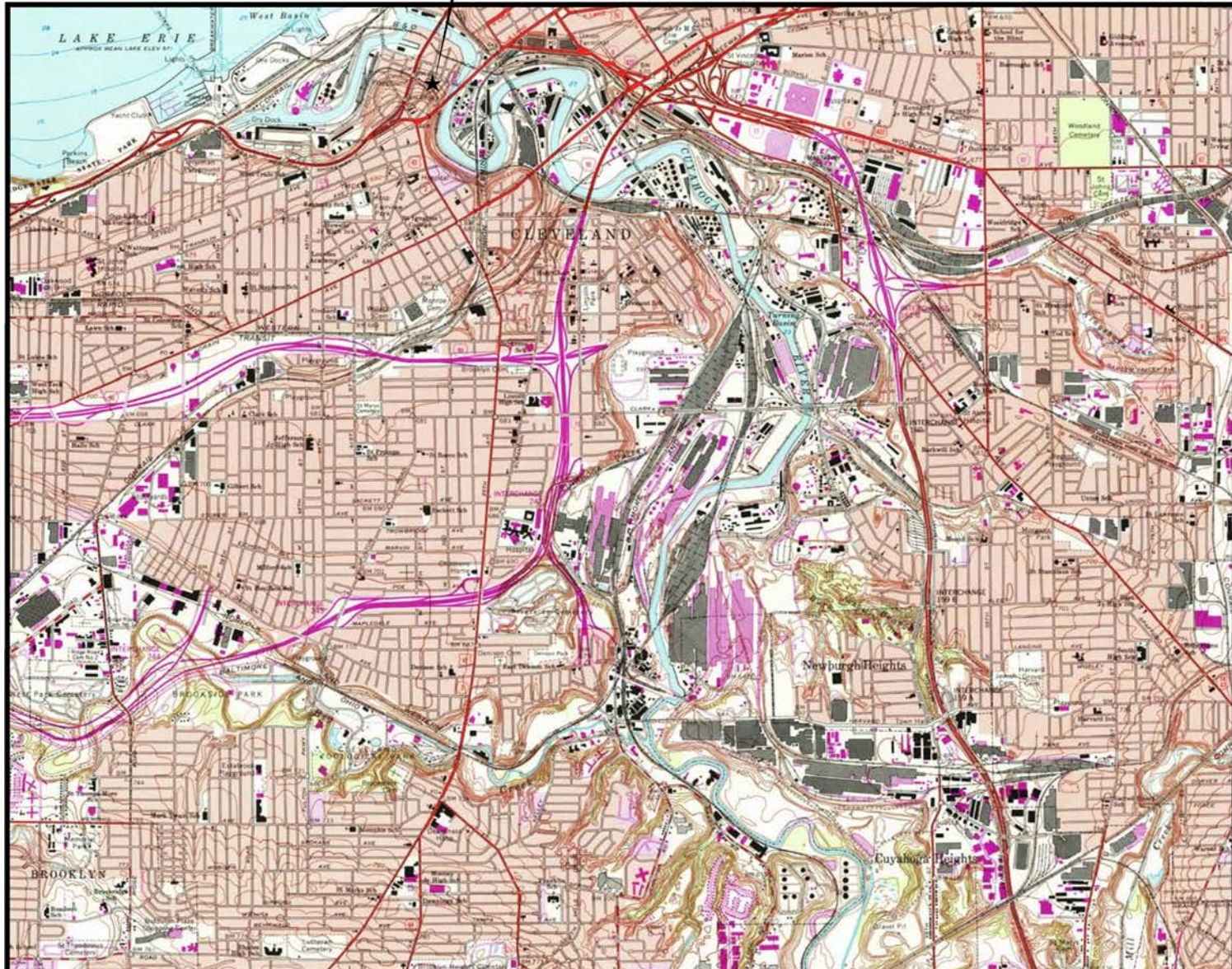
 BUILDING

 PARCEL BOUNDARY

 PHOTO-KEY ARROW

AUGUST 2017

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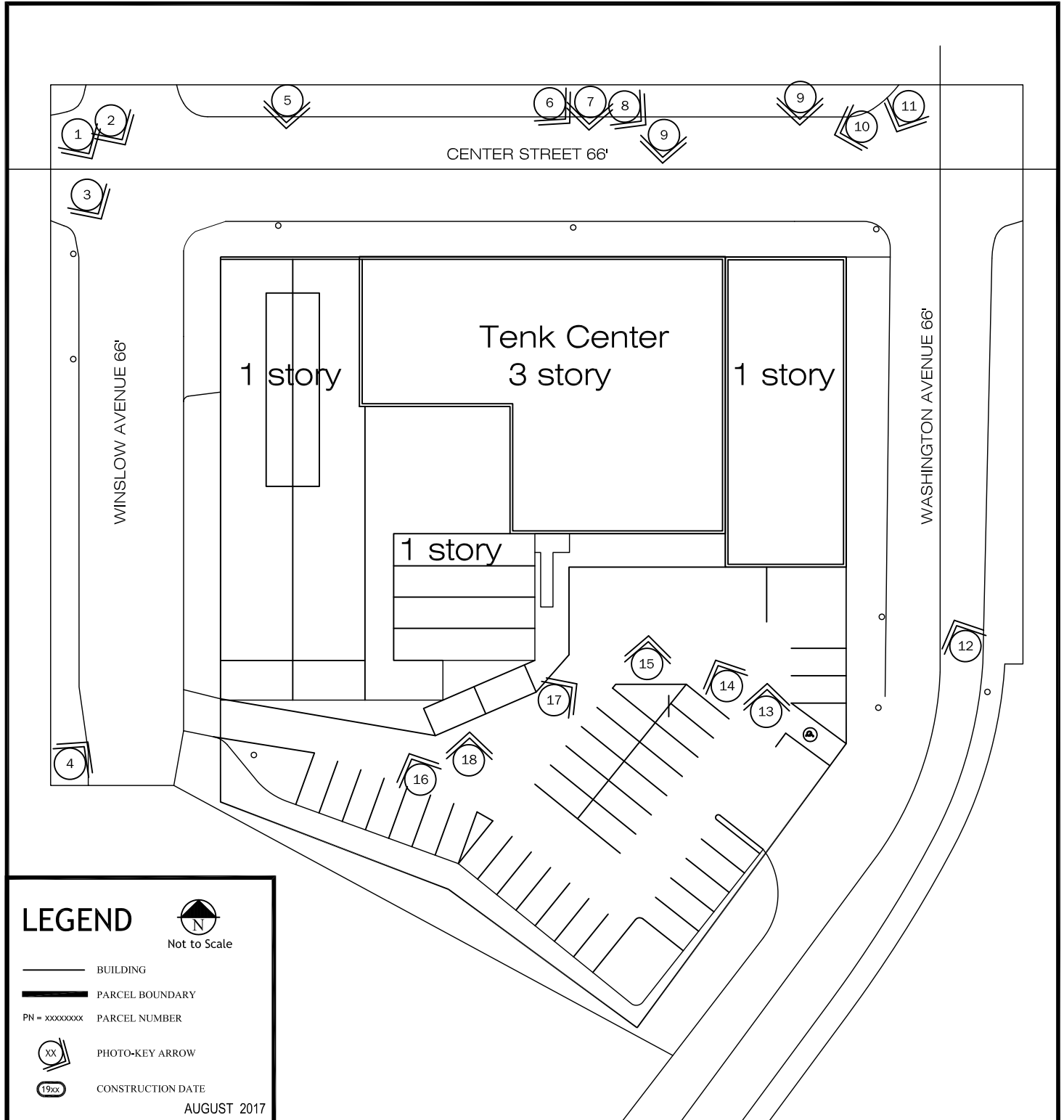


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Section number Additional Documentation - Photo-key SITE Page 3

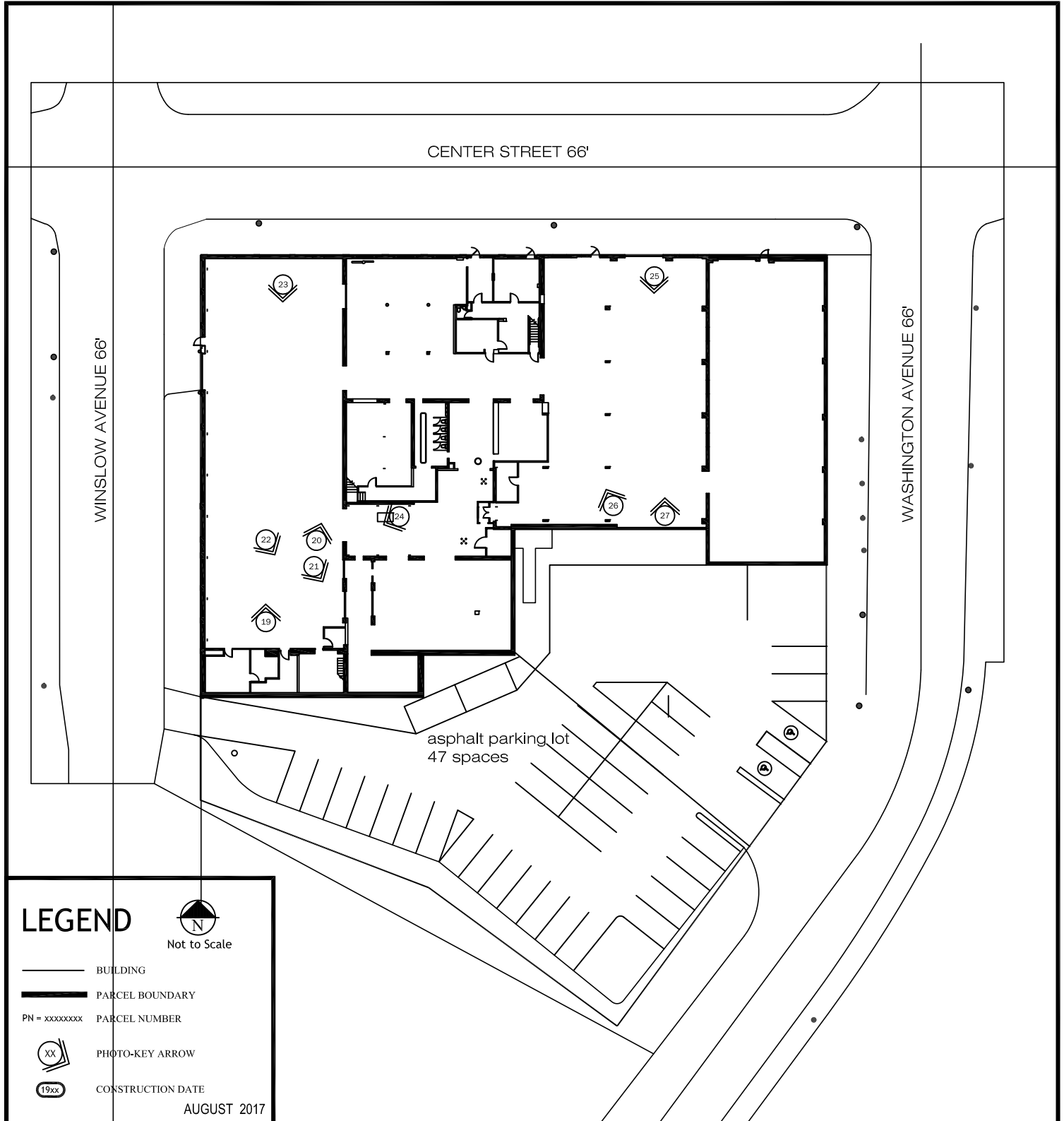


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Section number Additional Documentation - Photo-key 1ST FLOOR Page 4

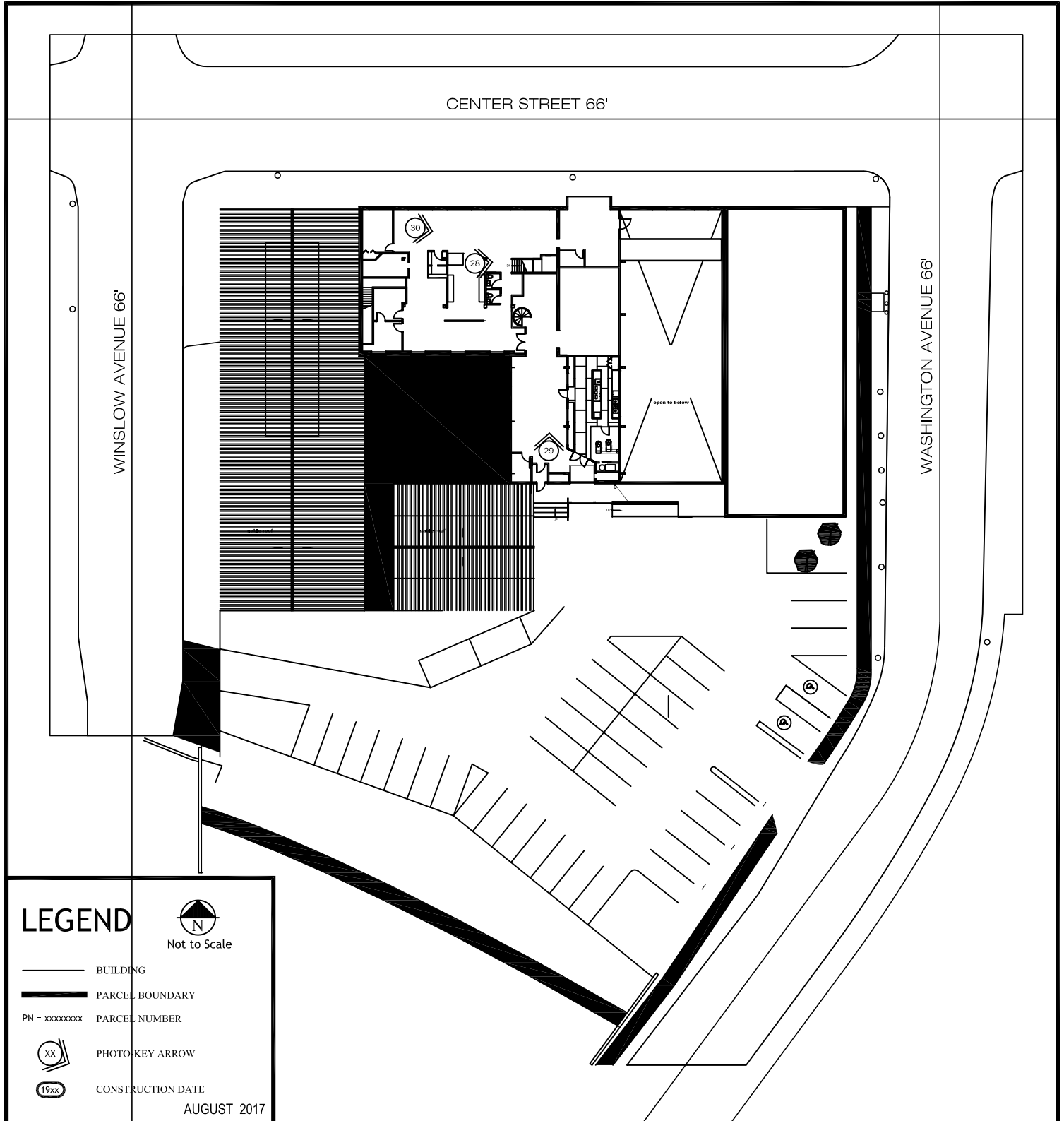


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National Park Service

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Section number Additional Documentation - Photo-key 2ND FLOOR Page 5

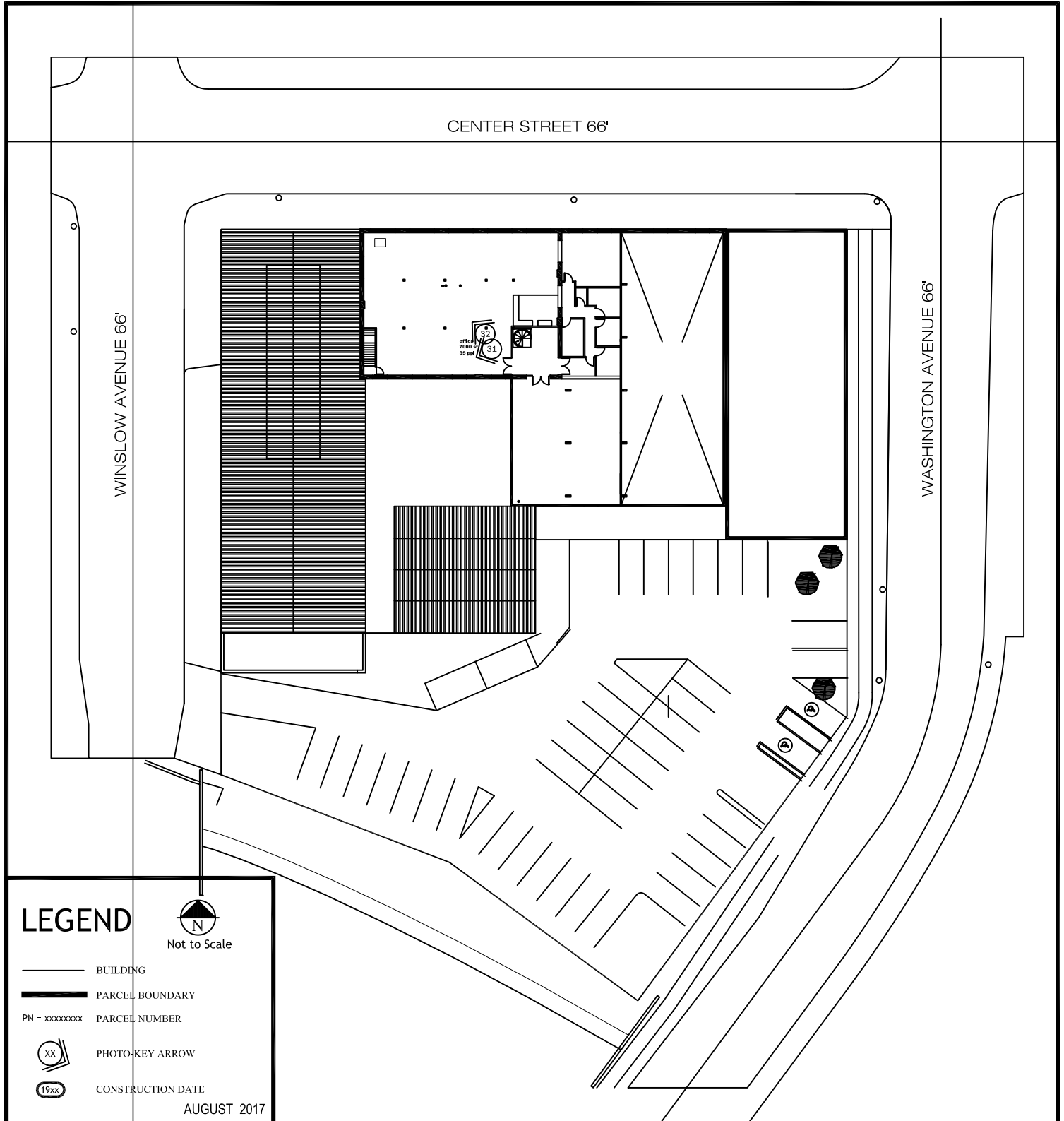


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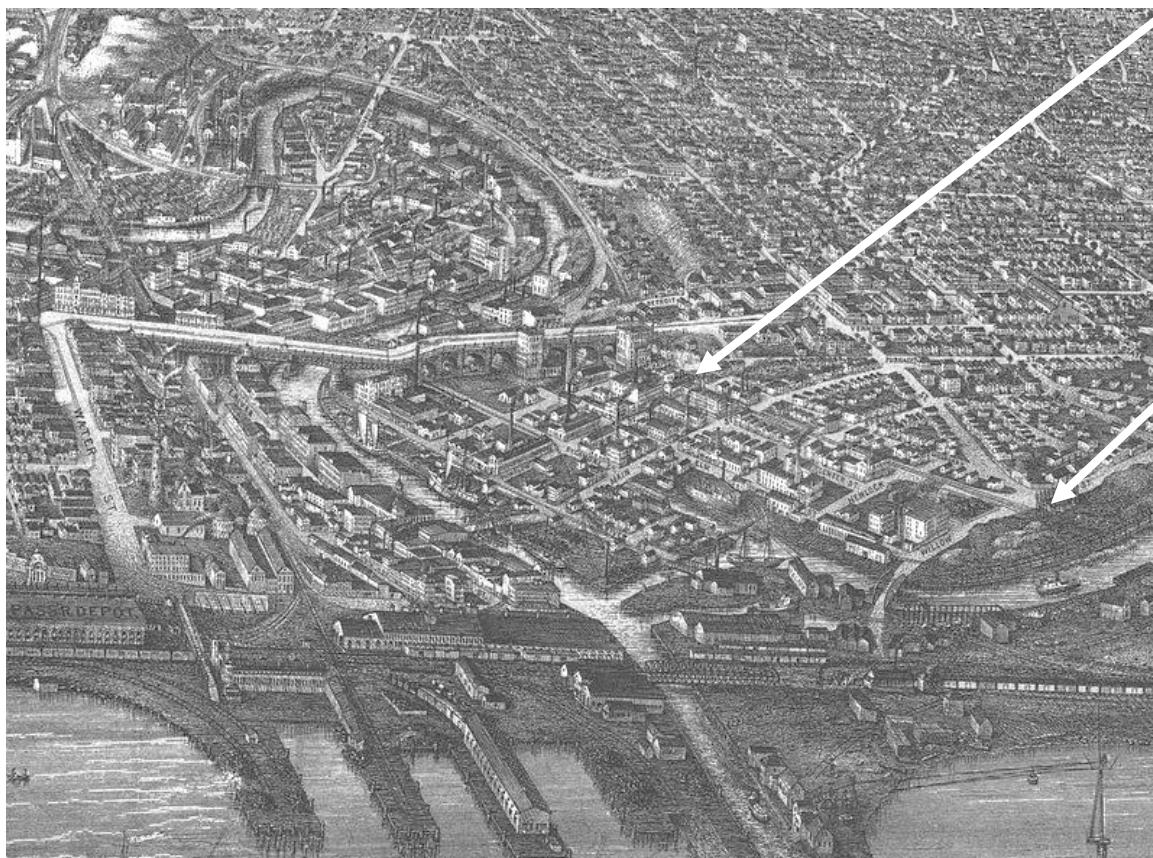
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The Bruce-Macbeth Engine Company
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National Register of Historic Places Continuation Sheet

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Page 1



Eclipse Iron
Works Foundry

Ore, Coal &
Coke Piles

Figure 1. Eclipse Iron Works Foundry, West Bank of the Flats, City of Cleveland
Arrows indicate location of Eclipse Iron Works Foundry, and Ore, Coal and
Coke piles

Source: Birdseye Map of Cleveland, 1887



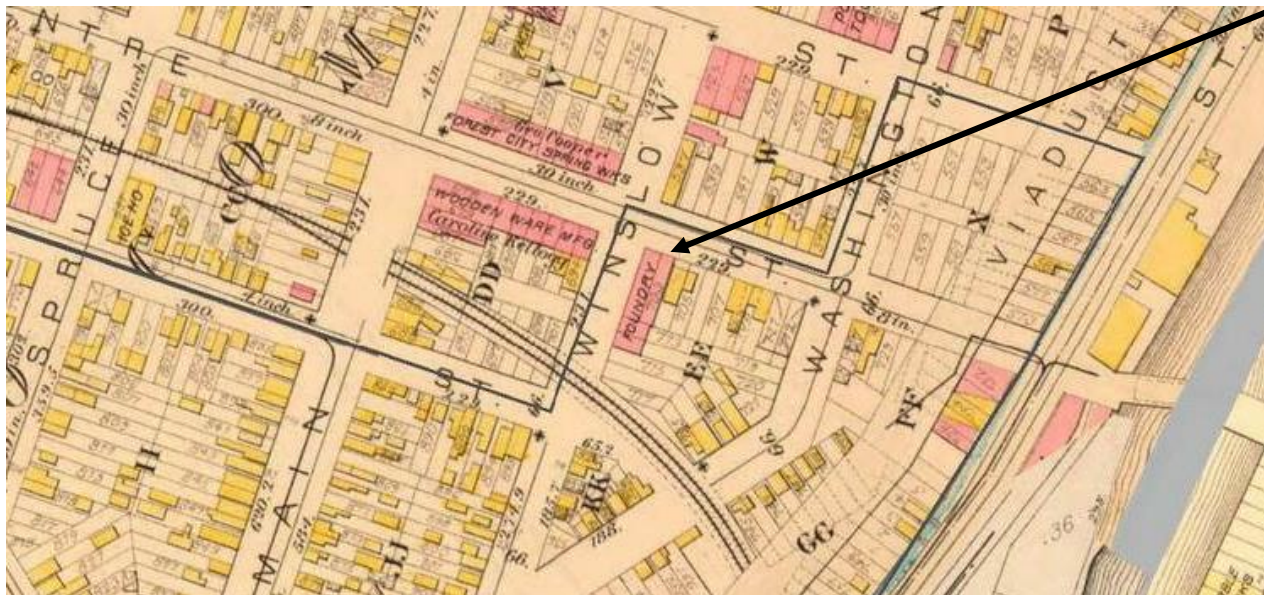
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Page 2



**Figure 2. Eclipse Iron Works Foundry, 1881
Indicated by arrow**

Source: City of Cleveland Atlas, 1881 Cleveland Public Library

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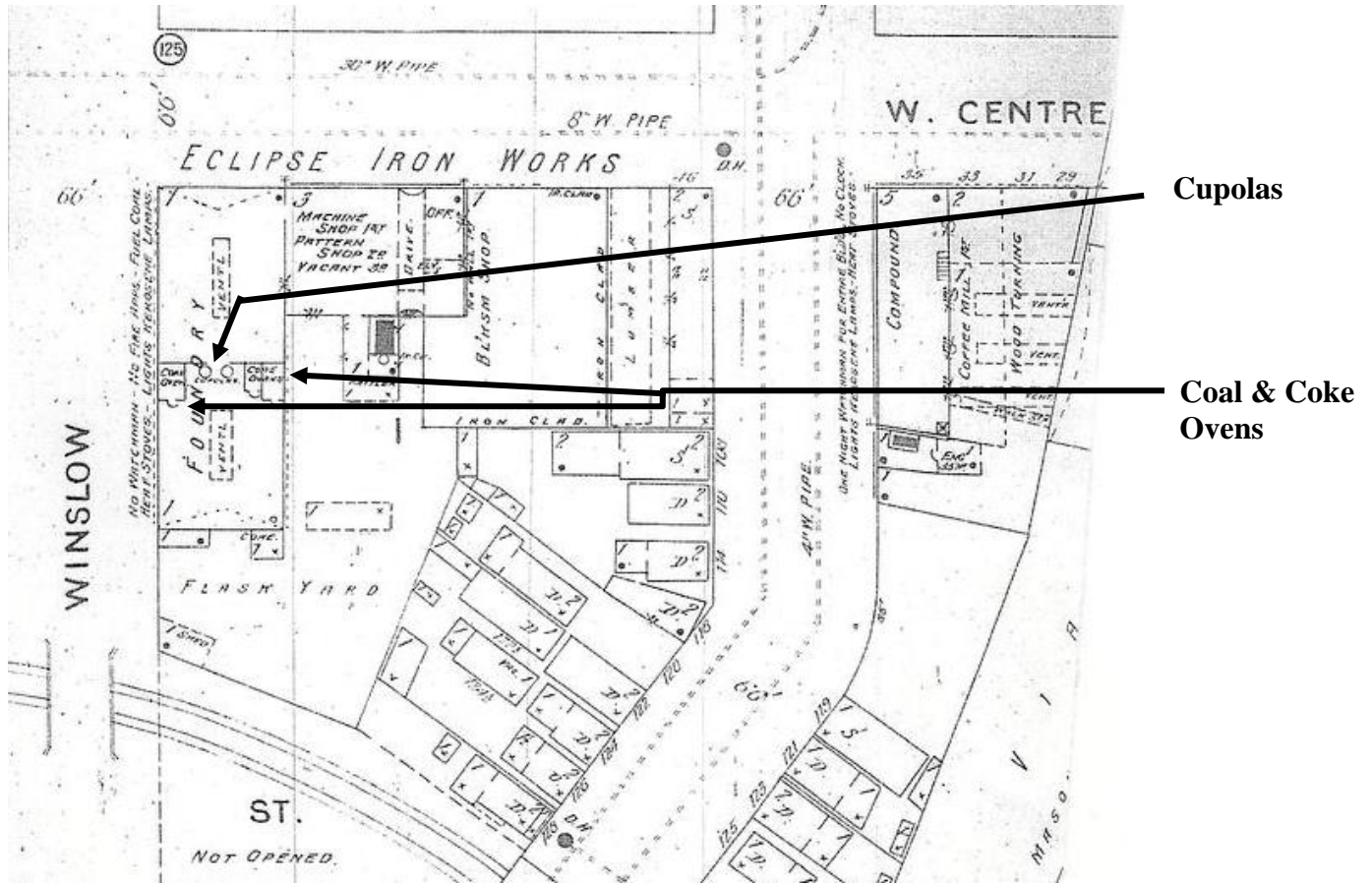


Figure 3. Macbeth & Company (Eclipse Iron Works) Foundry, 1896
Source: Sanborn Fire Insurance Map, 1896

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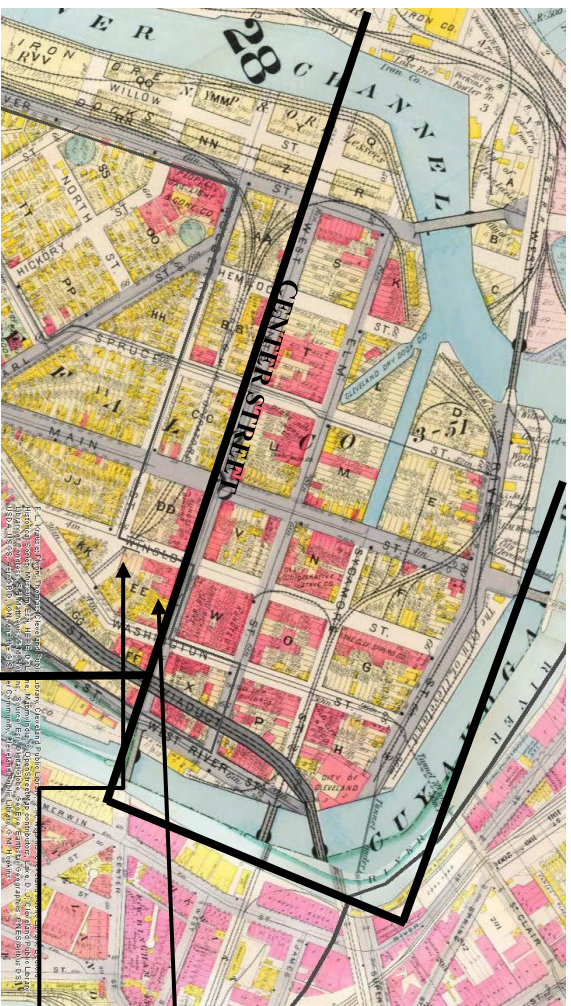


Figure 4a. Macbeth & Company Foundry; Source: G. M. Hopkins Map, 1898

Macbeth & Company, SE corner of Center Street & Winslow Ave.

Railroad spur to rear of Macbeth & Company

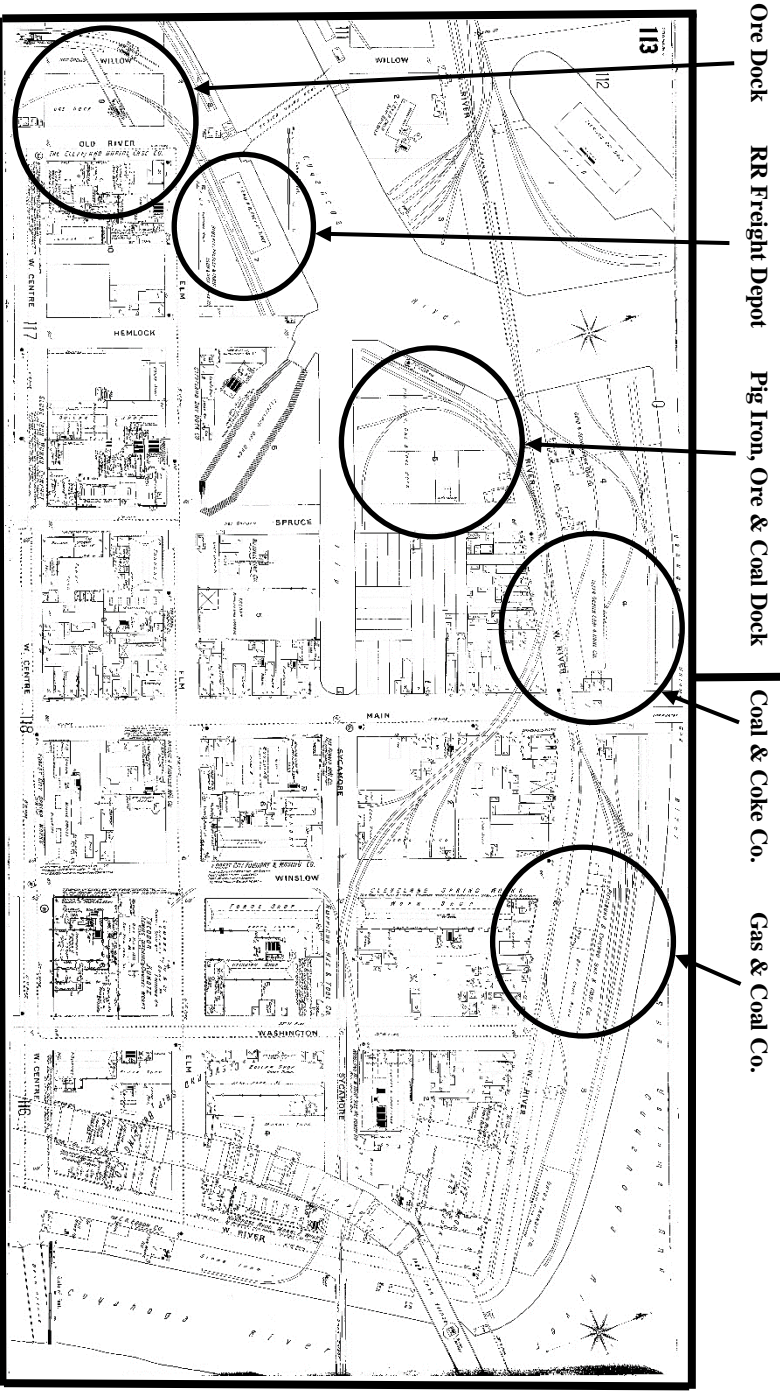


Figure 4b. Pig Iron, Ore, Coke and Coal stockpiles along the Cuyahoga River with easy access by rail car to the MacBeth & Company Foundry

Source: Sanborn Fire Insurance Map, 1896

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Page 5

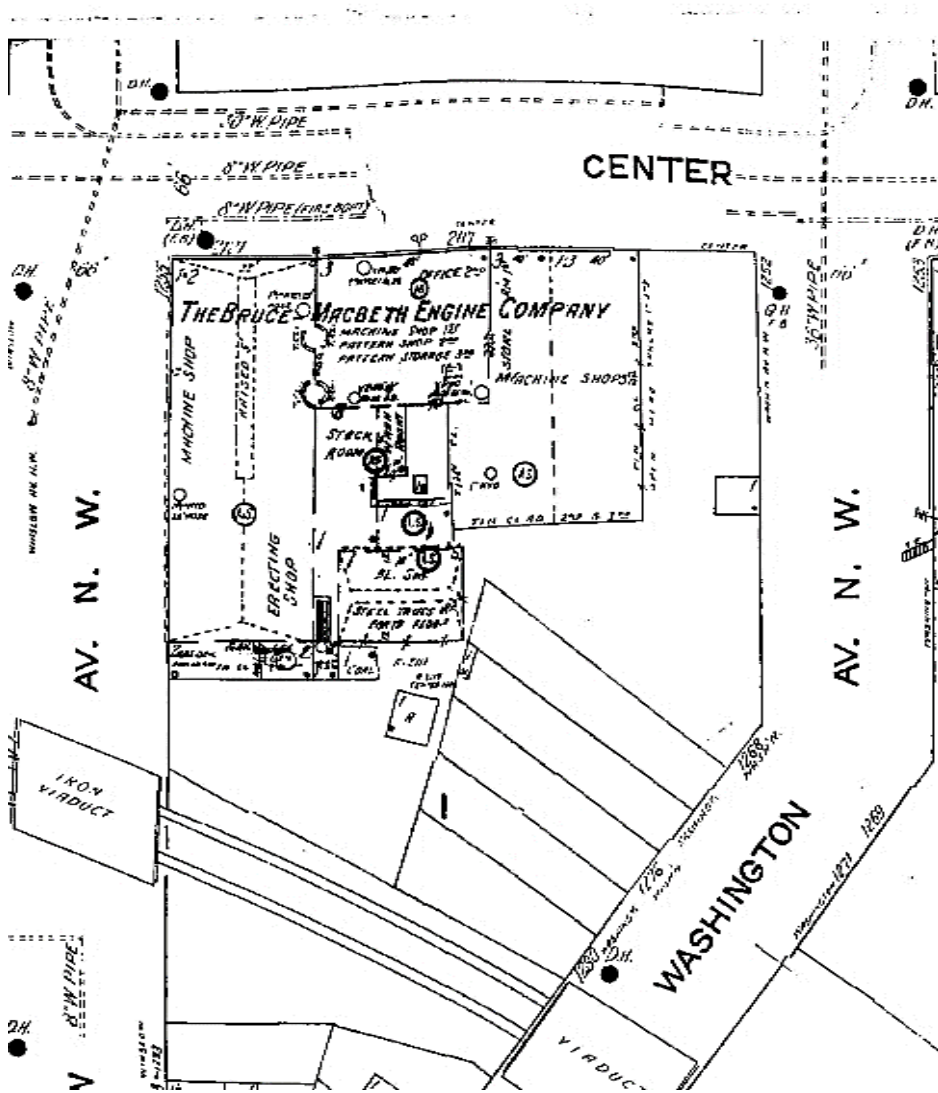


Figure 5. The Bruce-Macbeth Engine Company Foundry, 1912-1913

Source: Sanborn Fire Insurance Map, 1912-13

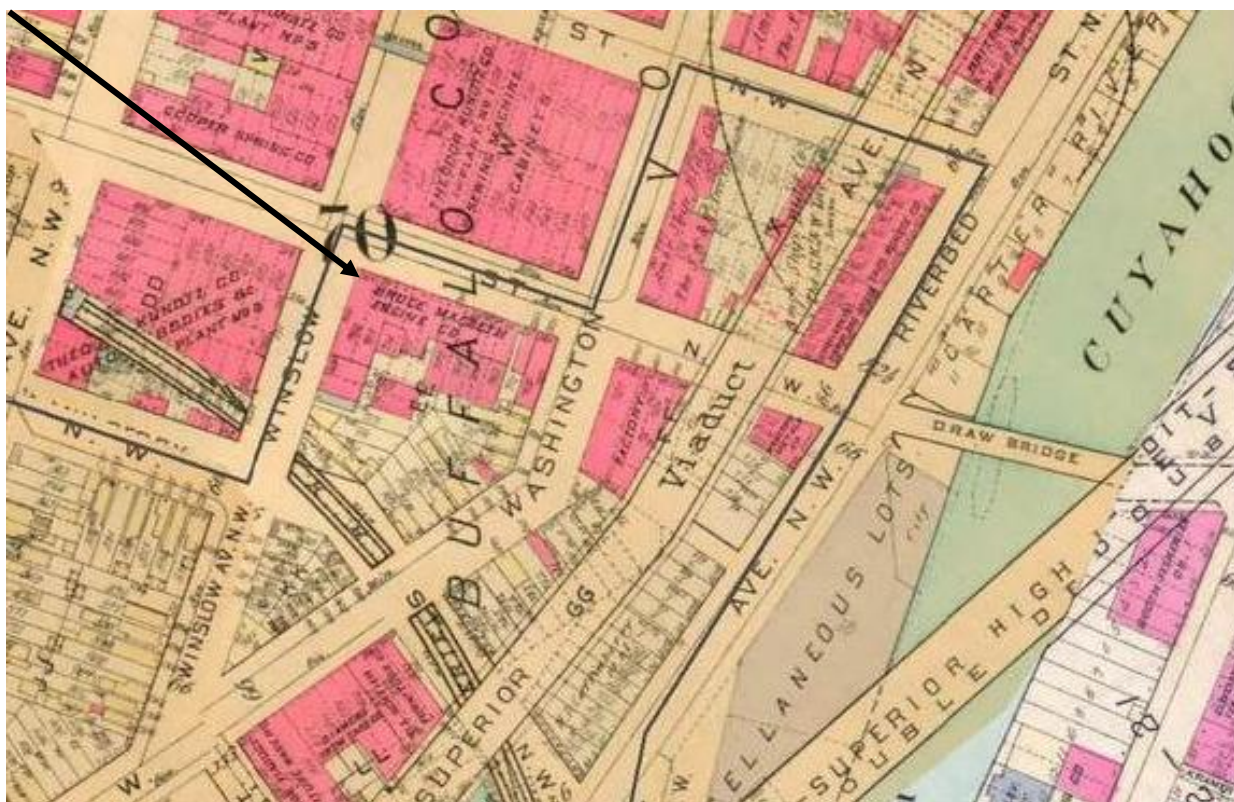
United States Department of the Interior
National Park Service

The Bruce-Macbeth Engine Company
Cuyahoga County, OH

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**Figure 6. The Bruce-Macbeth Engine Company Foundry, 1920-22
Indicated by arrow**

Source: G.M. Hopkins Map, 1920-22

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National Park Service

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Cuyahoga County, OH

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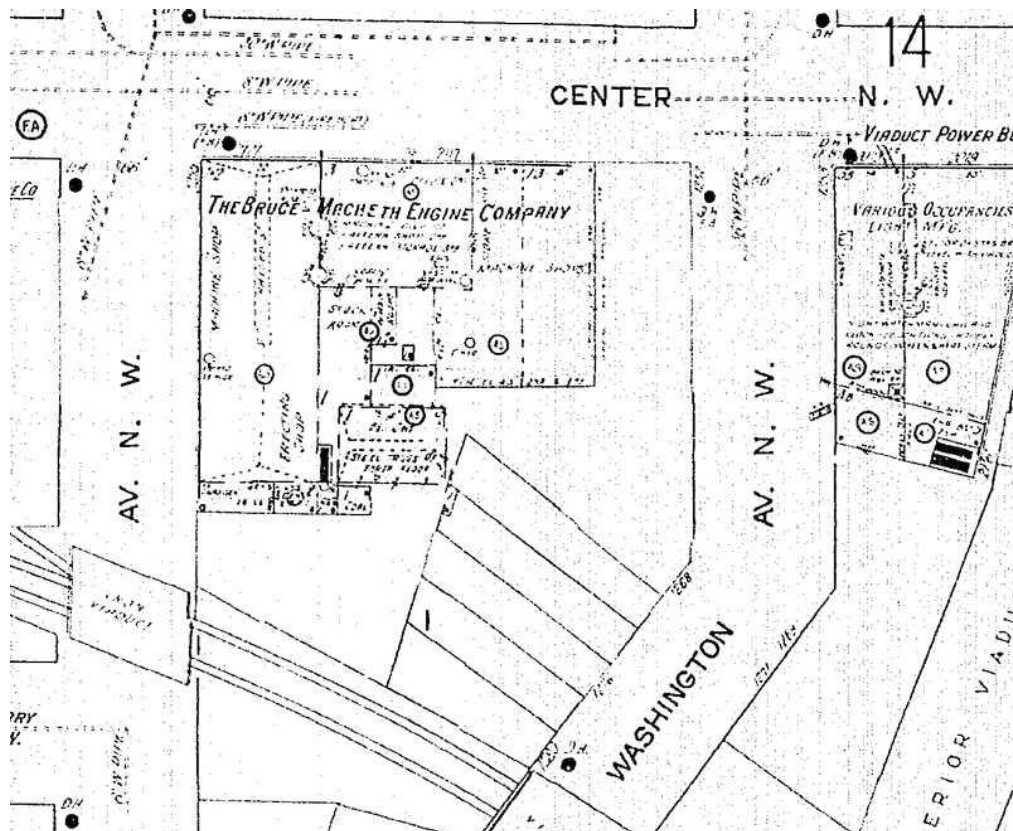


Figure 7. The Bruce-Macbeth Engine Company Foundry, 1952

Source: Sanborn Fire Insurance Map, 1951

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Cuyahoga County, OH

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Figure 8. The Bruce-Macbeth Engine Company Foundry, ca. 1945

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Cuyahoga County, OH

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Figure 9. The Bruce-Macbeth Engine Company Foundry, ca. 1945

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National Park Service

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Cuyahoga County, OH

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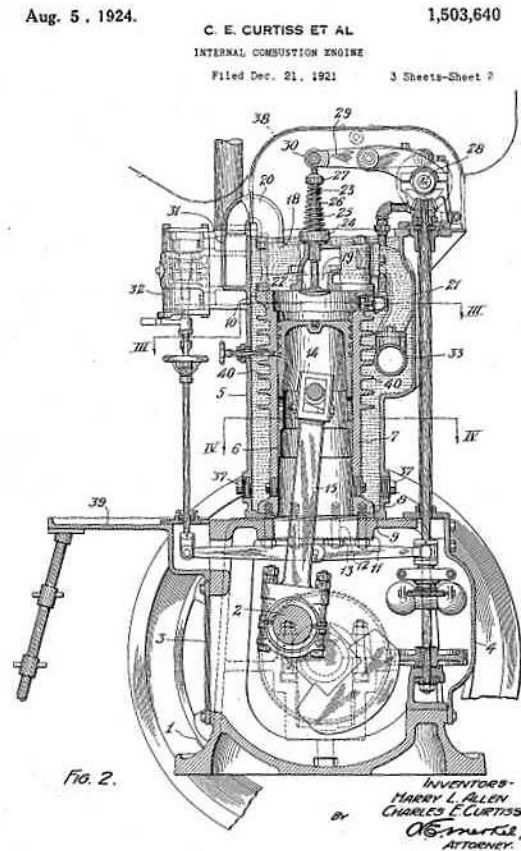
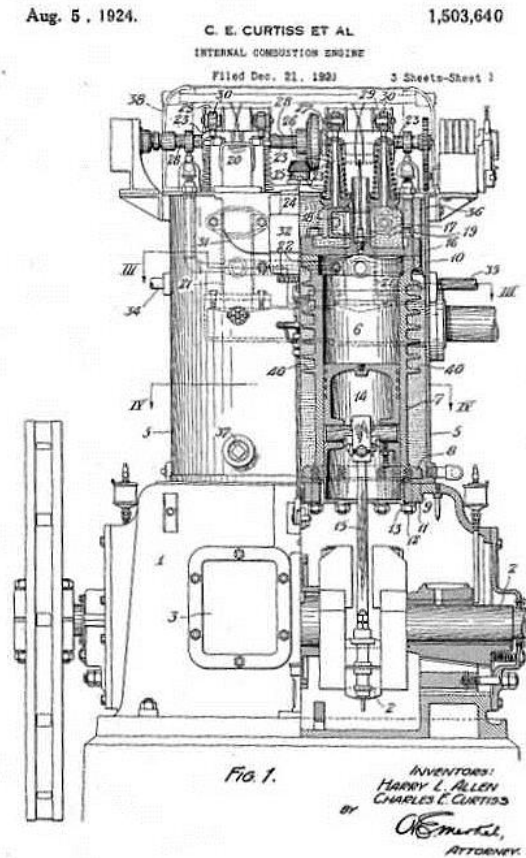


Figure 10. The Bruce-Macbeth Engine Company, Internal Combustion Engine
Patent No. 1,503,640, 1924

Source: U.S. Patents, Bruce Macbeth Engine Company. Available at www.vintagemachinery.org.

United States Department of the Interior
National Park Service

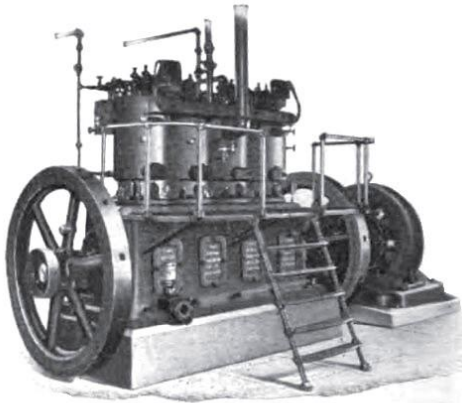
The Bruce-Macbeth Engine Company
Cuyahoga County, OH

National Register of Historic Places Continuation Sheet

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Repeat Orders Signify Merit



Bearing the unqualified endorsement of the man who pays the bills they are *Conclusive* of the satisfactory service of "BRUCE-MACBETH" Gas Engines. You will be interested in the plant about to install their sixth "Bruce-Macbeth"—A 350 h.p. four cylinder.

Write today.
Catalog on request.

THE BRUCE-MACBETH ENGINE CO.
CLEVELAND, OHIO
2103 CENTER ST. N. W.

Figure 11a. The Bruce-Macbeth Engine Company Advertisement, 1911
Source: *Engineering Magazine* September 1911, 62

262

GAS ENGINES

The Bruce-Macbeth Engine Company
2111 Center St., N. W. CLEVELAND, O.
Builders of Vertical Multi-Cylinder Gas Engines
For Stationary Power Plants, Factories, Electric Plants,
Water Works, Etc.
Natural, Producer and Artificial Gas and Gasoline

Figure 11b. The Bruce-Macbeth Engine Company Advertisement, 1927
Source: City of Cleveland Directory, 1927



SPEED
LIMIT
25



25



1-800-XXX-XXXX

W. 12th St.

INCR

123









Johnsville
MASS

210
ENK
MACHINE
TOOL
CO.



2111
TENK
MACHINE
& TOOL
CO.



211
TENK
MACHINE
& TOOL
CO.

Johnny's



2111
TENK
MACHINE
& TOOL
CO.

NO PARKING

(6)



WITH
ACCURACY

2111
TENN
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& TOOL
CO.

CENTER

WITH
ACCURACY
Purdy





MACHINE TOOL CO.





TEN MACHINE &









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EXIT



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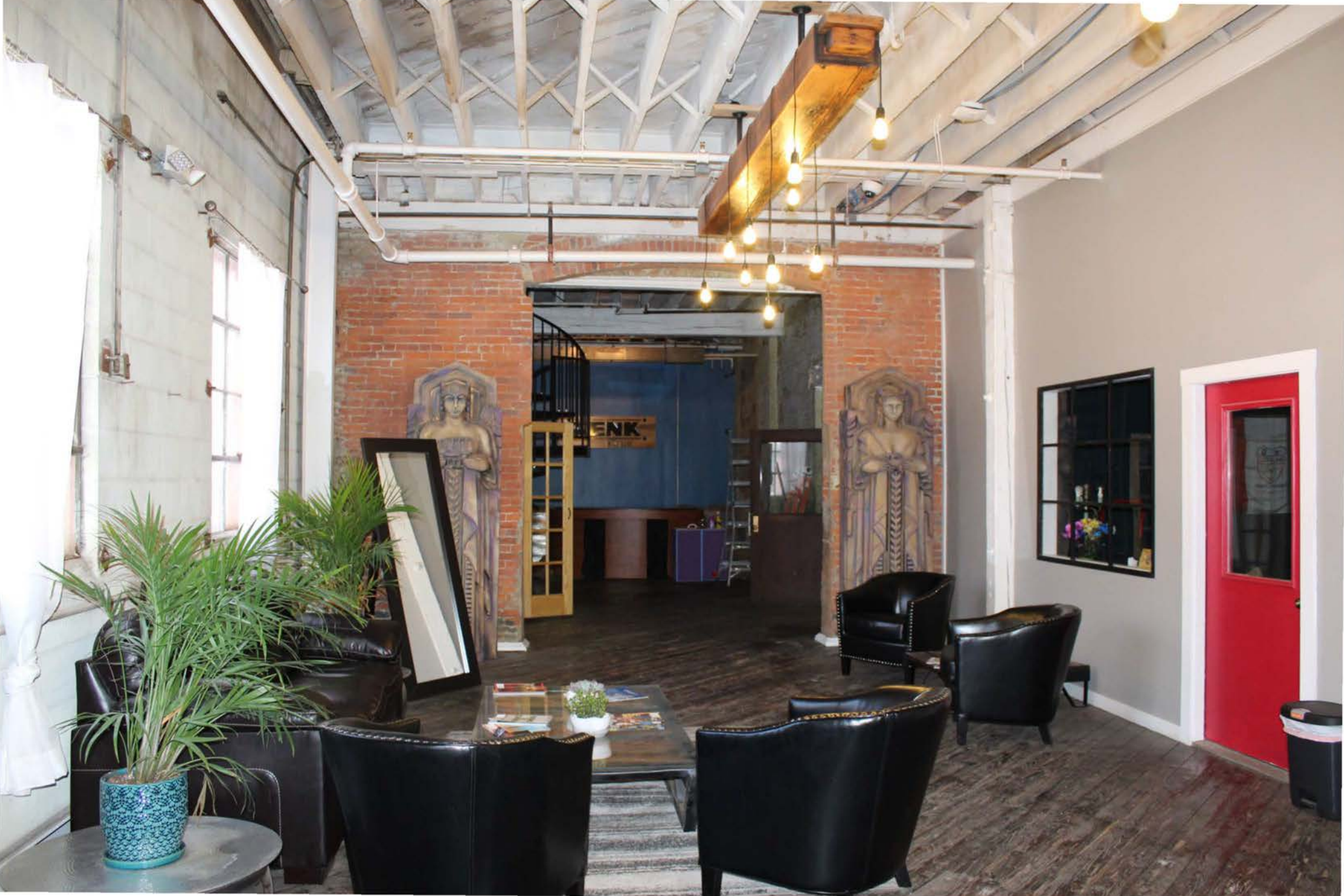
CLEVELAND
ROCKS

MADE IN
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DELPHI ROSSHO 1975
BRONE AIKEN
BUT ZONER IN KILGALIE
CLEVELAND BOATING CLUB

NDI

WINE ELITE







UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action: Nomination

Property Name: Bruce--Macbeth Engine Company

Multiple Name: _____

State & County: OHIO, Cuyahoga

Date Received: 1/8/2018 Date of Pending List: 1/29/2018 Date of 16th Day: 2/13/2018 Date of 45th Day: 2/22/2018 Date of Weekly List: _____

Reference number: SG100002120

Nominator: State

Reason For Review:

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Appeal | <input type="checkbox"/> PDIL | <input checked="" type="checkbox"/> Text/Data Issue |
| <input type="checkbox"/> SHPO Request | <input type="checkbox"/> Landscape | <input type="checkbox"/> Photo |
| <input type="checkbox"/> Waiver | <input type="checkbox"/> National | <input type="checkbox"/> Map/Boundary |
| <input type="checkbox"/> Resubmission | <input type="checkbox"/> Mobile Resource | <input type="checkbox"/> Period |
| <input type="checkbox"/> Other | <input type="checkbox"/> TCP | <input type="checkbox"/> Less than 50 years |
| | <input type="checkbox"/> CLG | |

Accept Return Reject 2/14/2018 Date

Abstract/Summary
Comments:

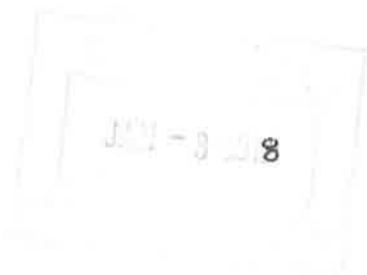
Recommendation/
Criteria Accept, National Register Criteria A and C.

Reviewer Patrick Andrus *Patrick Andrus* Discipline Historian

Telephone (202)354-2218 Date 2/14/2018

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

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



NATIONAL REGISTER OF HISTORIC PLACES
NPS TRANSMITTAL CHECK LIST

OHIO HISTORIC PRESERVATION OFFICE
800 E. 17th Avenue
Columbus, OH 43211
(614)-298-2000

The following materials are submitted on December 28, 2017
For nomination of the Bruce-MacBeth to the National Register of
Historic Places: Enghe Company, Cuyahoga Co, OH

- Original National Register of Historic Places nomination form
 Paper PDF
- Multiple Property Nomination Cover Document
 Paper PDF
- Multiple Property Nomination form
 Paper PDF
- Photographs
 Prints TIFFs
- CD with electronic images
- Original USGS map(s)
 Paper Digital
- Sketch map(s)/Photograph view map(s)/Floor plan(s)
 Paper PDF
- Piece(s) of correspondence
 Paper PDF
- Other _____

COMMENTS:

- Please provide a substantive review of this nomination
- This property has been certified under 36 CFR 67
- The enclosed owner objection(s) do _____ do not _____
Constitute a majority of property owners
- Other: _____



2018

December 28, 2017

J. Paul Loether, Deputy Keeper and Chief, National Register
and National Historic Landmark Programs
National Park Service
National Register of Historic Places
Mail Stop 7228
1849 C St, NW
Washington, D.C. 20240

Dear Mr. Loether:

Enclosed please find seven (7) new National Register nominations for Ohio. All appropriate notification procedures have been followed for the nomination submissions.

NEW NOMINATION

George-Caldwell-Grum Farm
Myers Daily Market
Bruce-MacBeth Engine Company
620-622 Vine Street
Chesapeake High School
Medina Farmers Exchange
Newton Falls USO Center

COUNTY

Belmont County
Clark County
Cuyahoga County
Hamilton County
Lawrence County
Medina County
Trumbull County

The enclosed disks contain the true and correct copy of the nominations to the National Register of Historic Places for the following: George-Caldwell-Grum Farm, Belmont County; Bruce-MacBeth Engine Company, Cuyahoga County; Medina Farmers Exchange, Medina County; and Newton Falls USO Center, Trumbull County.

The Newton Falls USO Center nomination includes a letter from the City of Newton Falls objecting to the National Register nomination. Since this letter of objection is from a public owner and Newton Falls is not a Certified Local Government, the State Historic Preservation Office is not seeking a Determination of Eligibility for this property. The letter of objection does not prohibit the listing of the property in the National Register.

If you have questions or comments about these documents, please contact the National Register staff in the Ohio Historic Preservation Office at (614) 298-2000.

Sincerely,

for Lox A. Logan, Jr.
Executive Director and CEO
State Historic Preservation Officer
Ohio History Connection

Enclosures