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United States Department of the Interior National Park Service

National Register of Historic Places Registration Form

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This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each Item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property
historic name Equitable Gas Works
other names B-1358
2. Location
street & number 1401 Severn Street
city or town Baltimore City vicinity
state Maryland code MD county Baltimore City code 510 zip code 21230
3. State/Federal Agency Certification
As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this is nomination is request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets is does not meet the National Register criteria. I recommend that this property be considered significant is nationally statewide is locally. (I see continuation sheet for additional comments). Image: Signature of Kertifying official/Title Image: Signature of certifying official/Title Signature of certifying official/Title Date Signature of certifying official/Title Date Signature of certifying official/Title Date
4. National Park Service Certification
I hereby, certify that this property is: Centered in the National Register. Centered in the National Register. Centermined eligible for the National Register. Centermined not eligible for the National Centermined not eligible for the National Register. Centermined not eligible for the National Register. Centermined eligible fo

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Baltimore City, Maryland County and State

Ownership of Property (Check as many boxes as apply)Category of Property (Check only one box)		Number of Resources within Property (Do not include previously listed resources in the count)			
🛛 private	🛛 building(s)	Contributing	Noncontributing		
 public-local	district	5	1	buildings	
public-State	🗌 site	0	0	sites	
public-Federal	structure	0	0	 structures	
	🔲 object	0	0	objects	
		5	1	Total	
Name of related multiple prop (Enter "N/A" if property is not part or	• •	number of contrib listed in the Nation	uting resources pre nal Register	eviously	
N/A		N/A			
6. Function or Use					
Historic Functions (Enter categories from instructions)		Current Functions (Enter categories from inst	tructions)		
INDUSTRY: manufacturing fac	cility	VACANT			
7. Description					
7. Description Architectural Classification (Enter categories from instructions)		Materials (Enter categories from ins	tructions)		
Architectural Classification (Enter categories from instructions)		(Enter categories from ins	tructions) NE; BRICK; CONCRE	TE	
Architectural Classification (Enter categories from instructions)		(Enter categories from ins foundation <u>STO</u>		TE	
Architectural Classification		(Enter categories from ins foundation <u>STO</u> walls <u>BRICK; CC</u>	NE; BRICK; CONCRE	TE	

Narrative Description

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

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SUMMARY DESCRIPTION¹

The Equitable Gas Works is a U-shaped complex occupying an entire city block adjacent to CSX tracks in Spring Gardens, an industrial precinct in South Baltimore, Maryland. The complex consists of five contributing 1882-1883 Romanesque revival painted brick buildings and one non-contributing 1947 office building.² The rectangular, 19th century buildings range from 1-2 stories in height, are set on semi-coursed stone foundations, and are topped with monitor and gable roofs. The buildings exhibit a recessed wall plane behind paired brick pilasters and corbelled brick cornices and occulus openings set within their gables. The Office is notable for its delicate wood louvered dormer with a sunburst-ornamented tympanum. The exposed structural system remains visible in the industrial buildings; historic finishes also survive in the office building. The architect for the building is not presently known.

The period of significance of the complex extends from 1882 to 1901, when gas-related uses abandoned the site. Despite infill and alterations, Equitable Gas Works complex retains all of its original brick buildings and remains clearly recognizable as a purpose-built, 19th century gas manufactory. Both the form and massing of the buildings and the quality and character of surviving architectural fabric provide important evidence of the stature of the manufactured gas industry in the late 19th century.

ARCHITECTURAL DESCRIPTION

The Equitable Gas Works fills one city block, covering almost three acres, in the Spring Gardens industrial section of South Baltimore. The block is bounded on the north by Bayard Street, on the west by Severn Street, on the south by Bush Street, and on the east by Baltimore & Ohio Railroad (now CSX) tracks. Located in an active industrial district, 19th and 20th century manufacturing, processing, and storage buildings fill the neighboring blocks. The Equitable Gas Works complex (ca. 1882) is a U-shaped complex comprised of five contributing, purpose-built manufacturing and distribution buildings. Adjacent buildings are interconnected. Portions of the site are excavated and ramped to create basement level access to the buildings. The 1880s buildings in the Equitable Gas Works are constructed in brick (now painted) laid in common bond set on semi-coursed stone foundations (visible on north and east facades).

The complex's five contributing buildings are the:

- Purifying House (ca. 1882-1883)
- Office (ca. 1882)

¹ In general, this description has developed an analytical framework based on visual distinction to help the reader understand this complicated resource. Because of the manner in which the complex was continually altered over the years and the interconnections within the complex, some of the components conform to the National Park Service (NPS) definition of individual buildings. Others are clearly part of larger wholes. Building names are derived from Sanborn Maps (1901-1902). Photographs provide general views of the complex and images of individual components.

² The ca. 1882-1883 building dates are derived from the year that Equitable Gas Company began production. All the buildings are assumed to have been complete soon thereafter because by 1886, the Equitable Gas Works ceased production. Visual information on the site, such as manner in which the Generator House projects from the east facade of Retort House 2, indicates that the buildings were not built at once. The unified appearance of the buildings in the complex confirms the short period of construction.

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- **Retort House 1** (ca. 1882)
- Retort House 2 (ca. 1883)
- Generator House (ca. 1883)

The non-contributing building located on the site of the Equitable Gas Works consists of the:

Brick Office (1947)

The timber frame of an Engine House remains between Retort House 1 (1882) and Retort House 2 (1883).

The complex's primary (west) facade, fronting Severn Street, consists of the west facades of the Purifying House (1882-1883), the Valve Room (1882), the Office (1882), Retort House 1 (1882), and the Brick Office (1947). The north facade, fronting Bush Street, consists of the north facade of the Brick Office (1947). The east facade of the complex consists of the east facades of the Generator House (ca. 1883), Retort House 2 (1883), the Purifying House (1882-1883), and the Brick Office (1947). The east facade of the complex faces a yard. The northern, eastern, and southern property lines are bounded by a high c.m.u. wall.

Contributing Buildings

The contributing buildings in the U-shaped complex are sited so that:

- Purifying House (ca. 1882-1883) and Office (ca. 1882) -- linked by the Valve Room form an L that centers the site. The base of the L faces west onto Severn Street. The site north of the Purifying House is excavated for access to its basement.
- Retort House 1 (ca. 1882) and Retort House 2 (ca. 1883) -- linked by the Engine Room frame have their southern facades aligned and face south onto a yard north of the Purifying House and Office. A long secondary facade of Retort House 1 fronts Severn Street. The site north of the Retort Houses is excavated for access to their basements.
- The Generator House (ca. 1883) projects from the east facade of Retort House 2 and faces east.
- A rail spur and coal sheds (now gone) were located on the northern margin of the site.
- Holders (now gone) occupied the southern portion of the site.

Size, scale, massing, and architectural and decorative features unify the **Purifying House** (1882-1883), **Retort House 1** (1882), **Retort House 2** (1883), and the **Generator House** (1883). The form of the buildings loosely follows that of a basilica. Gable ends have three bays articulated by paired pilasters. The center bay of the gable ends is reinforced by an oculus within the gable. The basilica form is especially evident on the primary (west) facade of the **Purifying House**, where the center bay rises to a tower capped with a Mansart roof. The tower, which rests on corbelled brackets, rises above the front gable and masks the monitor that extends along the spine of the roof. Paired round arch windows highlight the tower's elevations. The facade is symmetrical about its center bay. The entry reinforces the central axis.

The **Purifying House** (3x11 bay), **Retort House 1** (3x7 bay), and **Retort House 2** (3x4 bay) are each $1\frac{1}{2}$ -story plus basement brick production sheds with rectangular footprints and monitor roofs, which are in good condition. The

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Generator House (3x3 bay) is 1-story plus basement brick production shed with a square footprint and a gable roof in fair condition.

On each building, pilasters mark the bays; the wall plane is recessed behind the pilasters. A single oversize window opening occupies each bay. Window and door openings display corbelled hood molds and have brick or stone sills. Most window openings have been infilled. Remaining wood windows are double hung with 12/12 and 9/2 sash. A stone water table and a corbelled cornice further articulate the facades.

Interiors in the **Purifying House**, **Retort House 1**, **Retort House 2**, and the **Generator House** consist largely of open plan space with an exposed structural system. The second floors in the **Retort House 1**, **Retort House 2**, and the eastern section of the **Purifying House** appear to have been added in the early and mid-20th century.

The western portion of the 1st floor of the **Purifying House** is partitioned. Its floor plan on the first floor is comprised of a wide central corridor extending from the entry to the eastern portion of the building flanked by four rooms. This area retains wood beadboard ceilings.

The smaller scale and decorative elements of the **Office** (ca. 1882) and the **Valve Room** (ca. 1882), continue to proclaim their original function. Both face west and front Severn Street. Their small square footprints distinguish them within the Equitable Gas Works complex. Both display rectangular window openings below jack arches. Most windows are recent replacement windows. The **Office** retains two pair of double hung wood windows with multiple pane sash.

- The **Office**, a 2-story-plus-basement 3x3 bay building in good condition, is notable for its slate hipped roof with a wood pedimented dormer, enclosing louvers. The tympanum displays a sunburst design. The **Office** also retains a wood dentiled cornice set on corbelled brick brackets. The primary (west) facade features a center entry (now infilled) and a brick sill course. The **Office** floor plan consists of a single room on each floor. The **Office** retains plaster wall surfaces, wood trim, and a stair.
- The Valve Room is a small 1-story, 2-bay, brick connector, which is in fair condition, that connects the Office and the **Purifying House**. Topped until recently by a ca. 1960s one story rooftop addition, the original roof form has been lost. The interior of the Valve Room is altered; original features and finishes are not visible.

Non-contributing buildings

One non-contributing building remains on the site:

• Brick Office Building (1947) occupies the southern portion of the site.

The Brick Office Building (1947) is a 2-story modernist brick and c.m.u. building. Concrete pilasters frame its recent metal storefront entry that marks the north end of its primary (west) facade. Two large metal roll-down doors are located on the south end of the primary (west) facade. The building displays strip window openings with recent replacement windows and is capped by a concrete coping. A large loading dock extends from the building's south and east facades. A metal panel clad conveyor extends from the building's east facade, connecting the building to a warehouse (not part of the

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project) on the other side of the railroad tracks. The **Brick Office Building** was constructed after the period of significance and does not contribute to the complex.

Alterations and Integrity

The Equitable Gas Works complex retains all of its original brick buildings and remains clearly recognizable as a purpose-built, 19th century, gas manufactory. As is typical for industrial complexes with new uses, the complex was altered after 1914, when the H. B. Davis Paint Company occupied the site. Alterations included: infill buildings that occupied previous storage areas north and south of the complex and the open yard at the center of the complex; infilled openings and new openings to create an interconnected complex; inserted second floors; and finishes installed over original finishes. In 2003, the new owner of the Equitable Gas Works began rehabilitating the complex.³ Earlier alterations are, for the most part, reversible.

The Equitable Gas Works retains integrity of location, setting, design, materials, workmanship, feeling, and association. The Equitable Gas Works, set surrounded by active industrial concerns, continues to represent the substantial scale of manufacturing as a component Baltimore's economy. Equitable Gas Work's location, including its relationship to remaining 19th century gas manufacturing buildings, the CSX freight rail line, and the middle branch of the Patapsco River remains intact to convey its place at the center of the short-lived period of cutthroat competition in Baltimore's late 19th century gas wars. The size and level of finish of the buildings and unified appearance of the complex well illustrates the threat Equitable and its outside investors posed to local interests. In spite of infill and alterations, both the form and massing of the buildings and the quality and character of surviving architectural fabric – oversize gutters, original wood pediments, and stylistic refinement evident in the buildings' decorative brick work and ornamental iron and wood detail -- provide important evidence of the stature of the manufactured gas industry in the late 19th century.

³ Work in 2003 includes demolishing two non-contributing buildings that concealed the complex's contributing buildings; making the buildings handicapped accessible; bringing the buildings up to code; reopening infilled door and window openings; removing layers of recent interior finishes; installing wood replacement doors and windows that match remaining historic features; and replacing missing interior finishes with finishes that match historic features.

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 pattern of our history.
- **B** Property 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)

Property is:

- 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.

Narrative Statement of Significance

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

9. Major Bibliographical References

Bibliography

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

Previous documentation on files (NPS):

preliminary determination of individual listing (36		State Historic Preservation Office
CFR 67) has been requested		Other State agency
previously listed in the National Register		Federal agency
previously determined eligible by the National Register		Local government
designated a National Historic Landmark		University
recorded by Historic American Buildings Survey		Other
#	Name	of repository:
recorded by Historic American Engineering Record		
#		

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Area of Significance

Period of Significance

Significant Dates

Significant Person

Cultural Affiliation

Architect/Builder

N/A

N/A

N/A

(Complete if Criterion B is marked above)

Primary location of additional data:

INDUSTRY ARCHITECTURE

1882-1901

(Enter categories from instructions)

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SUMMARY OF SIGNIFICANCE

The Equitable Gas Works (ca. 1882-1883), located in the Spring Gardens industrial section of Baltimore, Maryland, is Baltimore's most intact gas manufactory complex. The Equitable Gas Works meets National Register Criterion A for its association with the transformation of competitive markets in gas, electricity, and transit into regulated or municipally-owned utilities. The manufactured gas industry is a significant component of Baltimore's manufacturing history; in 1816, Baltimore was the first city in the United States to be gas lit, ranking the gas manufacturing industry among Baltimore's famous "firsts." The Equitable Gas Works survives to represent the notable and short-lived period of competition and consolidation in the Baltimore manufactured gas industry, which lasted from 1871 to 1888. The period of significance for the works extends from 1882, when the earliest building was constructed, to 1901, when gas related uses abandoned the site. Equitable Gas Works derives additional significance under Criterion C as a rare Baltimore example of a 19th century gas manufactory. Despite infill buildings and additions constructed after the period of significance, the Equitable Gas Works retains all of its original brick manufacturing buildings and the complex remains recognizable as a purpose-built gas manufactory.

RESOURCE HISTORY AND HISTORIC CONTEXT

Baltimore's manufactured gas industry

In 1816, Baltimore led the nation as the first American city to implement gas lighting, just nine years after London became the first city in the world to do so. Baltimore's premier showman, Rembrandt Peale, led the crusade to bring gas lighting to Baltimore.⁴ Beginning in June 1816, Peale lit a gas light at his museum every evening so that the citizens of Baltimore could witness the new and superior illuminating technology. Simultaneously, Peale petitioned the City Council to implement a plan to light Baltimore with gas. The city embraced the potential of gas lighting and Peale, newspaper editor William Gwynn (*Federal Gazette* and *Baltimore Daily Advisor*), banker William Lorman, Baltimore politico Colonel James Mosher, and architect Robert Cary Long founded the Gas Light Company of Baltimore.⁵ Initially, street lighting and shop, office, and theater illumination provided the industry's bread and butter; gas service was beyond the means of the average householder in this early period.

Between 1816-1871, the locally owned Baltimore Gas Light Company was Baltimore's only gas provider. But the 51year monopoly was not uncontested. Through the 1850s, Baltimoreans applied to City Council for franchise rights to initiate competition within Baltimore's gas manufacturing industry. The Baltimore Gas Light Company would thwart each new contender before it could make a start. For example, when Council granted one franchise in 1851, the Baltimore Gas Light Company immediately lowered prices from \$4.00 per thousand cubic feet to \$3.00 per thousand cubic feet. The price cut made it economically impractical for the new company to make a start.⁶

⁴ Remarkably, Rubens Peale (Rembrandt's brother) is responsible for bringing the first gas light to New York City and submitting a similar charter to the New York legislature. [Louis Stotz and Alexander Jamison, *History of the Gas Light Industry* (New York: 1938), p. 20.]

⁵ Unattributed treatise in "Gas Companies – Baltimore" Vertical File, EPFL, (p.1). [This treatise appears to be either an early draft or a summary of George Brown's book, since within the two documents, the conclusions reached are identical and phrases are repeated.]

⁶ Unattributed treatise, (p.2).

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The Baltimore Gas Light Company was unregulated and without competition; it was renowned for both poor service and a poor quality product. By the end of the 1850s, City Council was so frustrated with the situation that they threatened to build a municipal plant, although they could not actually afford to act on their threat. Instead, in 1859, Baltimore Gas and the City Council hammered out an agreement that allowed City Council to have greater supervision over the Baltimore Gas monopoly.⁷ With the threat of municipal competition past, Baltimore Gas Company immediately constructed a new works at Spring Gardens, then an industrial frontier on the banks of the middle branch of the Patapsco River.⁸

Public opinion, though, supported introducing competition into the gas manufacturing industry. Almost simultaneously with City Council's agreement with the Baltimore Gas Light Company, the Council granted a charter to the People's Gas Company. In 1860, Maryland legislators issued the company's charter, demonstrating that state leadership believed that competition would provide proper regulation for public utilities.⁹ This opinion was echoed in the local papers:

It is easy to say that no one is compelled to use gas against his will. But it is not strictly true.... When one has gas pipes all over his house, and no other means at hand to substitute for the unsatisfactory light he is compelled to make the best of a bad bargain. ...we only re-echo the complaints of thousands in Baltimore when we say the quality of gas lately furnished is far inferior to what we have had and ought to have again.

A well managed competition is the only available remedy. It is not in the power of our law-makers to keep the profits of any corporation within the prescribed limits.¹⁰

The People's Gas Company initially failed to get off the ground. Its organizers became mired in internal conflict and one of the partners filed an injunction that halted progress until after the outbreak of the Civil War, freezing the new competitor's plans.¹¹

Capital was pooled in New York after the Civil War and outside interests quickly took control of Baltimore's manufactured gas industry. In October 1869, a group of capitalists from New York took up the unutilized People's Gas charter and launched a stock subscription in New York and Baltimore to resuscitate the moribund company. By December 1869, enough money had been collected to choose a site for the new works, which was located adjacent to the Baltimore Gas Light Company in Spring Gardens.¹² Soon thereafter, the majority stock of Baltimore Gas Light was sold to New Yorkers, who in turn reached an understanding with People's Gas, possibly demonstrating a link between the two firms. The agreement divided city service, giving the less developed territory west of Eutaw Street to the People's Gas Company for one million dollars, thereby resulting in two companies (each with its own monopoly).¹³ In 1871, the city

⁷ George T. Brown, *The Gas Light Company of Baltimore: A Study of Natural Monopoly* (Baltimore: The Johns Hopkins Press, 1936), p. 34. ⁸ This alast formed the second field of the s

⁸ This plant formed the core of what is now Baltimore Gas and Electric (BG&E), located at the end of Leadenhall Street. While the existing BG&E site was not accessible in 2003, a visual survey, from outside the gates, of the area where the original manufacturing buildings were located indicates that few, if any, 19th century buildings remain at the BG&E site.

⁹ Brown, p. 36.

¹⁰ American (Baltimore), February 14, 1860. Quoted in Brown, p. 37.

¹¹ Brown, p. 40.

¹² Brown, p. 40. In, 2003 no remaining People's Gas buildings were visible on the site.

¹³ Brown, p. 43.

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signed five-year contracts with the firms for the city's street lighting, effectively protecting People's Gas and Baltimore Gas Light until 1876.¹⁴

Between 1876 and 1888, true competition and ensuing price wars briefly changed the face of Baltimore's gas manufacturing industry. In 1876, Consumers Mutual Gas Light Company of Baltimore mounted an attack to bust the Baltimore gas monopoly. The nascent company passed out a prospectus that claimed it would pass ten percent of annual profits onto shareholders, put two percent back into the company, and pass all remaining profits onto the consumers. Furthermore, they promised to include provisions in the charter that would preclude future consolidation of the company.¹⁵ Consumers Mutual erected a plant in Canton and in 1878 began delivering gas within Baltimore Gas Company territory at \$2.00 per thousand feet, undercutting Baltimore Gas and People's Gas by \$.50.¹⁶ A price war ensued and finally Consumers Gas had to turn to the public for support, asking that they pay a slightly higher rate to provide stable competition, rather than allow Consumers Mutual to be driven out of the market.¹⁷ The appeal was successful and Consumers Mutual Gas Light Company was immediately profitable. After surviving the initial rate wars, Consumers feared the result of the next round of competition. By 1880, Consumers Mutual had redrafted their charter so that they could consolidate.¹⁸

In the summer of 1880, the Baltimore Gas Light Company, People's Gas Company, and Consumers Mutual combined and became the Consolidated Gas Company of Baltimore. The newly formed Consolidated Gas Company was substantially capitalized and had a well-established system of gas mains. Nonetheless, the industry was still vulnerable to competition because numerous charters for additional gas companies had been granted in the previous decades. Furthermore, "gas raids," whereby competitors would descend on a city with the sole intent of forcing the existing provider to buy them out at a profit, were becoming common in America's large cities. This could often be accomplished by briefly setting up shop in a well-established market and severely undercutting local prices.

Equitable Gas Company

Another New Yorker, Mr. Henry Y. Attrill, picked up Equitable Gas Company –chartered in 1867 – in 1881. Cornelius Kingsland Garrison (1809-1885) who was a New Yorker, riverboat magnate, President of Missouri Pacific Railroad, Mayor of San Francisco, and notorious gas market raider, likely financed the entire company, which was capitalized at \$2 million but had only \$5,000 stock paid in.¹⁹ Atrill chose a site at Spring Gardens adjacent to the People's Gas Works and ordered equipment.²⁰ Consolidated launched their counter-attack by setting up a dummy company at the works of the People's Gas Company to directly compete with Equitable and issued a plea in the *Sun* "to the patrons of the Consolidated Gas Company of Baltimore City" claiming that they provided the citizens of Baltimore with some of the cheapest gas in the nation. They bolstered their argument with the assertion that supporting outside competitors only harmed

1/messages/97nov/64977, April 17, 2003.

¹⁴ Brown, p. 44.

¹⁵ Brown, p. 46.

¹⁶ In 2003, no manufacturing buildings remain on the Consumers Mutual Gas Light Company site.

¹⁷ Brown, p. 47.

¹⁸ Brown, p. 49

¹⁹ Brown, p. 55; www.findagrave.com/cgi-bin/fg.cgi?page=gr&Grid=3324, April 17, 2003; http://rootsweb.com/pub/roots-

²⁰ Brown, p. 53-54.

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Baltimoreans, who comprised 90% of Consolidated's shareholders. Consolidated concluded by reducing their rates to \$1.00 per thousand wherever there was Equitable service.²¹

In 1882, the price wars between Consolidated Gas and Equitable Gas held out for three months and Consolidated was eventually forced to extend the \$1.00 rate to the entire city. During this period of competition, Equitable managed to gain a substantial foothold in Baltimore's business district, which was the most lucrative market. By this time, Cornelius Garrison, the force behind Equitable, faced financial crises and Equitable Gas was forced to sign an agreement with Consolidated that:

- set a standard \$1.75 per thousand rate for both companies,
- capped Equitable's gas production,
- prohibited Equitable from laying further mains,
- capped the share of consumers Equitable could serve, and
- required that Equitable buy all gas for new subscribers from Consolidated at \$1.00 per thousand.²²

Although the compromise benefited Consolidated Gas, their willingness to reach an agreement with upstart Equitable highlighted their vulnerability to new raiders.

In March 1885, the Chesapeake Gas Company of Baltimore emerged as a new contender. The company began their works at Bayard and Wicomico streets, only blocks from Equitable Gas.²³ Consolidated and Equitable immediately dropped their rates to \$1.50, but Chesapeake responded by canvassing for new customers with the rock-bottom price of \$.50 per thousand. The older firms were forced to meet Chesapeake's rate wherever the companies competed. Chesapeake Gas capitalized on Equitable's exposure and focused on challenging them in the business district. Shortly, Chesapeake crushed Equitable by purchasing Garrison's (who was then bankrupt) controlling stock. By 1888, Chesapeake displaced Equitable's directors, forced the company to buy all of its gas from Chesapeake, and eliminated Equitable's ability to gain new customers.²⁴ The Equitable Gas Works ceased manufacturing gas in 1888. The 1901 Sanborn Map indicates that the building was unoccupied, with only a watchman manning the site. The property was sold to the H. B. Davis Company, paint manufacturers, in 1914. The Chesapeake Iron Works also briefly occupied part of the site around 1914.²⁵

Technology and competition in Baltimore's gas market

Technological innovation flourished during the period of competition. In 1873-1874, Thaddeus S. C. Lowe developed the Lowe water gas process, which revolutionized the manufactured gas industry.²⁶ Whereas the earlier Murdoch's process captured the gases given off by burning coal, a process that consumed heaps of the raw material, the Lowe process

²¹ Brown, p. 55.

²² Brown, p. 55-56.

²³ In 2003, Chesapeake Gas Company's Generator House and Office building remain intact.

²⁴ "Equitable Gas Company," Sun (Baltimore), January 25, 1888, p. 4.

²⁵ Arcadis, Geraghty & Miller, "Phase 1 Environmental Site Assessment: Valspar Baltimore Plant," 2002.

²⁶ Dr. Lowe got his introduction to gas manufacturing as a Civil War balloonist. "First Gas Company in America Established at Baltimore," *Baltimore Gas and Electric News* (February 1929), p. 36-37.

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exploited the chemical reaction between superheated coke and steam.²⁷ The Lowe process produced a much purer product while minimizing consumption of raw materials. The new technology allowed competitors to enter the market and drove the existing suppliers to adopt innovations. For example, in 1876 Consumer's Mutual Gas Company of Baltimore was the nation's first manufactory to produce Lowe water gas on a truly large scale.²⁸ The technology was immediately recognized as superior; Consumer's Gas was able to become competitive in the Baltimore market and the Baltimore Gas

Competition in Baltimore's gas manufacturing industry initially benefited the consumer. Price wars made gas affordable to the average householder. In 1876 gas was \$2.50 per thousand by 1888 that price was cut in half to \$1.25. Furthermore, consumers became accustomed to lower prices and would no longer stand for monopolistic rate hikes. Once gas was cheaper, use proliferated. Before competition, Baltimore Gas Light was producing hundreds of millions of cubic feet of gas; by 1888 Baltimore consumption reached over a billion cubic feet per year.²⁹ Increased availability drove expanded uses for the manufactured gas as well. Whereas gas was initially used almost exclusively for lighting, during the period of competition innovators developed gas heating, cooking, and limited mechanical applications.³⁰

After a decade however, Maryland citizens were raising their voices against cut-throat competition in the gas industry. With each new competitor laying their own gas mains, the streets of Baltimore's business district were often impassible. Although the price wars made service cheap, investors were facing ruin. Finally, Maryland legislators were forced to take action to limit competition. In 1886, Maryland Governor Henry Lloyd (1852-1920) signed three bills that:

• Eliminated all the paper gas companies that had charters, but no works,

Light Company was forced to refit soon thereafter and supply gas at a lower rate.

- Prevented the formation of new gas companies in Baltimore City, Baltimore County, and Anne Arundel County (except in Annapolis), and
- Changed Equitable Gas Company's charter to enable consolidation.³¹

In 1888, Equitable Gas Company, Chesapeake Gas Company and Consolidated Gas Company combined to form a new Consolidated Gas Company, thereby ending Baltimore's period of competition in the manufactured gas industry. Simultaneously, the Assembly passed legislation that fixed the price of gas at \$1.25 per thousand cubic feet, initiating Maryland government oversight of gas distribution as a public utility.³² Consolidated Gas Company is the foundation of Baltimore Gas and Electric, the city's extant service provider. Consolidated Gas rapidly merged their manufacturing capacities at their main plant and the Equitable Gas Works fell into disuse by 1890. By 1920, Gas manufacturers began to adopt natural gas technology and after World War II, when reliable pipeline technology was developed, manufactured gas was quickly displaced.

 ²⁷ "Water Gas Derives Its Name From the Chemical Decomposition of Steam," *Baltimore Gas and Electric News* (February 1929), p. 38.

²⁸ The Baltimore Gas and Electric Light and Power Company of Baltimore, "American Gas Centenary 1816-1916," *The Baltimore Gas and Electric News* (June, 1916), p. 255.

²⁹ Brown, p. 60.

³⁰ Brown, p. 60. Gas powered industry remained marginal during the period of widespread use of manufactured gas. As late as 1920, manufacturing and industrial establishments accounted for less than 5% of total volume of gas sales. (Stotz and Jamison, p. 208.)

³¹ Brown, p. 58.

³² Brown, p. 59.

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Equitable Gas Works manufacturing complex

Owners of the Equitable Gas Works purpose-built the complex for manufactured gas production. During its short period of production between 1882 and 1888, Equitable Gas Works management refitted the works three times to employ rapidly evolving gas-manufacturing technologies. Built to produce gas from wood, the plant was refitted shortly thereafter to produce water gas. Coal gas manufacture soon supplemented water gas production.³³ As seen on the 1901 Sanborn (see Attachment), the complex consisted of a Coal Shed (now gone), two Retort Houses, the Generator House, the Purifying House, (which incorporated specialized rooms for condensers, exhausters, meters, and valves) and Iron Gasometers (now gone). The neighboring rail line provided direct access to coal, coke, and wood. Waste materials that were not reused in other industries were likely dumped into the nearby middle branch of the Patapsco River. Large single-story brick buildings housed manufacturing machinery, while nearby wood and metal structures stored the raw materials and the finished product. The array of distinct buildings in the complex provided separation between raw materials, combustion processes, purification processes, and stored gas.

At the Equitable Gas Works, wood and coal gas was manufactured in the Retort Houses by heating the wood or coal and converting them into gases in anaerobic containers called retorts. This process also created a number of waste materials, including coke and coal tar. After the gases were released from the retorts, workers ran them through a multi-stage cooling process in the Purifying House, delivering the gas first through the condenser, then through the exhauster, and finally through the purifiers. Purification consisted of running the gases through water and/or moist beds of lime or iron oxides. Cooling and purification processes created further waste materials including more coal tar, gaseous ammonia, and sulfur compounds. From the purifying house the gas ran through the meter to the Gasometers, where it was held until it passed to consumers through the mains.³⁴

After 1875, water gas dominated the manufactured gas market, because it had a much higher thermal content and burned brighter and cleaner than coal gas.³⁵ At the Equitable Gas Works, water gas was produced in the Generator House. The first step in water gas production consisted of heating coal or coke in the generator, which was a brick-lined, cylindrical,

³³ "American Gas Centenary," p. 255.

³⁴ http://www.heritageresearch.com/manufactured_gas_C.htm, June 17, 2003.

³⁵ Water gas, known as such because of the use of steam in the process, was a refinement of coal gas production.

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steel vessel, and blasting it with air, and then steam, to produce carbon monoxide and hydrogen gases.³⁶ The gas was then drawn from the generator into a carburetor, where oil spray was mixed with the gas. The gas-oil mixture was then drawn from the carburetor to the superheater, where the mixture was "fixed," or chemically bonded. The water gas then followed the same cooling and condensing process used for coal gas.

Architectural Significance

Equitable Gas Works derives additional significance under Criterion C as a rare Baltimore example of a 19th century gas manufactory. Comprising an intact complex of buildings devoted to the various functions of gas manufacturing, the Equitable Gas Works exteriors feature the decorative brickwork typical of industrial buildings of the period including brick pilasters, gable ends enclosing oculus windows, a tower capped with a slate Mansart roof, arched openings, and molded brick ornamentation. The Equitable Gas Works is unusual because it operated as a working gas manufactory for less than a decade, so the original configuration of buildings remained largely unaltered. The Equitable Gas Works is the only example of its type in Baltimore that retains all of its original masonry buildings.³⁷

³⁶ "Water Gas Derives Its Name From the Chemical Decomposition of Steam," p. 38.

³⁷ The Chesapeake Gas site retains a few 19th century structures subsumed within a massive Revere Copper and Brass complex and at least one 19th century building remains at Baltimore Gas & Electric (visible from the roadway), which is now a modern utilities complex, although neither site retains the majority of its buildings or a legible complex.

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Baltimore City, Maryland County and State

10. Geographical Data

grapinea:								
Acreage of Property UTM References (Place additional UTM refere	2.781 nces on a continuation sheet)			-				
1 1 8 3 5 9 Zone Easting 2 1 1 1	2 1 7 4 3 4 8 5 Northing	5 0	3 Zone 4	Easting		rthing		
Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)								
Boundary Justification (Explain why the boundaries were selected on a continuation sheet)								
11. Form Prepared By	,							
name/title Jennifer G	Goold							
Organization Betty B	ird & Associates			date	e June 30,	2003		
street & number 2602	7 24 th Street, NW, Suite 3			telephone	202-588-90	33		
city or town Washing	ton	state	D.C.	zip	code _200	08		
Additional Documenta	ation							_
Submit the following items wi	th the completed form:							
Continuation Sheets								
Maps								

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional Items

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

Property Owner

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

name Gas Light Square, L.L.C.				
street & num	Der 1440 Chesapeake Avenue			telephone 410-355-3111
city or town	Baltimore	state	MD	zip code21226

Paperwork Reduction Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et. seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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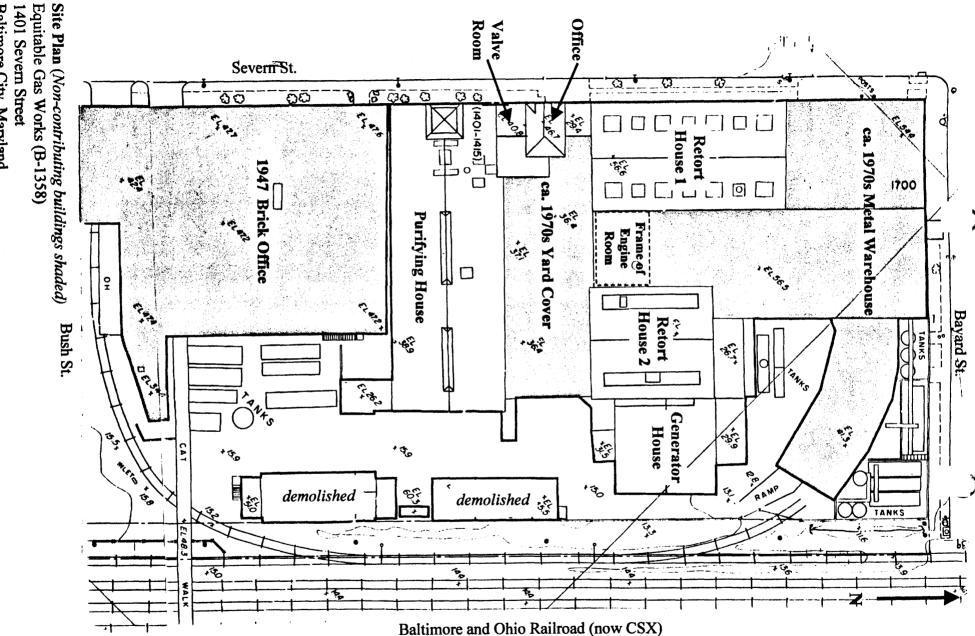
Section <u>10</u> Page <u>1</u>

Verbal Boundary Description:

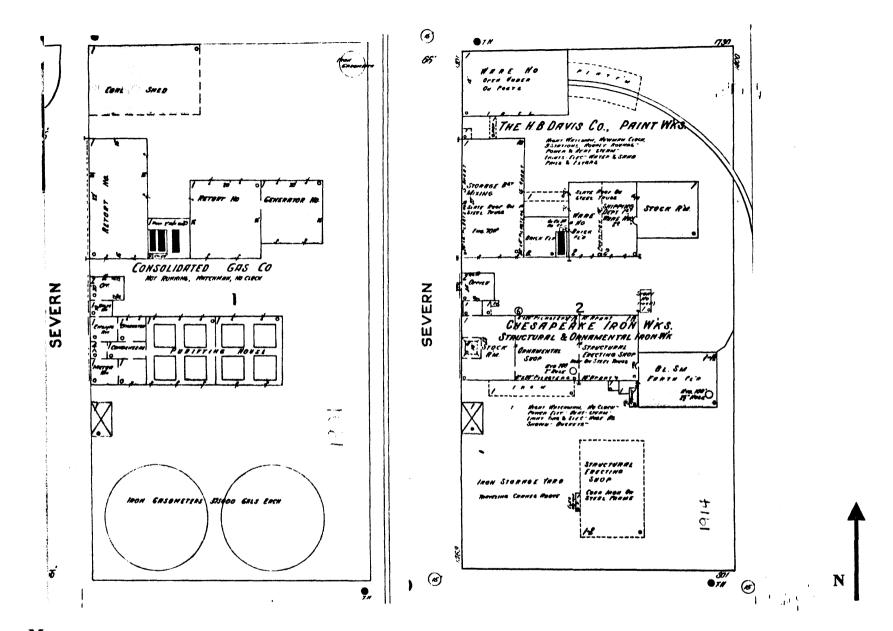
The property is known as Lot 2 as shown on the Plat for Ward 21, Section 8, Block 825, as recorded in the Plat Records of Baltimore City and Maryland Department of Assessment and Taxation.

Boundary Justification:

The boundary corresponds with the present legal description of the record lot occupied by the Equitable Gas Works.



Baltimore City. Marvland



Sanborn Maps Equitable Gas Works (B-1358) 1401 Severn Street Baltimore City, Maryland