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

OMB No. 10024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

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

1. Name of Property

historic name Atwater Kent Manufacturing Company, North Plant Powerhouse

other names/site number N/A

2. Location

street & number 5000 Wissahickon Avenue not for publication N/A

city or town Philadelphia vicinity N/A

state Pennsylvania code PA county Philadelphia code 101

zip code 19144

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ___ 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 ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant ___ nationally ___ statewide ✓ locally.
(___ See continuation sheet for additional comments.)

Signature of certifying official 5/30/96 Date

State or Federal agency and bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria.
(___ See continuation sheet for additional comments.)

Signature of commenting or other official _____ Date _____

State or Federal agency and bureau _____

4. National Park Service Certification

I, hereby certify that this property is:

___ entered in the National Register _____ _____
___ See continuation sheet.
___ determined eligible for the National Register _____ _____
___ See continuation sheet.
___ determined not eligible for the National Register _____ _____

___ removed from the National Register _____ _____

___ other (explain): _____

_____

_____ _____
Signature of the Keeper Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)

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

Category of Property
(Check only one box)

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

Number of Resources within Property

Contributing	Noncontributing	
1	____	buildings
____	____	sites
____	____	structures
____	____	objects
1	____	Total

Number of contributing resources previously listed in the National Register: None

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

N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat:	Industry	Sub:	Energy facility

Current Functions (Enter categories from instructions)

Cat:	Government	Sub:	~~Energy facility~~ N/A

7. Description

Architectural Classification (Enter categories from instructions):

Other: 20th-century industrial
Tudor Revival

Materials (Enter categories from instructions)

foundation	Stone
roof	Asphalt
walls	Brick
other	Terra cotta
	Limestone

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

8. Statement of Significance

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

X A Property is associated with events that have made a significant contribution to the broad patterns of our history.

___ B Property is associated with the lives of persons significant in our past.

X C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

___ D Property has yielded, or is likely to yield information important in prehistory or history.

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

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

___ B removed from its original location.

___ C a birthplace or a grave.

___ D a cemetery.

___ E a reconstructed building, object, or structure.

___ F a commemorative property.

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

Areas of Significance (Enter categories from instructions):

Industry
~~Communications~~

Period of Significance

1928-1936 29

Significant Dates 1928-1929

Significant Person (Complete if Criterion B is marked above)

N/A

Cultural Affiliation N/A

Architect/Builder The Ballinger Company
Ballinger, Walter Francis

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

9. Major Bibliographical References

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

Previous documentation on file (NPS)

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

Primary Location of Additional Data

- X State Historic Preservation Office
- ___ Other State agency
- X Federal agency
- ___ Local government
- ___ University
- X Other

Name of repository The Athenaeum of Philadelphia
Atwater Kent Museum, Philadelphia

10. Geographical Data

Acreage of Property: Less than 1 acre

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

	Zone	Easting	Northing		Zone	Easting	Northing
1	18	484990	4429510	3			
2				4			

____ See continuation sheet.

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

See Continuation Sheet

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

See Continuation Sheet

11. Form Prepared By

name/title Richard M. Casella

organization Louis Berger & Associates, Inc. date March 14, 1996

street & number 100 Halsted Street telephone (201) 678-1960

city or town East Orange state NJ zip code 07018

Additional Documentation

(Submit the following items with the completed form:)

Continuation Sheets

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

Photographs: Representative black and white photographs of the property.

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

Property Owner

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

name General Services Administration, Region 3

street & number 100 Penn Square East telephone (215) 656-5501

city or town Philadelphia state PA zip code 19107

The Atwater Kent Manufacturing Company North Plant Powerhouse is a flat-roofed, rectangular-plan brick industrial type building, measuring approximately 63' wide by 202' long. The powerhouse was built to shelter three coal-fired boilers which provided steam heat to the main manufacturing building at the North Plant. The building is located on the western edge of the property, between the main manufacturing building and the tracks of the former Pennsylvania Railroad. The building is of riveted steel frame construction with brick inclosure walls, and consists of three sections arranged linearly along the northwest-southeast axis of the building. The three sections vary in height, and are open on the interior from floor to roof. The main section housing the boiler room occupies the north half of the building, followed by two smaller sections which house transformers, switching equipment, workshops, storerooms, and a locker room. Industrial-type metal-frame windows are stacked in tall vertical openings to form three bays across the ends of the building and twelve bays along its length. The building retains all of its original solid-section steel windows, which are divided into 14"x20" lights with horizontally pivoting ventilators of either four or eight lights. The building retains two of its original exterior doors, which consist of large paired wood swinging doors with nine lights over two recessed panels. The original doors are located on the west facade. Entrance doors on the north and south ends of the building have been replaced with modern flat metal doors with a single narrow vertical light. The east side of the building was originally built without entrances, but has since been altered by the addition of two equipment and supply entrances enclosed with metal roll-up doors. These entrances were inserted into two existing window openings by removing the brick panel wall beneath the windows and the bottom three rows of glazing.

The boiler room section visually dominates the building, due to its size and its distinctive exterior architectural detailing on the upper third of the walls. The boiler room section is six bays in length and more than twice the height of the adjoining sections, measuring 63' wide, 118' long, and 87' high. A stair and elevator tower located at the southwest corner rises an additional 16' above the roof and provides access to five levels of steel catwalks within the open boiler room. The upper portions of the building's facades feature recessed brick panels, carrying smaller windows than the corresponding bays below, flanked by corbeled brick pilasters surmounted by decorative terra-cotta capitals in the form of lancet windows with steep gable hoods. Decorative brick wall panels are located beneath the top windows of the tower and main block and feature diagonally patterned brickwork.

The three sections of the building are separated by interior brick fire walls and sliding steel fire doors which automatically close by gravity in the event of fire. Door openings in the interior brick walls are headed with brick rowlock arches.

The west facade of the two smaller sections of the building features a high brick parapet which conceals the differing roof elevations. The parapet is decorated with corbeling which outlines panels corresponding to the window openings below. The parapet of the entire building is capped with terra-cotta tiles and scuppers.

The Atwater Kent Manufacturing Company North Plant Powerhouse meets National Register Criterion A for its association with broad patterns of American history. The Atwater Kent Manufacturing Company facility consisted of two expansive radio manufacturing buildings located on Wissahickon Avenue in northwest Philadelphia. Located on two parcels of land totaling 34 acres, the two parcels were separated by Abbottsford Avenue, which was later expanded as U.S. Route 1. The first building was erected in 1923 on the southwest side of Abbottsford Avenue, and is known as the South Plant. The second facility was built in 1928-29 on the northeast side of Abbottsford Avenue, and is known as the North Plant. The Powerhouse, a coal-fired steam heating plant, was completed in 1929 in conjunction with the new North Plant.

In 1927, the facility, which then consisted only of the South Plant, produced over one million radios, the greatest production of any radio manufacturer in the world. With completion of the North Plant, production rose to over 6,000 radios per day, totaling nearly 2.2 million units per year, and employing approximately 12,000 workers. The meteoric rise of the company met with an equally spectacular fall during the years of economic depression prior to World War II. As a result of the Depression, competition, and labor union demands, Atwater Kent became disenchanted with the radio business. In 1936, Kent dissolved the corporation and auctioned off the equipment. With his wealth estimated in the millions, Kent retired to Bel Air, California, where he pursued social and philanthropic activities until his death in 1949.

The Atwater Kent Manufacturing Company was incorporated in 1919 by Arthur Atwater Kent. The company was an outgrowth of two previous unincorporated companies formed by Kent: the Atwater Kent Manufacturing Works, a sole proprietorship founded in Philadelphia in 1902, and its predecessor, the Kent Electric Manufacturing Company, founded in Worcester, Massachusetts, in 1895. Both of these earlier firms were engaged in the manufacture of small electrical items, including motors, fans, meters, and intercommunicating telephones.

Kent was born in 1873 in Burlington, Vermont. He attended Worcester Polytechnic Institute, but after two years of study, he left in 1895 to form the Kent Electric Manufacturing Company. The company produced motors and fans which Kent marketed himself through magazine advertising and sales trips through the Northeast. During a trip to Philadelphia, Kent became excited about the business prospects in that city, and in 1902, he relocated his company there. Kent was a prolific inventor who obtained 93 patents over his career. He manufactured many of his inventions himself, adding constantly to his product line. He diversified into electrical components for automobiles, and achieved a huge success in 1905 with his invention of an improved engine ignition system he called the Unisparker. His system combined ignition points, condenser, centrifugal advance mechanism, and distributor in one unit, and was used in automobiles until the recent development of fully electronic systems.

In 1921, Kent again diversified as he became fascinated with radios. He possessed the necessary specialized tooling and equipment for working with Bakelite, an extremely tough synthetic insulator used in electrical equipment. The company began with the manufacture of radio components and quickly moved into the manufacture of complete radios. The fall and winter was the radio "season," and each year there was tremendous competition among the hundreds of manufacturers to bring forth new and improved models. Kent brought numerous firsts to the radio marketplace, including radios operating on alternating current. He popularized one-dial tuning and the sheet metal cabinet, which further reduced production costs and expanded the low-end market.

While maintaining high quality, he continually drove the price of radios down through massive and efficient production methods. In 1923, Kent began construction of a new manufacturing facility in northwest Philadelphia. Kent hired the architectural engineering firm The Ballinger Company to design the facility, utilizing the "Super-Span Saw-Tooth" roof trusses patented by Walter Francis Ballinger and his former partner, Emile G. Perrot, in 1920.

Kent believed strongly in advertising, and mounted campaigns in magazines and newspapers and on radio which kept him in position as the market leader. In 1925, Kent sponsored the "Atwater Kent Hour" radio program, which featured the leading musical talents of the day and quickly became one of the most popular programs. By 1927, Kent was spending over three million dollars per year on printed advertising, and seven thousand dollars per week on his radio program. In 1928, Kent expanded the facility with the construction of the North Plant, again hiring The Ballinger Company and employing their special roof system. The two main buildings were connected by a pedestrian bridge over Abbottsford Avenue; the bridge was demolished with the construction of Route 1.

Kent sold the North Plant on August 1, 1941 for 2.0 million dollars to the U.S. Signal Corps after the government filed condemnation proceedings in Federal District Court one week earlier. According to a government press release, the 740,000 square foot building and land represented an investment of 3.5 million dollars. The Signal Corps Depot officially celebrated its opening on November 15, 1941 with ceremonies attended by Philadelphia Mayor Bernard Samuels and U.S. Senator for Pennsylvania Hugh Scott. In 1949, ownership of the building was transferred to the newly formed General Services Administration (GSA). The GSA completed the conversion of the building from manufacturing space to office space and records storage, a use which continues today. The building's first tenant under the GSA was the Veterans Administration in 1949, joined by the National Archives in the 1950s and the U.S. Treasury in the 1960s.

date?

the powerhouse at the north plant

① why?
② had the property been idle since 1936?

who designed/built the steam system? Was the south plant powerhouse similar to the north-plant powerhouse

Major Bibliographical References

Barucco, Suzanna E.
1992 *National Register of Historic Places Registration Form, Atwater Kent Manufacturing Company (South Plant).* Martin Jay Rosenblum and Associates, Philadelphia, Pennsylvania.

Douglas, Alan
1988 *Radio Manufacturers of the 1920s.* Vestal Press, Ltd., New York.

Fogg, W.R.
1925 A Fourteen Acre Radio Factory. *The Building Age and National Builder,* September 1925, pp. 140-141.

Meyer, Richard
1992 *A Determination of Eligibility Investigation of the Department of Veterans Affairs' Property, 5000 Wissahickon Avenue, Philadelphia, Pennsylvania*. Prepared for the General Services Administration, Philadelphia, Pennsylvania, by John Milner Associates, West Chester, Pennsylvania.

New York Times
1949 A. Atwater Kent, Radio Pioneer, 75. *New York Times*, March 5, 1949, p. 17.

Tatman, Sandra L., and Roger W. Moss
1985 *Biographical Dictionary of Philadelphia Architects: 1700-1930.* The Athenaeum of Philadelphia, Pennsylvania.

Verbal Boundary Description:

The nominated property is bounded by the limits of the building footprint, comprising a rectangular area approximately 202' by 63', as located on the accompanying building site plan sketch.

Boundary Justification: The boundaries encompass the Atwater Kent Manufacturing Company North Plant Powerhouse, constituting the sole remaining National Register-eligible structure on the North Plant property, following demolition of the main manufacturing building in accordance with a Memorandum of Agreement between the property owners, the Advisory Council on Historic Preservation, and the Pennsylvania Historical and Museum Commission. The boundaries include all elements contributing to the significance of the property.

The following items apply to all 14 photographs:

1. Atwater Kent Manufacturing Company North Plant Powerhouse
2. Philadelphia, Philadelphia County, Pennsylvania
3. Richard M. Casella
4. November 1995
5. Louis Berger & Associates, Inc., East Orange, New Jersey

The following items apply to individual photographs:

Photo 1: West elevation

Photo 2: South elevation

Photo 3: North elevation

Photo 4: East elevation

Photo 5: Detail of windows and doors, west facade

Photo 6: Detail of brick and terra-cotta workmanship, west facade

Photo 7: Detail of elevator/stair tower, west facade

Photo 8: Interior view of boiler room, boiler, and structural steel frame

Photo 9: Interior detail of riveted steel frame of boiler room

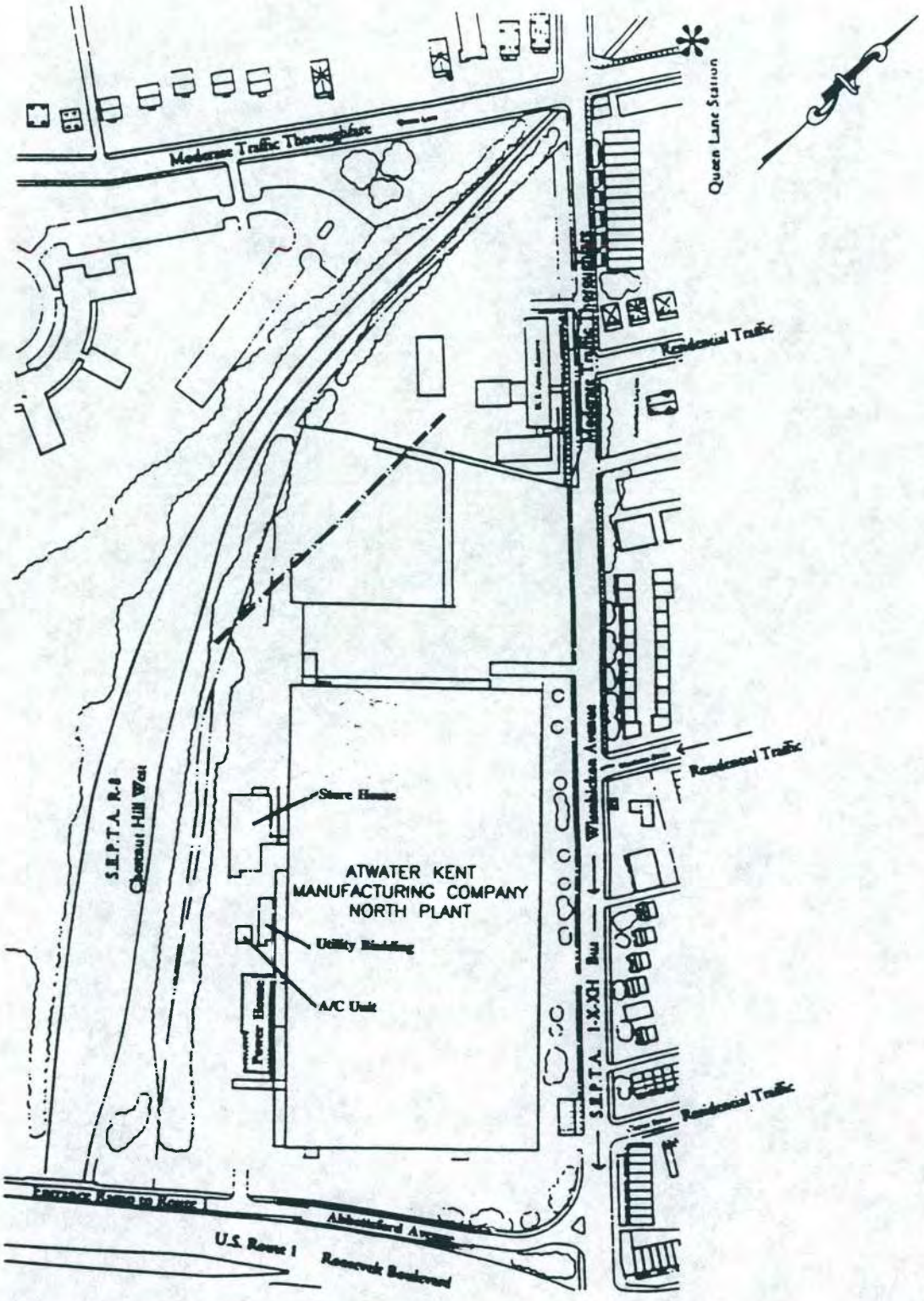
Photo 10: Interior overall view of steel frame of boiler room

Photo 11: Interior view of workshop and storeroom

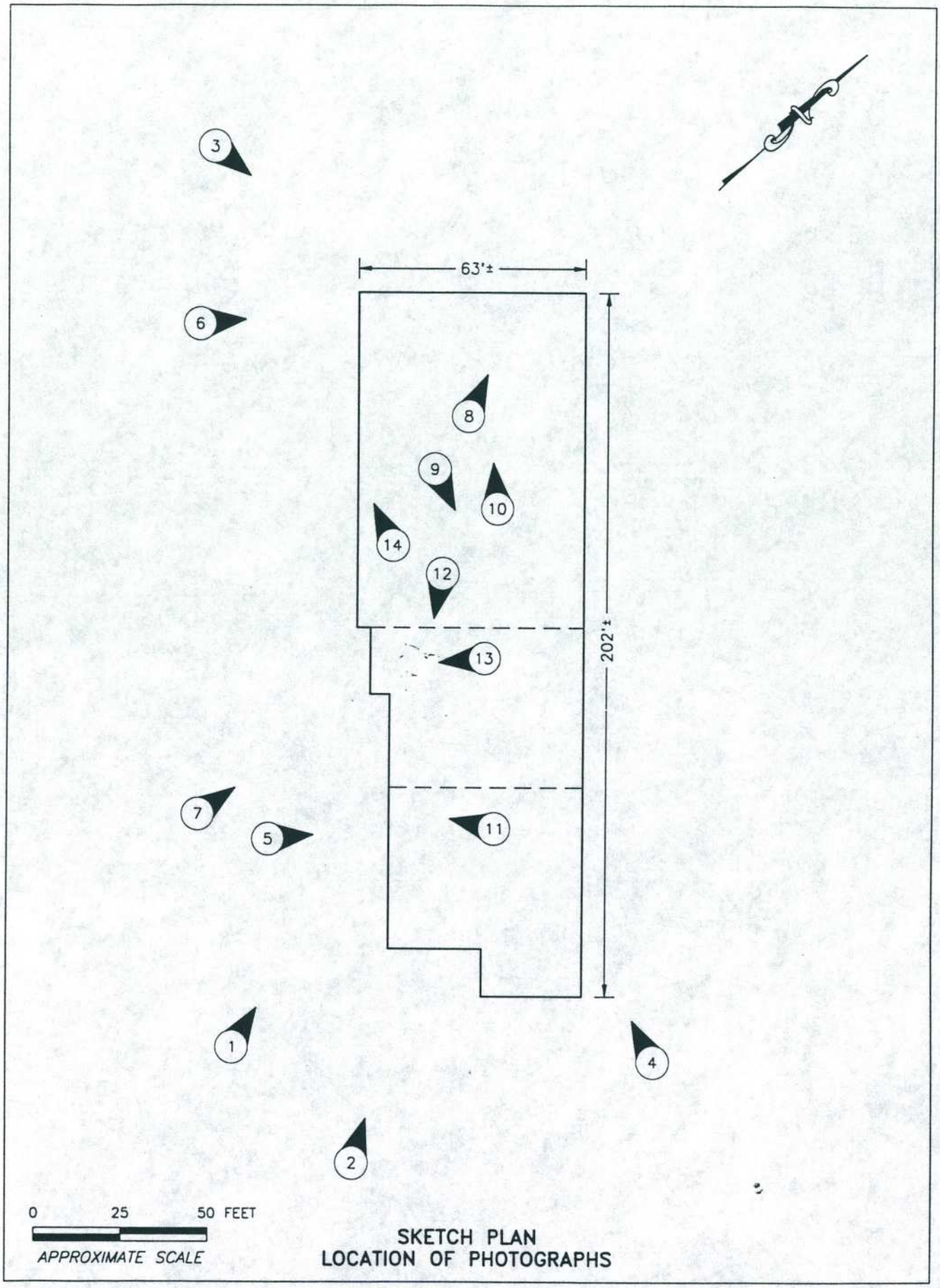
Photo 12: Interior detail of steel fire door and brick arch opening

Photo 13: Interior detail of steel passage door in brick arch opening

Photo 14: Interior detail of metal windows and pivoting ventilator operating system in boiler room


Moderate Traffic Thoroughfare
Queen Lane Station
Residential Traffic
Residential Traffic
Residential Traffic
Store House
ATWATER KENT
MANUFACTURING COMPANY
NORTH PLANT
Utility Building
A/C Unit
Power House
S.E.P.T.A. R-8
Chestnut Hill West
Wissahickon Avenue
S.E.P.T.A. I-X-XH Bus
Abbotsford Avenue
U.S. Route 1
Roosevelt Boulevard
0
200
400 FEET
APPROXIMATE SCALE

SITE PLAN



SKETCH PLAN
LOCATION OF PHOTOGRAPHS

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania

Photo 1

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania

Photo 2


PHONE

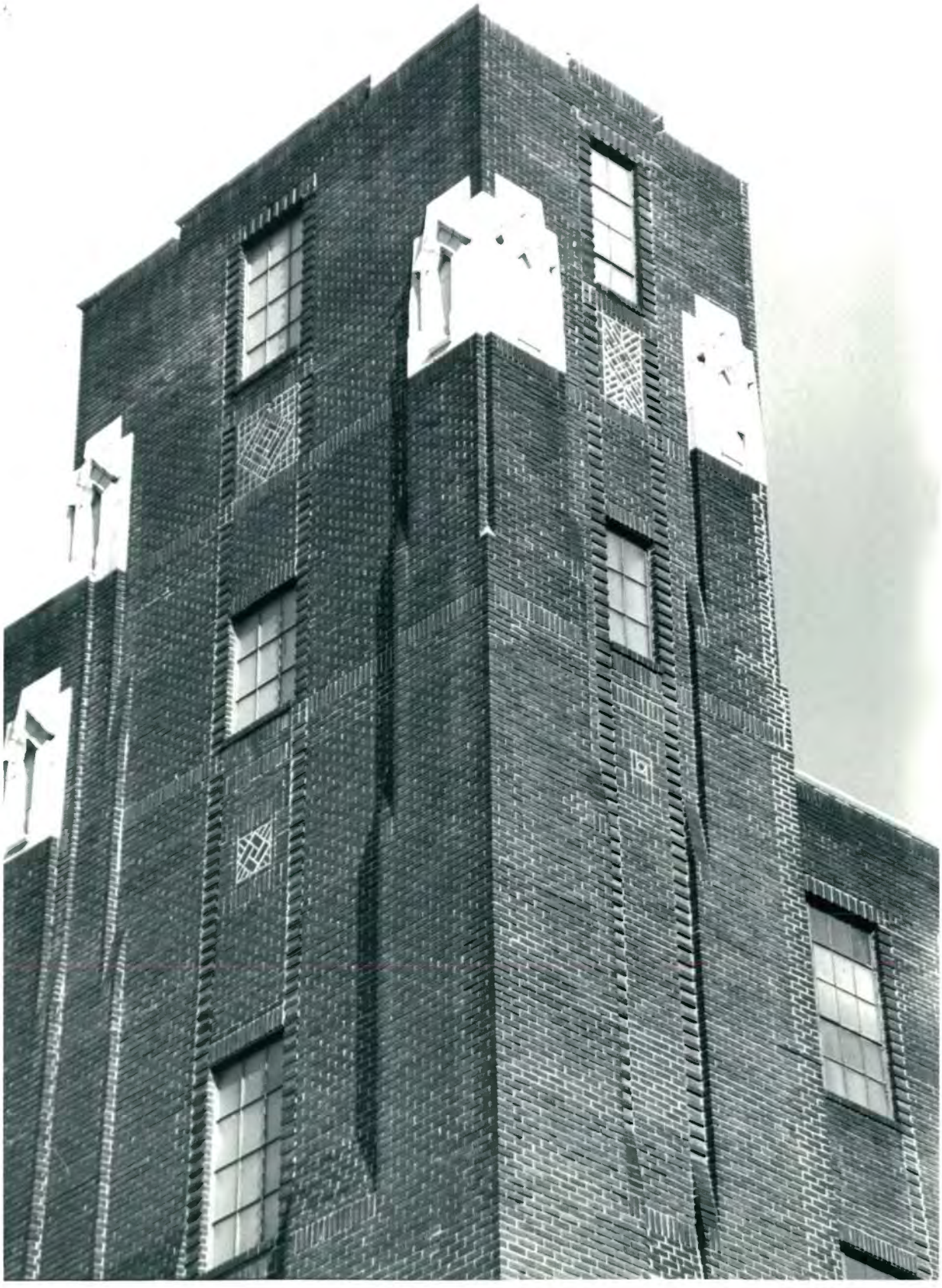
Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 3

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania

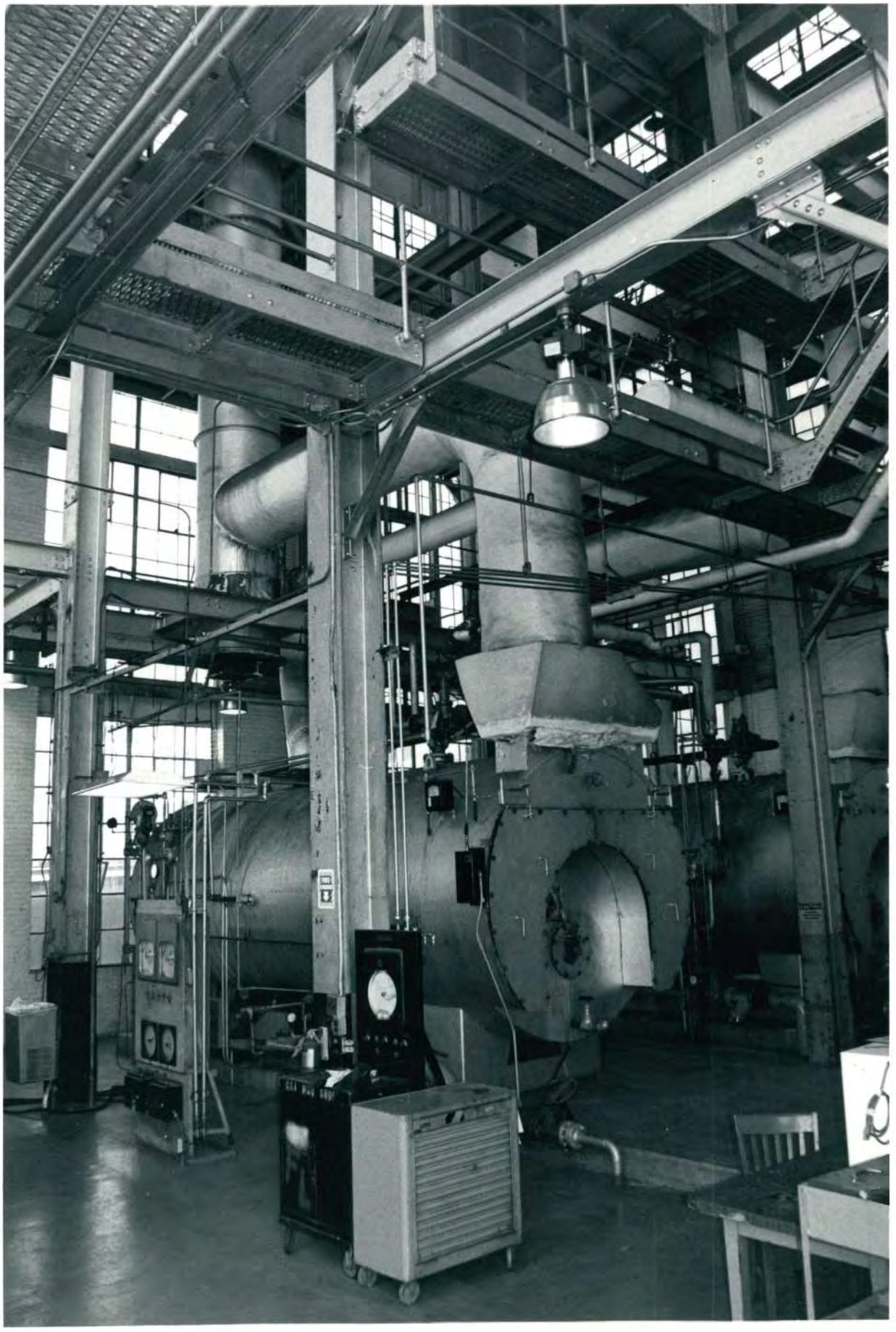
Photo 4

Atwater Kent Manufacturing Company,
North Plant - Powerhouse
Philadelphia, Pennsylvania
Photo 5

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 6



Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 7



Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania

Photo 8

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 9

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 10

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 11

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 12


FIR
EXTINGUI

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 13

Atwater Kent Manufacturing Company,
North Plant Powerhouse
Philadelphia, Pennsylvania
Photo 14

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

RECEIVED
JUN 0 3 1992
HISTORIC PRESERVATION

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Atwater Kent Manufacturing Company
other names/site number ~~Wissahickon Design and Industrial Distribution Center~~ (applies only to privately owned portion)

2. Location

street & number 4700-5000 Wissahickon Avenue N/A ☐ not for publication
city, town Philadelphia N/A ☐ vicinity
state Pennsylvania code PA county Philadelphia code 101 zip code 19119

3. Classification

Ownership of Property	Category of Property
[X] private	[X] building(s)
[ ] public-local	[ ] district
[ ] public-State	[ ] site
[X] public-Federal	[ ] structure
	[ ] object

Number of Resources within Property

Contributing	Noncontributing	
1		buildings
		sites
2		structures
	1	objects
3	1	Total

Name of related multiple property listing: N/A

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ☐ 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 ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of certifying official — Date

State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

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

Signature of the Keeper — Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
INDUSTRY/manufacturing facility	COMMERCE/business
	COMMERCE/warehouse

7. Description

Architectural Classification (enter categories from instructions)	Materials (enter categories from instructions)
Tudor Revival	foundation Stone
	walls Brick
	roof Asphalt
	other Terra Cotta
	Limestone

Describe present and historic physical appearance.

[Note: Numbers in parenthesis correspond to photograph numbers.]

Between 1923 and 1929 Arthur Atwater Kent built an expansive manufacturing facility in northwest Philadelphia. The Atwater Kent Manufacturing Company was housed in two buildings, the first built in 1923, the second in 1928, which together covered thirty-four acres of land. The building sites were originally bisected by Roosevelt Boulevard, then a two lane road with a wide landscaped median (1). The first structure, erected in 1923 and situated on the southwest side of the Roosevelt Boulevard Expressway (now a six lane sunken expressway -- US Route 1 -- with service roads alongside), is the subject of this nomination (2). With later additions it covers in excess of eleven acres, bounded by Abbottsford Avenue to the northeast, Wissahickon Avenue to the northwest, Roberts Avenue and King Street to the southwest, and the Conrail Rail Yards to the southeast. Because of its size and location, the building is a major presence in this neighborhood of light-industrial and residential buildings.

The plant was designed by The Ballinger Company, a prominent Philadelphia architectural and engineering firm which specialized in the design of manufacturing facilities. Architecturally, the building is an abstracted version of the Jacobean Revival style, depicted through the use of brick masonry walls with diapering at the parapet level and contrasting limestone and terra cotta detailing. A significant aspect of the structure is the "Super-Span Saw-Tooth" roof, patented by The Ballinger Company in 1920. The Ballinger Company also designed several additions to the site: an addition on the southwest elevation, in 1925; a railroad siding and road on the east wall of the southwest addition, also in 1925; and a bridge over the Roosevelt Boulevard Expressway connecting the two Atwater Kent buildings, in 1929.

The site is presently comprised of the original 1923 building and the 1925 southwest addition. A concrete block structure was erected in the area of the railroad siding in the 1970's. The bridge of 1929 was demolished sometime after 1936. A portion survives on the northeast elevation. The structures are mostly one story in height, with basement stories on the northwest and southwest elevations due to the receding topography. The principal facade is an angled wall oriented to the north, with the main entrance to the plant on axis with the corner of Wissahickon and Abbottsford avenues. This arrangement originally provided a triangular forecourt with landscaping and a semi-circular drive (3, 4). The northern orientation of the facade also provided the proper alignment for the glazed slopes of the saw-tooth roof to capture the uniform, indirect light of the northern sky.

[X] See continuation sheet

repeat 7.4

Northwest Elevation (5, 11, 12): This elevation is composed of nine typical bays with four triplets of eighteen-light steel sash with integral six-light louver sash. The bridge, erected in 1929, is located between the sixth and eighth bays. The smoke stack is positioned in front of the most western, or ninth, bay. Large openings for truck loading/unloading in the fourth bay, with twenty-two light glazed transoms, are original.

Windows in the first, second, and third bays which had been infilled with brick and modern arched windows, have been restored with new aluminum units designed to match the original steel units. A doorway opening was inserted in the northernmost bay. A new stairway and handicap access ramp, shielded by a curvilinear brick cheek wall, were constructed to provide access to the opening. A pedestrian doorway and glass block infill were inserted in one window opening in the fifth bay. A concrete loading dock and wood-framed canopy are recent additions in the sixth bay, on the northwest side of the bridge.

The bridge, designed by The Ballinger Company and built in 1929, was a brick structure of six bays with terra cotta detailing similar to that employed elsewhere in the complex but exploded in size to reflect it's more massive proportions. The bays were divided by battered brick pylons, with plinths and molded bases of limestone. Molded recessed panels with quoining and caps of terra cotta adorned the roof level. The cornice was terra cotta with a guttae frieze (see 1).

The bridge was mostly demolished sometime after 1936; only the southeast bay survives. There are five recessed brick panels with soldier brick courses at the top and molded brick "sills" between the pylons on the northwest and southeast walls of the existing bay. Glass block windows were inserted in the three center panels on each side of the bridge, and pairs of modern steel doors were placed at the northeast ends of each side elevation. Bands of three small aluminum framed windows were added near the base of the structure, on all three walls. A non-contributing billboard structure is located on the bridge roof.

The original boiler house smoke stack stands at the southeast end of the elevation. The tapering cylindrical stack rises from an octagonal base of common brick construction which terminates in a corbelled band at the level of the adjacent window sills. Above the base the construction is brick tile. The stack originally bore the name "ATWATER KENT" in painted letters on the upper part. The stack now bears the initials of the current occupant, "WIC."

Northeast Elevation (13, 14, 15, 16): The Wissahickon Avenue facade is eleven bays long. Detailing on the bays is typical, with four triplets of fifteen light steel sash and frame windows in each bay. The western three bays are two stories in height. Modern single light fixed windows and a pedestrian doorway enclosure on the lower level of these, the first, second and third bays on the elevation, have been replaced with new aluminum window units which replicate the glazing configuration of the original steel sash. All openings in the sixth bay have been modified to accommodate a pedestrian entrance and smaller window openings in the original window bays. A concrete stairway and loading dock were also added. Two

The elevations are organized by bays, bounded by structural brick piers (5). Typical bays have four triplets of multi-light steel sash and frame windows divided by intermediate brick piers. The windows are fifteen or eighteen lights, with integral six-light louver sash in the upper, or upper and lower sections, respectively. Windows on the street elevations share a continuous terra cotta sill and brick soldier course lintel, which terminate at the intermediate piers. On secondary elevations the window sills are discontinuous. The water table is marked by an unbroken header and soldier course band on all elevations. Truck access was accommodated by opening the bays to the full height of the window lintels, and the full width between intermediate piers, maintaining the regular rhythm of the fenestration.

The brick piers have terra cotta scuppers and flat molded terra cotta panels with quoining, set within the masonry at the level of a tall brick parapet. The parapet, which serves to screen the jagged saw-tooth roof structure, is ornamented with a diamond diaper pattern in glazed header bricks outlined with soldier courses and square terra cotta corner blocks. The parapet, capped with molded terra cotta tiles, is raised at the primary brick piers and dropped at the lines of intermediate piers. A continuous terra cotta drip molding, aligned with the bottom of the scuppers, marks the roof level. This ornamentation is limited to the Abbottsford Avenue (northeast) and Wissahickon Avenue and King Street (northwest) elevations, except where it wraps around to the first bays of secondary "non-public" walls.

The super-span saw-tooth roof, hidden by the parapet on street elevations, pierces the sky on the southwest and southeast elevations, revealing the true industrial character of the building. The "super-span" saw tooth visibly differs from conventional saw tooth construction by the addition of an upper chord, which can be seen bridging the east-west ridges of the saw tooth gables in a north-south direction (6). Each saw tooth is glazed on the north slope, and roofed with conventional materials on the south (7). A series of ladders and cat-walks provided access to the various areas of the roof (8). A large steel radio antenna, anchored by steel cables to the roof, is located at approximately the center of the main building (9).

A tall smoke stack rises above the building at the west corner. The stack originally vented machinery in the plant's "boiler house," which was located on the lower level at the southeast corner of the building, adjacent.

There were few interior walls in the Atwater Kent Manufacturing Company building. Contemporary photographs and written accounts describe an open plan, with areas for machinery and masses of tables where radio components were put together by hand in assembly-line fashion. The interior was unadorned: concrete floors and mushroom columns and reinforced concrete posts on 40 foot centers. The skylights of the saw-tooth roof flooded the space with light, and could be opened by means of integral louver sash to improve ventilation. Radiators were hung on the trusses to provide heat throughout the facility without obstructing floor areas.

In contrast, a few rooms in a relatively small area behind the angled north facade were developed as public spaces. Visitors entered into a large Reception Room with fireplaces on the west and east walls. A

Consultation Room, also with a fireplace on the east wall, small Dining Room, Kitchen, and a Bathroom were located to the west of the reception room. These spaces were modestly appointed, with plaster molded panels on the walls, and "steadman floors" with marble bases. Dropped ceilings shielded the saw-tooth trusses and skylights, called "diffusing sash," filtered natural light into these more formal public spaces.

Building Elevations and Significant Features:
(See building plan. Bays are referred to by number, left to right across elevations.)

1923 BUILDING The first of the Atwater Kent Manufacturing Company buildings, designed by The Ballinger Company and built beginning in 1923.

North Elevation (3, 4, 10): The north facade is five bays wide with a projecting center pavilion distinguished by an embellished architrave, rusticated quoins, and a limestone water table and stairway. The pavilion is dominated by a rusticated limestone architrave framed by rusticated Doric pilasters on pedestals with molded diamond panels. The doorway, with a molded limestone surround, is recessed within a round-headed arch. The original entrance doors were single glazed. A metal transom screen had Kent's initials, "AK," in a circle at the center. Egg and dart moldings enrich the pilaster capitals and are repeated at the entrance arch imposts. The Doric entablature is decorated with triglyphs and metopes in the frieze, and guttae overlaid with oval shields in the architrave. A molded entablature breaks out at the pilasters. The attic of the entablature consists of a recessed molded panel carved with the name "ATWATER KENT MANUFACTURING CO.," with obelisks on each side, aligned over the pilasters. The brick parapet is inset with plain brick panels outlined with soldier courses and square terra cotta corner blocks, to either side of the architrave.

Single six-over-six double hung wooden sash windows with limestone spandrel panels at the heads flank the architrave. Each adjacent bay contains six-over-nine double-hung wooden sash windows: three pairs divided by intermediate brick piers recessed within a panel with secondary brick piers and a plain brick spandrel at the heads. The use of wooden sash, limited to this elevation, reflects the more polite administrative function of this portion of the building, versus the manufacturing processes that occurred behind steel sash windows elsewhere. The fenestration of the two outer bays on the principal facade, three pairs of twenty-four-light steel sash and frame windows divided by intermediate brick piers, foretells the more typical pattern and style of fenestration in the complex.

The north elevation is virtually unchanged. The original glazed doorway and transom, and a pair of light standards did not survive and were replaced with modern doors and standards of sympathetic design in 1989. Original wooden sash were restored. Inappropriate modern windows in the west bay have been replaced with new aluminum units which match the original sash and muntin configuration.

Northwest Elevation (5, 11, 12): This elevation is composed of nine typical bays with four triplets of eighteen-light steel sash with integral six-light louver sash. The bridge, erected in 1929, is located between the sixth and eighth bays. The smoke stack is positioned in front of the most western, or ninth, bay. Large openings for truck loading/unloading in the fourth bay, with twenty-two light glazed transoms, are original.

Windows in the first, second, and third bays which had been infilled with brick and modern arched windows, have been restored with new aluminum units designed to match the original steel units. A doorway opening was inserted in the northernmost bay. A new stairway and handicap access ramp, shielded by a curvilinear brick cheek wall, were constructed to provide access to the opening. A pedestrian doorway and glass block infill were inserted in one window opening in the fifth bay. A concrete loading dock and wood-framed canopy are recent additions in the sixth bay, on the northwest side of the bridge.

The bridge, designed by The Ballinger Company and built in 1929, was a brick structure of six bays with terra cotta detailing similar to that employed elsewhere in the complex but exploded in size to reflect it's more massive proportions. The bays were divided by battered brick pylons, with plinths and molded bases of limestone. Molded recessed panels with quoining and caps of terra cotta adorned the roof level. The cornice was terra cotta with a guttae frieze (see 1).

The bridge was mostly demolished sometime after 1936; only the southeast bay survives. There are five recessed brick panels with soldier brick courses at the top and molded brick "sills" between the pylons on the northwest and southeast walls of the existing bay. Glass block windows were inserted in the three center panels on each side of the bridge, and pairs of modern steel doors were placed at the northeast ends of each side elevation. Bands of three small aluminum framed windows were added near the base of the structure, on all three walls. A non-contributing billboard structure is located on the bridge roof.

The original boiler house smoke stack stands at the southeast end of the elevation. The tapering cylindrical stack rises from an octagonal base of common brick construction which terminates in a corbelled band at the level of the adjacent window sills. Above the base the construction is brick tile. The stack originally bore the name "ATWATER KENT" in painted letters on the upper part. The stack now bears the initials of the current occupant, "WIC."

Northeast Elevation (13, 14, 15, 16): The Wissahickon Avenue facade is eleven bays long. Detailing on the bays is typical, with four triplets of fifteen light steel sash and frame windows in each bay. The western three bays are two stories in height. Modern single light fixed windows and a pedestrian doorway enclosure on the lower level of these, the first, second and third bays on the elevation, have been replaced with new aluminum window units which replicate the glazing configuration of the original steel sash. All openings in the sixth bay have been modified to accommodate a pedestrian entrance and smaller window openings in the original window bays. A concrete stairway and loading dock were also added. Two

window openings at the seventh bay, and all four in the eighth bay were modified for truck loading/unloading by 1928 (see 2).

A one story brick "porte-cochere" was erected in front of the ninth and tenth elevation bays, in the location of an original canopied pedestrian entrance in the tenth bay. The east wall of the structure was originally composed of two smaller openings either side of a larger center opening, and separated by brick piers. In 1989 glazing was inserted within the original brick piers to enclose the space. A brick parapet with terra cotta coping and a central keystone motif projects slightly over the center opening. A cantilevered concrete canopy, supported by four integral concrete brackets, projects out over the sidewalk. Small steel frame sash on the north and south sides have soldier course heads and concrete sills.

Southeast Elevation (17): This elevation is two stories in height and eleven bays wide. The decorative terra cotta detailing and brick parapet wall of the adjacent Wissahickon Avenue elevation wrap around to the four bays (eighth through eleventh) at the west end of the elevation. On the remaining bays, brick buttresses with bevelled terra cotta caps were used in place of the brick piers as bay divisions, carrying through the rhythm and fenestration of the principal elevations. The saw-tooth roof trusses, no longer screened by a parapet wall, are visible, defined at the roof line by brick "gable" walls, two in each bay. Many of the original triplets of eighteen-light steel sash and frame windows survive. The glazing pattern and muntin and frame configuration was replicated in new window units, installed in 1989 to replace deteriorated original windows. Openings which had been modified with glass block infill and aluminum window sash with horizontal light divisions remain at the southeast end of the elevation. There is a two story concrete fire escape at the sixth bay and a one story brick enclosed loading area at the eleventh bay.

Southwest Elevation (18, 19, 20): The rear elevation of the 1923 building is mostly two stories in height with a basement story in two bays at the north end were the boiler house was located. Stripped of the brick parapet screen and terra cotta ornamentation, the industrial character of the building is fully revealed on this elevation. Twenty-six super-span saw-tooth roof trusses, with their distinctive exposed upper chords, can be clearly seen in silhouette across the sky.

A non-public facade facing onto the rail yard, the treatment of this elevation is comparable to that on the southwest elevation. Brick buttresses with bevelled terra cotta caps are in the place of the brick piers as bay divisions. The window sills and lintels are brick soldier and header courses, respectively. The saw-tooth roof trusses are defined by brick "gable" walls, two above each bay, with terra cotta coping tiles. Original triplets of eighteen-light steel sash and frame windows survive in the first through fourth bays. The first story of bays five through seven are obscured by modern one story brick and concrete block structures, built over the 1925 railroad siding. An addition was built in 1925 on the southeast elevation, in the area of the eighth through thirteenth bays, leaving only the saw tooth gables and bands of small six-light windows exposed at the top of the 1923 building wall.

The original water tank, a free-standing structure, survives in the yard at the northeast end of the elevation. It is cylindrical, constructed of riveted steel plates.

The original electrical substation is a free-standing small square brick structure adjacent to the water tank. It has a set of double-leaf steel doors with an eight-light transom, and one twenty-five-light steel window on the southeast wall. The roof coping is terra cotta tiles.

1925 ADDITION Designed by The Ballinger Company and built in 1925 on the southwest wall of the 1923 building. It is a mostly two story structure, in the same style, with similar detailing, as the 1923 building.

Northeast Elevation (21): The east wall of the 1925 addition is perpendicular to the south wall of the 1923 building. Set back the entire length of that building from Wissahickon Avenue, the elevation faces onto a small side street, King Street, and was therefore treated as a public facade. The elevation is four bays wide. The two bays at the south end are two stories in height.

Brick piers define the bays. Terra cotta scuppers and flat molded terra cotta panels with quoining are set within the masonry at the parapet level, and a there is a decorated brick parapet wall screening the roof structure. A continuous terra cotta drip molding, aligned with the bottom of the scuppers, marks the roof level. The parapet, capped with terra cotta coping tiles, is raised at the primary brick piers and dropped at the lines of intermediate piers. The terra cotta window sills are continuous across each bay on the upper story but interrupted on the first story.

Original window openings were infilled with brick and glass block set mostly in diagonal panels. A modern, enclosed, one story truck loading dock of brick with glass block windows was erected in front of the third bay, its east wall aligning with the east wall of the fourth bay which is forward of the northeast wall. The fourth bay is one story below a fully ornamented parapet wall. An original window has been infilled with brick, and a pair of double doors inserted, in the southwest opening. A concrete loading dock provides access to a truck loading/unloading opening on the northwest side of the bay.

Southeast Elevation (22): This two story elevation, facing onto Roberts Avenue, is four bays wide, the bays divided by intermediate brick piers with terra cotta scuppers and flat molded terra cotta panels with quoining set within the brick masonry at the parapet level. A continuous terra cotta drip molding, aligned with the bottom of the scuppers, marks the roof level, above which rises the ornamented parapet wall. The terra cotta window sills are continuous across each bay on the upper story but interrupted on the first story. Window openings on both stories were infilled with brick and glass block set in a diagonal pattern. A high basement story is not fenestrated.

with the bottom of the scuppers, marks the roof level, above which rises the ornamented parapet wall. The terra cotta window sills are continuous across each bay on the upper story but interrupted on the first story. Window openings on both stories were infilled with brick and glass block set in a diagonal pattern. A high basement story is not fenestrated.

Southwest Elevation (23, 24): The full decorative treatment of the main facades wraps around from the southeast elevation to the most southwestern bay on this elevation. The remaining six bays are not ornamented. The first through third bays, and half of the fourth bay, are one story in height on a tall foundation covered by a raised earth berm. The windows are triplets of fifteen-light steel sash on the upper story and twenty-one-light steel sash on the lower story, with integral louver sash. The openings have soldier course lintels and header course sills. The water table, a soldier course topped with a header course, marks the line of the principal floor level of the 1923 building. A three story brick stair tower was built over portions of the sixth and seventh bays. The terra cotta drip molding on the seventh bay is carried over onto the stair tower bay, as is the soldier and header course band at the principal floor level of the 1923 building, which here is at the level of the second story. There are single sash at each story on the southwest and northwest walls, matching the light configuration of adjacent bays.

1970's ADDITION (2, 19, 20) A one story concrete block addition built in the 1970's along the northwest wall of the 1925 addition, in the location of the 1925 railroad siding.

The addition is sparsely fenestrated, with small metal framed awning sash windows on the northwest elevation, and one pair of nine-light steel sash on the west elevation. There is a single wooden door at the south end of the northwest wall. The walls were painted, and a wooden lattice screen, also painted, was applied to both elevations in 1990.

Conclusion:

The Atwater Kent Manufacturing Company site was purchased in 1989 by a private developer who rehabilitated the building for use as office, light-industrial, and warehouse space for multiple tenants. The Philadelphia Historic Preservation Corporation accepted a facade easement on the property in 1989. The rehabilitation was certified by the National Park Service in 1992.

At the time of the current owner's acquisition of the site, the building showed signs of deterioration from neglect, but was largely intact. During the recent rehabilitation effort important building features, such as the north elevation pavilion, the super-span saw-tooth truss roof, the large roof antenna on the 1923 Building and the smoke stack, were preserved. The brick walls have been mostly repointed. Minor

structural cracks, and a more prominent structural crack at the east end of the north elevation, are being monitored by the current owner in consultation with a structural engineer. Original steel sash were restored where feasible, and otherwise replaced with new aluminum units which replicate the original glazing pattern and muntin configuration. In several cases inappropriate modern infill sash were removed and also replaced with new aluminum units. Minor additions, such as an awning and concrete loading dock adjacent to the bridge on the northwest elevation, have a minimal visual impact and are reversible. Such changes may likewise be seen as typical for an industrial building such as the Atwater Kent Manufacturing Company plant, which was also modified by Kent as changing needs required.

The super-span saw-tooth truss roof system has been preserved with minor modification (7, 8). The glazed north slopes of the saw-tooth trusses have been covered on the exterior with translucent, corrugated vinyl panels, preserving the original steel glazing frames in-situ, and also the interior appearance of the skylights (25). The south slopes have been roofed with gray fiberglass-reinforced asphalt shingles, and flashings have been replaced.

Significant site features, such as the water tank and electrical sub-station, have also been retained, and contribute to the original industrial character of the site. Prior to the current owner's acquisition of the site, grass lawns along the northeast and northwest building perimeters were reduced in size to accommodate the growing need for automobile parking, and the landscaped forecourt at the north facade was removed. A landscaped buffer has been maintained adjacent to the sidewalks on Wissahickon and Abbottsford avenues.

Because of the current multiple tenancy, portions of the vast open interior have been sub-divided, and in some cases dropped ceilings have been introduced. Interior walls and modern office amenities such as carpeting are reversible. The building's significant structural system -- super-span saw-tooth roof and interior columns -- have all been retained, and are still visible in many areas, particularly those spaces used for light industry or storage (26).

Recent modifications have not diminished the historic integrity of the Atwater Kent Manufacturing Company building. The essential and distinguishing building features -- ornamented north pavilion wall, brick and terra cotta parapet detailing, super-span saw-tooth truss roof and supporting columns -- survive in nearly pristine condition, an enduring monument to the innovative achievements of both builder and patron, The Ballinger Company and Arthur Atwater Kent.

In the early 1920s experimentation with radio transmission was largely the province of amateurs and commercial wireless companies. Along with The Radio Corporation of America (RCA), Westinghouse, Grebe, and others (there were 5,000 manufacturers of radio parts in the United States by 1923[2]), Kent saw the potential for developing radios for common use and started producing radio components in 1921. This was a likely transition for Atwater Kent, as the company already had command of basic radio manufacturing processes, such as wire coiling and the Bakelight molding process, and a distribution network for automotive electrical products.

Radio transmission was based on simple technology which was widely known. Technological advances were made through the 1920's, however radio manufacturers profited from competitive pricing.[3] The Atwater Kent Manufacturing Company became a leader in the industry by producing quality radios through efficient manufacturing methods, which kept the prices for Atwater Kent radios below the competition.

Initially Atwater Kent sold radio components separately, with instructions for assembling a complete receiver. Kent also manufactured finished mahogany boards with molded edges, called "breadboards," upon which the receiver parts could be assembled. The first assembled radio receiver marketed by Kent was "Part No. 3925," introduced at the end of 1922. Ralph O. Williams, a radio historian and authority on Kent, advises that at least one early Atwater Kent open set, "familiarly called a breadboard, is ... necessary for any radio collection that exemplifies the beginning of broadcasting."[4] Kent improved upon the components of the No. 3925 in later models with developments in amplification, tuning, selectivity, and the compactness of component arrangement. Production efficiency was gained through a logical evolution of design "from one model to another, and from one year to the next,"[5] which minimized changes in machinery set-up. At times new models contained the same or only slightly improved components, or modified housing design.

The first sets consisted of a tuner, a variometer, and a detector and amplifier.[6] The combined adjustment of a dial on each of these three components was necessary to tune in a broadcast. Kent patented a one dial receiver in 1928. These replaced the "three-dialers" and introduced one-hand operation. With only two dials, a station dial and volume control, "One hand is all that is needed to operate an Atwater Kent Full Vision Dial Receiver, and it is not even necessary to look at the dial when changing from one station to another. What could be simpler?"[7]

In addition to providing an efficient manufacturing process, a proficiency with methods for shaping steel gave Atwater Kent radios a distinctive appearance, from the earliest open sets to the Model 53 console, a free-standing floor model of drawn steel. As the radio became a common fixture in American homes, visual attributes became increasingly important and wooden cabinets became popular. Kent responded to the trend by enclosing the open sets in wooden boxes with crinkle-painted steel front panels, beginning with the Model 20 (No. 4640), introduced in 1924. On the Model 24 (No. 4920), a variation of the Model 20 called the "Deluxe," the Atwater Kent nameplate and escutcheon buttons were gold-plated. In 1926 Kent easily captured the essence of the modern era by enclosing the Model 35 (No. 8100) in a streamlined drawn

steel box. With these modifications Kent exploited his company's steel shaping capability and benefitted from the efficient and cost-effective production process which it provided.

With the Model 20 Kent also introduced a steel L-shaped carrier, or chassis, which made progressive assembly line production possible and increased efficiency. A 1926 brochure illustrated rows of long tables stretching through the vast factory interior, manned by workers assembling Atwater Kent radios and speakers.[8] After only four years of production, over 4,000 workers were employed to produce thousands of radio sets each day. Atwater Kent had sold over one million radio sets and annual sales exceeded $60 million. By 1930 the number of workers had tripled to 12,000.[9] The 1926 brochure boasted that one out of ten workers was an inspector, "and each [radio] set undergoes 159 tests and inspections before it is allowed to leave the factory."[10]

Kent embraced the radio industry by sponsoring The Atwater Kent Hour, a weekly radio program broadcasted to several major American cities beginning in 1925. The show featured top classical musicians of the day. He was also a generous philanthropist. In 1927 the Atwater Kent Foundation was established to discover and support new talent. Through national competitions promising singers were awarded cash prizes and tuition to leading music conservatories. In 1931 Kent funded a private relief program to aid 3,500 unemployed Atwater Kent workers, including a medical facility at the Wissahickon Avenue plant.

In 1930 Kent gave $225,000 toward the construction of a new building for the Franklin Institute in Philadelphia. At the urging of Philadelphia's mayor, Kent later restored and upgraded the original Franklin Institute building and donated it to the city for use as a municipal museum. It was renamed the Atwater Kent Museum in his honor, in 1938. Kent also restored the Betsy Ross House in Philadelphia between 1936 and 1937.

Two theories have been proposed to explain the dissolution of The Atwater Kent Manufacturing Company: one that Kent backed away from "image-demeaning" union demands; and another that Kent did not choose to compete in a market which was shifting from high-priced console radios to bargain appliances.[11] Kent's company had been hit hard by the depression of 1929, and this too may have been a factor. When the plant closed in 1936 all of its contents were sold, and the buildings were purchased by the Defense Plant Corporation and the U.S. Army Signal Corps.[12] Kent retired to an estate in Bel Air, California, where he died on 4 March 1949.

Atwater Kent's success as a radio manufacturer led to the construction, beginning in 1923, of the Atwater Kent Manufacturing Company plant in northwest Philadelphia. The first building covered an area of eleven acres (see 2). In 1928 a second structure was erected, at which time the plant was spread over approximately thirty-four acres (see 1). The incredible size of the buildings can be attributed both to the volume of items produced (in 1930 Atwater Kent was producing 50,000 radio sets per month) and to the extent of the operation and the machinery required. For example, it has been estimated that a minimum of

30 different presses would have been required to produce the drawn steel case alone of the Model 35.[13] The plant had numerous departments, including a complete wood-working shop, gold-plating operation, and ovens to bake a tarnish-resistant finish on metal components.

+ for 1925 bldg -

The expansive floor plan required by the Atwater Kent Manufacturing Company was provided by The Ballinger Company, designers of both the original plant in 1923 and later additions. The Ballinger Company, a Philadelphia firm, specialized in architectural engineering for industrial and commercial structures. Walter Francis Ballinger and his partner Emile G. Perrot pioneered the use of reinforced concrete (publishing a book on the subject in 1909) and were co-inventors of the "Super-Span Saw-Tooth" roof, patented in 1920. The Atwater Kent Manufacturing Company plant epitomized the type of building for which the "Super-Span Saw-Tooth" was developed. As described in a 1924 Ballinger Company brochure, "'Super-Span' roofs retain all the advantages of superb natural lighting, excellent ventilation, summer coolness, and adaptability to buildings of large acreage that are inherent in saw-tooth construction of any type, and add the merit of unobstructed floor space at the lowest possible cost."[14]

In common saw-tooth construction each saw-tooth is a truss, comprised of one long, shallow-pitched, solid-sheathed slope, and one short, nearly vertical glazed slope. These unequal slopes give this type of roof a distinctive "saw-tooth" appearance. The roof structure is supported by columns at the bottom of each slope, generally at intervals of from 16 to 25 feet.

The Ballinger/Perrot patent introduced two significant modifications to ordinary saw-tooth construction which minimized the number of structural columns required (see 6). The first innovation was the addition of an upper chord connecting the peaks of two or four of the trusses, creating a transverse truss which resembled "an ordinary bridge truss, in which the structural members of the skylights [glazed and solid-sheathed slopes] form the bottom chord and the angular 'struts' and 'braces.'"[15] Secondly, a light Howe truss was applied to the inside of each glazed slope to support the roof between the transverse trusses. The transverse trusses and Howe trusses together carried the weight of the roof, limiting the number of structural columns required. The super-span saw-tooth could span up to 100 feet without any columns, eliminating an estimated "94% of the columns usually required" in conventional saw tooth construction. With fewer structural columns an increased machinery capacity of "from 15% to 25%" could be achieved.[16] Super-span buildings could be built in a modular fashion, adding to the efficiency of initial construction and building expansion.

"Superb natural lighting" was achieved by facing the glazed slopes of the saw-tooths north, which allowed even northern light to wash into building interiors which would have otherwise relied on electrical lighting. The absence of direct sunlight had the added benefits of keeping a building cool in summer, and protecting manufactured goods, such as textiles, from sun damage. Ventilation was achieved by means of operable louver sash in the skylights which helped to cool the interiors, and vent fumes. With the addition of the

Howe truss, the glazed slopes could also support radiators, mechanical, and piping systems, which added to the efficiency of the design in industrial applications.

The Jacobean Revival style of architecture, employed for the Atwater Kent Manufacturing Company plant, was ideal for super-span saw-tooth roofed structures. High brick masonry parapets lent themselves particularly to screening the roof on public facades. Other local commissions by The Ballinger Company in this style include the Guaranty Silk Company mill (Nanticoke, PA) and the Chilton Company printing building (Philadelphia, PA).[17]

Conclusion

Atwater Kent's contributions to radio design and distribution helped to bring radio broadcasting out of the realm of hobbyists and into the mainstream of American culture in the early 20th century. Kent's creative and efficient use of shaped steel, and the adaptation of assembly-line production, put the Atwater Kent Manufacturing Company in the forefront of the radio industry. The Atwater Kent Manufacturing Company plant was an epitome of the innovative super-span saw-tooth roof construction system. The super-span saw-tooth truss significantly increased the useable floor area in manufacturing facilities by reducing the number of structural columns required in common saw-tooth construction. The quality of manufacturing spaces was also improved by provisions for natural light and ventilation throughout vast one-story interiors, which were inherent in the Ballinger/Perrot design. The employment of The Ballinger Company's innovative super-span saw-tooth roof for the Atwater Kent Manufacturing Company plant seems appropriate, as it reflects Kent's desire for quality and efficiency in the manufacturing process, as well as his pioneering spirit.

NOTES

1. Alan Douglas, Radio Manufacturers of the 1920s (Vestal, NY: Vestal Press, 1988), p. 65.

2. Steven Lubar, "History of the Radio and Electronics Industry. A Background Report for the Motorola Museum," manuscript in the collection of the Atwater Kent Museum, Philadelphia, April 1985, p. 1. (Typewritten.)

3. Ibid. p. 4.

4. Ralph O. Williams, "Atwater Kent Early Radio Development," American Wireless Review, Vol. 1 (The Antique Wireless Association, 1986): 83.

5. Alan Douglas, Radio Manufacturers of the 1920s (Vestal, NY: Vestal Press, 1988), p. 66.

6. The variometer patent was held by Westinghouse and without a license to produce them, Atwater Kent's earliest sets were sold without the variometer.

7. Atwater Kent Manufacturing Company, Atwater Kent Radio, catalogue (Philadelphia: Atwater Kent Manufacturing Company, 1928), p. 12.

8. A Trip Through a Modern Factory, The Factory Behind the Broadcast, brochure (Philadelphia: The Atwater Kent Manufacturing Company, 1926), pp. 7, 11.

9. John M. Ingham, Biographical Dictionary of American Business Leaders (Westport, Conn.: Greenwood Press, 1983), p. 707.

10. A Trip Through a Modern Factory, The Factory Behind the Broadcast, brochure (Philadelphia: The Atwater Kent Manufacturing Company, 1926), p. 6.

11. Ralph O. Williams, "Atwater Kent Early Radio Development," American Wireless Review, vol. 3 (The Antique Wireless Association, 1988): 32.

12. The integrity of the 1928 Atwater Kent Manufacturing Company building (on the west side of the Roosevelt Expressway) has been compromised by such alterations as the removal of original steel windows and infill of window openings. (See, Pennsylvania Historic Resource Survey Form, prepared by Clio Group, Inc., 5 August 1983.)

13. Ralph O. Williams, "Atwater Kent Early Radio Development," American Wireless Review, vol. 2 (The Antique Wireless Association, 1987): 90.

14. The Ballinger Company, "Super-Span" Saw-Tooth Buildings (Philadelphia: The Ballinger Company, 1924), p. 3.

15. Ibid. p. 10.

16. Ibid. p. 3.

17. Illustrated in The Ballinger Company, "Super-Span" Saw-Tooth Buildings, (Philadelphia: The Ballinger Company, 1924), pp. 5-7, 11-13.

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Williams, Ralph O. "Atwater Kent Early Radio Development." Antique Wireless Association Review, 1988, pp. 82-107.

_____. "Atwater Kent Early Radio Development, The Mahogany and Metal Boxes." Antique Wireless Association Review, 1987, pp. 71-93.

_____. "Atwater Kent Radio Development--Part III, The A.C. Powered Receivers." Antique Wireless Association Review, 1988, pp. 6-33.

10. Geographical Data, continued

UTM References

	Zone	Easting	Northing
E	18	485210	4429100
F	18	485140	4429240
G	18	485100	4429360

10. Verbal Boundary Description, continued

three and seven-eights inches from a point of compound curve on the Southeasterly present confirmed line of Abbottsford Avenue South (variable width); THENCE extending South forty degrees eleven minutes, twenty seconds East along the said Southwesterly side of Wissahickon Avenue eight hundred eleven feet and four and one-fourth inches to a point on the Northwesterly side of Deacon Street (thirty feet wide); THENCE extending South fifty-six degrees forty-nine minutes thirty-one seconds West along the said Northwesterly side of Deacon Street ninety-seven feet and nine and one-half inches to a point; THENCE

extending North thirty-three degrees, ten minutes, twenty-nine seconds West leaving the said Northwesterly side of Deacon Street and along the Southwesterly side of a certain four feet wide alley which extends Northwestwardly from Deacon Street and communicates with a certain other four feet wide alley which extends Southwestwardly on a line running parallel with Deacon Street fifty-four feet to a point on the Northwesterly side of the last mentioned four feet wide alley; THENCE extending South fifty-six degrees, forty-nine minutes Thirty-one seconds West on a line parallel with said Deacon Street and along the Northwesterly side of the last mentioned four feet wide alley five hundred ninety-four feet and seven and three eights inches to a point; THENCE extending South thirty one degrees thirty-two minutes, fifty-nine seconds east crossing the head of the said Deacon Street and partly passing along the Southwesterly side of King Street (sixty feet wide), (not legally opened) one hundred ninety-eight feet and one inch to a point on the Northwesterly side of Roberts Avenue (eighty feet wide); THENCE extending South fifty-six degrees, forty-nine minutes, thirty-one seconds West along the said Northwesterly side of Roberts Avenue two hundred thirty-seven feet and six and one-fourth inches to a point; THENCE extending Northwestwardly leaving the said Northwesterly side of Roberts Avenue on an arc of a circle curving to the right having a radius of one hundred sixty-seven feet the arc distance of one hundred seven feet and two and five-eights inches to a point of tangent; THENCE extending North thirty-three degrees, ten minutes, twenty-nine seconds West one hundred forty feet to a point; THENCE extending South fifty-six degrees forty-nine minutes thirty-one seconds West on a line parallel with said Roberts Avenue twenty-three feet to a point; THENCE extending North thirty-three degrees, ten minutes, twenty-nine seconds West ninety-two feet and three and five-eighths inches to a point; THENCE extending north seven degrees, eight minutes, forty-eight seconds East sixty feet and ten and five-eighths inches to a point of curve; THENCE extending northwestwardly on an arc of a circle curving to the left having a radius of four hundred sixty feet the arc distance of fifteen feet and three-eighths inches to a point of tangent; THENCE extending north fifty-six degrees, forty-nine minutes, thirty-one seconds east on a line parallel with said Roberts Avenue sixteen feet and four and three-fourths inches to a point; THENCE extending north twenty-five degrees fourteen minutes, fifty-nine seconds west one hundred fifty-seven feet and ten and seven-eighths inches to a point; THENCE extending north eleven degrees, forty- nine minutes, thirty-one seconds east sixty feet and ten and one-eighth inches to a point; THENCE extending north fifteen degrees, ten minutes, twenty-nine seconds west one hundred fifty five feet and three and three fourths inches to a point; THENCE extending north twenty-eight degrees, forty-five minutes, twelve seconds west one hundred forty-nine feet and one and three-fourths inches to a point; THENCE extending north twenty degrees, thirty-five minutes, thirty seconds west one hundred forty-nine feet and seven and one-half inches to a point on the Southeasterly side of Abbottsford Avenue South; THENCE extending north fifty-four degrees ten minutes twenty-four seconds east along the said Southeasterly side of Abbottsford Avenue South one hundred thirty feet and two inches to a point an angle in same; THENCE extending north thirty-five degrees, forty-nine minutes, thirty-six seconds west two feet to a point an angle in same; THENCE extending north fifty-four degrees, ten minutes twenty-four seconds East eighty-five feet and nine and three-fourths inches to a point of curve in same; THENCE extending Northeastwardly on the arc of a circle curving to the right having a radius of four hundred eighty-six feet and eight and fifteen sixteenths inches (crossing the Southeast side of former

eighty feet wide Abbottsford Avenue) the arc distance of seventy-two feet and eight and one-fourths inches to a point of compound curve on the present South-easterly confirmed line of Abbottsford Avenue South; THENCE extending North-eastwardly along the same on the arc of a circle curving to the right having a radius of two thousand eight hundred ninety-three feet and five-eights inches the arc distance of three hundred fifty-nine feet and ten inches to a point of compound curve in same; and THENCE extending Northeastwardly, Eastwardly and Southeastwardly along an arc of a circle curving to the right having a radius of forty-two feet and ten and one-fourth inches the arc distance of fifty-two feet and three and seven-eighths inches to a point of tangent on the said South-Westerly side of Wissahickon Avenue being the first mentioned point and place of beginning.

Unless noted otherwise, the following information applies:
Property Name: Atwater Kent Manufacturing Company, Philadelphia, Pennsylvania
Photographer: Suzanna E. Barucco
Negative Location: Martin Jay Rosenblum, R.A. & Associates, Philadelphia

Circa 1929
1923 Building with 1925 Addition, and 1928 Building, connected by Bridge of 1929, birds-eye view to southwest.
(1)

1926
1923 Building with 1925 Addition, and railroad siding of 1925, birds-eye view to south.
(2)

Circa 1925
George A. Eisenman
James C. Dillon Company, Upper Darby, Pennsylvania
1923 Building, view to south, north elevation.
(3)

Circa 1925
George A. Eisenman
James C. Dillon Company, Upper Darby, Pennsylvania
1923 Building, pavilion, view to south, north elevation.
(4)

Circa 1925
George A. Eisenman
James C. Dillon Company, Upper Darby, Pennsylvania
1923 Building, detail of typical bay, view to southeast, northwest elevation.
(5)

1924
"Super-span" saw tooth truss construction, illustrated in, The Ballinger Company, "Super-Span" Saw-Tooth Buildings (Philadelphia: The Ballinger Company, 1924), p. 9.
(6)

September 1989
1923 Building, typical roof configuration.
(7)

September 1989
1923 Building, roof catwalk.
(8)

September 1989
1923 Building, roof antenna.
(9)

September 1989
1923 Building, view to south, north facade.
(10)

September 1989
1923 Building, view to southeast, northwest elevation.
(11)

September 1989
1923 Building, view to northeast, northwest elevation. Note non-contributing billboard structure on 1929 Bridge roof.
(12)

January 1992
1923 Building, view to southeast, northeast elevation. "Porte-cochere" at left photo.
(13)

January 1992
1923 Building, view to southeast, northeast elevation.
(14)

September 1989
1923 Building, view to southwest, northeast elevation.
(15)

December 1991
1923 Building, view to southwest, northeast elevation.
(16)

January 1992
1923 Building, view to southwest, southeast elevation.
(17)

January 1992
1923 Building, view to northeast, southwest elevation.
(18)

January 1992
1923 Building, water tank, and electrical sub-station, view to east, southwest elevation. 1970s Addition at right photo.
(19)

December 1991
Southwest Elevation, view to east: 1970s Addition in foreground; 1925 Addition at center and right photo; 1923 Building at center and left photo. Note glazed roof monitor at right photo.
(20)

January 1992
1925 Addition, view to west, northeast elevation.
(21)

January 1992
1925 Addition, view to west, southeast elevation.
(22)

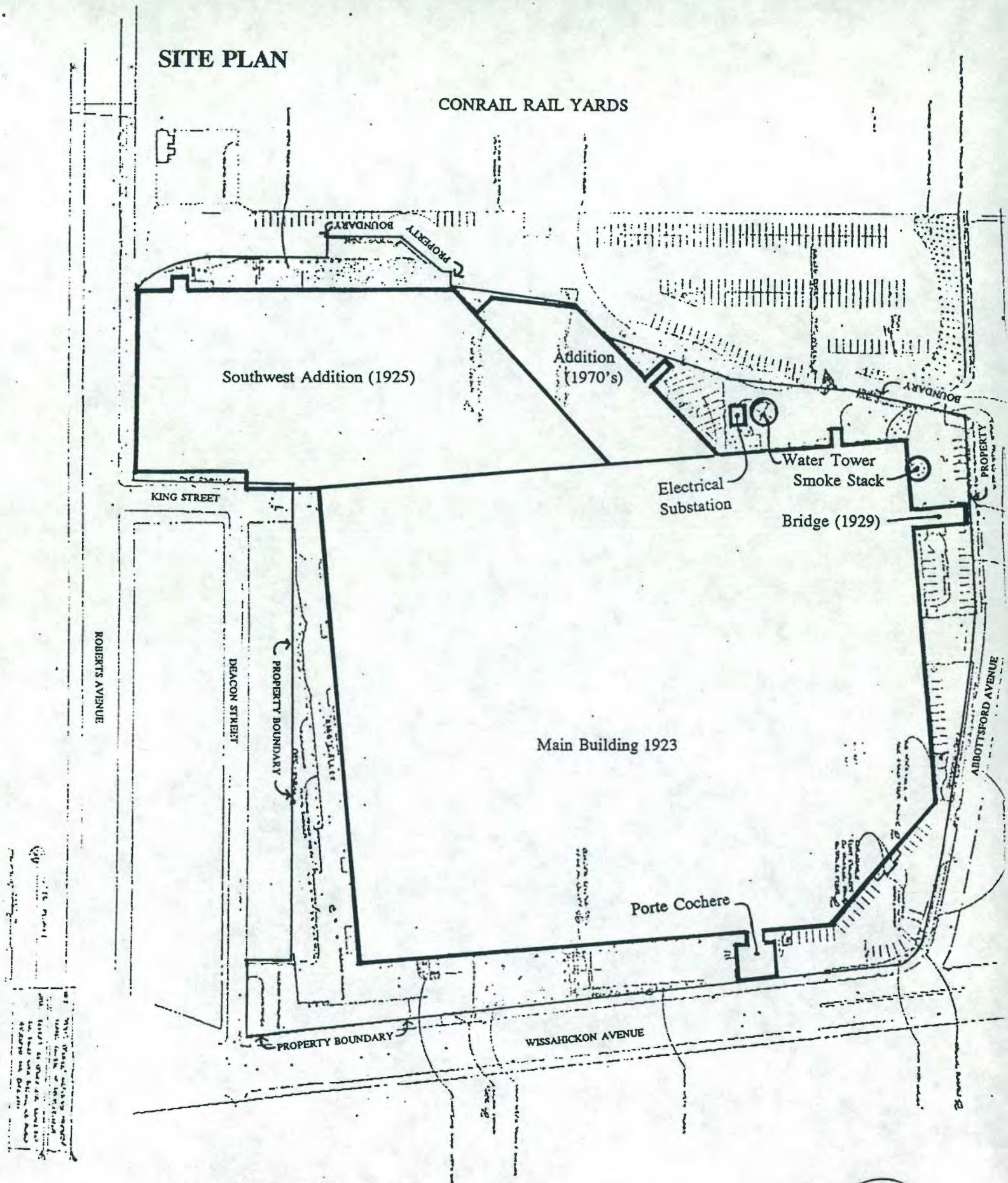
January 1992
1925 Addition, view to northeast, southwest elevation.
(23)

January 1992
1925 Addition, view to north, southwest elevation.
(24)

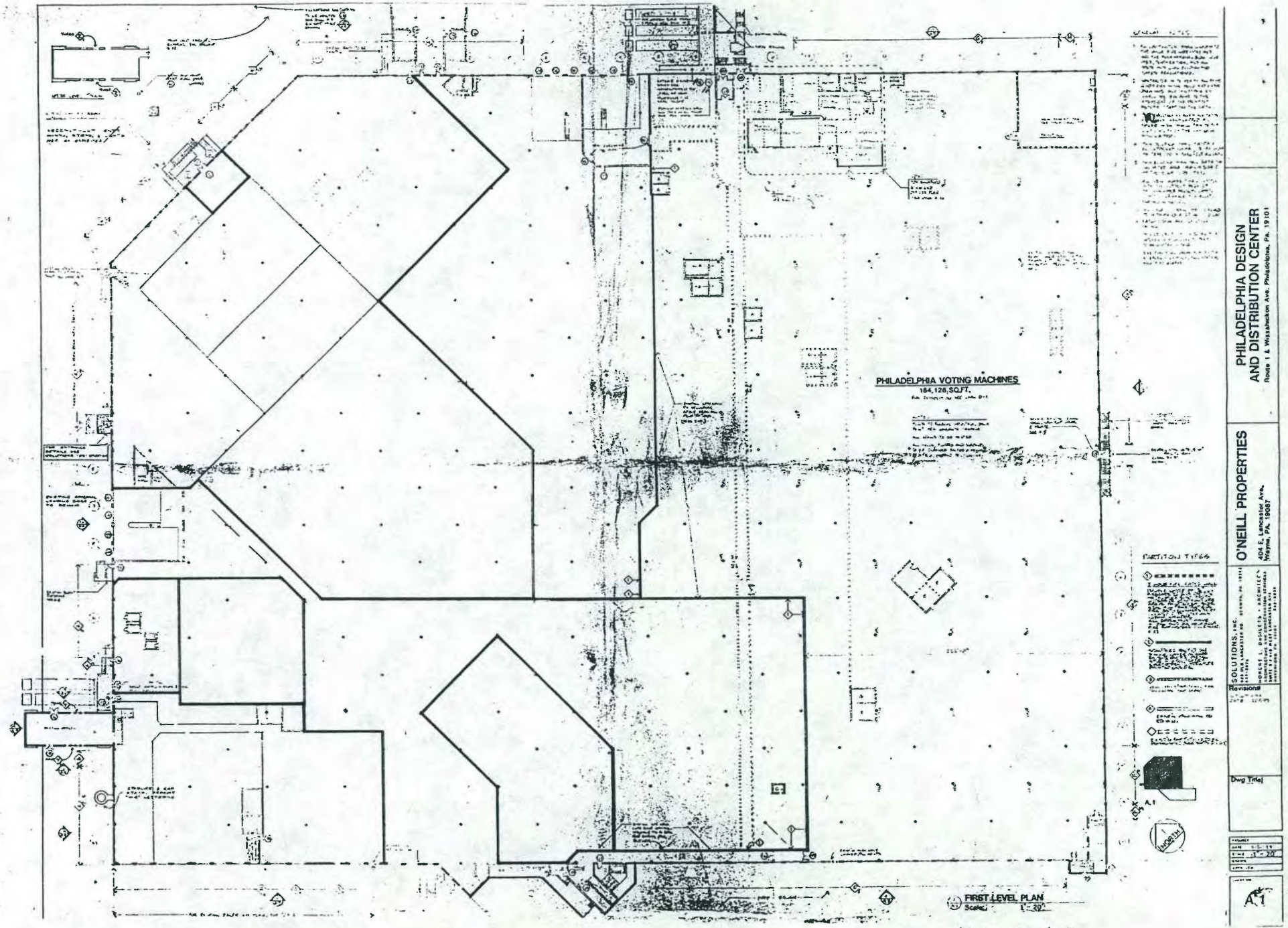
December 1991
1923 Building interior, typical view showing super-span saw-tooth roof.
(25)

December 1991
1925 Addition interior, typical view of lower story showing mushroom concrete columns.
(26)

SITE PLAN

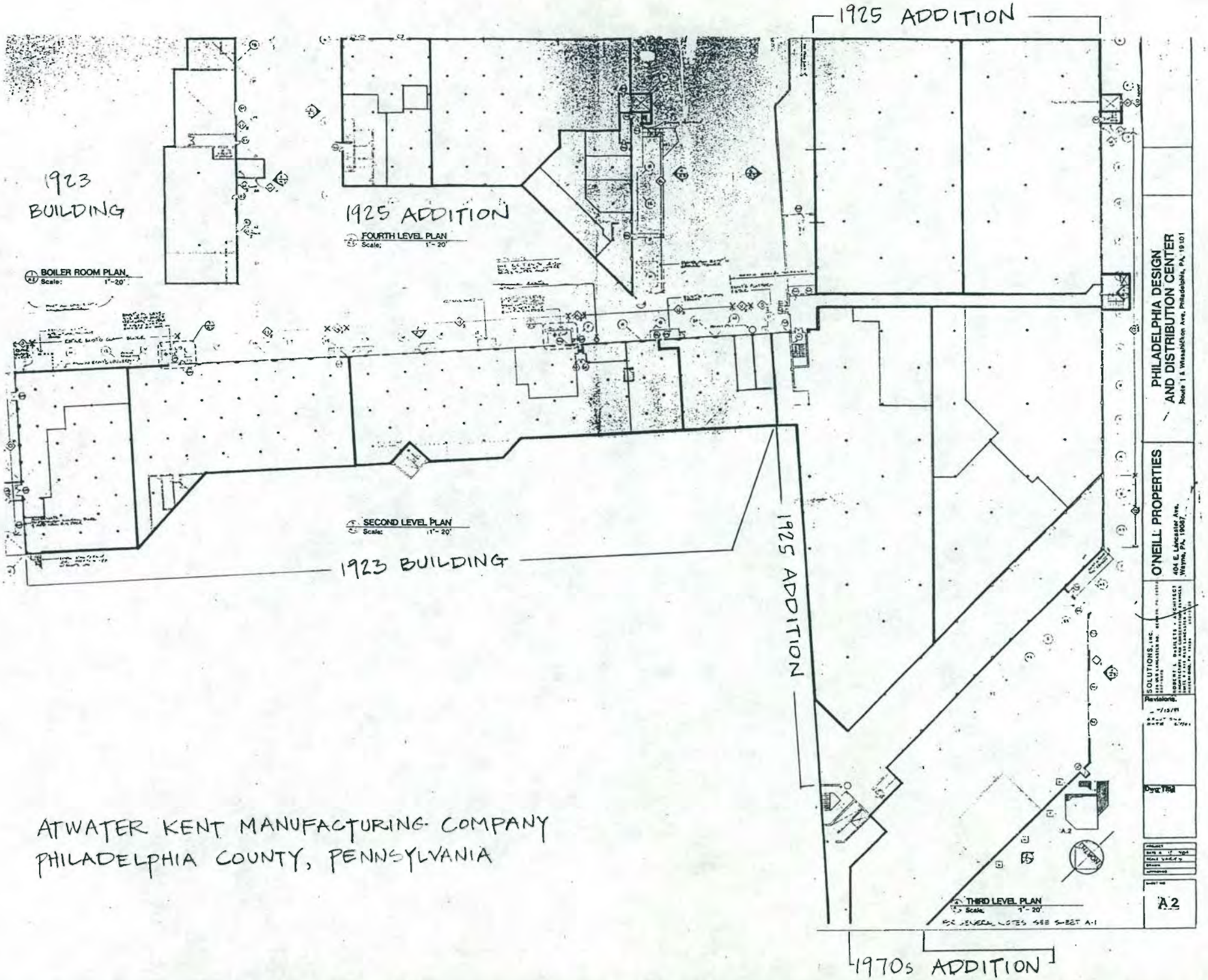


ATWATER KENT MANUFACTURING COMPANY
PHILADELPHIA COUNTY, PENNSYLVANIA
Approximate Scale: 1/8" = 20'



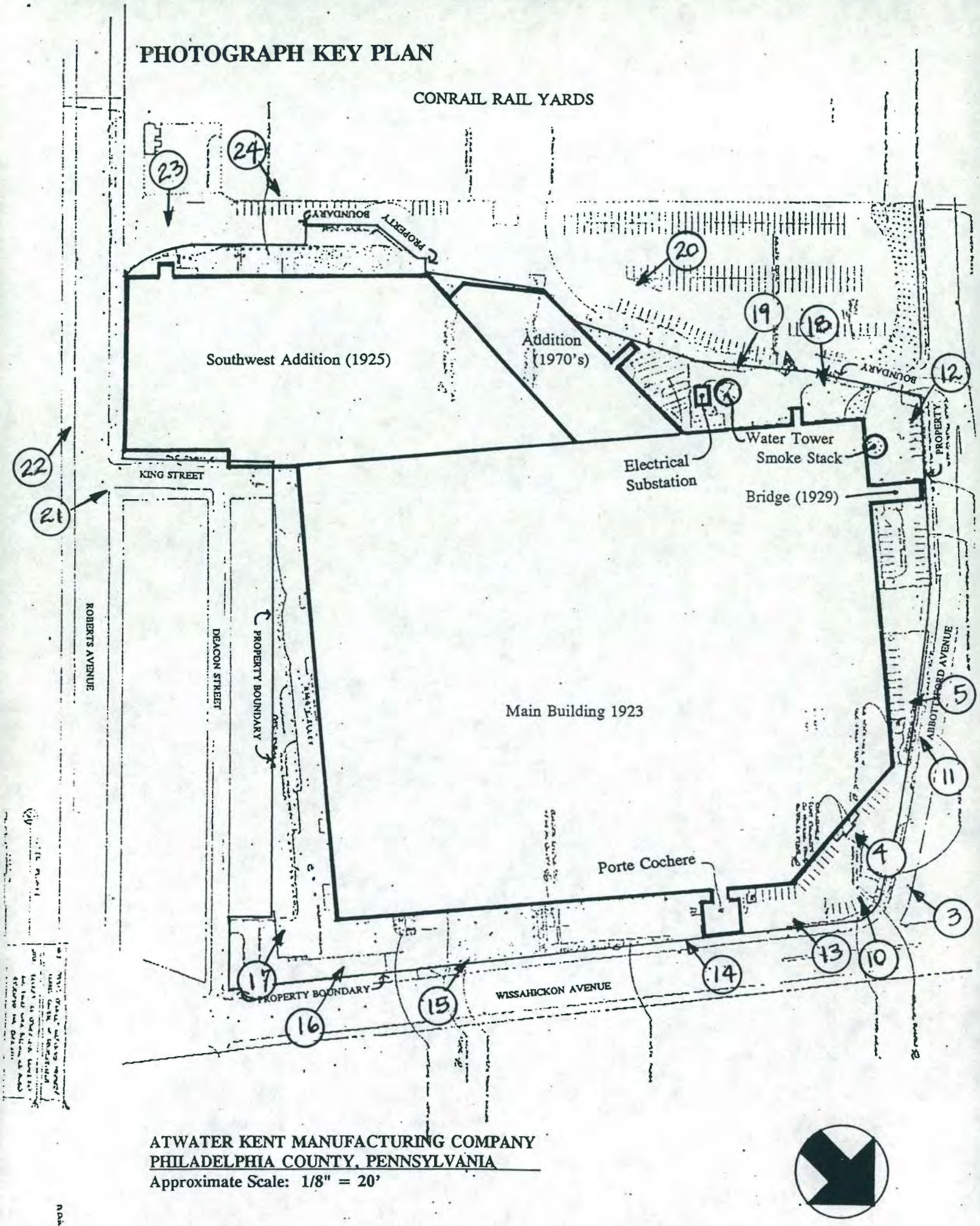
ATWATER KENT MANUFACTURING COMPANY
PHILADELPHIA COUNTY, PENNSYLVANIA

1923 BUILDING



ATWATER KENT MANUFACTURING COMPANY
PHILADELPHIA COUNTY, PENNSYLVANIA

PHOTOGRAPH KEY PLAN



ATWATER KENT MANUFACTURING COMPANY
PHILADELPHIA COUNTY, PENNSYLVANIA
Approximate Scale: 1/8" = 20'

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

[X] nationally [ ] statewide [ ] locally

Applicable National Register Criteria [X] A [X] B [X] C [ ] D

Criteria Considerations (Exceptions) [ ] A [ ] B [ ] C [ ] D [ ] E [ ] F [ ] G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
Industry	1923 - 1936	1923-1924
Communications		1925
Engineering		1929

Cultural Affiliation: N/A

Significant Person: Kent, Arthur Atwater

Architect/Builder: The Ballinger Company; Ballinger, Walter Francis

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

[Note: Numbers in parenthesis correspond to photograph numbers.]

revise to address whole complex

The Atwater Kent Manufacturing Company building, erected between 1923 and 1929, is historically significant for its association with Atwater Kent and the products of Kent's company, notably radios produced for the mass market in the early twentieth century. The building is also architecturally significant as an early example of the "Super-Span Saw-Tooth" roof, an innovative truss system patented in 1920 by The Ballinger Company, which designed the original plant and later additions.

Arthur Atwater Kent was born 3 December 1873 in Burlington, Vermont. His inclination towards things mechanical and his skills as an entrepreneur and inventor were revealed at an early age. In 1895, while a student at the Worcester Polytechnic Institute (he left after two years and did not graduate), Kent founded the Kent Electric Manufacturing Company (in Worchester) and marketed small motors and fans. He sold a design for a small motor to the firm of Kendrick & Davis in 1900 and for a short time worked as an electrical equipment salesman. Kent moved to Philadelphia and established the Atwater Kent Manufacturing Works in 1902. ← what became of this plant? Do we know where Atwater Kent lived. Mention of the status of these

The Works first produced small volt meters and telephones, and by 1905 automobile timers, trigger ignition systems, and other electrical components, many invented by Kent, who would receive 93 patents over the course of his career.[1] Kent's fascination with the nascent automobile industry must have been acute for he invented an improved automobile ignition system (possibly in 1906), called the Unisparker, for which he received the John Scott Legacy Medal and Premium from the Franklin Institute in 1914. By 1920 his company was a major supplier of electrical systems to the automobile industry. With Kent's inventiveness, complimented by his entrepreneurial abilities, the company expanded quickly into new markets. During World War I Atwater Kent produced gun-training theodites, gun sighting equipment, clinometers, voltammeters and other instruments for the U.S. military. In 1919 Kent incorporated his business under the name The Atwater Kent Manufacturing Company.

— would clarify how the nominated property compares to others which may also represent A.K.'s significance. Watch Crit! B.

[X] See continuation sheet

9. Major Bibliographical References

Atwater Kent Manufacturing Company. A Trip Through A Modern Factory, The Factory Behind the Broadcast. Philadelphia: The Atwater Kent Manufacturing Company, 1926.

_____. Atwater Kent Radio. Catalogue. Philadelphia: The Atwater Kent Manufacturing Company, 1928.

The Ballinger Company. "Super-Span" Saw-Tooth Buildings. Philadelphia: The Ballinger Company, 1924.

Dictionary of American Biography. Supplement 4, 1944, pp. 451-453.

[X] See continuation sheet

Previous documentation on file (NPS):
- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [X] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings Survey # _____
- [ ] recorded by Historic American Engineering Record # _____

Primary location of additional data:
- [ ] State historic preservation office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [X] Other

Specify repository:
The Athenaeum of Philadelphia
Atwater Kent Museum, Philadelphia

10. Geographical Data

Acreage of property + 11 acres

UTM References

	Zone	Easting	Northing
A	18	485250	4429460
B	18	485390	4429320
C	18	485220	4429190
D	18	485280	4429300

[X] See continuation sheet

Verbal Boundary Description

BEGINNING at a point of tangent on the Southwesterly side of Wissahickon Avenue (eighty feet wide) said point being measured Northeastwardly Eastwardly and Southeastwardly on an arc of a circle curving to the right having a radius of fort-two feet and ten and one-fourth inches the arc distance of fifty-two feet and

[X] See continuation sheet

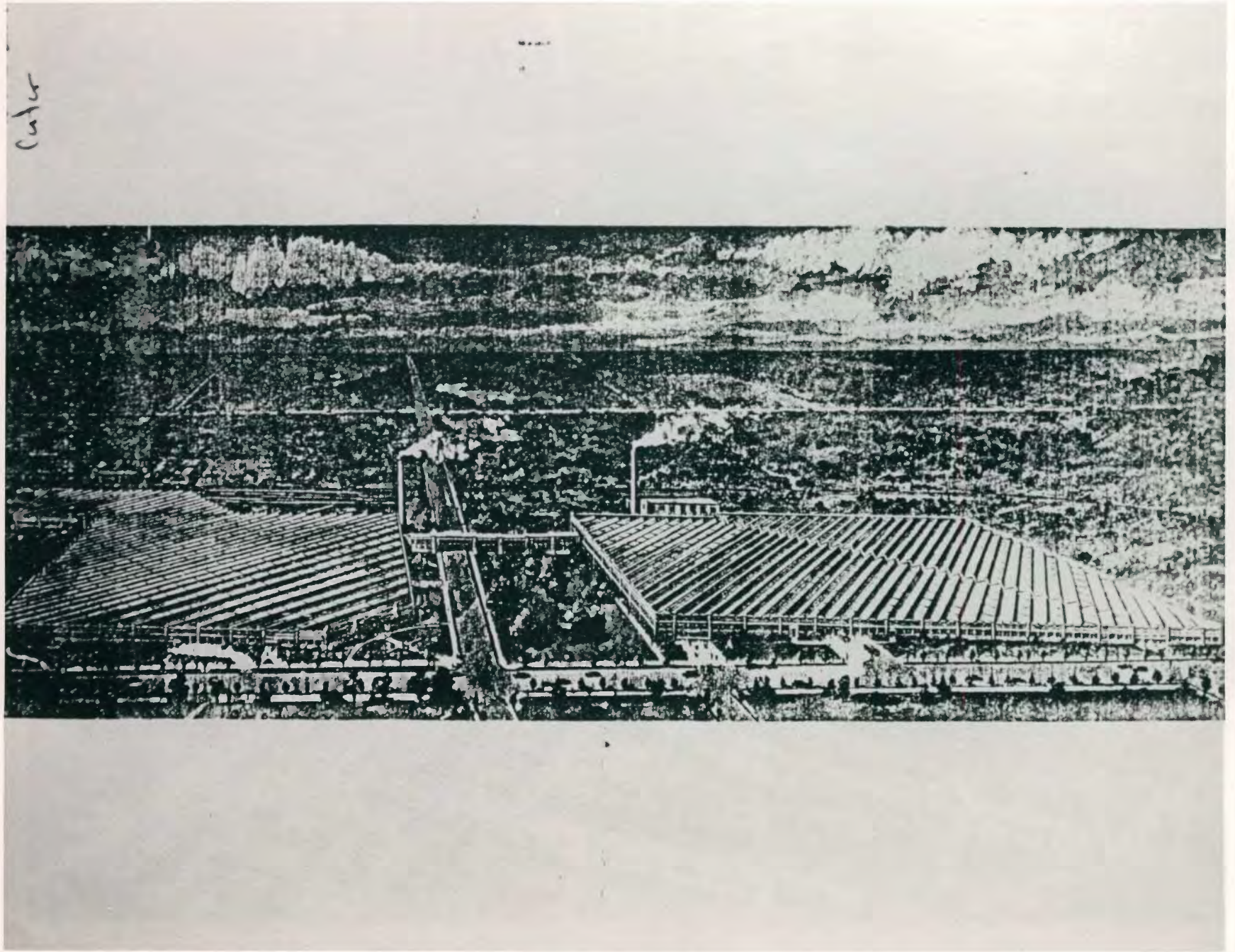
Boundary Justification

The boundary reflects the legally recorded property boundary lines and contains the nominated building and historically associated site features and land surrounding the building.

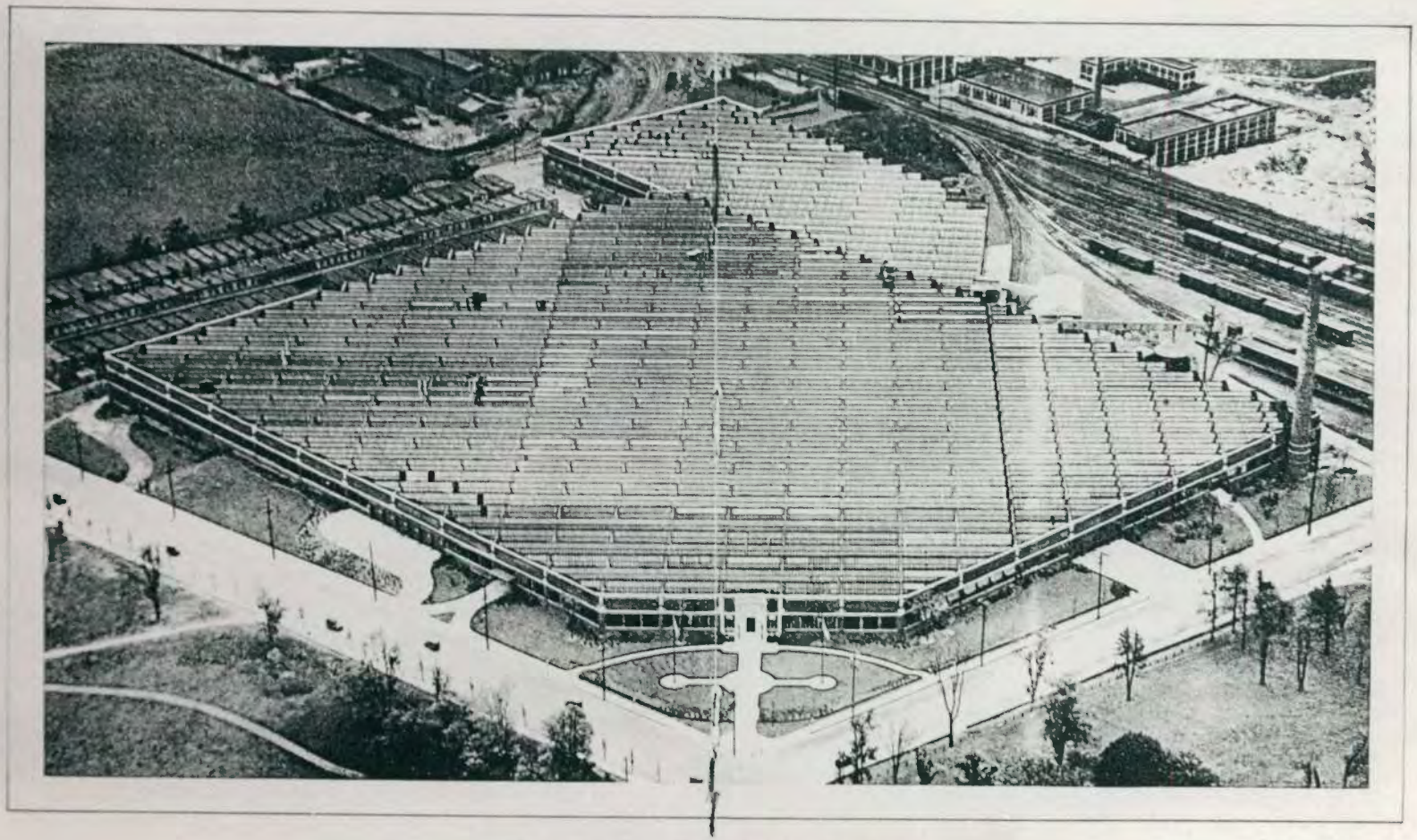
[ ] See continuation sheet

11. Form Prepared By

name/title Suzanna E. Barucco, Historic Preservation Planner
organization Martin Jay Rosenblum, R.A. & Associates date 2 June 1992
street & number 346 South 15th Street telephone 215 985-4285
city or town Philadelphia state Pennsylvania zip code 19102



ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA



The Factory Behind the Product

This photograph will give an accurate idea of the immense area of the plant. Saw-tooth skylights over the entire roof give a diffused daylight illumination throughout the building. Spacious grounds afford a plentiful supply of fresh air and sunshine.

ATWATER KENT MFG COMPANY
4700 Wissahickon Avenue
Philadelphia

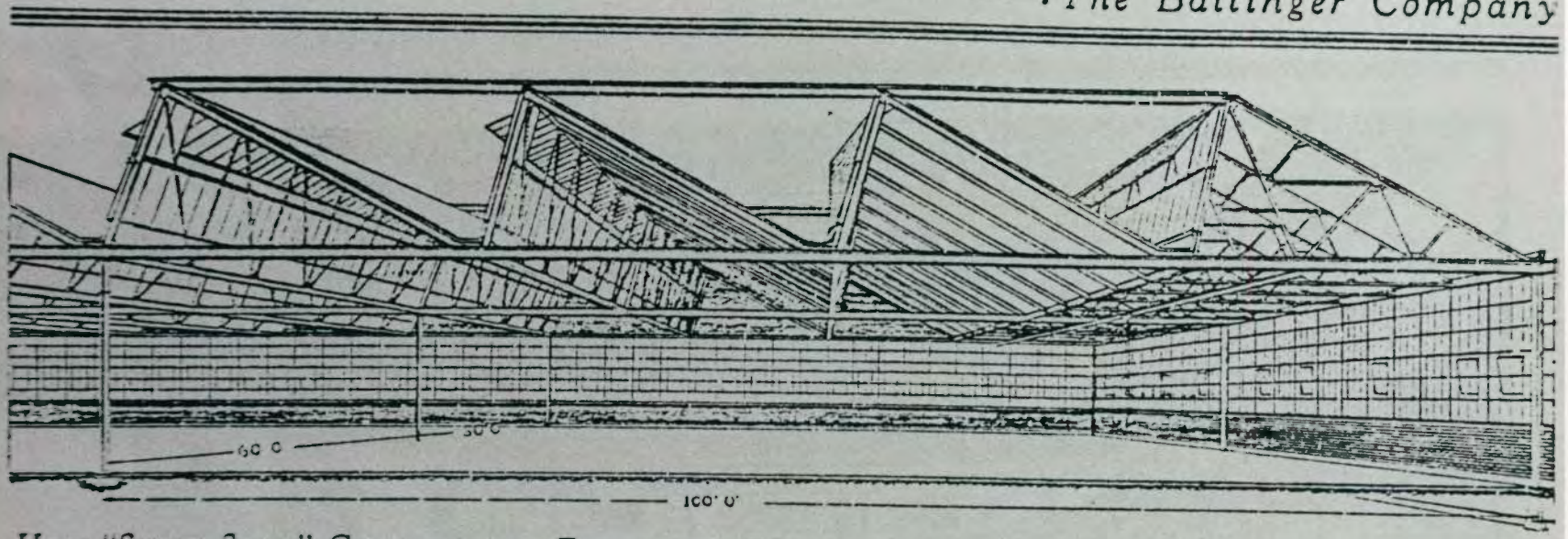
ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA 2

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

The Ballinger Company

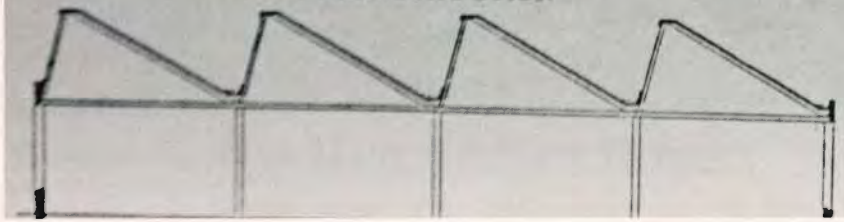


How "Super-Span" Construction Eliminates Columns

Patented 1920

Two systems of trusses are employed. The light longitudinal trusses are directly in back of the glass and span distances up to 60 or 65 feet. They are supported at their ends by heavier transverse trusses which will span up to 100 feet. The top chord of each transverse truss extends above the roof and ties together the peaks of the several saw-tooth skylights. Thus buildings up to 100 feet wide and of any length require no columns whatever. In very wide buildings columns are used at intervals of 60 by 100 feet.

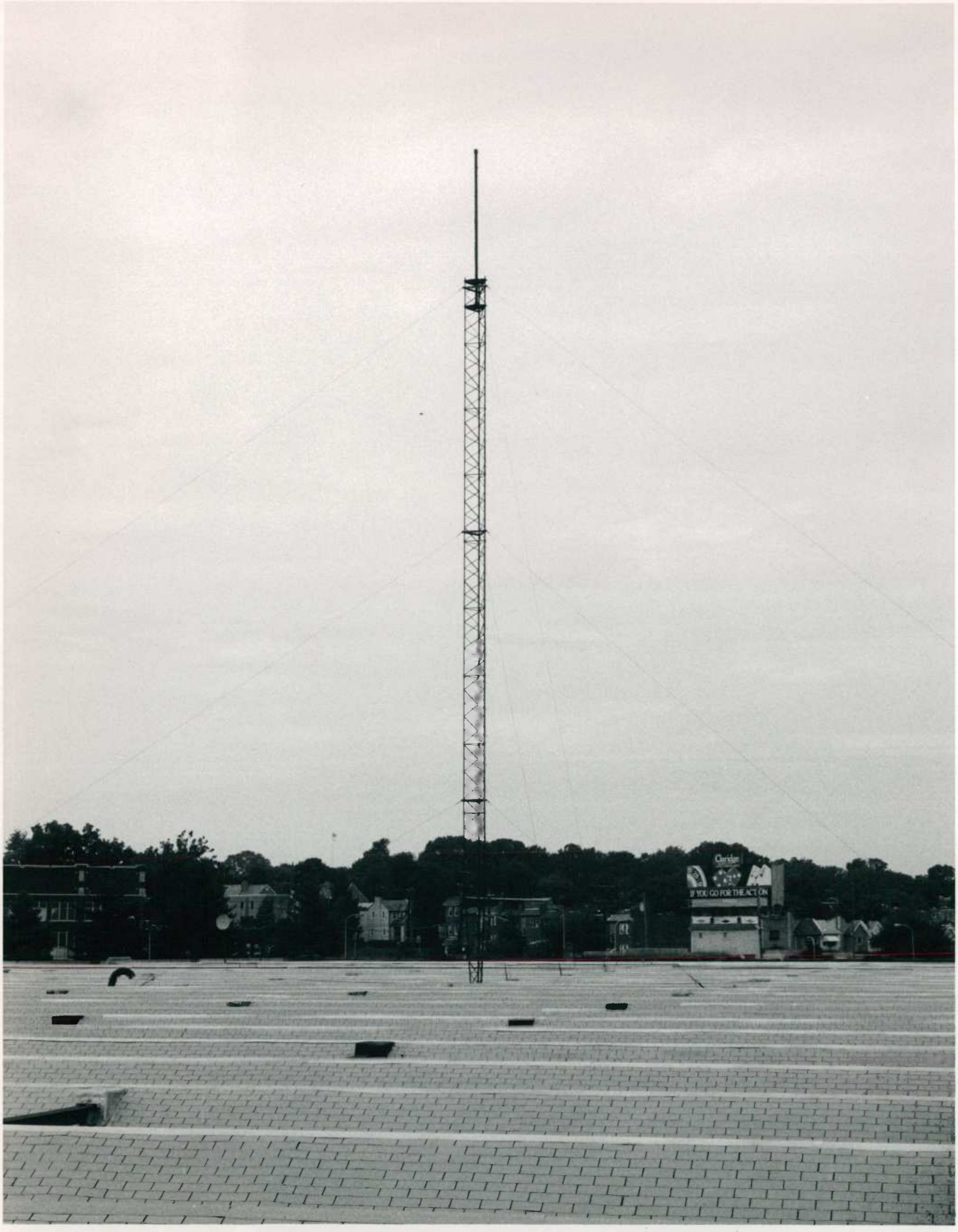
Evolution of "Super-Span" Saw-Tooth Construction



able, ask a Ballinger engineer to go over the problem with you, without cost or obligation, to determine just what sort of a building will best meet your needs. If saw-tooth construction is not appropriate he will not hesitate to say so. If columnar construction will serve, he will not recommend any other. If long-span construction will prove an economy

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PA 7

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA



ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PA 9

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA 12

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

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ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA 22

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PENNSYLVANIA

Historic Resource Survey Form

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
Bureau for Historic Preservation

Key # 051662
ER# _____

Name, Location and Ownership *(Items 1-6; see Instructions, page 4)*

HISTORIC NAME Atwater Kent Manufacturing Company- South Plant

CURRENT/COMMON NAME Philadelphia Design and Distribution Center

STREET ADDRESS 4700 Wissahickon Avenue, Philadelphia, Philadelphia County, PA **ZIP** 19144

LOCATION _____

MUNICIPALITY Philadelphia **COUNTY** Philadelphia

TAX PARCEL #/YEAR _____ **USGS QUAD** Germantown

OWNERSHIP ☒ Private
☐ Public/Local ☐ Public/County ☐ Public/State ☐ Public/Federal

OWNER NAME/ADDRESS Forty Seven Hundred LP, 101 Richardson Street, Brooklyn, NY 11211

CATEGORY OF PROPERTY ☒ Building ☐ Site ☐ Structure ☐ Object ☐ District

TOTAL NUMBER OF RESOURCES 1

Function *(Items 7-8; see Instructions, pages 4-6)*

Historic Function	Subcategory	Particular Type
Industry	Manufacturing Facility	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Current Function	Subcategory	Particular Type
Mixed Use	Commerce	_____
_____	Educational	_____
_____	Religious	_____
_____	Healthcare	_____
_____	_____	_____

Architectural/Property Information *(Items 9-14, see Instructions, pages 6-7)*

ARCHITECTURAL CLASSIFICATION

Modern Movement	Art Deco
_____	_____
_____	_____

EXTERIOR MATERIALS and STRUCTURAL SYSTEM

Foundation	concrete	_____
Walls	brick	_____
Roof	glass	gypsum panel/bituminous
Other	_____	_____
Structural System	reinf. concrete columns	steel sawtooth trusses

WIDTH 966 (feet) or _____ (# bays) **DEPTH** 840 (feet) or _____ (# rooms) **STORIES/HEIGHT** 1/2

Key #_____

ER#_____

Property Features *(Items 15-17; see Instructions, pages 7-8)*

Setting mixed use neighborhood

Ancillary Features

none	____	____
____	____	____
____	____	____

Acreage 15 (round to nearest tenth)

Historical Information *(Items 18-21; see Instructions, page 8)*

Year Construction Began 1923 ☒ Circa **Year Completed** 1924 ☒ Circa

Date of Major Additions, Alterations 1925 ☐ Circa 1928 ☐ Circa 1970 ☒ Circa

Basis for Dating ☒ Documentary ☐ Physical

Explain HAER No. PA-306-A documents north and south plant dates.

Cultural/Ethnic Affiliation(s) none

Associated Individual(s) Arthur Atwater Kent, b. 1873, d.1949

Associated Event(s) none

Architect(s) Walter F. Ballinger, The Ballinger Company, Philadelphia

Builder(s) _____

Submission Information *(Items 22-23; see Instructions, page 8)*

Previous Survey/Determinations 1992 National Register of Historic Places Registration Form,

Threats ☒ None ☐ Neglect ☐ Public Development ☐ Private Development ☐ Other

Explain _____

This submission is related to a ☒ non-profit grant application ☐ business tax incentive ☐ NHPA/PA History Code Project Review ☐ other

Preparer Information *(Items 24-30; see Instructions, page 9)*

Name & Title Dawn M. Mullen, AIA, LEED AP, Architect,

Date Prepared -6.23.2009 **Project Name** Family Practice and Counseling Network

Organization/Company McGillin Architecture, Inc.

Mailing Address 333 City Avenue, Suite 502, Bala Cynwyd, PA 19004

Phone 610.664.6577 x 13 **Email** dm@mcgillinarch.com

Key #_____

ER#_____

National Register Evaluation *(Item 31; see Instructions, page 9)*

(To be completed by Survey Director, Agency Consultant, or for Project Reviews ONLY.)

☐ Not Eligible (due to ☐ lack of significance and/or ☐ lack of integrity)

☐ Eligible Area(s) of Significance _____

Criteria Considerations _____ Period of Significance _____

☐ Contributes to Potential or Eligible District District Name _____

Bibliography *(Item 32; cite major references consulted. Attach additional page if needed. See Instructions, page 9.)*

Atlanta Constitution, Nov. 11, 1928 "Construction has begun"

http://www.atwaterkent.info/akHistory.html

http://www.atwaterkentradio.com/ak_booklets.htm

Casella, Richard M, Frucht, Leslie T., Tucher, Rob, Historic American Engineering Record, HAER No. PA-306-A, , 1996

New York Times, Sunday November, 11, 1928, Special Features

http://www.philadelphiahistory.org/akm/history/

Real Estate Weekly, September 6, 2006,"Dolgin's take $30m step int PA Market"

Spaulding, Harold E., Workshop of the World- A selective Guide to the Industrial Archeology of Philadelphia, Oliver Evans Press, 1990

Additional Information

The following must be submitted with form. Check the appropriate box as each piece is completed and attach to form with paperclip.

☒ Narrative Sheets—Description/Integrity and History/Significance (See Instructions, pages 13-14)

☒ Current Photos (See Instructions, page 10)

☒ Photo List (See Instructions, page 11)

☒ Site Map (sketch site map on 8.5x11 page; include North arrow, approximate scale; label all resources, street names, and geographic features; show exterior photo locations; See Instructions, page 11)

☒ Floor Plan (sketch main building plans on 8.5x11 page; include North arrow, scale bar or length/width dimensions; label rooms; show interior photo locations; See Instructions, page 11)

☒ USGS Map (submit original, photocopy, or download from TopoZone.com; See Instructions, page 12)

Key #_____

FR#_____

Send Completed Form and Additional Information to:

National Register Program
Bureau for Historic Preservation/PHMC
Keystone Bldg., 2nd Floor
400 North St.
Harrisburg, PA 17120-0093

Photo List (Item 33)

See pages 10-11 of the Instructions for more information regarding photos and the photo list. In addition to this photo list, create a photo key for the site plan and floor plans by placing the photo number in the location the photographer was standing on the appropriate plan. Place a small arrow next to the photo number indicating the direction the camera was pointed. Label individual photos on the reverse side or provide a caption underneath digital photos.

Photographer name Dawn Mullen

Date 06/23/2009

Location Negatives/Electronic Images Stored McGillin Architecture, Inc.

Photo #	Photo Subject/Description	Camera Facing
1	North Elevation, Main Building Entrance at the corner of Abbotsford and Wissahickon Avenues	s
2	North Elevation, from corner of Abbotsford and Wissahickon Avenues	sw
3	Northwest Elevation, partial, along Abbotsford	ne
4	Northwest Elevation, partial, with NE elevation of link, along Abbotsford	sw
5	Northwest Elevation, partial with SW elevation of lin	sw
6	Northwest Elevation, stack along Abbotsford	se
7	Southwest elevation, partial, at northwest corner of Main Building	ne
8	Southwest Elevation of Main Building, partial	n
9	West elevation of 1970's additions along southwest side of Main Building	e
10	Southwest Elevation of 1970's addtion along southwest side of Main Building	ne
11	Southwest Elevation of 1925 addition, partial	ne
12	Southwest Elevation of 1925 addition, partial	ne
13	Southwest Elevation of 1925 addition, partial, southern corner	ne
14	Southeast Elevation of 1925 Addition along Roberts Avenue	nw
15	Southeast corner of 1925 addition with garage addition and main building.	nw
16	Northeast elevation of 1925 addition along Deacon Street	w
17	Northeast elevation of garage addition along Deacon Street	w
18	Southeast juncture of main building and 1925 addition	w
19	Southeast elevation of main building facing Deacon street	ne
20	Southeast elevatio of main building facing Deacon Street	sw
21	Northeast corner of main building	w
22	Northeast elevation along Wissahickon Avenue, partial	nw
23	Northeast elevation along Wissahickon Avenue, partial	nw
24	Northeast elevation along Wissahickon Avenue, partial	sw
25	Northeast elevation along Wissahickon Avneue, partial	sw
26	Northeast elevation alsong Wissahickon Avneu, partial	s
27	North elevation at northeast corner	s
28	North interior elevation, entrance lobby	s

Key #_____

ER#_____

Photo #	Photo Subject/Description	Camera Facing
29	South and west interior elevation, former entrance lobby	ne
30	Interior corridor, typ.	s
31	Interior tenant space	n
32	Unfinished tenant space	w

Key #_____

ER#_____

Site Plan (Item 34)

See page 11 of the Instructions for more information regarding the site plan. Create a sketch of the property, showing the footprint of all buildings, structures, landscape features, streets, etc. Label all resources and streets. Include a North arrow and a scale bar (note if scale is approximate). This sheet may be used to sketch a plan or another map/plan may be substituted.

Key #_____

ER#_____

Floor Plan (Item 35)

See page 11 of the Instructions for more information regarding the floor plan. Provide a floor plan for the primary buildings, showing all additions. Label rooms and note important features. Note the date of additions. Include a North arrow and a scale bar (note if scale is approximate) or indicate width/depth dimensions. This sheet may be used to sketch a floor plan or another map/plan may be substituted.

Key #_____

ER#_____

Physical Description and Integrity (Item 38)

Provide a current description of the overall setting, landscape, and resources of the property. See page 13 of the Instructions for detailed directions. Continue on additional sheets as needed. Suggested outline for organizing this section:

- Introduction [summarize the property, stating type(s) of resource(s) and function(s)]
- Setting [describe geographic location, streetscapes, natural/man-made landscape features, signage, etc.]
- Exterior materials, style, and features [describe the exterior of main buildings/resources]
- Interior materials, style, and features [describe the interior of main buildings/resources]
- Outbuildings/Landscape [describe briefly additional outbuildings/landscape features found on property, substitute Building Complex Form if preferred; See Instructions, page 18]
- Boundaries [explain how/why boundaries chosen, such as historic legal parcel, visual natural features such as tree lines, alley separating modern construction, etc.]
- Integrity [summarize changes to the property and assess how the changes impact its ability to convey significance

---

(Text entered directly into form fields will not permit formatting adjustments, such as spell checking or italicizing. Instead, you may wish to cut-and-paste text from another document into the field below; "unprotect" the document for this section, or prepare the "Physical Description and Integrity" narrative as a separate document.)

Please see attached narrative.

Key #_____

ER#_____

History and Significance (Item 39)

Provide an overview of the history of the property and its various resources. Do not substitute deeds, chapters from local history books, or newspaper articles. See page 14 of the Instructions for detailed directions. Continue on additional sheets as needed. Suggested outline for organizing this section:

- History [Summarize the evolution of the property from origin to present]
- Significance [Explain why the property is important]
- Context and Comparisons [Describe briefly similar properties in the area, and explain how this property compares]

(Text entered directly into form fields will not permit formatting adjustments, such as spell checking or italicizing. Instead, you may wish to cut-and-paste text from another document into the field below; "unprotect" the document for this section, or prepare the "History and Significance" narrative as a separate document.)

Please see attached.

38. Physical Description and Integrity

Now known as the Philadelphia Design and Distribution Center, the structure located at 4700 Wissahickon Avenue in Philadelphia is still readily identifiable as the Atwater Kent Manufacturing Company building, as the name is etched in stone over the main entryway. This historic building covering fifteen acres was the first major factory for the production of Atwater Kent radios in the 1920's, with the main entrance facing the southeast corner of Wissahickon and Abbotsford Avenues.

The Nicetown neighborhood immediately surrounding the site is predominately industrial, particularly to the south and east. Several of these sites appear to be of the same vintage as the Atwater Kent structure, although in varying states of repair. To the northeast directly across Wissahickon Avenue is Fernhill Park, part of the Fairmount Park System. The area is crisscrossed by railroad lines, and the site itself is bounded on the southwest by the Conrail tracks. Wayne Junction, a major commuter hub for the Reading and B&O railroads at the time, is nearby.

Directly to the north is a dense residential neighborhood of older, attached two story, single family dwellings. A small pocket of single family rowhomes, likely from the late nineteenth century, sits tucked into the el of the building formed at the juncture of the main building and a later addition, along Deacon Street and Roberts Avenue.

The exterior of the main structure is primarily red brick with stone trim. On the major elevations of the building, along Abbotsford and Wissahickon Avenues, the brickwork extends beyond the roof to form a continuous parapet. A stone stringcourse sits above the windows, and between the crenellated stone cornice and the string course are insets of decorative brick diaper work. Stone medallions and scuppers are placed at regular intervals. The majority of the windows are tall multipaned openings, some are the original steel and glass units, with others being aluminum storefront replacement glazing in a similar style.

The main entrance is marked with a large rusticated stone frontispiece and stone quoins on the corners. Fenestration at the front entrance is wood doublehung windows. On the rear of the building, there is no parapet or decorative stone work. There are large glazed openings and the visible ends of the sawtooth skylight which forms the roof of both the main building and the 1925 addition.

The two story, 1925 addition follows in the same style as the main building. The façade facing Roberts Avenue is brick with decorative stonework and parapet, with the side facing the railyards again composed of brick, but without the parapet, leaving the sawtooth roof edge exposed. What appear to have been large glazed openings have been bricked in, with only small insets of decorative glass block lites.

The 1929, three story bridge addition, again made of brick, has the largest amount of decorative art deco style stonework on its corner piers and large articulated stone cornice with modillion blocks. A brick smokestack with the name "A KENT" vertically in contrasting brick sits near the bridge.

The later 1970's additions are much more utilitarian, being plainly constructed of exposed concrete masonry units, currently painted.

The interior of the building, which from historic photos appears to have been an open, skylit factory floor, has been subdivided into a number of smaller tenant spaces with drywall partitions and suspended acoustical tile ceilings which hide the main feature of the historic interiors, the sawtooth roof truss skylights. However, the roof trusses remain exposed to provide skylighting in at least one of office suites. The main entrance lobby retains some of its original features, which include two wood fireplace fronts, wood trim and chair rail, marble base and a large plaster cove at the ceiling, which is made of backlit translucent panels. A portion of this lobby has been divided off for the use of one of the tenants, although the decorative features remain.

The property is bounded by Abbotsford Avenue on the northwest, Wissahickon Avenue on the northeast, Roberts Avenue and the properties along Deacon Street on the southeast, and the railroad tracks on the southwest. Construction in 1928 of another plant (the "North Plant") across Abbotsford Avenue doubled the size of the factory complex, and a bridge was built over the road to connect the two buildings, but the properties were not contiguous.

Particularly along the thoroughfares of Abbotsford and Wissahickon Avenues, the exterior facades of the building appear quite similar to historic views of the plant. There has been some obvious maintenance work, but the façade and detailing remain quite intact, the fenestration pattern is the same, and window replacements have been in the spirit of the original glazing. The rear, along the railroad, is less authentic due to the later CMU additions, but they do not obscure the character of the original industrial structure. The façade of the 1925 addition along Roberts Avenue has seen the most alteration from the original, with the bricking of the window openings, but the original design intent is still visible. The continued integrity of the structure's façade is likely due to a protective easement on the façade.

The interiors have not survived intact. As previously noted, what were once large open spaces have been divided up into small corridors leading to various office suites, where various modern treatments have been applied. However, the major feature of the historic interiors, the sawtooth skylight roof trusses, remains intact above the dropped ceilings. The historic fabric of the entrance lobby, with its decorative millwork, ceiling and fireplace fronts, also remains substantially intact, although unrestored.

39. History

Constructed in 1923 by Arthur Atwater Kent, the factory structure was constructed to house the growing radio manufacturing business of the Atwater Kent Company. The structure as originally built covered 15 acres. The building was expanded in 1925 by an addition in the southwest corner of the site that abuts Roberts Avenue, which added another 1-1/2 acres. Later, much smaller additons were built in the 1970's, adjacent to the 1925 addition.

With the construction of a second large plant in 1928, the size of the manufacturing facility was doubled. Located across Abbotsford Avenue at 5000 Wissahickon Avenue, the "North Plant" added another 16 acres to the facility on three levels. A bridge over Abbotsford Avenue was added in 1929 to link the "North Plant" and the "South Plant". The plant became the world's largest radio manufacturing facility, manufacturing over one million units in 1929.

Changes in consumer demand, brought about by the Great Depression, coupled with the rise of organized labor demands, gave rise to Kent's decision to quit the business in 1935. Philco, another local radio manufacturer, took over the complex by 1936 and began production of refrigerators at the plant. After being acquired by another company, Philco shuttered the plant.

Neither the North Plant nor the bridge between the North and South plants remains; most of the bridge was demolished with the construction of the Roosevelt Boulevard Expressway Extension (US Route 1) between the two plants, although a portion of the bridge still remains attached to the South Plant. The North Plant was sold to the Federal government in 1941, and was demolished in the 1990's by the GSA to make way for a new Veterans Administration building.

The South Plant sat vacant until its refurbishment as a rental property. Most recently, it was acquired in 2006 by the Kalman Dolgin Affiliates, New York. It continues to operate as the Philadelphia Design and Distribution Center, a multi tenanted facility.

In terms of significance, the South Plant building is important for both its architecture and its associations. Architecturally, it is not a high style building, but is representative of a pre-war industrial type structure, mostly utilitarian with large glazed openings for light, but with some art deco embellishments. Also significant is its use of the "Super-Span Saw-Tooth" roof structure, a long span steel truss system which incorporated skylight glazing panels and reinforced gypsum roof panels. While the sawtooth roof system had been in use prior to this, the improved version employed here was developed and patented by the architects of the building, The Ballinger Company of Philadelphia. (The Ballinger Company itself has an equally long history, and is still major force in the field.) It is also representative of the neighborhood where it is located, which was once dotted with similar factory structures within sections of supporting working class residential areas.

Arthur Atwater Kent, born in Vermont in 1873, was a prolific inventor with over 90 patents to his name. He began in business manufacturing motors and fans, relocating to Philadelphia in 1902. He branched into electrical components for automobiles, and

earned the John Scott Medal from the Franklin Institute in 1914 for his Unispark engine ignition system. By the early 1920's he had moved into the growing field of radio with great success, and as a result built the two enormous plant buildings along Wissahickon Avenue under discussion here. After dismantling his radio business and selling off the properties, Kent restored both the Betsy Ross house and the old Franklin Institute building in Philadelphia. The Institute was donated to the city, who renamed it the Atwater Kent Museuem, and is a museum of Philadelphia history.

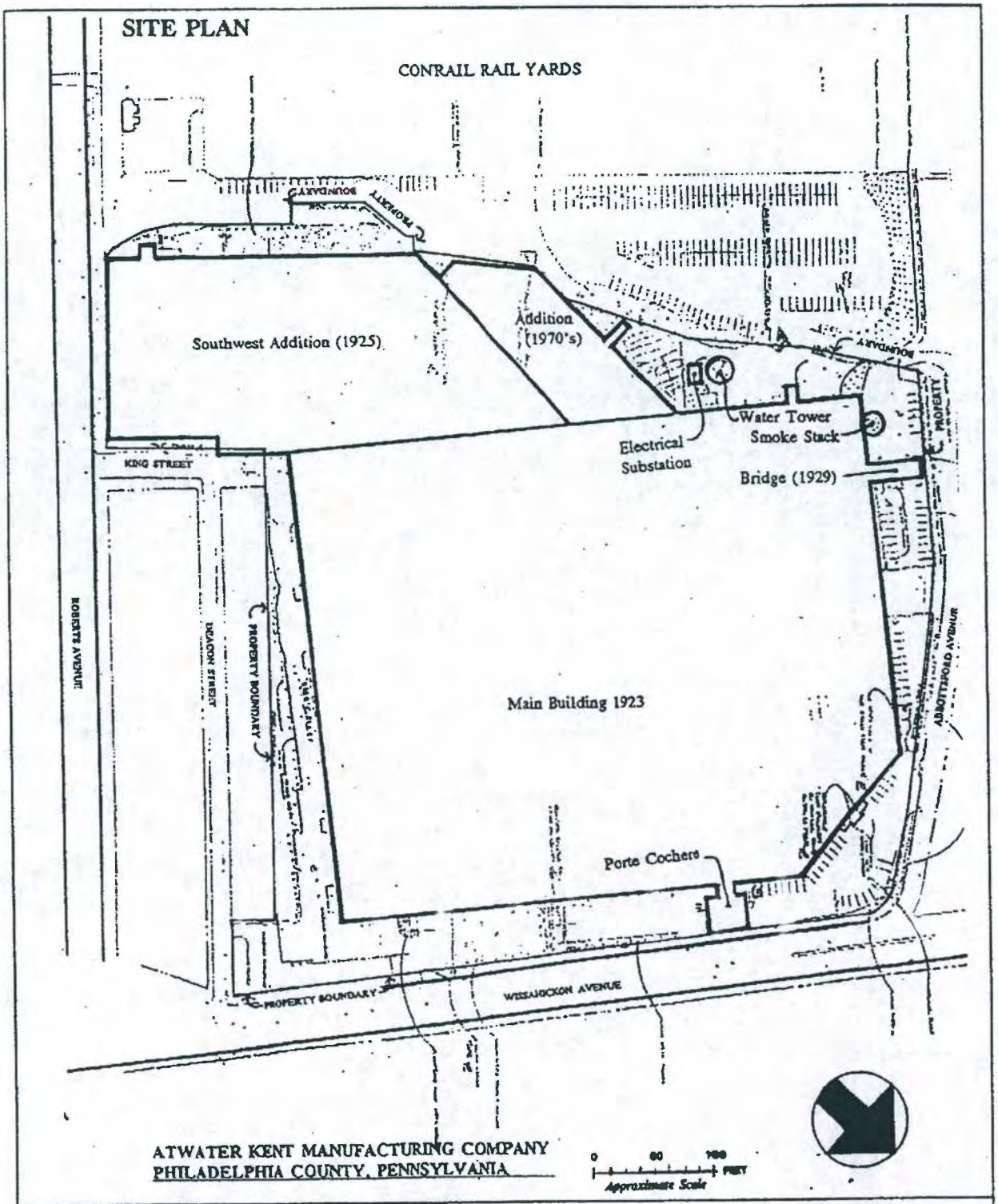


FIGURE 2: Site Plan, Atwater Kent Manufacturing Company, South Plant *SOURCE: Barucco 1992*

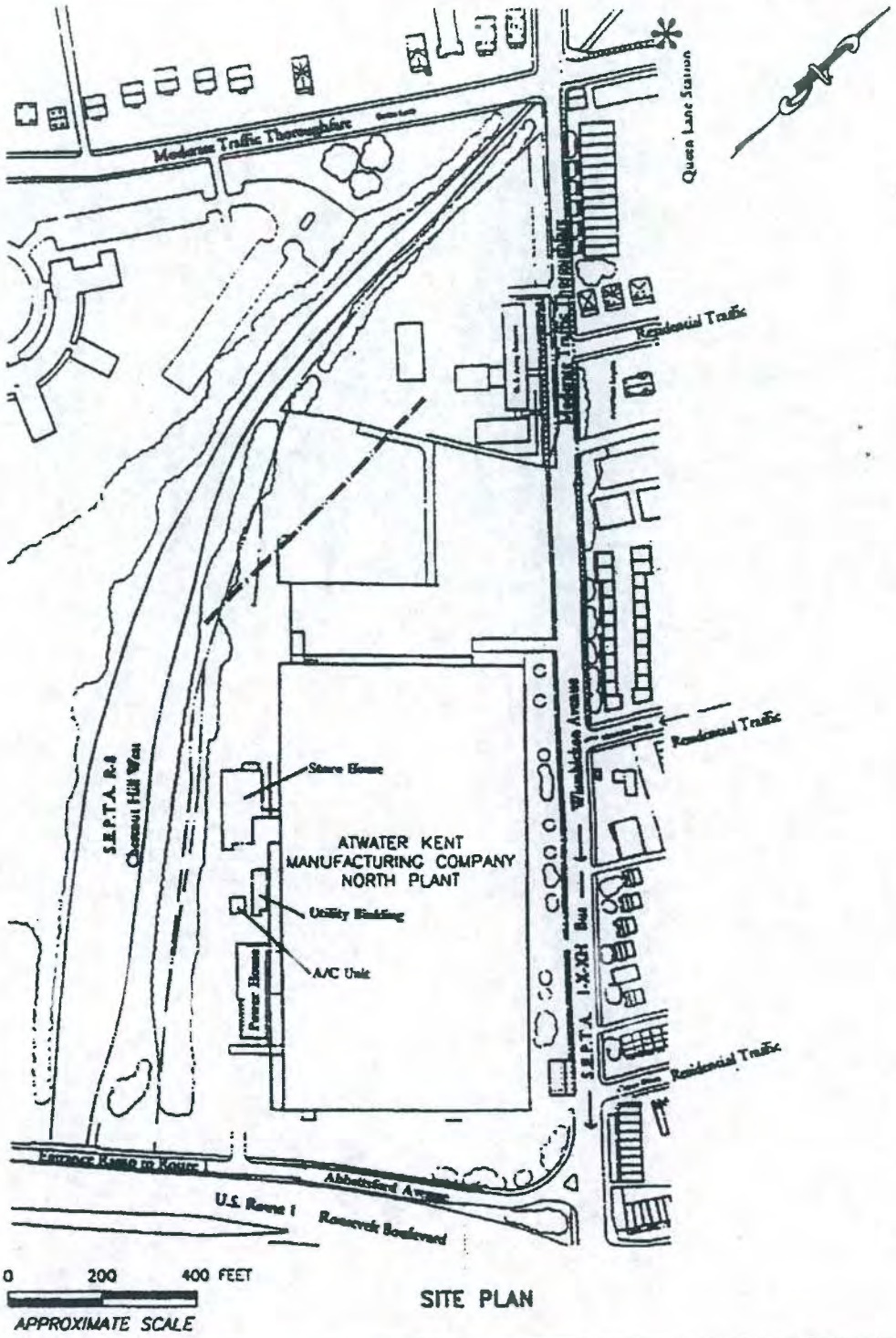
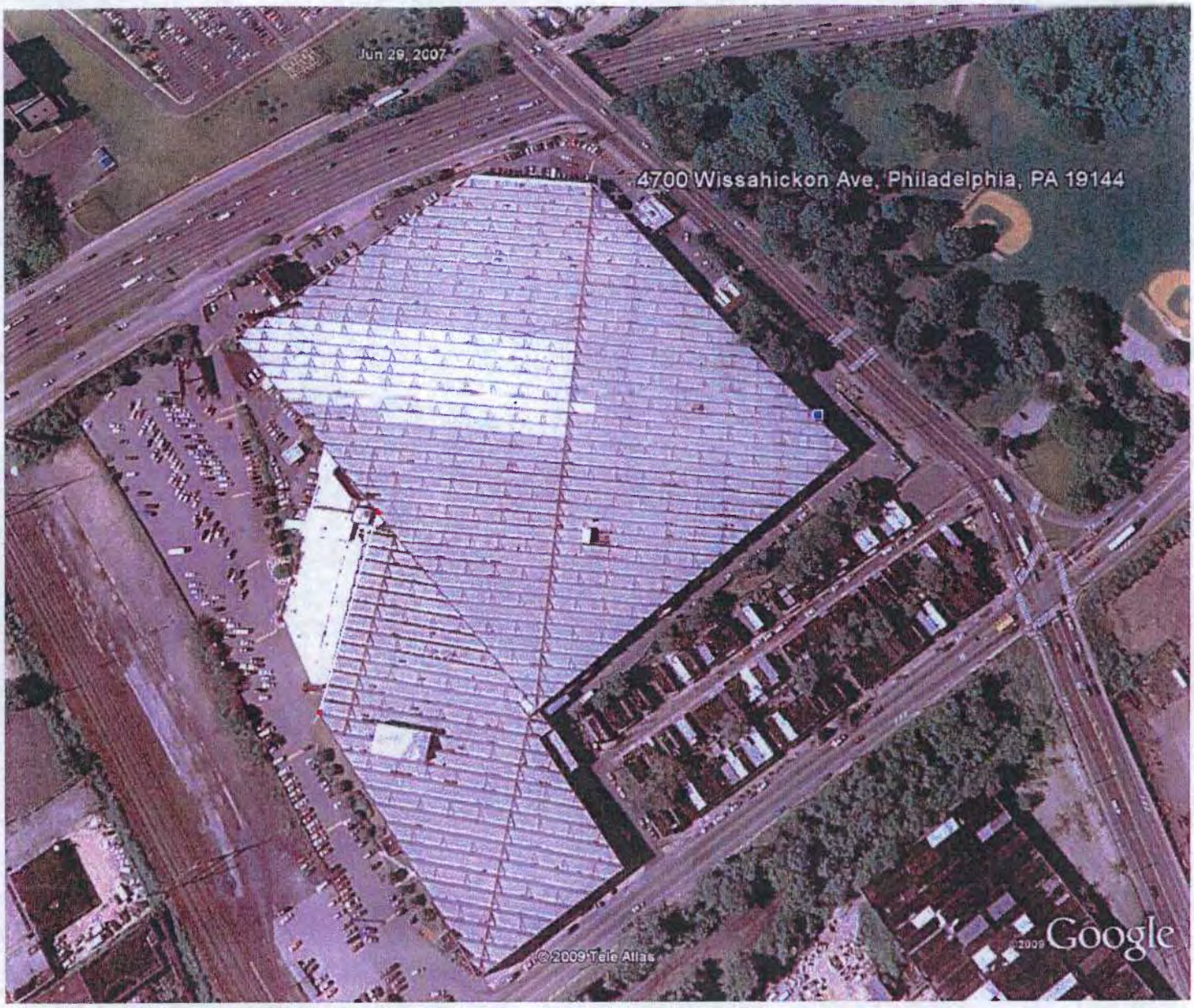


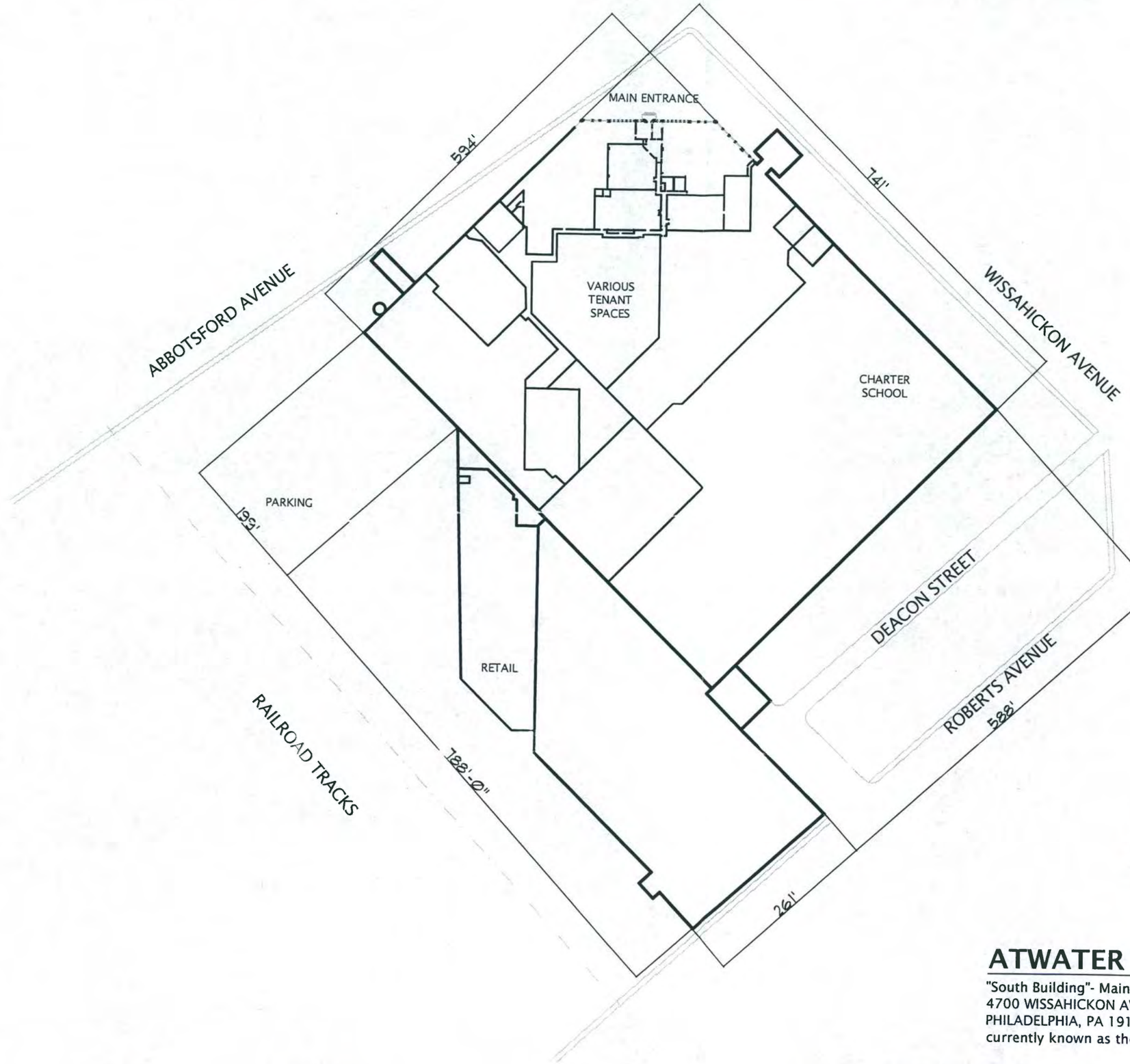
FIGURE 3: Site Plan, Atwater Kent Manufacturing Company, North Plant

SOURCE: Meyer 1992

North Plant: no longer extant. Demolished in the 1990's.



Atwater Kent Manufacturing Company,
South Plant- Aerial site photo



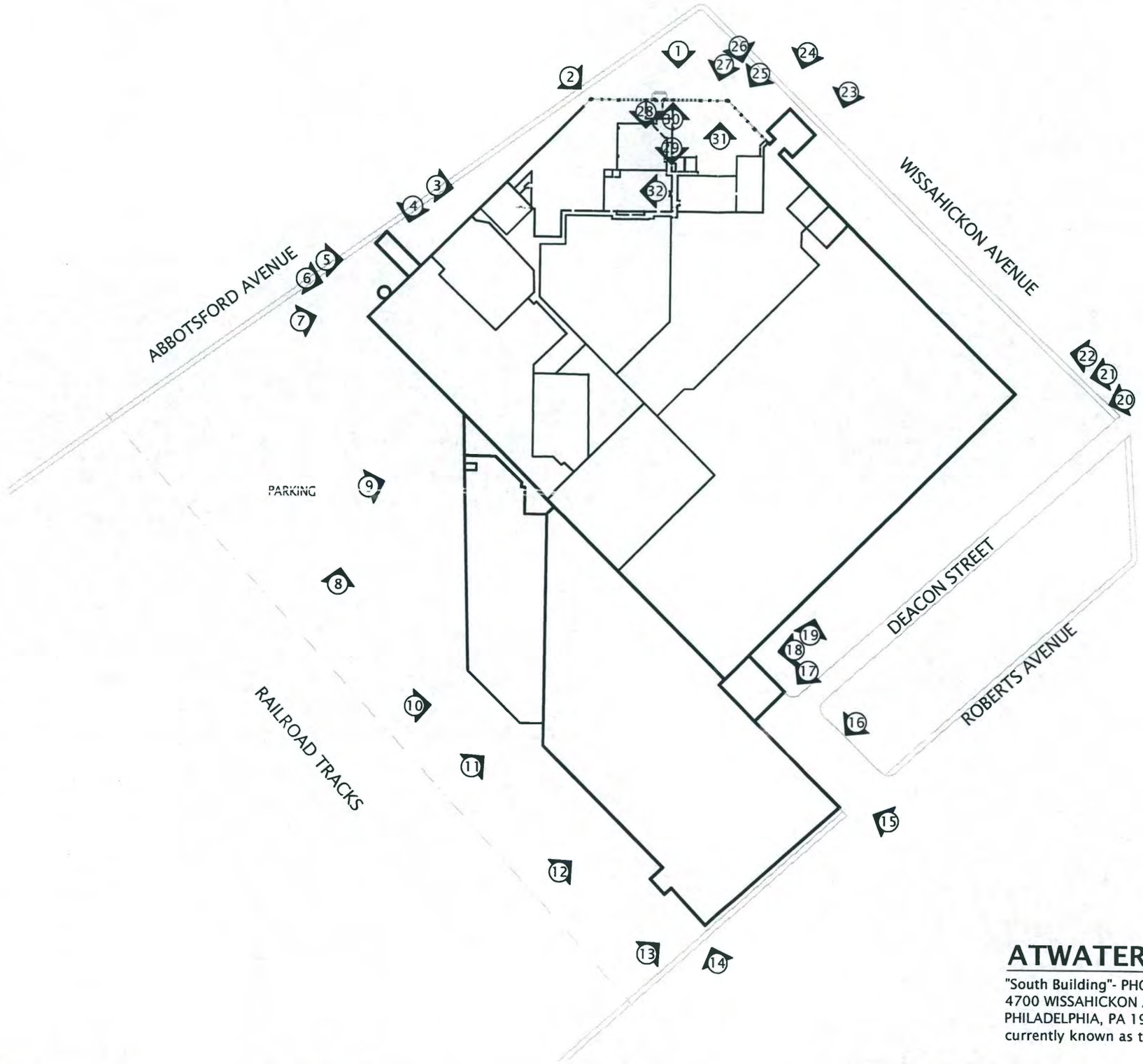
SEE SITE PLAN FOR
BUILDING PHASES

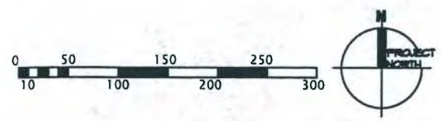
0 50 150 250
10 100 200 300

N
PROJECT NORTH

ATWATER KENT PLANT BUILDNG

"South Building"- Main level plan
4700 WISSAHICKON AVENUE
PHILADELPHIA, PA 19144
currently known as the Philadelphia Design and Distribution Center





ATWATER KENT PLANT BUILDNG

"South Building"- PHOTO LOCATION PLAN
4700 WISSAHICKON AVENUE
PHILADELPHIA, PA 19144
currently known as the Philadelphia Design and Distribution Center

Atwater Kent Factory Building 4700 Wissahickon Avenue, Philadelphia, PA

1. North Elevation, Main Building Entrance

2. North Elevation

3. Northwest elevation, partial, along Abbotsford.

4. Northwest elevation along Abbotsford.

5. Northwest elevation along Abbotsford with stack.

6. Northwest elevation of stack along Abbotsford.

7. Southwest elevation at northwest corner.

8. Southwest elevation fo main building, 1970's addition.

9. Northwest elevation of 1970's addition along southwest side.

10. Southwest elevation of 1970's addition.

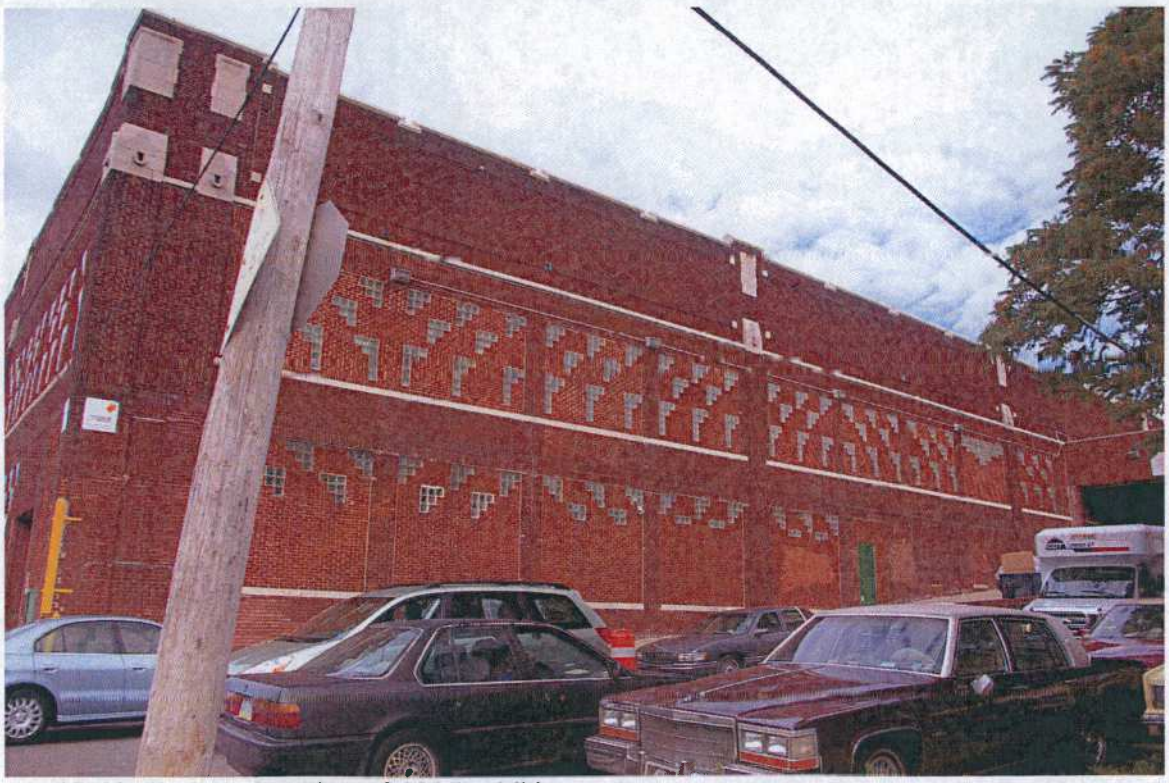
11. Southwest elevation of 1925 addition.

12. Southwest elevation of 1925 addition.

13. Southwest elevation of 1925 addition, southern corner.

14. southeast elevation of 1925 addition along Roberts Avenue.

15. Southeast corner of 1925 addition with garage addition and main building.



16. Northeast elevation of 1925 addition.

17. Northeast elevation of garage addition.

18. Southeast junction of main building and 1925 addition.

19. Southeast elevation facing Deacon Street.

20. Southeast elevation facing Deacon Street.

21. Northeast corner of main building.

22. Northeast elevation along Wissahickon.

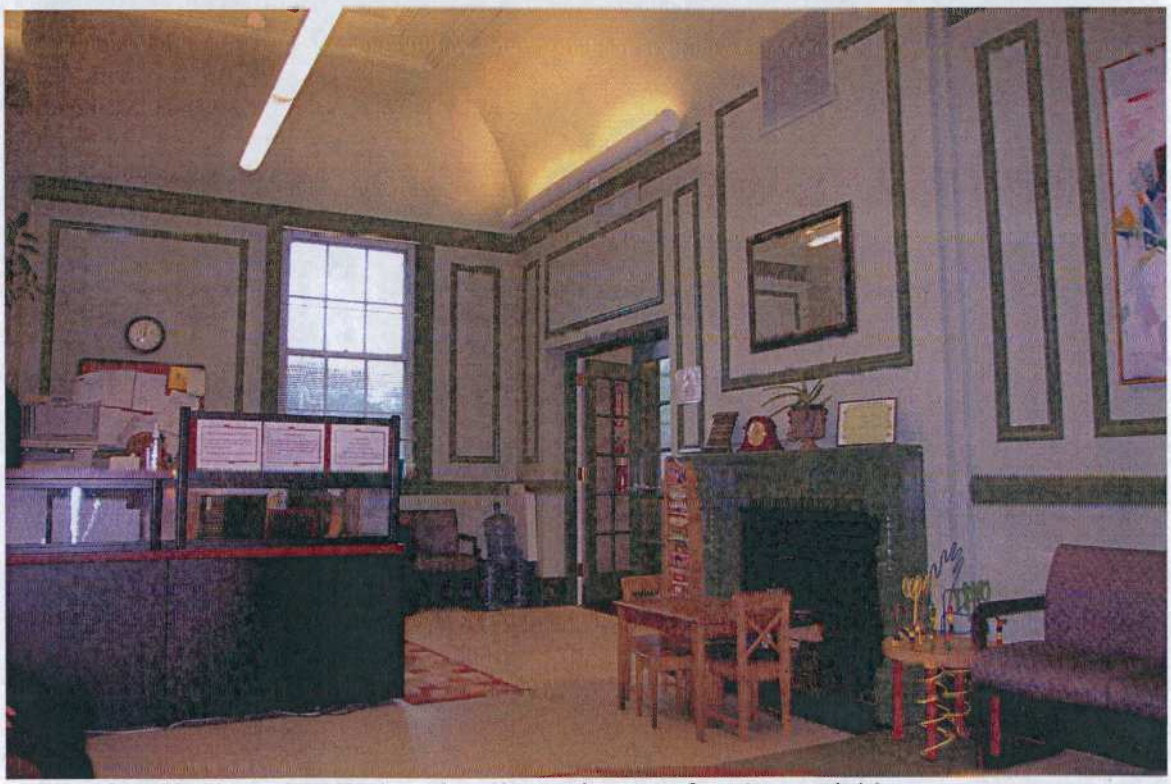
23. Northeast elevation along Wissahickon Avenue, partial.

24.Northeast elevation along Wissahickon Avenue, partial.

25. Northeast elevation along Wissahickon Avenue.

26. Northeast elevation along Wissahickon Avenue.

27. North elevation at northeast corner.



28. North and east elevation, formerly part of entrance lobby.

29. Common entrance lobby.

30. Interior corridor, typical.

31. Interior tenant space, finished

32. Interior tenant space, unfinished.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM
OFFICE OF HISTORIC PRESERVATION — Box 1026
PA HISTORICAL & MUSEUM COMMISSION — Harrisburg, PA 17120

1. County: Philadelphia

2. municipality: Philadelphia

3. street address or specific location: 5100 Wissahickon Avenue

4. survey code: 041-84060-05000

5. present name: U.S. Army Reserve Center

6. other name (historic name if any): Atwater Kent plant

7. Local survey organization: Clio Group, Inc.

8. property owners name and address:
U.S. Signal Corps
5000 Wissahickon Avenue
Philadelphia PA 19119

9. tax parcel number / other number: 382160800

10. U.T.M.: zone 18; easting 484840; northing 4429920
usgs sheet: Germantown Quad

11. status (other surveys, lists etc.):

12. classification: site ( ) structure ( ) object ( ) building (x); in N.R. district yes ( ) no ( )

13. date(s) (how determined): 1928 (BG)

14. period: 1920-1939

15. style, design or folk type: Art Deco Industrial

16. architect or engineer: Ballinger Company

17. contractor or builder:

18. primary building mat./construction: brick and terra cotta

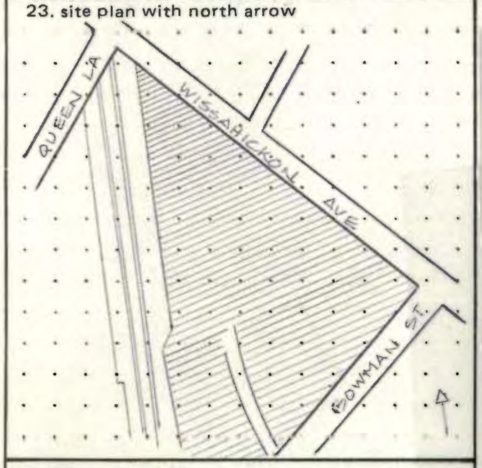
19. original use: industrial

20. present use: WIC

21. condition: above average

22. integrity: excellent

23. site plan with north arrow



24. photo notation: GT-NWP(G)-3-29

25. file/location:

26. brief description (note unusual features, integrity, environment, threats and associated buildings)

The Atwater Kent plant occupied this immense building to the west of the Abbottsford and Wissahickon plant, forming a continuous factory strip whose primary connection is across Wissahickon Avenue to Nicetown. Like the other plant, this is a one-story brick building with a high parapet screening the saw-toothed superspan truss. That parapet is articulated by regularly spaced piers decorated with terra cotta panels. The angled facade marks the entrance and is embellished with an immense panel inscribed with the name of the Atwater Kent Company.

(continue on back if necessary)

27. history, significance and/or background

The Atwater Kent factory is one of the surviving relics of the age when Philadelphia's Nicetown was the manufacturing core of the nation. The plants closed and the buildings have been adapted to alternative uses.

(continue on back if necessary)

28. sources of information: Clio Index: 0025198

(continue on back if necessary)

29. prepared by: G. Thomas

30. date: 8/3/83

revision(s):

ADDITIONAL DATA/PHOTOS
number all continuations from front

Survey code
041-84060-05000

EVALUATION

Would contribute to a district.

EVALUATOR(S)

G. Thomas

051664 051662

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM

OFFICE OF HISTORIC PRESERVATION Box 1026
PA HISTORICAL & MUSEUM COMMISSION Harrisburg, PA 17120

7. Local survey organization: Clio Group, Inc.

1. County: Philadelphia

5. present name: Veterans Adminstration

8. property owners name and address:
U.S. Signal Corps
5000 Wissahickon Avenue
Philadelphia PA 19144

9. tax parcel number / other number: 382160800

10. U.T.M. zone 18 | easting 418419610 | northing 4421971000

11. status (other surveys, lists etc.)

usgs sheet: Germantown Quad

12. classification: site ( ) structure ( ) object ( ) building (X) in N.R. district yes ( ) no ( )

13. date(s) (how determined): 1929

14. period: 1920-1939

15. style, design or folk type: Art Deco Industrial

19. original use: factory

20. present use: offices/storage

16. architect or engineer: Ballinger & Co.

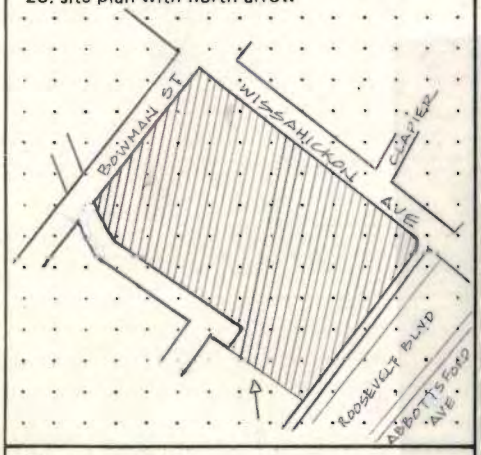
17. contractor or builder

18. primary building mat./construction: brick with terra cotta trim

21. condition: above average

22. integrity: excellent

23. site plan with north arrow



6. other name (historic name if any): Atwater-Kent Radio Factory

2. municipality: Philadelphia

24. photo notation: GT-NWP(G)-3-15

25. file/location

3. street address or specific location: 5000 Wissahickon Avenue

26. brief description (note unusual features, integrity, environment, threats and associated buildings)

The Atwater Kent Radio factory occupied an entire city block in two immense buildings, one 900 x 500', the other 400 x 700' in size. Glazed superspan trusses, spanning interior masonry walls, provided interior light within the immense interior. The exterior takes the architectural form developed by Price and McLanahan's Chicago Freight Terminal, with structural bays indicated by expressed piers marked by pier caps of terra cotta. Windows have been infilled and the building altered in its current use as the Veterans Administration record center.

(continue on back if necessary)

27. history, significance and/or background

This is among the most important landmarks of American industrial design by the firm which pioneered the superspan truss, and numerous safety features. It has further note as the production center for the Atwater Kent Radio company, whose products became the standard of their industry, and a brand name with the same recognition quality as Kleenex.

(continue on back if necessary)

28. sources of information

Clio Index: 0019823

(continue on back if necessary)

29. prepared by: G. Thomas

30. date: 8/5/83 revision(s)

4. survey code: 042-84060-05000

ADDITIONAL DATA/PHOTOS
number all continuations from front

urvey code
042-84060-05000

EVALUATION

Would appear to be eligible for the National Register.

EVALUATOR(S)

G. Thomas

NATIONAL REGISTER PROCESS IN PENNSYLVANIA
NOTIFICATION SHEET

See page 55 of the National Register Process in Pennsylvania for instructions.

The following information is required in order for us to process your registration form. Please complete both sides of sheet. Return this sheet along with your completed registration form to the Bureau for Historic Preservation, Pennsylvnaia Historical and Museum Commission, Box 1026, Harrisburg, Pennsylvania 17108.

A. NAME OF RESOURCE (From Section 1 of Registration Form):
Atwater Kent Manufacturing Company

B. LOCATION (From section 2 of Registration Form)

Street & number 4700-5000 Wissahickon Avenue

City, town Philadelphia

County Philadelphia

C. NAME AND ADDRESS OF EACH OWNER OF INDIVIDUAL RESOURCE OR PROPERTY IN A HISTORIC DISTRICT (See page 55 of the National Register Process in Pennsyvlania for definition of "owner". If the owners include Federal agencies list these first followed by names and addresses of other owners. If additional space is needed attach information on plain 8½ x 11 inch sheets)

O'Neill Properties, Inc.

1100 East Hector Street

Conshohocken, PA 19428

(J. Brian O'Neill)

D. **NAMES AND ADDRESSES OF CHIEF ELECTED LOCAL OFFICIALS FOR COUNTY AND MUNICIPALITY IN WHICH RESOURCE IS LOCATED:**

County Commissioner Chairman Name and Address -

Margaret Tartaglione

City Hall, Room 130

Philadelphia, PA 19107

Mayor/Township Supervisors Chairman Name and Address -

Edward Rendell, Mayor

City Hall, Room 215

Philadelphia, PA 19107

E. NAMES AND ADDRESSES OF STATE SENATOR AND REPRESENTATIVE WHOSE DISTRICTS INCLUDE THE RESOURCE.

State Senator's Name Chaka Fattah

Address 1845 North 59th Street, Philadelphia, PA 19151

State Representative's Name Robert O'Donnell

Address 3425 Conrad Street, Philadelphia, PA 19129

F. CERTIFIED LOCAL GOVERNMENT REPRESENTATIVE (to be completed by the Bureau for Historic Preservation if the property is in the jurisdiction of a Certified Local Government.

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

November 20, 1996

Andrea Mones-O'Hara
Acting Division Director
Cultural and Environmental Affairs
General Services Administration
Public Buildings Service
Washington, DC 20405

RE: National Register Nomination for the North Plant Powerhouse, Atwater Kent Manufacturing Company, Philadelphia, PA

Dear Ms. Mones-O'Hara:

The Bureau for Historic Preservation has reviewed the above named National Register Registration Form.

While it is our understanding that the Powerhouse will be preserved and rehabilitated as specified in the Memorandum of Agreement, pursuing National Register listing for the building is problematic. In our opinion, the Powerhouse is a contributing resource to the Atwater Kent Manufacturing Company factory complex (consisting of both North and South Plants), but is not individually eligible for listing in the National Register.

We therefore recommend that no further work be done on the Powerhouse nomination (our editorial comments not withstanding) and no further steps taken to seek its individual listing in the National Register. We made a copy of the National Register form for our files and, if acceptable to you, retained the photos and map. We are returning the original copy of the form for your retention.

If you have any questions on this recommendation, please contact Greg Ramsey of my staff at 717-783-9919.

Sincerely,

Brenda Barrett
Director
Bureau for Historic Preservation

enclosure
cc: Claire Crerar, GSA, Washington
Adel Wahba, GSA, Philadelphia
Kurt Carr, PA Historical and Museum Commission
BB/gr

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
THIRD AND NORTH STREETS, BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

September 13, 1996

Dale Lanzone, Director
Cultural and Environmental Affairs
General Services Administration
Public Buildings Service
Washington, D. C. 20405

Re: Atwater Kent Manufacturing Co. North Plant Powerhouse
5000 Wissahickon Ave., Philadelphia, PA

Dear Mr Lanzone:

After carefully reviewing the National Register form for the above named property, the Bureau for Historic Preservation is returning the form to you for revisions. We have detailed the needed changes and/or needs for additional information on the enclosed nomination checklist. Also enclosed with this letter are the following:

_____ maps
_____ photos
_____ List of consultants who prepare National Register forms
_____ Computer disk
_____ National Register form and continuation sheets
_____ Other:

All other submitted materials have been retained at the Bureau for Historic Preservation.

We have found that returning the material with comments is the best way to assure that standards required in the National Register process are maintained. If you have any questions please contact Carol Lee or Greg Ramsey at (717) 783-8946.

Sincerely,

Dan G. Deibler, Chief
Division of Preservation Services

Enclosure
DGD/cl
NR13

should be moved from the introductory paragraph.

(x) b. Narrative does not adequately outline the history of the building(s) as follows:

The construction, use, and abandonment of the powerhouse in relation to the manufacturing plant should be discussed. Indicate what happened to the powerhouse between 1936 - 1941, its use by the Signal Corps, through its current use.

() c. Narrative does not adequately show that the property's significance is reflected by existing resources:

(x) d. The following National Register criteria and/or area(s) of significance which appear applicable to this property have not been adequately explained:

The significance for this property is as an example of industrial design and engineering. The narrative should include a discussion of the design, construction, and operations of the power plant and its place in the context of power sources for manufacturing in the early 20th century. See comments on context below.

(x) e. Narrative does not adequately place the building(s) in context or compare it with known resources. Adequate context or comparisons must be provided as follows:

Information must be included on the design of powerhouses to show that this building is indeed an important example of such designs. Summarize the function of industrial powerhouses and how this influenced their design, specifically the function of the North Plant Powerhouse. Identify aspects of the architecture and/or engineering of the North Plant Powerhouse that make it a significant example of thie property type. Other examples from the Philadelphia region should be used in comparison and identified by name, location, and a brief desription. If the South Plant has/had a powerhouse it should be compared to the North Plant Powerhouse.

The energy options for manufacturers of the early 20th century should be considered as part of the context. If the powerhouse was built only to furnish heat for the manufacturing plant, then other energy sources were used in the manufacturing operations. Discuss the powerhouse as part of the total energy package for the entire facility. Who designed/built/sold the steam plant for the manufacturing plant?

() f. The following National Register criteria and/or areas of significance should not be claimed for this property:

(x) g. Narrative needs to be rewritten or reorganized as follows in order to provide sufficient clarity:

The chronological organization of the narrative is confusing. Reorganize the narrative concerned with the history of Atwater Kent, his activities, and the two Philadelphia facilities either chronologically or topically, but keep the organization consistent whichever framework is chosen.

(x) h. Other substantive problems:

In discussing the builders/designers of the plant, indicate other manufacturing properties that were built by the Ballinger Co.

(x) i. Editorial comments: Note comments on text.

Section 9, Bibliography

Atwater Kent Manufacturing Co. North Plant Powerhouse
Philadelphia

Section 6
Under current functions, enter N/A as subcategory; "energy facility" is not a subcategory for Government in the instructions.

Section 7 Narrative (only items marked with an "x" apply)

(x) a. Introductory paragraph does not adequately summarize the setting, scale, construction materials, construction date(s), architectural style(s) or integrity. After the first sentence explain that the powerhouse is the only remaining resource of the demolished North Plant and when the plant was demolished.

() b. Important exterior features are not adequately described, such as:

(x) c. Important interior features are not adequately described, such as: boilers or other major surviving machinery/equipment of the powerhouse, including general appearance, manufacturers' names, location within the building.

() d. Secondary buildings are not adequately described. More detail is needed on:

(x) e. More detail must be provided on alterations or additions to the building(s) and how these affect integrity. You must describe and date changes and additions made to the building. You must then assess how these changes or additions affect the building's ability to reflect its significance.

(x) f. The narrative must be reorganized as follows in order to provide sufficient clarity:
Reorganize the narrative to create an appropriate summary introductory paragraph, a description of the exterior, a description of the interior, changes in the appearance of the building, and an evaluation of its integrity. See text for suggested editions.

(x) g. Other substantive problems:
Presently, what is the setting of the powerhouse? Is it simply the vacant space left by the demolition or is there new construction underway or completed? The setting must be described.

(x) h. Editorial comments: see comments on text.

Section 8 Narrative (only items marked with an "x" apply)

The period of significance will be the dates of construction, 19298-1929.

(x) a. Introductory paragraph does not adequately summarize the importance of the resource in terms of National Register criteria and areas of significance.
The introductory paragraph should focus on the powerhouse rather than the Atwater Kent Co and suggest significance for architectural and engineering design under Criterion C. The references to the Atwater Kent manufacturing buildings

Other materials:

Notification Sheet:

Original USGS Quad map:

MEMORANDUM July 18, 1996

TO: Carol

FROM: Greg GR

RE: Atwater Kent Manufacturing Company, North Plant Powerhouse

As a consequence of the demolition, this is, in a sense, a different resource from that (the whole north plant) previously determined eligible.

We need to set this up for staff committee for evaluation. Possibly the powerhouse is significant for engineering or architecture as opposed to the reasons stated in the nomination (which relate to the significance of the company/plant as a whole) or possibly it is not eligible.

Also, locate the related ER file and Memorandum of Agreement (as referenced in the Boundary Justification.

GSA project?

91-3702-101

already det. eligible

get MOA

General Services Administration
Public Buildings Service
Washington, DC 20405

051661

JUN - 3 1996

Mr. Kurt Carr
Chief, Division of Archeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
P.O. Box 1026
Harrisburg, Pennsylvania 17108

Dear Mr. Carr:

We are forwarding for your review and concurrence the enclosed National Register Nomination for the Atwater Kent Manufacturing Company, North Plant Powerhouse located at 5000 Wissahickon Avenue, Philadelphia, Pennsylvania.

The following documents are enclosed:

- Original National Register of Historic Places Registration Form
- U.S.G.S. Map, and
- Set of original labeled black and white photographs.

If the nomination meets with your approval, please return the package to our office in order that we may send it to the Keeper of the Register. Should you have any questions or concerns regarding the nomination, please contact Claire M. Crerar, of my staff, on (202) 501-1578.

Sincerely,

Dale Lanzone
Director
Cultural and Environmental Affairs

91-3702-101

Enclosure

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

ER

September 20, 1993

Harold Quinn
General Services Administration, Region 3
Public Buildings Service
The Wanamaker Building, 100 Penn Sq. East
Philadelphia, PA 19107-3396

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER 91-3702-101-G
Memorandum of Agreement for New Department of Veterans (VA) Affairs Buildings on Site of Atwater Kent North Plant, Philadelphia

Dear Mr. Quinn:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

Enclosed is the signed original of the Memorandum of Agreement for the Atwater Kent North Plant, Philadelphia. We are in agreement with the stipulations as outlined in the Memorandum. Please forward the signed Memorandum and your adverse effect documentation to the Advisory Council on Historic Preservation at the following address:

Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Ave., NW
Washington, DC 20004

If you need further information in this matter please consult Susan M. Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Brenda Barrett
Director

BB/smz

MEMORANDUM OF AGREEMENT
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
PURSUANT TO 36 CFR PART 800.6(a)

WHEREAS, the General Services Administration (GSA) has determined that its construction of a new Department of Veterans Affairs (VA) facility, associated site improvements, and subsequent demolition of the Atwater Kent Factory's North Plant at 5000 Wissahickon Avenue, Philadelphia, Pennsylvania, will have an effect upon the North Plant and associated archeological resources, properties which are eligible for inclusion on the National Register of Historic Places (NRHP), and has consulted with the Pennsylvania State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Advisory Council) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and Section 110 of the same Act; and

WHEREAS, the Society for Industrial Archeology, the Atwater Kent Museum, the Philadelphia Historical Commission, the Preservation Coalition of Greater Philadelphia, the Philadelphia Historic Preservation Corporation, and representatives of City Councilmen Michael Nutter and Herbert DeBeary participated in the consultation and discussed stipulations to be included in this Memorandum of Agreement; and

WHEREAS, GSA has considered various alternatives to the undertaking, presented its findings to the consulting parties, and supplied the Advisory Council and the Pennsylvania SHPO with sufficient documentation to begin preparation of this Memorandum of Agreement, including information requested by the Advisory Council at the meeting of Consulting Parties on 8 January 1993 (namely, clarification of VA operational needs and a letter from O'Neill, Seidman, Barrickman Properties, Inc. indicating whether they are interested in acquiring the North Plant for reuse);

NOW, THEREFORE, the General Services Administration (GSA), the Advisory Council, and the Pennsylvania SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

GSA will ensure that the following measures are carried out:

1. **HABS/HAER** - Prior to the demolition of the North Plant, GSA shall consult with the Historic American Building Survey/Historic American Engineering Record Division of the National Park Service to determine what level and kind of recordation is required for the property. Unless otherwise agreed to by the National Park Service, GSA shall ensure that all documentation is completed and accepted by HABS/HAER prior to demolition, and that copies of this documentation are made available to the Pennsylvania SHPO and appropriate local archives identified by the Pennsylvania SHPO.

2. **Archeological Resources** - GSA will complete its study of and prepare a report on archeological resources already recovered from the Atwater Kent Factory Site (36PH51) and convey artifacts to an appropriate curator, in conference with the Pennsylvania SHPO and the Philadelphia Historical Commission. Unless otherwise agreed to by the Pennsylvania SHPO GSA shall ensure that this study and curation are consistent with the *Secretary of the Interior's Standards and Guidelines for Archeological Documentation* (48 FR 44734-37), the Department of the Interior's *Format Standards for Final Reports of Data Recovery Program* (42 FR 5377-79), the Advisory Council's *Treatment of Archeological Properties*, and 36 CFR Part 79. GSA shall ensure that final archeological reports derived from the above data will be provided to the Pennsylvania SHPO and appropriate archives or clearing houses identified by the SHPO. The signing parties agree that no further excavation is required.

3. **Interpretive Displays** - a) GSA will create a permanent interpretive display at a prominent location within the new VA facility. The display will illustrate the North Plant's architecture, the building's context in Philadelphia's industrial history, and Atwater Kent's role in Philadelphia's past. b) GSA will prepare and distribute an informational pamphlet that discusses the topics represented in the display. c) GSA will design a commemorative plaque that calls attention to the relationship between the Atwater Kent Company's North and South Plants. GSA

will install the plaque on the project site near the base of the former bridge that connected the two factories, linking the Atwater Kent complex. d) GSA will develop these Interpretive Displays with guidance from the Pennsylvania SHPO and the Philadelphia Historical Commission.

4. **Architectural Salvage** - a) GSA will salvage significant architectural elements of the North Plant and ensure proper curation of these elements. b) GSA will investigate the existence of the North Plant's time capsule and entrust its contents to appropriate curation. c) GSA will salvage and display a portion of the North Plant's truss system. GSA shall make the truss part of a commemorative outdoor design that calls attention to the significance of the North Plant's truss system, while placing the truss in a contemporary context. d) GSA shall undertake Architectural Salvage with guidance from the Pennsylvania SHPO and the Philadelphia Historical Commission.

5. **Design of New Facility** - a) GSA will design the new VA building in a manner that is compatible with the neighborhood's character. b) GSA will allow the Pennsylvania SHPO and the Philadelphia Historical Commission to review the new facility's final design and will consider their recommendations. The signing parties agree that this review of design implies no guidelines or approvals.

6. **Powerhouse** - a) GSA will preserve and rehabilitate the North Plant's boiler plant (the 'Powerhouse') in accordance with the Secretary of the Interior's Standards for Rehabilitation and will submit plans affecting the Powerhouse for Section 106 review. b) GSA will preserve and protect the Powerhouse's significant historic elements, in keeping with the intent of Section 110 and Section 106 of the National Historic Preservation Act. Although this MOA does not convey a facade easement for the Powerhouse, GSA plans to survey the building's historic elements and develop plans for its maintenance through GSA's Historic Building Preservation Plan (HBPP) program. Since the Powerhouse will house physical plant for the new VA building and GSA values the building as a historical asset, GSA plans to maintain the Powerhouse for the foreseeable future. c) GSA shall ensure that the Powerhouse is protected against damage during onsite construction activity.

Execution of this Memorandum of Agreement and implementation of its terms evidence that GSA has afforded the Advisory Council an opportunity to comment on GSA's construction of a new VA facility at 5000 Wissahickon Avenue and its effect on historic properties, and that GSA has taken into account the effects of the undertaking on historic properties. GSA has incorporated this MOA into its Finding of No Significant Impact (FONSI).

UNITED STATES GENERAL SERVICES ADMINISTRATION

By: Thurman M Davis Date: 8/24/93

Thurman M. Davis,
Acting Regional Administrator

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

By:_____ Date:_____

Kurt Carr, Chief,
Division of Archaeology and Protection
Bureau for Historic Preservation

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By:_____ Date:_____

Don Klima, Director,
Eastern Office of Project Review

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

October 2, 1992

Mr. Mark Reinberger
Martin Jay Rosenblum, R. A. & Associates
346 South Fifteenth Street
Philadelphia, PA 19102

Re: National Register Nomination
Atwater Kent Manufacturing Company
Philadelphia, Pennsylvania

Dear Mark:

This letter is in response to your letter of August 12, 1992, asking us to reconsider our request that you expand your nomination to include all of the Atwater Kent Plant, which includes a portion of the plant owned by a federal agency.

Over the last ten years, our office has reviewed various federal actions/projects related to the former Atwater Kent Manufacturing Plant. We, along with the National Park Service, have consistently interpreted the historic resource to include two principal buildings built in 1923 and 1928, respectively. This is how the Part 1 - Certification of Significance application was written. If you do not have a copy of that document, a copy is enclosed for your information. We are also aware of the alterations to the 1928 building but it has been our opinion that it retains integrity and is integral to the resource. Therefore. it is our continued opinion that the nomination should include all aspects of the plant which date to the period of significance and retain integrity. We will not process a nomination for the 1923 building alone.

Our conversation with the General Services Administration suggests that there is substantial documentation already available on the federally owned property to facilitate your revision of the nomination. As we indicated earlier, the required revisions involve additional description, photography and geographic information but will likely not involve new research or much change to the excellent Section 8/Significance which you have already prepared. (In providing geographical data, treat the federal and non-federal parcels as separate land areas, each with its own acreage, UTMs and boundary description and justification. Although the nomination category will be "buildings," geographic information will be handled in the same manner as a discontiguous district;

i.e., U.S. Route 1 should be excluded from the nomination boundary). If you have any questions, please contact Greg Ramsey of my staff at (717) 783-8946.

Sincerely,

Dan Deibler
Chief, Division of Preservation Services

cc: Brian O'Neill
Harold Quinn, General Services Administration
David Hollenburg, National Park Service
Dr. Richard Tyler, Philadelphia Historical Commission
BHP Tax Credit and Historic Resource Survey files

Enclosure
DD/GR/gr

1 · Prelim Approval DC

Form 10-168
Rev. 12/86

OMB Approved
No. 1024-0009

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

copy to SHPO 7-21-89

HISTORIC PRESERVATION CERTIFICATION APPLICATION
PART 1 — EVALUATION OF SIGNIFICANCE

JUN 1989 CULTURAL PROGRAMS

NPS Office Use Only
NRIS No:

NPS Office Use Only
Project No: 12110 PA

Instructions: Read the instructions carefully before completing application. No certification will be made unless a completed application form has been received. Type or print clearly in black ink. If additional space is needed, use continuation sheets or attach blank sheets.

1. Name of property: Atwater Kent Manufacturing Plant

Address of property: Street 4700-5000 Wissahickon Avenue

City Philadelphia County Philadelphia State PA Zip 19129

Name of historic district: N/A

☐ National Register district ☐ certified state or local district ☐ potential historic district

2. Check nature of request:

- ☐ certification that the building contributes to the significance of the above-named historic district for the purpose of rehabilitation.
- ☐ certification that the structure or building and, where appropriate, the land area on which such a structure or building is located contributes to the significance of the above-named historic district for a charitable contribution for conservation purposes.
- ☐ certification that the building does not contribute to the significance of the above-named district.
- ☒ preliminary determination for individual listing in the National Register.
- ☐ preliminary determination that a building located within a potential historic district contributes to the significance of the district.
- ☐ preliminary determination that a building outside the period or area of significance contributes to the significance of the district.

3. Project contact:

Name Brian O'Neill, owner

Street 404 E. Lancaster Avenue City Wayne

State PA Zip 19087 Daytime Telephone Number 215/971-0850

4. Owner:

I hereby attest that the information I have provided is, to the best of my knowledge, correct, and that I own the property described above. I understand that falsification of factual representations in this application is subject to criminal sanctions of up to $10,000 in fines or imprisonment for up to five years pursuant to 18 U.S.C. 1001.

Name Brian O'Neill Signature Brian O'Neill Date June 2 1989

Organization Philadelphia Design and Distribution Center c/o Phil Rosen at 1429 Walnut St 8th Flr. Phila., PA 19102

Social Security or Taxpayer Identification Number 23-25-447-47

Street 4700-5000 Wissahickon Avenue City Philadelphia

State PA Zip 19129 Daytime Telephone Number 215/971-0850

NPS Office Use Only MJ.G

The National Park Service has reviewed the "Historic Preservation Certification Application — Part 1" for the above-named property and hereby determines that the property:

- ☐ contributes to the significance of the above-named district and is a "certified historic structure" for the purpose of rehabilitation.
- ☐ contributes to the significance of the above-named district and is a "certified historic structure" for a charitable contribution for conservation purposes in accordance with the Tax Treatment Extension Act of 1980.
- ☐ does not contribute to the significance of the above-named district.

Preliminary Determinations:

- ☑ appears to meet the National Register Criteria for Evaluation and will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer according to the procedures set forth in 36 CFR Part 60.
- ☐ does not appear to meet the National Register Criteria for Evaluation and will likely not be listed in the National Register.
- ☐ appears to contribute to the significance of a potential historic district, which will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer.
- ☐ appears to contribute to the significance of a registered historic district but is outside the period or area of significance as documented in the National Register nomination or district documentation on file with the NPS.
- ☐ does not appear to qualify as a certified historic structure

1.24.90 | Mary G. Grzelewski | MARO 215/597.0651

Date | National Park Service Authorized Signature | National Park Service Office/Telephone No:

CONTINUATION SHEET
Historic Preservation Certification Application

Property Name: ATWATER KENT MANUFACTURING PLANT
Property Address: 4700-5000 WISSAHICKON AVENUE, PHILADELPHIA, PA
Owner Name/ID#: 23-25 447 47

This sheet : X continues Part 1 : continues Part 2 : amends Project
NPS Project Number:

ITEM 5 Description of the physical appearance:

The former Atwater Kent Manufacturing Company plant was found **eligible** for the National Register on January 15, 1987 by the Department of the Interior. The company occupied two huge buildings on approximately 34 acres; both still exist but are bisected by the Roosevelt Boulevard expressway (US Route 1).

Erected between 1923 and 1929, the two one-story, industrial structures reflect a somewhat stylized Jacobean mode in their terra-cotta coping, limestone trim and diapered brickwork. Steel industrial sash in large openings, however, clear identify the complex's manufacturing function and design. More importantly, the building's parapets conceal one of the earliest and most extensive examples of the Ballinger "superspan-sawtooth" roof. That system, patented in 1920, utilized the conventional sawtooth to provide natural light, which, when coupled with extensive trusswork in the sawtooth, permitted column-free spans of 100 feet. The plant could extend in length in almost limitless fashion. Indeed, the design eliminated as much as 94 percent of the usual column requirement.

The Department of Defense currently owns the newer of the two structures constructed by Atwater Kent; it is north of the freeway and was constructed in 1928. Wholesale window replacement in an standard office style has substantially altered that structure's character.

The subject of this application occupies eleven acres of land south of Roosevelt Boulevard. It was the first of the structures erected, and was constructed in three stages between 1923-25. This structure employs Frank Ballinger's "super-span sawtooth" and established the architectural and engineering model for the entire complex. The primary view of the structure from Roosevelt Boulevard silhouettes the sawtooth roof against the sky and is punctuated by a large smokestack adjacent to the freeway. A remnant bridge section remains attached to this structure; the bridge was constructed 1928-9 to connect the two structures across Roosevelt Boulevard.

Frank Ballinger published a paper on the Super-span Sawtooth structure in 1925 liberally using the Atwater Kent complex for illustration. The attached copy of Ballinger's biography and projects indicated erection dates for the complex.

Owner's signature _____ Date June 19-88

CONTINUATION SHEET
Historic Preservation Certification Application

Property Name: ATWATER KENT MANUFACTURING PLANT
Property Address: 4700-5000 WISSAHICKON AVENUE, PHILADELPHIA, PA
Owner Name/ID#: 23-25 447 47

This sheet : X continues Part 1 : continues Part 2 : amends Project
NPS Project Number:

ITEM 6 Statement of Significance

This application structure, erected for the Atwater Kent Manufacturing Company 1923-28, possesses significance for its historical association with Atwater Kent, the manufacturing products of Kent's company, and for its place in the design of industrial facilities. Here, Kent - inventor, manufacturer and philanthropist -undertook the production of radios in the 1920s for the mass market. Atwater Kent made thousands of radios monthly in this first eleven-acre facility , expanding later in to the automobile radio market. With the onset of the Great Depression, Kent established a private relief fund for his unemployed workers. He also had a concern for historic preservation: the wealth generated by his company enabled him to restore the Betsy Ross House in 1937, and to acquire, refurbish and donate to the City of Philadelphia, John Haviland's former Franklin Institute as a city history museum in 1938. Survival of the original drawings for the complex in the structure are a tribute to Atwater Kent's concern for the historical record.

Atwater Kent retained the Ballinger Company to design his new manufacturing complex at Wissahickon and Abbottsford Avenues. For it, Frank Ballinger adopted a style evocative of the Jacobean. The firm also employed its recently patented "super-span sawtooth" structural system. This engineering technology permitted the use of the sawtooth roof to capture maximum amount of natural light in a virtually column-free workspace. Column spans in this plant are on 40-foot centers. This system increased the productive capacity and flexibility of industrial buildings.

This original Atwater Kent Manufacturing Plant appears to meet National Register criteria A, B & C due to its association with Atwater Kent, the mass production of radios beginning in the 1920s, and with the innovative engineering of the Ballinger "super-span sawtooth" roof.

Owner's signature _____ Date June 19-85

MARTIN JAY ROSENBLUM, R.A. & ASSOCIATES
ARCHITECTURE PRESERVATION HISTORICAL RESEARCH RESTORATION

Principal:
Martin Jay Rosenblum, R.A.
Associates:
Peter Andrew Copp, R.A.
David F. Morse, R.A.
Director of Historical Studies:
Mark Reinberger, Ph.D.

August 12, 1992

Daniel Deibler, Chief
Division of Preservation Services
Bureau for Historic Preservation
Pennsylvania Historical and Museum Commission
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026

Re: National Register Nomination
Atwater Kent Manufacturing Company
4700-5000 Wissahickon Avenue
Philadelphia, Pennsylvania

Dear Dan:

We received your letter of July 31, 1992 regarding the Atwater Kent nomination. Although we can to some extent appreciate the logic of nominating all of the former Atwater Kent buildings together, we feel that several circumstances make the request to expand the nomination unreasonable.

First, it is a significant burden to ask our client, a private party, to pay for the nomination of several Federally owned buildings. The additional work will be extensive, involving photography, writing, gathering materials from Federal agencies, and editing a second draft. The cost will probably run to almost $2,000.00.

Second, while it would make sense that the original building be included in a nomination of the addition, the converse does not automatically apply, that is, the original building can stand on its own merits. The significance of the 1923 building is not reduced by leaving out the later buildings. Historically, the original building best represents Atwater Kent, as it was his first construction and because it contained his offices. Architecturally, the original building is more significant than the addition because it applied the roof trusses and planning principles first; the addition merely copied the original. Furthermore, the original close relationship between the two buildings has been irrevocably severed by the destruction of the bridge and the construction of the six lane Roosevelt Expressway and flanking access roads between them.

346 SOUTH FIFTEENTH STREET PHILADELPHIA, PENNSYLVANIA 19102 (215) 985-4285 FAX (215) 985-2476

Finally, the integrity of the General Services Building has been much compromised. The form and materials of the windows have been changed by the insertion of very inappropriate aluminum units, and the skylights of the super-span sawtooth roof trusses (an important feature) have been removed. These alterations significantly reduce the integrity of the building, making it less able to meet National Register criteria.

Therefore, we respectfully ask you to reconsider your request that the Atwater Kent nomination be expanded. Thank you for your compliments on the nomination and we look forward to hearing from you.

Sincerely,

Mark Reinberger

cc: Mike O'Neill

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

July 31, 1992

Suzanna E. Barucco
Historic Preservation Planner
Martin Jay Rosenblum, R.A. & Associates
346 South 15th Street
Philadelphia, PA 19102

Re: Atwater Kent Manufacturing Company, Philadelphia

Dear Ms. Barucco:

The Bureau for Historic Preservation has reviewed the National Register form prepared for the Atwater Kent Manufacturing Company. This is a very well prepared nomination; however it does not reflect the entire eligible resource. The nomination should be revised to include the six Atwater Kent buildings under federal ownership, notably the 1928 factory.

We have spoken with Mr. Harold Quinn, Director, Planning Staff, General Services Administration, Wanamaker's Building, 100 Penn Square East, Room 621, Philadelphia, PA 19107. He indicates that they might well have information useful in revising the nomination including information recently gathered by their historical consultant. Mr. Quinn can be reached by phone at (215) 656-5680.

To revise the nomination to include the federally owned buildings, the Section 3 resource count will have to be changed and description of the buildings added to the Section 7 narrative. Also, the Section 10 Geographical Data must be revised, including a revised site plan on the photos will have to be supplemented. Fortunately the Section 8 narrative and other parts of the nomination will need little revision.

If you have questions about revising the nomination please call Greg Ramsey of my staff at (717) 783-8946.

We will retain the photos you submitted pending receipt of your revised nomination.

Sincerely,

Dan Deibler, Chief
Division of Preservation Services

cc: Harold Quinn

MARTIN JAY ROSENBLUM, R.A. & ASSOCIATES
ARCHITECTURE PRESERVATION HISTORICAL RESEARCH RESTORATION

Principal:
Martin Jay Rosenblum, R.A.
Associates:
Peter Andrew Copp, R.A.
David F. Morse, R.A.
Director of Historical Studies:
Mark Reinberger, Ph.D.

VIA FEDERAL EXPRESS

2 June 1992

Daniel Diebler
Chief, Division of Preservation
Bureau for Historic Preservation
Pennsylvania Historical and Museum Commission
North and Third Streets
Harrisburg, Pennsylvania 17108-1026

Re: National Register Nomination
Atwater Kent Manufacturing Company
4700-5000 Wissahickon Avenue
Philadelphia, Pennsylvania

Dear Mr. Diebler:

Please find enclosed a completed National Register of Historic Places Registration Form for the Atwater Kent Manufacturing Company plant. Accompanying documentation includes the following:

- Continuation Sheets (19 sheets)
- Site Plan (1 sheet)
- Floor Plans (2 sheets)
- Photograph Key Plan (1 sheet)
- USGS Map (Germantown Quad, Zone 18)
- 26 Black and White Photographs (2 sets)
- National Register Process in Pennsylvania Notification Sheet

If you have any questions, or require additional information, please give me a call.

Thank you.

346 SOUTH FIFTEENTH STREET PHILADELPHIA, PENNSYLVANIA 19102 (215) 985-4285 FAX (215) 985-2476

Sincerely,

Suzanna E. Barueco
Historic Preservation Planner/
Architectural Conservator

/sb

Enclosures

cc: J. Brian O'Neill

Form 10-168d
Rev. 12/86

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

OMB Approved
No. 1024-0009

REVIEW SHEET

Historic Preservation Certification Application—Significance

Property: Atwater Kent Manufacturing Company, Phila. (5100 Wissahickon Ave.) Project No.: _____

Historic District: _____

7/24/89 date initial application received by State _____ date(s) additional information requested by State

See Part 2 date complete information received by State _____

1-10-90 date of this transmittal to NPS _____

Inspection of property by State staff? ___ no X yes date(s): ~~3/24/89~~ BDB

X There is adequate documentation enclosed to evaluate the historic character and integrity of this property.

_____ There is insufficient documentation to evaluate the property adequately. The application is missing the following items:

Reasonable efforts have been made to obtain this information. Copies of the information requests are enclosed.

NUMBER 1

This property involves:

_____ Extensive loss of historic fabric
_____ Substantial alterations over time
X Preliminary determination of listing
_____ for district
X for individual property
_____ Significance less than 50 years old
_____ Obscured or covered elevation(s)
_____ Moved property
_____ State recommendation inconsistent with NR documentation
_____ Recommendation different from the applicant's request

NUMBER 2

Complete item(s) below as appropriate.

(1) The documentation on file with the National Register cites the period(s) of significance of this historic district as _____

(2) The property ___ contributes ___ does not contribute to the historic significance of this registered historic district in:
_____ location ___ design ___ setting ___ materials ___ workmanship ___ feeling ___ association
_____ Property is mentioned in the NR or State or local district documentation in Section ___, page ___.

(3) For properties less than 50 years old:
_____ the historical merits of the district (the periods and areas of significance) are documented in the National Register form or district documentation on file as less than 50 years old, justifying the certification of this property's contribution.
_____ the exceptional historical or architectural significance of this property as described in the National Register form or district documentation on file justifies its certification as contributing.
_____ there is insufficient justification to consider this property as contributing to the district for its individual exceptional architectural or historical significance or the significance of the district does not extend to the last 50 years.

(4) For preliminary determinations:
A. The status of the nomination for the property/historic district:
_____ Nomination has already been submitted to State review board, and nomination will be forwarded to the NPS within _____ months. (Draft nomination is enclosed.)
_____ Nomination was submitted to the NPS on _____.
_____ Nomination will be submitted to the State review board within twelve months.
X Nomination process likely will be completed within thirty months.
_____ Other, explain:

B. Evaluation of the property:
X Property is individually eligible and meets National Register Criteria for Evaluation
_____ Property is located within a potential registered district that meets National Register
Criteria for Evaluation: ___ A ___ B ___ C___ D
Criteria Considerations: ___A ___ B ___ C___ D ___ E ___ F___ G

(5) The property is located in a registered district, is outside the period(s) or area(s) of significance as documented in the NR form and:
_____ appears to contribute to the expanded significance of the district. Enclosed is the revised nomination documentation.
_____ does not appear to contribute to the period(s) or area(s) of significance of the district.

NUMBER 3

Describe and evaluate the physical characteristics of the property, its integrity, and its significance within the context of the historic district (or individually for preliminary determinations of individual listings).

The Atwater Kent Manufacturing Company complex consists of two large one-story radio factory buildings constructed in 1923 and 1928. Upon completion of the second building, the two were joined by a bridge. The bridge has since been demolished and the complex bisected by U.S. Route 1. The architectural firm of Ballinger Company designed both buildings utilizing a breakthrough structural system of its own invention, the superspan sawtooth roof truss. The significance of this invention is that it vastly reduced the number of required roof columns and, at the same time allowed tremendous natural illumination through the skylights.

The subject of this application is the older of these two buildings. Occupying eleven acres of ground, this structure represents one of the earliest and most extensive uses of the superspan sawtooth truss. The building is one story along the principal elevation, rising to two or three stories along secondary elevations at lower grades. Primary elevations are constructed of hard-fired wire-cut brick with recessed mortar joints. Stylistically, Ballinger abstracted Jacobean detail[illegible] limestone entry portal, quoining, glazed brick laid [illegible]n the parapet, and terra cotta coping. The principal [illegible] pane wood windows; industrial steel sash were used elsew[illegible]bays have since been infilled with brick and glass block. [illegible] a lobby and two offices.

The building also poss[illegible]ural and technological significance for its product, which[illegible]l name-brand recognition.

description of older of two bldgs. for Tax credit eligibility only.

NUMBER 4

State Official Recommendation:

This application for the above-name[illegible] ~~Bruce Bomberger~~ a professionally qualified architect, [illegible] historian, or historian on my staff. 1/5/90

___The property is included within the boundaries of a registered historic district, contributes to the significance of the district, and is a "certified historic structure" for the purpose of rehabilitation.

___The property is included within the boundaries of a registered historic district, contributes to the significance of the district, and is a "certified historic structure" for a charitable contribution for conservation purposes in accordance with the Tax Treatment Extension Act of 1980.

___The property does not contribute to the significance of the above-named district.

__X__The property appears to meet the National Register Criteria for Evaluation and will likely be nominated.

___The property does not appear to meet the National Register Criteria for Evaluation and will not be nominated.

___The property appears to contribute to the significance of a:

___potential historic district which appears to meet the National Register Criteria for Evaluation and will likely be nominated.

___registered historic district but is outside the period(s) or areas of significance as documented in the National Register nomination or district documentation on file with the NPS. Revised nomination or district documentation is enclosed.

___The property should be denied a preliminary determination that it could qualify as a certified historic structure.

___Insufficient documentation has been provided to evaluate the structure.

___Detailed NPS review recommended _____Precedent-setting case _____Forwarded wi[illegible]

Subject complex described as "two large.... bldgs..."

1/7/90
Date

State Official Signature

__See attachments:

NPS Comments:

Date NPS Reviewer

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
BUREAU FOR HISTORIC PRESERVATION
BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

May 25, 1989

Harold Quinn Dir
~~Chief, Facilities~~ Planning Staff
General Services Administration
~~Nix Federal Building, Room 5000~~
9th and Market Streets
Philadelphia, PA 19107

Wanamakers Bldg 100 Penn Sq East
Rm 621

19

Re: Atwater Kent Factory
5000 Wissahickon Avenue
Philadelphia

Dear Mr. Quinn:

We are writing pursuant to your request concerning the National Register eligibility of the the above property. As noted in our letter of November 20, 1987 the Atwater Kent Factory is eligible for listing in the National Register of Historic Places. To be eligible a property must meet at least one of four criteria (see enclosed), possess integrity and be at least 50 year old. The Atwater Kent Factory is eligible under the National Register criteria A and C. This circa 1928 factory complex is significant as an important example of the work of the architectual firm of Ballinger and Company, as a good example of an industrial type of building and for the industrial significance of the Atwater Kent Radio company.

If you need further information in this matter please consult Susan M. Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology and
Protection

KC/smz

General Services Administration, Region 3
Ninth and Market Streets
Philadelphia, PA 19107

MAR 7 1988

RECEIVED

MAR 17 1988

HISTORIC PRESERVATION

Ms. Donna Williams
Director, Pennsylvania Historical
and Museum Commission
Bureau for Historic Preservation
Box 1026
Harrisburg, Pennsylvania 17108-1026

Re: ER#86 0225 101D, Atwater Kent Factory,
5000 Wissahickon Avenue, Philadelphia, PA

Dear Ms. Williams:

This is in reference to your letter of November 20, 1987, in which you opined that the subject property is eligible for listing in the National Register of Historic Places. I also wish to confirm our telephone conversation of February 23rd, on the subject.

While no mention is made as to the reason or criterion for your opinion, I assume it is based on the association with the name of Atwater Kent rather than any other historic, architectural or archeological basis. It is my judgement that the property does not meet any of the prescribed criteria set forth except for the name affiliation with Atwater Kent. In fact, as you may be aware, the building has endured numerous substantive repairs and alterations over the years to accommodate its present predominant use as Government offices.

We plan on undertaking a number of additional projects in order to maintain the building safety for the occupants. Plans for the building include the development of an Historic Structures Report. However, I feel that most undertakings for the building such as interior space alterations, repairs and maintenance work and sprinkler installation would not have an adverse effect on the features of the property which warrant its eligibility for the National Register. The sprinkler work is planned to correct a firesafety deficiency and would replace a system originally designed for the building.

We believe the development of a programmatic Memorandum of Agreement (MOA) between our respective offices, incorporating the foregoing understandings, would enable us to proceed with necessary work while preserving the historic character of the building.

I would appreciate your comments on these matters. Thank you for your consideration in this situation.

Sincerely,

Harold Quinn

Harold Quinn
Chief, Facilities Planning Staff
Public Buildings Service

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
BUREAU FOR HISTORIC PRESERVATION
BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

November 20, 1987

Harold Quinn, Chief
General Services Administration
Region 3
Ninth and Market Streets
Philadelpiha, PA 19107

Re: ER # 86 0225 101 D
Atwater Kent Factory
5000 Wissahickon Avenue
Philadelphia, PA

Dear Mr. Quinn:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

It is the opinion of the State Historic Preservation Officer that the following properties are eligible for listing in the National Register of Historic Places:

Atwater Kent Factory.

Sincerely,

Donna Williams
Director

Services Administration, Region 3
Ninth and Market Streets
Philadelphia, PA 19107

SEP 28 1987

Doctor Brent D. Gloss
Executive Director
Pennsylvania Historical and
Museum Commission
Box 1026
Harrisburg, Pennsylvania 17120

Dear Doctor Gloss:

This letter is written in compliance with Section 106 of the National Historical Preservation Act to request your determination as to the historical significance of 5000 Wissahickon Avenue, Philadelphia, Pennsylvania. Enclosed is a description of the buildings and site (see photographs).

We feel that even though the buildings were constructed in 1928 as part of the old Atwater Kent factory there is no significance. The buildings are not associated with any historical or cultural event or person plus they have been significantly altered since the Government acquired them in 1941. However, to comply with our requirements, it will be necessary to receive a determination from your office.

Should you need additional information, please contact Gloria Davis at (215) 597-1550.

Sincerely,

Harold Quinn
Chief,
Facilities Planning Staff
Public Buildings Service

Enclosure

Description

The site contains six buildings of various sizes and uses. Built of masonry with a brick veneer on block and hollow tile, the buildings are typical of factories built in the 1920's. Below is a description of each building.

Building #1 - This is the main building which has had a major portion converted from warehouse to office space. The building is constructed on a slope of a hill. The basement has exposed walls on the west and south side of the building in the entire length of the building and exposed elevation on the south end of the east wall.

The structure appears as a one story building looking towards the northern corner, and a three story building looking toward the southern corner of the structure.

The main building is a reinforced concrete and steel frame structure, having the foundation walls, retaining walls, slabs, sub-basement and basement columns of reinforced concrete. The main floor columns and the roof construction are steel. Exterior walls are brick masonry.

The roof consists of rows of continuous saw tooth skylights, running east and west across approximately the entire building. The sloping roof sides and the valleys are covered with composition roofing, with the steep sides glazed.

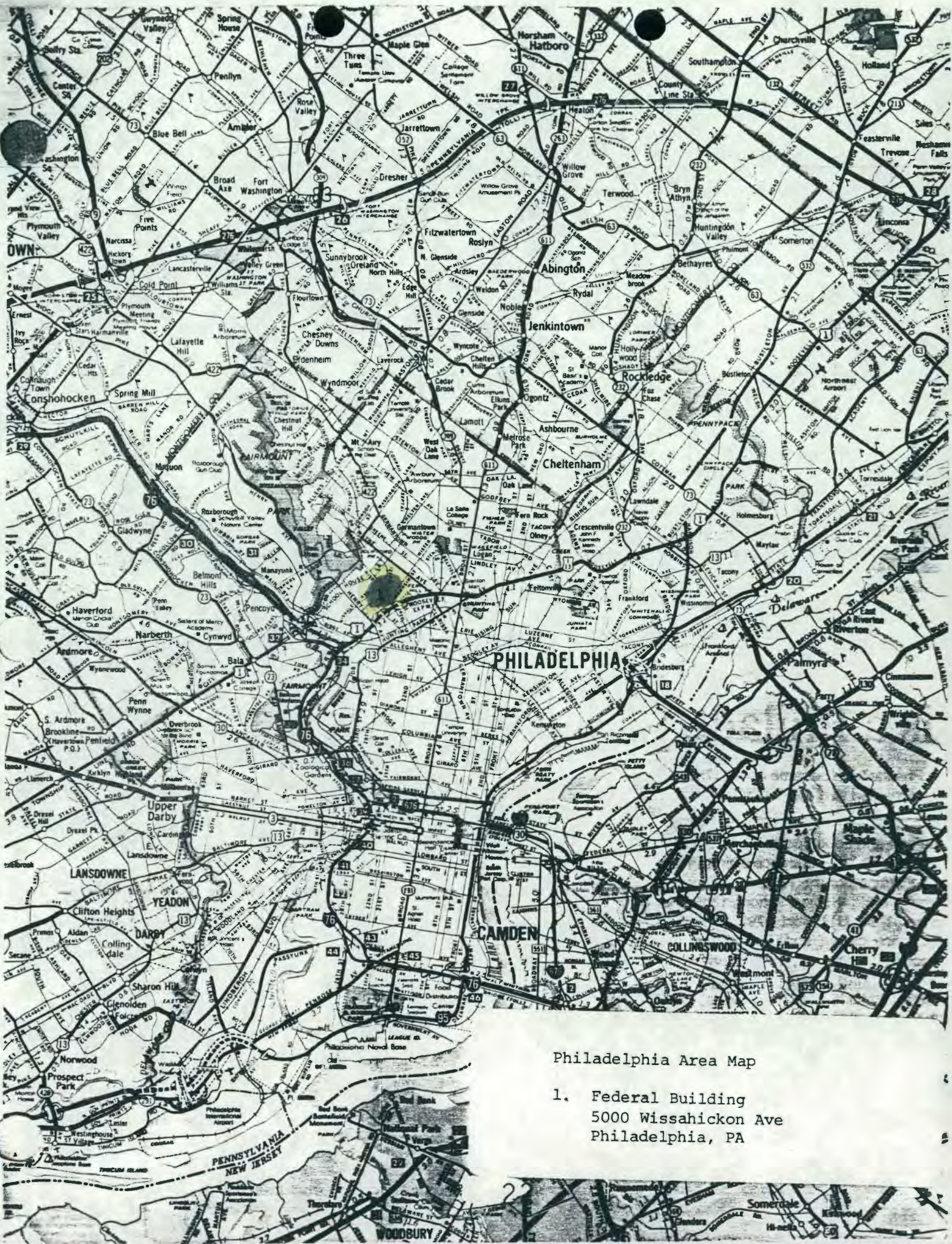
The building contains a cafeteria, card shop, credit union, day care, nurses station and the majority of federal employees. The red brick structure contains 565,505 occupiable square feet of office and storage space with four freight elevators, two escalators and two loading docks, one in the rear of the building and one on the north side.

Building #2 - Building #2 is a small red brick building located in front (west side) of the main building. It may have been used as a security point in the past. While under Government control it has been used by contract security guards as a locker room. Today, the one story 900 occupiable square feet structure provides space for a day care center for employees children.

Building #3 - Known as the power house, this eight story red brick and glass building provide the mechanical systems support for the other buildings. It contains two oil or gas fired steam boilers, the chilled water cooling system and a dual feed electrical service system coming in at 13,200 volts.

Building #5 - This is a small red brick structure containing approximately 2080 occupiable square feet. The one story building is used for storage space.

Building #6 - This building is also a red brick structure which is used for storage space by several agencies. Located in the rear of the main building, it has four stories with 41,700 occupiable square feet.



Philadelphia Area Map

1. Federal Building
   5000 Wissahickon Ave
   Philadelphia, PA

BUILDING # 1

FRONT & REAR/SIDE VIEW

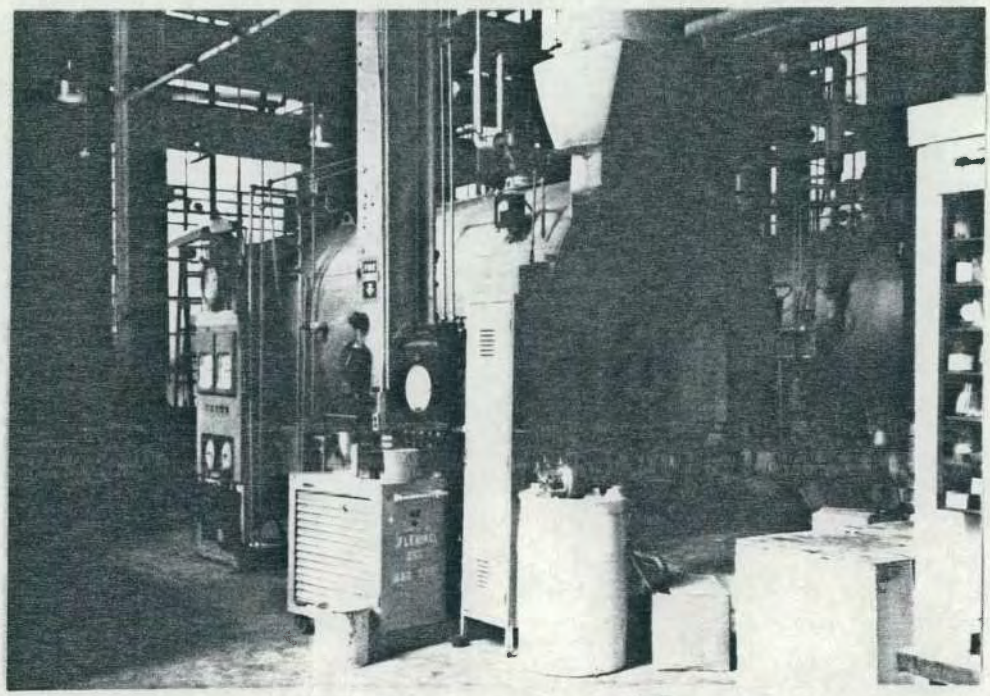
BUILDING #2

Building #2 Enterior

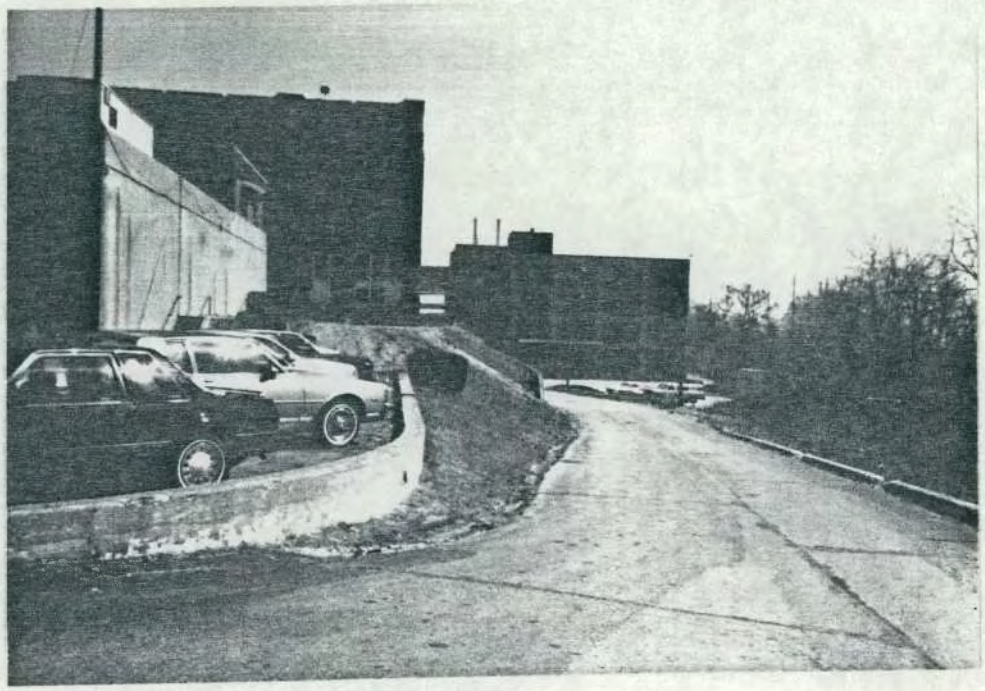
Power House

Enterior and Exterior

BUILDING # 3



BUILDING # 7



BUILDING # 6

NORTH PARKING LOT

OUTLEASED PARKING LOT

SHPO

E.O. 11593

DETERMINATION OF ELIGIBILITY NOTIFICATION

National Register of Historic Places
National Park Service

Name of property: Atwater Kent Manufacturing Company

Location: Philadelphia **State:** Pennsylvania

Request submitted by: HUD

Date received: 12-18-86 **Additional information received:**

Opinion of the State Historic Preservation Officer:

☒ **Eligible** ☐ **Not Eligible** ☐ **No Response**

Comments:

The Secretary of the Interior has determined that this property is:

☒ **Eligible** **Applicable criteria:** ☐ **Not Eligible**

Comments:

36 CFR Part 63.3
Determination

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FEB 09 1987
HISTORIC PRESERVATION

☐ **Documentation insufficient**
(Please see accompanying sheet explaining additional materials required)

Wissichon

for Alice Crampton
Keeper of the National Register

Determined Eligible

Date: January 15, 1987

WASO-28