NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

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OCT -9 2015

Nat. Register of Historic Places
National Park Service

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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 an 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 **THE GREAT ATLANTIC & PACIFIC TEA COMPANY WAREHOUSE**

other names/site number A&P Warehouse; The Keystone Warehouse Company

2. Location

street & number 545 Swan Street (aka 519 Hamburg Street) [ ] not for publication

city or town Buffalo [ ] vicinity

state New York code NY county Erie code 029 zip code 14204

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements as set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [ ] statewide [X] locally. ([ ] see continuation sheet for additional comments.)

Ruth A Pierpont DSHPO 10/1/15

Signature of certifying official/Title 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 certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

[X] 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)

for Signature of the Keeper date of action 11/24/15

5. Classification

Ownership of Property
(check as many boxes as apply)

[X] private
[ ] public-local
[ ] public-State
[ ] public-Federal

Category of Property
(Check only one box)

[X] building(s)
[ ] district
[ ] site
[ ] structure
[ ] object

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1		buildings
		sites
		structures
		objects
1	**0**	**TOTAL**

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

Historic Resources of the Hydraulics/Larkin Neighborhood

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(enter categories from instructions)

INDUSTRY/PROCESSING/EXTRACTION:
Industrial Storage & Distribution
COMMERCE/TRADE: Warehouse / Office

Current Functions
(Enter categories from instructions)

INDUSTRY/PROCESSING/EXTRACTION:
Industrial Storage & Distribution
COMMERCE/TRADE: Warehouse / Office

7. Description

Architectural Classification
(Enter categories from instructions)

Other (Warehouse)

Materials
(Enter categories from instructions)

foundation reinforced concrete
walls concrete and brick
roof synthetic - modified bitumen
other

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 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 that represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack

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

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

[ ] **A** owned by a religious institution or used for religious purposes.

[ ] **B** removed from its original location

[ ] **C** a birthplace or grave

[ ] **D** a cemetery

[ ] **E** a reconstructed building, object, or structure

[ ] **F** a commemorative property

[ ] **G** less than 50 years of age or achieved significance within the past 50 years

Areas of Significance:
(Enter categories from instructions)

Architecture

Commerce/Industry

Period of Significance:
1917 – 1965

Significant Dates:
1917, 1918, 1939

Significant Person:

N/A

Cultural Affiliation:

N/A

Architect/Builder:
John W. Cowper Company

(engineers/contractors)

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

9. Major Bibliographical References

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

Previous documentation on 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 Building Survey
_____
[ ] recorded by Historic American Engineering Record
_____

Primary location of additional data:

[ ] State Historic Preservation Office
[ ] Other State agency
[ ] Federal Agency
[ ] Local Government
[ ] University
[ ] Other repository: _____

10. Geographical Data

Acreage of Property 1.2 acres

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

	Zone	Easting	Northing		Zone	Easting	Northing
1	17	675155	4749495	3	17		
2	17			4	17		

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

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

11. Form Prepared By

name/title Kimberly Konrad Alvarez, Preservation Consultant (Edited by Jennifer Walkowski, NYSHPO)

organization Landmark Consulting, LLC date July 6, 2015

street & number 83 Grove Avenue telephone (518) 458-8942

city or town Albany state NY zip code 12208

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 SHPO or FPO for any additional items)

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

name Bob Mesmer, Mesmer Refrigeration, Inc. in contract with the Miller-Valentine Group

street & number 519 Hamburg Street telephone (716) 855-0575

city or town Buffalo state NY zip code 14204

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

Estimated Burden Statement: public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, D.C. 20503

Narrative Description of Property

In 2009, an extensive survey of the Hydraulics neighborhood was commissioned by Chaintreuil | Jensen | Stark Architects and conducted by Clinton Brown Company Architects. This survey resulted in the National Register Multiple Property Documentation Form (MPDF) titled Historic Resources of the Hydraulics/Larkin Neighborhood, City of Buffalo, Erie County, New York. This A&P Warehouse was called out in Section E, page 9 as well as listed under Industrial Architecture Examples (number 7) in Section F, Page 3 as being largely intact, in good condition and cited to be *National Register Eligible*. In order for individual nominations to be added to the MPDF, the registration requirements to satisfy the requirement for individual listing are stated as: The building must be located in the defined boundaries of the Hydraulics neighborhood; must have been constructed during the period of significance (defined as 1827-1950); and industrial architecture must retain significant historical associations and/or architectural distinction, while retaining integrity of architecture, construction, form, materials and detailing.[1]

Overview

The Great Atlantic & Pacific Tea Company (A&P) Warehouse, is located at the northwest corner of Swan and Hamburg Streets with an address of 519 Hamburg (now referenced as 545 Swan Street) about one and a half mile east of Buffalo's city center in one of the earliest industrial areas of the city, the Hydraulic/Larkin Neighborhood. This neighborhood, which was once packed with brick multi-storied commercial buildings and dense rows of houses along the streets and large industrial buildings nearer the many railroad lines, today exhibits the results of many decades of disinvestment, as properties were neglected or abandoned as residents and businesses left the Hydraulics for the suburbs. A number of buildings were demolished, leaving large vacant lots and parking areas in the once dense urban community. Recent efforts to revitalize this neighborhood are evident in the new homes constructed along Swan Street to the north and west of the warehouse.

The 250,000 square foot warehouse building is an eight-story reinforced concrete industrial building with a roof parapet and extended first floor. The building was designed with little ornament aside from its exposed concrete framing system with large expanses of brick spandrel panels between and a narrow ribbon of steel framed center pivoting sash windows. The building was designed and constructed by the Engineering and Construction firm of John W. Cowper & Company of Buffalo in 1917 for the Keystone Warehouse Company.[2] It is the last and only remaining of eight warehouse structures built by Keystone between 1903 and 1917. The Great Atlantic & Pacific Tea Company opened its Buffalo Division as a result of a decentralization effort in 1918 and occupied a portion of this existing warehouse building. The building sits on a 1.2 acre parcel that is roughly 297 feet in

[1] The former Great Atlantic & Pacific Tea Company Warehouse was identified as a historic resource (NRE) in the Multiple Property Documentation Form of the Hydraulics/Larkin Neighborhood (Section F, Page 3) that was prepared by the Clinton Brown Company Architecture in 2009.

[2] Sanborn Fire Insurance Maps, City of Buffalo 1926-April 1950, volume 2, Sheet 231.

length (east-west) and 180 feet in depth (north-south) and takes up the entire block bound by Hamburg on the west, Jefferson on the east, Swan on the north and Myrtle on the south. There is little to no landscaping and the surrounding blocks consist of two-story residences along Swan Street to the north and west, additional vacant industrial buildings to the south and east, and railroad tracks to the east.

Exterior

The A&P Warehouse building itself is nearly square in massing with a 180'x225' footprint and oriented with Hamburg Street as its primary façade. Given the simple concrete framing, all of the building elevations have a similar appearance, organization and design. As a result, the main entrance, which is located in the southwest corner on the Hamburg Street façade, is not particularly prominent. The eight-story reinforced concrete warehouse building consists of ten bays on the west and east elevations and eight bays on the north & south elevations. The first floor actually rises to one and one half stories in height to accommodate the principal receiving and shipping functions, with loading docks on three of the four elevations. Spanning between the vertical concrete piers are brick panels rising two-thirds of the floor height then topped by a concrete sill. Above this sill were continuous rows of center-pivoting steel-framed windows. Only a few of these windows remain, with many of the openings infilled with concrete block, drywall or plywood wall panels, brick or glass block. In all instances of infill, however, the openings are still expressed on the interior and exterior with the infill materials recessed slightly to allow the concrete sill to stand out as a horizontal element. Original documentation of the windows as well as those extant units provides sufficient understanding of the original fenestration. The original brick spandrel panels are laid in common running bond. A parapet extended above the roof level was originally constructed with concrete piers with brick spanning between and topped with a concrete cap. Today a portion of this original brick parapet remains, while much has been rebuilt with concrete block.

On the front (west) elevation there is a one-story wing built of concrete block walls and steel framing, which was constructed originally as five or six covered loading docks set back from the street. Today the area between the bay openings and the sidewalk has been enclosed with concrete block walls and a low sloped roof. There are human-scale entry doors at either end of this structure. There is a contemporary elevator shaft added to this west elevation at the second bay from the southwest corner. This addition is constructed of concrete block and only rises to the seventh floor level. Along the front façade, painted onto the brick walls and concrete piers at the fourth floor level is a sign reading "The Great ATLANTIC & PACIFIC Tea Co." with the "A&P" seals flanking on either side. The location of this sign on the Hamburg Street façade, which faces downtown Buffalo, clearly asserts this elevation as its "front door."

On the north elevation, which fronts along Swan Street, the rhythm of the vertical piers and the horizontal spandrel panels is most easily read. At the roof level, one of the four elevator and stair head houses is visible as it rises to a ninth story. This head house is constructed of brick walls matching the brick parapet that circled

around the perimeter of the roof. This parapet has been primarily rebuilt on this elevation of concrete block with diagonal steel bracing on the roof side and with a series of drainage scuppers that connect to gutter downspouts secured to the concrete piers.

On the rear, or east side, the building's elevation provides a glimpse into the intended plans for expansion by the original builders or occupants. At each floor level cast into place on the outside face of the reinforced concrete piers are angled brackets or corbels that would have provided support of floor plates and allow for future eastward expansion of the warehouse building. At the ground level, there are two one-story wings that extend out to the Jefferson Street property line along both Swan and Myrtle. These wings serve to create a courtyard around the rear loading docks. When originally built the warehouse did not include these wings, although within the first decade, when A&P became the primary occupant of this building, these wings were in place, having the same concrete block and steel frame construction as the Hamburg Street docks. The loading docks on this façade would have been serviced by at least three railroad spurs in the 1920s and these wings would have facilitated the loading and unloading of rail freight cars with side doors compared to trucks that would have to back up to a dock. On each of the wings one original wood barn-style door remains intact. The loading dock platform at the center of the east elevation projects out beyond the wall plane of the warehouse building enclosed with a one-story shed roof structure having five garage door-style bays. This centered loading dock also appears to have been added early on in the 1920s, thus eliminating the original plans for expansion in this area.

The south elevation is also remarkably intact, including the recessed loading dock that spans the full length of the south wall. This loading dock arcade is the full 1½ stories and was intended to serve a railroad spur that would have allowed a train to roll right in under the building and align the freight cars with garage door openings in each of the building bays. Given the notoriously harsh Buffalo winters, this feature may have been unique to this divisional warehouse. The railroad tracks within this open arcade still remain intact today. Centered above each of the large doors would have been a grouping of windows that would have allowed indirect light to the warehouse space within. The vertical piers that are partially exposed on the warehouse wall and the freestanding columns of the arcade provide a preview of the interior structural design. These columns feature a flared "mushroom cap" at the top of the column/pier which supported the flat slab ceiling and allowed for the girder-less floor system.

Interior Description

The interior plan of the building is organized by the regular placement of the large structural columns arranged approximately 22.5 feet on center. There is no particular service core where vertical circulation such as elevators and staircases are clustered. Instead there are four large freight elevators in random locations enclosed with structural clay tile walls and having metal clad doors. These elevator locations relate to the original division of spaces when initially used and leased by the Keystone Warehouse Company. At that point the nearly

square building was divided into three sections as indicated on the 1916 Sanborn map.[3] There are also three separate sets of stairs that serve all levels from the basement to the roof and which correspond to these three sections, two along the north wall and one along the west wall. While the floor plan generally consists of an open floor plate, there were partition walls on the second and third floors that divided the southwest corner of the building from the open warehouse space. This walled area was used for office space. This differing use was noted on the exterior in the historic photo by the presence of larger double-hung windows in the first four bays on the south elevation and the first three bays on the west elevation.

The structure of the interior of the warehouse building consists of round concrete columns with flared capitals supporting a shallow square concrete "drop slab" of 3-4 inches in thickness. These flared capitals and square "drop slab" allow for a flat concrete slab ceiling uninterrupted by support beams or girders.[4] The only exception to these round flared columns are the exposed square piers that frame the exterior walls. Instead of having flared round capitals, these square piers include an angled corbel, similar to what is visible on the east exterior elevation. Floor and ceiling surfaces are poured in place concrete either left in an unfinished state or painted. The interior face of the exterior walls is a variation of plaster, brick, concrete block or exposed square hollow structural tile, otherwise known as "speed block." Interior wall partitions are generally constructed of concrete block or structural clay tile. The columns appear to align with the outer wall piers to create a regular interior structural grid for a total of 80 modules per floor. These columns are reduced in diameter as the floors ascend from the ground floor to the uppermost level. The diameter of the flared capital, however, remains consistent. As a comparison, the ground floor columns are roughly 48-inches in diameter, while the eighth floor columns are nearly 18-inches in diameter. Where original windows remain intact, they consist of three ten-light horizontal pivoting steel sash spanning each bay (two rows of five panes).

In addition to the warehouse storage functions on the upper floors and the receiving and shipping functions of the ground floor load docks, the building also housed company divisional headquarters offices on the second and third floors, a coffee blending and roasting department, a bakery, olive sorting and packing department, bacon slicing and packaging department and meat and produce cold storage.

The first floor consists primarily of loading dock functions. Where corridors or office functions exist in the southwest corner, there are wall partitions clad with Masonite wall paneling, suspended acoustical tile ceilings,

[3] Sanborn Fire Insurance Maps, City of Buffalo 1916-1940, volume 2, Sheet 231.

[4] While C.A.P. Turner is generally credited with the inventor of the "flat slab" concrete floor construction, several engineers and contractors were developing similar construction methods independently. Swiss engineer, Robert Maillart first employed a flat-slab concrete ceiling in 1900 and in 1902 this system was used in the U.S. by building contractor, Orlando Norcross who later patented the building method. Turner held several patents related to girderless systems. Variations in flat slab construction were introduced by Theodore Condron and E. F. Sinks, both Chicago engineers. Condron developed the "drop slab" system which eliminated the shallow beam by creating a square pod or thickening of the slab between the top of the column and the floor slab. This drop slab is evident at each column within the A&P Warehouse.

fluorescent lighting and vinyl composite tile flooring. These finishes appear to date to the 1960s or 1970s with very little updating since that era, but they appear to be non-structural, reversible alterations. The second floor contains a series of cooler rooms spanning between inner rows of columns. The walls that frame these coolers appear to be clad with interlocking gypsum wall planks or blocks given their thermal insulation properties.[5] These coolers are equipped with large insulated wood paneled doors approximately 5 feet in width on heavy refrigerator hinges. These doors retain the "Jamison Cold Storage Door Co." plaques.[6] Inside these cold storage rooms, the ceilings were covered with thick cork and again a company plate indicates the manufacturer of these cork surfaces to be the United Cork Companies of Kearny, N.J.[7]

The third floor is primarily an open floor plan of storage space with the exception of the offices located in the southwest corner of the building. Similar to the first floor, the offices have been altered in the mid-twentieth century with the in installation of drywall, Masonite wall paneling, suspended acoustical tile ceilings, fluorescent lighting and vinyl tile flooring.

On the fourth floor, most of the materials, such as structural clay tile, poured concrete and brick, lack painted finishes. The fifth floor was apparently where the coffee roasting operation occurred. Similar to the second floor, the sixth floor has rows of cold storage rooms both along the exterior walls and spanning between the internal rows of columns. These rooms are equipped with 5-6-foot-wide insulated wood doors with gypsum planks on the walls and cork board on the ceilings. At the seventh and eighth floors the columns are noticeably smaller in diameter and the floor plans are open.

Representative Building Type

Overall, the building represents the standard "Daylight Factory" building type as defined by Betsy Bradley in her book *The Works: The Industrial Architecture of the United States*, as "a reinforced concrete loft building that has large bays filled with industrial steel sash."[8] Given the mixed functions of warehouse storage and production, the full extent of fenestration was reduced to provide sufficient ventilation and daylighting of the interior while maintaining adequate exterior wall surface for storage requirements. While primarily associated with the building's warehouse functions, grocery-related production also occurred here and, as designed, the building featured many of the characteristics associated with the Daylight Factory. These included large span open floor plates, ribbons of steel frame windows to optimize not only the amount of daylight that entered

[5] Thomas C. Jester, *Twentieth-Century Building Materials: History & Conservation*, McGraw-Hill, 1995, p. 164.

[6] Jamison Door Company began in 1906 and remains in business over 100 years later. Based in Hagerstown, MD, over the past century they have supplied cold storage doors for a large variety of commercial, military, industrial and government facilities. <www.jamison.com/100>

[7] This cork surfacing was produced by the United Cork Companies of Kearny, NJ which patented a method of producing a compressed, high density cork board suitable for use as an isolating or insulating material for flooring and other purposes. (US Patent #US2301148A, March 21, 1938)

[8] Betsy H. Bradley. *The Works: The Industrial Architecture of the United States* (New York: Oxford University Press, 1999), 261.

through the upper half of the walls, but also to provide controllable ventilation. The 22.5 foot square module provided unlimited flexibility in the use of each floor, while the reinforced flat slab concrete floors provided substantial loading capacity whether supporting hundreds of crates of frozen foods or heavy and vibrating mechanical equipment. Designed using the reinforced concrete structural system of a regular grid of columns and flat slab concrete floors, the building also is an example of early twentieth century fireproof construction. Fires were a constant threat to industrial buildings, especially in the nineteenth century, given the combustibility of traditional building materials as well as the contents. It was this attention to the risk of fire that undoubtedly impacted the architectural design and engineering of later industrial buildings by influencing the choice of non-combustible materials and the way they were used. The resulting fire-resistant building envelope departed greatly from the visual norm for industrial architecture, as reinforced concrete, steel, brick, wire mesh glass, and terra cotta in new forms and configurations replaced the traditional load-bearing masonry walls of the nineteenth century.

Statement of Significance:

The Great Atlantic & Pacific Tea Company (A&P) Warehouse is locally significant under Criterion A in the area of industry for its association with the Great Atlantic & Pacific Tea Company, the largest retail grocer in the United States for much of the twentieth century. The building is located within the dense, mixed-use Hydraulics Neighborhood. This neighborhood has been surveyed and noted in the Multiple Property Documentation Form (2009) as significant as one of Buffalo's earliest, distinct neighborhood and Buffalo's first manufacturing district. The Hydraulics neighborhood dates to the 1820s and was home to numerous industrial and manufacturing facilities from the nineteenth and early twentieth century. It correlates with the period of transition for the Hydraulics neighborhood towards railroad transportation instead of canals. The building was constructed as the Buffalo regional headquarters and divisional warehouse and offices of A&P and marks a period of decentralized management within the growing company which put more emphasis on divisional operations. A&P began in 1859 as a mail-order business in downtown Manhattan, but by 1925 operated more than thirteen thousand grocery stores nationwide with more than forty thousand employees. This company is credited as the originator of the supermarket, with the company's history serving as a chronicle of how America's shopping industry shifted from small merchant-based specialty shops to full service markets with unlimited merchandise.

The A&P warehouse building is additionally significant under Criterion C in the area of architecture as an example of daylight factory design and reinforced concrete fireproof construction, a popular period building method utilized by the Keystone Warehouse Company throughout the Hydraulics neighborhood and prominent for early twentieth century industrial buildings across the United States. This warehouse also incorporated two engineering innovations applied to reinforced concrete construction; that of Claude A.P. Turner in the use of flared "mushroom" columns that initially allowed for a flat-slab construction for greater clear spans of girder-less concrete floors and of Theodore Condron in the use of the "drop or paneled slab" for increased floor loading capacity. This particular warehouse was the last of eight built between 1903 and 1917 for the Keystone Warehouse Company and was engineered and constructed by the nationally renowned firm of John W. Cowper & Company.

The period of significance for the building begins with its initial construction in 1917, and, although the building was occupied by the A&P company until 1975, the period of significance closes in 1965, which is the fifty-year mark. This era encompasses all major architectural additions and developments on the site, as well as represents the period in which the A&P company was at the height of its prominence in this building.

The Hydraulics/Larkin Neighborhood

In the nineteenth century, Buffalo was one of the largest shipping centers in the United States with products of all types being shipped in and out and through the city by canal, rail and by road. The neighborhood referred to

as the Hydraulics was situated along the old Hydraulic Canal, which was built as a source of power to drive machinery and industrial development in the area. Founded in the 1820s as a small village, it soon became an important self-contained neighborhood with a mix of industrial, commercial and residential architect. Located in a region with a long history of harnessing water power for industrial use and development, it was in the Hydraulic neighborhood that the type of manufacturing and industrial growth that Buffalo is generally associated with originated. Since raw materials were often shipped into the city, businesses developed that involved the packaging, manufacture and storage of smaller, consumer-size portions. Besides the use of the Hydraulic Canal as a power source, by the mid-nineteenth century it was also used as a means of transportation of goods and people. Throughout the 1800s, this neighborhood gradually saw the shift in transportation methods from the canals, to plank roads, to turnpikes and eventually to railroads, all the while remaining a prominent industrial community. The railroads played an important role in shaping industrial and commercial growth in the Hydraulics neighborhood, since Buffalo served as an important gateway and hub for many railway lines in the shipment of goods between the East and West. In the first decade of the twentieth century, Buffalo was the eighth largest city in the U.S and one of the nation's leading industrial centers, with more than 450 miles of railroad tracks within the city limits. Much of these rail lines ran through the Hydraulics neighborhood. As a result, the city and the Hydraulic neighborhood specifically experienced an industrial building boom.[9] Many of the new factories and warehouses incorporated the "daylight factory" design. In the late 1880s, the blocks between Hamburg and Jefferson Streets were occupied primarily by 2- and 3-story dwellings. By 1916, many of these blocks were cleared to make way for new industrial developments, given the close proximity of much of the city's railroad transportation routes on the east side of Jefferson Street. General merchandise warehousing was an important business in Buffalo and especially in the Hydraulics neighborhood between 1920 and 1955. In 1955, Buffalo had nine large general merchandise warehouses and four of the nine were in the Hydraulics and within a block or two of each other between Swan and Seneca Streets.[10] A&P originally located its warehouse and office functions into the eight-story warehouse at the newly created intersection of Hamburg and Swan in 1918, and by 1931 they had expanded once more with another factory building across Myrtle Street nearly doubling their square footage and operations. The warehouses in the Hydraulics neighborhood were referred to as distribution warehouses because their most important function was to distribute goods, rather than merely to store them, thus placing much importance on the transportation systems that continuously supported this area. Although the Hydraulics neighborhood continued to thrive into the 20th century, by the second half of the 1900s the area was faced with increasing economic challenges. Like many cities in the Northeast, Buffalo was hard hit by the massive exodus of industry, manufacturing and residents from the cities during the last half

[9] State and National Register of Historic Places Nomination, Multiple Properties Documentation Form. "Historic Resources of the Hydraulics/Larkin Neighborhood, City of Buffalo, Erie County, New York." Clinton Brown Company Architecture ReBuild, Sept. 2009

[10] "Keystone active for over 50 years." *Buffalo Business,* Buffalo Chamber of Commerce, volume 15, no. 4, p.11. The nine large general merchandise distribution warehouses in the City in 1955 included Bison, Buffalo Merchandise, Canadian Cartage, Keystone, Larkin, Lederer, Merchants' Refrigerating, Seneca and Wilson. Keystone, Larkin, Seneca and Wilson were all in the Hydraulics neighborhood.

of the century. By the 1950s, the city's railroads and factories, which were nearing 100 years old, were deteriorating and becoming obsolete. Many of Buffalo's largest manufacturers began leaving in order to build new state-of-the art facilities in other places as part of the suburban flight trend. Ironically, where in the past the Hydraulics neighborhood only evolved and grew stronger with each shift in popular transportation method. In the late 1950s, the construction of the Niagara Branch of the New York State Thruway (I-190) through the neighborhood tracing much of the earlier Erie Canal and Hamburg Canal right-of-ways literally cut the neighborhood in half. The elevated roadway, the resulting congestion, noise and pollution had a negative impact and for the first time instead of adapting and thriving, the Hydraulics neighborhood suffered the loss of many of its industrial and manufacturing enterprises. By the 1970s many of the warehouse structures were vacant and abandoned. The A&P closed its doors at 519 Hamburg in the spring of 1975 further contributing to decline of the neighborhood.

Reinforced Concrete - Construction Methods & Architectural Design

The building that housed the A&P's Buffalo Division offices, production facility and warehouse is the last, and only remaining of eight warehouse structures constructed in the Hydraulics neighborhood in the years between 1903 and 1917 for the Keystone Warehouse Company. This facility was designed and constructed by the John. W. Cowper & Company of Buffalo and completed in late 1917 as noted on the updated 1925 Sanborn Insurance Map.[11] The A&P Buffalo Division opened in early 1918 and occupied a portion of this existing warehouse building. The Sanborn maps indicate that A&P had grocery warehousing on floors 1-6 of the eight story building and it was shared with Keystone Warehouse Company for miscellaneous storage on the rest of the floors. By 1921, the Great Atlantic & Pacific Tea Company was the long-term lease holder for the entire 250,000 square foot warehouse, occupying the structure until the chain's closure in 1975.

The Keystone Warehouse Company was in the business of general merchandise warehousing. The company was founded in 1903 through a partnership of Buffalo and Philadelphia based interests. There first warehouse built in 1903 was a block of seven separate but adjoining warehouse buildings at 487-541 Seneca Street in the Hydraulics neighborhood. This grouping of buildings offered 500,000 square feet of storage with 200,000 s.f. leased to the International Harvester Co. and Standard Milling Co. while Keystone used the remaining 300,000 s.f. The concept of public or leased merchandise warehouses was viewed as solving the increasingly important issue of decentralized distribution of products for national companies. The Keystone Warehouse Company was in continuous operation under the same owners for more than fifty years. During that time they incorporated new methods of material handling and storage, such as the practice of stacking great quantities of products or packages onto wooden pallets and then moving them with a mechanized fork-lift. This process of palletization was born out of necessity during World War II and thereafter became the standard method to speed up movement and goods and reduce damage.[12] The Keystone Warehouse Company worked with different

[11] Sanborn Fire Insurance Maps, Buffalo 1926-April 1950, volume 2, Sheet 231.
[12] "Keystone active for over 50 years." *Buffalo Business,* Buffalo Chamber of Commerce, volume 15, no. 4, (April 1955) p.22.

engineers and architects on the design of their eight warehouse buildings, with many of the earlier structures appear to have been constructed by Turner Construction Co. of New York who through their connection with Ernest Ransome became widely known for their work in reinforced concrete construction.[13] Ernest Ransome is the engineer credited with inventing the "daylight factory" in 1890 and pioneered the field of reinforced concrete construction associated with industrial buildings in the U.S. The daylight factory is described as a multi-story American industrial building with exposed concrete frame filled in part or in whole with transparent glazing. Both Keystone and A&P built numerous reinforced concrete warehouse structures modeled on industrial daylight factory construction method that had become so prevalent across the country. At the turn of the twentieth-century and until the 1910s, this reinforced concrete building method incorporated formed beam and girder construction which would span between a grid of support columns. While this system of regular modules allowed for the loading capacity for large manufacturing equipment or product storage, the depth of the beams and girders impeded the amount of light that was transmitted into the interior spaces from the walls of glass. The beams created dark shadows on the ceiling and also impacted the efficiency of sprinkler installations. Given the industrial building boom of the early twentieth century, engineers and contractors were constantly working to improve the design and performance of this building style.

Midwestern engineer Claude A. P. Turner (1869-1955) is generally credited with the inventor of the "flat slab" concrete floor construction, although several engineers and contractors were developing similar construction methods independently. Swiss engineer, Robert Maillart first employed a flat-slab concrete ceiling in 1900 and in 1902 this system was used in the U.S. by building contractor, Orlando Norcross who later held several patents the building method. Turner also patented a number of innovations related to girder-less floor systems. Of particular significance to the A&P warehouse building, is the flared or "mushroom" column developed by Turner. Claude Turner conjectured that the time and expense of forming large heavy beams on the underside of a reinforced concrete floor could be eliminated in the construction of industrial buildings through his patented flat-slab floor design. He developed flared "mushroom" style columns and a building technique known as the "Turner System" that used flat-slab concrete floors supported only by mushroom-headed columns and reinforced with steel rebar. This new system was the subject of intense debate, controversy and subsequent patent wars when it was first introduced in 1905. However, due to Turner's persistent promotion, application, and defense of his system, it was embraced by the civil engineering community within a few years. After 1911, the slab, beam and girder method was fully replaced with the girder-less floor slab which transformed the design of concrete floors worldwide. Turner went on to be granted more than 30 patents for reinforced concrete

[13] *Universal Bulletin*, January 1913, p. 6 "Reinforced Concrete Warehouse in Buffalo." This article describes a warehouse under construction for the Keystone Warehouse Co. by Turner Construction to be used by Standard Milling Co;, Hubbs & Howe Co., and International Harvester Co. in Buffalo. While described as the largest building being erected in Buffalo and constructed of reinforced concrete, it also mentions that it is of beam and girder construction with unusually heavy girders being 4 feet deep with heavy knee braces at the columns.

systems.[14] Variations in flat slab construction continued to be explored. Chicago engineers Theodore Condron and E. F. Sinks developed the idea of a drop or "paneled slab" system which involved the creation of a square pod or thickening of the slab between the top of the column and the floor slab. Condron noted several advantages to the paneled slab specifically an improved form of construction which provided great strength and carrying capacity at a savings of materials and labor. Additionally, these paneled slabs could be accurately calculated for the stresses of dead weight and all applied loads which had previously been the reason for the intense debate and controversy when the Turner system was introduced.[15] This drop slab system was incorporated into the design and construction as evident at each column within the former Buffalo A&P Warehouse.

The John W. Cowper Company was described during the first quarter of the twentieth century as one of the largest firms of engineers in this country. Historic news reports in *The American Contractor* publication for the year 1917 lists under Buffalo "contracts awarded" the specific project of an eight story warehouse at the block of Swan, Hamburg, Jefferson and Myrtle. The owner is listed as Keystone Warehouse Company with Harvey D. Miller noted as the president and the builder as J. W. Cowper & Sons and with specific plumbing, electrical and painting subcontractors also indicated. The contract amount for this project was noted as $550,000.[16] Although similar to the seven previous Keystone warehouses this final warehouse at 519 Hamburg Street was the first project where Cowper was involved as engineer and contractor, whereas the early buildings had been built by Turner Construction Company. John Whitfield Cowper (1871-1944) has been described as a self-made man in the true American tradition. At the age of seventeen he began work as a rodman for the City Engineer's office in Chattanooga, Tennessee and in a short time worked up through many jobs to engineering and overseeing the construction of bridges, railroads and large manufacturing plants. He was very active in engineering societies as founding, life members or an officer of the American Railway Engineering Association, Western Society of Engineers, American Society of Civil Engineers, and Associated General Contractors of America. At the age of 44, he set out on his own and organized the John W. Cowper Company which was incorporated on March 31, 1915. One of the company's first large contracts was the construction of the $7million Buffalo plant of the National Aniline and Chemical Company. The Cowper Company was organized for the purpose of furnishing industrial clients a complete design and construction service from the conception of an idea, through planning and engineering stages to a completed plant ready for operation. The company also specialized in a cost-and-fixed fee form of contract in which a pre-determined fee was agreed upon at the time of contract execution with a maximum guarantee. Cowper asserted that when a contractor has a fixed fee, they become a representative of the owner and can better work to ensure a minimum cost on the project, as opposed to basing a fee on a

[14] D.A. Gasparini, M. ASCE, "Contributions of C.A.P. Turner to Development of Reinforced Concrete Flat Slabs 1905-1909." *Journal of Structural Engineering*, October 2002, pg. 1243.
[15] Theodore L. Condron, M.W.S.E. "A Unique Type of Reinforced Concrete Construction." *Journal of the Western Society of Engineers.* Vol. XIV, no. 6, Dec. 1909. P. 824-864.
[16] *American Contractor: Construction News/Record*, Volume 38, No. 27, July 7, 1917, p. 37.

percentage of the total construction cost, typical of modern day contracts. For more than 40 years of business the firm engaged in many types of construction ranging from large to small industrial manufacturing plants, store and office structures, schools, hospitals, colleges and institutional buildings, hotels and multiple housing developments, power plants, railway and sewage facilities. During the Depression years they consolidated their business by discontinuing branch office in NYC, Pittsburgh, Atlanta, Richmond and Washington DC. By the beginning of World War II they decided to concentrate their efforts in Western and Upstate New York through its main office in Buffalo. Prominent projects in Buffalo include the Bank of Buffalo Marine Trust Company designed by McKim, Meade and White; Buffalo City Hall; the Rand Building in Buffalo and the University of Buffalo's Lockwood Library. While the eight story industrial building at 519 Hamburg was built for Keystone Warehouse Company, Cowper continued to engineer and construct improvements to the warehouse and Bakery facilities for the Great Atlantic & Pacific Tea Company between 1947 and 1951 under five different contracts.[17]

The Great Atlantic & Pacific Tea Company

The history of the Great Atlantic & Pacific Tea Company began with the collaboration of George Francis Gilman (1826-1901), the son of a wealthy ship-owner and leather merchant working in New York, and George Huntington Hartford (1833-1917), who was a young travelling tea merchant from the same hometown of Augusta, Maine. The two men shared a fascination with clipper ships and their cargos of high-priced teas, and they recognized an opportunity of selling tea at cut rates directly from the docks and thus eliminating the middlemen. After purchasing a whole ship's worth of tea, they eventually set up a storefront at 31 Vesey Street in New York City in 1859 where they began retailing tea along with leather goods. When Gilman and Hartford created their partnership, tea was retailing for over a dollar per pound, a remarkably high price for the pre-Civil War economy. This was due to the long profit margins due to numerous middlemen between the Asian producers and the American consumer which included exporters, shippers, importers, brokers, wholesalers and finally retailers. Hartford seized the opportunity to make the luxury of tea more accessible to the masses through direct buying and reselling the quality teas at a reduction of 50% or at less than a dollar per pound. By 1861, Gilman & Hartford had formed the "Great American Tea Company" and started advertising widely with circulars and selling nationwide by mail-order through their "Club Plan."[18] Other sales incentives innovated and utilized by Gilman and Hartford were the use of gift premiums and the practice of issuing "trading stamps," which customers could accumulate and later exchange for a wide variety of household items. It was the original "customer-loyalty" program in the country. As a result, A&P became known as the "Gift Tea Store."

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[17] *Forty Years in Construction: An historical account and record of construction and engineering achievements during the past forty years, 1915-1955*. Buffalo, NY: The John W. Cowper Company, Inc, 1955.

[18] They offered an incentive that by banding into "clubs" groups of merchants or individuals could purchase quality teas well below prevailing prices with the organizer of each new club given complimentary quantities of tea. They also created the special innovation at the time of the "unconditional money-back guarantee" to any customer not completely satisfied with any purchase. William I. Walsh, *The Rise & Decline of the Great Atlantic & Pacific Tea Company,* Secaucus, NJ: Lyle Stuart Inc. 1986, p. 20

In 1869, when President Ulysses S. Grant drove the Golden Spike which joined America's East and West coasts by rail, Gilman renamed the company "The Great Atlantic & Pacific Tea Company" to commemorate this inspiring event and to accurately reflect the territorial boundaries of the A&P franchise. The first branch store to open west of New York City's metropolitan area was in Chicago in 1871, shortly after the Great Fire. It was during this decade that A&P picked up the pace of opening retail stores concentrating on those states which had been the least damaged or disrupted by the Civil War. During this period they reached as far west as the Mississippi River and had expanded throughout New England. The A&P's presence in Buffalo dates to 1874, when the first Buffalo store was opened. At that time there were only fifteen stores in the country aside of the Buffalo one.[19] During this period of expansion they also introduced a line of coffee and established the company's own wagon routes across rural America. This rural home-delivery service subsidiary worked under the original name of the Great American Tea Company and eventually was motorized, remaining in operation until the mid-1960s. By 1878, A&P had opened more than 100 stores and Gilman felt confident in the business's success and leadership and decided to retire. Hartford became a full and equal partner and assumed total control of operations.

During the 1880 and 1890s, the company continued its growth by opening more stores and methodically expanding the product line to include sugar, baking products, and dairy and with private labels such as Eight O'clock Coffee, Jane Parker and Ann Page Foods. The company also pioneered the use of refrigerated railroad cars to transport fruit and became the first to bring fresh seafood to its stores in the Midwest. When Gilman died in 1901, George Hartford gained full control of the company and his two sons entered into the business, where they would continue to work for the following 50+ years. Although George remained active in the company affairs until just a year before his death in 1917, his sons played an increasingly larger role in the management of the business. By 1912, the 53-year old company had grown to 480 stores with an annual volume of $24 million and an extensive product line, making A&P a chain of grocery stores rather than of specialty tea and coffee shops. Changes in the Buffalo city directory listings from purveyors of tea, coffee and spices to grocer signified this shift. It was in early 1918 that the Buffalo Warehouse was opened within a year of the structure being built. By 1921, the Buffalo A&P office and warehouse was listed in the city directories as being located there at 519 Hamburg Street, in the midst of Buffalo's industrial east side Hydraulics neighborhood. This location was situated right along the New York Central & Hudson Railroad as well as the Pennsylvania Rail Road, and A&P installed their own rail spurs to direct train freight cars and "reefers" straight to their warehouse loading docks.

At this time after World War I, general inflation, high food costs and an overall rise in the cost of living had become a concern in the U.S. and with A&P, the ever-increasing business costs of trading stamps, premiums, rural delivery fleets and carrying credit lines was threatening their ability to maintain the lowest price structure

[19] *The A&P Tattle Tale,* Vol. 9 no.10, Oct. 1926 - courtesy of the A&P Historical Society, Walt Waholek, President.

in the market. John Hartford, the younger of George's two sons in the business, urged that the company explore his idea of a "no frills" grocery store. This experimental "Economy Store" concept involved a store footprint of roughly 600 square feet with simple furnishings of basic shelving and a small ice box, while maintaining a small inventory, no longer providing credit, premiums or deliveries, with a simple focus on quality groceries at low prices. Each store had the same layout and standardization was the hallmark of these new stores. Within a few months, the Economy Store model drove the "service-oriented" stores out of business and in response to this success A&P began opening economy stores throughout the country at a rate of one every 3 days. This was a period of tremendous growth for the company with the number of stores increasing from 480 in 1912 to 2,000 in 1915 and to more than 15,700 in 29 states by 1930. In Buffalo alone, the number of stores rose from one store at 29 E. Chippewa Street in 1912 to more than 64 branch stores in 1923 and 148 stores in 1935.[20]

By 1922, A&P had increased the dairy and grocery product lines to more than 600 products, including the company's own line of baked goods. The company introduced fresh fruits and vegetables into all its stores and experimented with butcher shops, eventually extending the sale of fresh meats across the entire chain. Since 1908, the company's headquarters had been located in the corner of a large company warehouse on Bay Street in Jersey City. John Hartford once again felt it was time for a change in the way the company was operated and managed. This change was the decentralizing of the company into six operating divisions and a manufacturing division. Organizational line charts and operating procedures were established. Each of the six operating divisions was responsible for approximately 2,500 regional stores, which were further subdivided into six geographic operating units. Despite the new authority and responsibilities of the new division presidents and divisional board of directors, no unit or division was given the authority to tamper with the company's sales policy or financial policies with respect to real estate or purchasing. Decentralization was felt to be the only effective approach to efficient management of so many stores scattered over so vast an operating area. The office and warehouse at 519 Hamburg Street was established as the headquarters for the Buffalo Division on December 1, 1922. The Buffalo unit alone held 370 stores and more than 1000 employees.[21] This division covered a territory that reached east to Rochester, north to Canada and south to Erie, Pennsylvania.

The years 1927 and 1928 were record years for A&P, with registered sales of $1.05 billion, an increase of 84 percent over the 1926 sales. When in October of 1929 the bottom fell out of the Wall Street stock market, no company in the U.S was better prepared for this economic dive into depression than the Great Atlantic & Pacific Tea Company. The company had always had a policy of holding maximum one-year leases on all stores and to rent rather than own its own retail real estate. This policy provided extraordinary liquidity in the event that individual stores were hurt by the impacts of unemployment. Also merchandise inventories had been kept under strict control. Stores did all their business on a cash-and-carry basis, thus supporting the fact that over 40 percent of the company's total assets were liquid. While thousands of companies, and many of A&P's retail

[20] Walsh, pgs 26-44.
[21] *The A&P Tattle Tale,* Vol. 9 no.10, Oct. 1926 - courtesy of the A&P Historical Society, Walt Waholek, President.

competitors, were facing serious losses and bankruptcy in 1930, A&P was secure and in an excellent position to face the economic realities of the time.[22] A&P's lower price structure attracted more customers than ever before. To avoid bankruptcy, many other retail operators turned to new measures. Some formed cooperatives to gain the benefits of mass purchasing, while others tried various innovative forms of retailing. The necessities of the Great Depression gave birth to the American supermarket or the concept of marketing the whole spectrum of food products mostly on a self-services basis under a single roof and at lower prices.

As A&P watched and waited for this new retail innovation to fail and for better economic times to return, more and more supermarkets continued to open around the country with the majority of them having success in attracting large sales volumes. The impact on nearby A&P store sales was devastating. Eventually, and grudgingly, the Hartfords recognized that the supermarket was the wave of the future and if A&P was to survive it had to convert its operations as quickly as possible. While A&P had been very slow in making the decision to enter the supermarket arena, it was the first major chain ever to attempt a rapid and total conversion of a previously successful formula. While the company never claimed credit for the invention of the supermarket, the speed with which it converted its small economy stores to supermarkets created the perception across most of America that the Hartfords had, in fact, invented the idea. By 1938, the company was operating over 1,100 supermarkets successfully.[23] It was during this transformation year, that the *Buffalo Times* featured an article on the "Newest and Most Modern A&P Supermarket" to be opened at 690 Fillmore Avenue in Buffalo. The article notes that "in addition to self-service of groceries and other packaged staples, the new store will feature an innovation in self-service of fresh fruits and vegetables." The article also references the in-store butcher shop and the employment of 12 meat cutters.[24] A&P had introduced the idea of cellophane-wrapped meats and packaged produce, further promoting the novelty of a self-service market. Much of this packaging was conducted in the great warehouse facilities prior to being shipping to the individual stores. By 1959, A&P had consolidated its over 15,000 economy stores into about 4,500 supermarkets, with stores in the Buffalo area reduced to 27 supermarkets. Professor Roy J. Bullock stated in his 1933 *Harvard Business Review* article on A&P's early history, "the keynote of A&P's progress has been adaptability…For an enterprise to retain its place in the vanguard, to remain a pioneer to follow economic trends without following ruts, is almost without parallel."[25]

John Hartford, the mastermind behind the team of brothers, died in the autumn of 1951 at the age of 79. Subsequently his brother, George Hartford, passed away at 92 in 1957 after having served the company for more than 80 years. The ownership of A&P was left in trust to the Hartford Foundation, of which Ralph Burger,

[22] Walsh, pg. 45.
[23] Walsh, p. 49-50.
[24] *The Buffalo News*, "Image of Supermarket" 11/17/1938.
[25] Roy J. Bullock, "The Early History of the Great Atlantic & Pacific Tea Company," *Harvard Business Review* (April 1933 and October 1933).

an assistant to John Hartford, was named the president. The 1960s under management of the Family Trust proved to be the start of A&P's inevitable decline. As many of the mom & pop-run A&P stores gave way to larger A&P Food Store supermarkets, the company had competition from the larger suburban grocers around the country. The few stores that A&P was opening did not compare favorably in size or furnishings with the typical new supermarkets opened by its industry competitors. More critically, A&P was replacing obsolete stores in obsolete inner cities of the country while the competition was leaving those cities and following the consumers into the newly built suburbs and the booming sun belt of America. National television advertising campaigns eroded the customer loyalty to A&P's popular house brands. The problems confronting A&P in the 1970s could be summed up by the company's inability to compete for shares of the consumer's grocery purchases where its competition had achieved far more effective store development and modernization and had learned to recognize and more effectively respond to the changing needs and desires of consumers. After a long history of growth, profitability and leadership, A&P entered a period of decline, losing market shares to more aggressive chains throughout the 1960s and 1970s. While not all of A&P's problems were retail related, indeed every part of the operation, from purchasing, merchandising, warehousing, manufacturing, administration and top management shared responsibility for the corporation's failures. Decisions to close A&P Warehouses and service the stores through outside wholesale suppliers further added to A&P's demise. A&P's traditional strengths had been substantially eroded and the company was no longer capable of successful adaptability. Lack of reinvestment in the business—both its people and facilities—played a critical role in the firm's weak position. Failure to concentrate in growing markets and move to the suburbs caused A&P's market position and image to rapidly decline. The changing tide was too much and management could not right the ship, resulting in the family heirs selling their majority shares of the company's stock to a West German food retailer, Tengelmann Group, thus ending 120 years of the Hartford family's involvement in the company.[26]

The A&P Buffalo Division Offices & Warehouse

The A&P's occupancy of the warehouse structure at Hamburg and Swan Streets coincided with an important period of growth for the national grocery chain. While initially leased for storage and shipping functions given its proximity to rail lines, with the decentralization of management and operations in the company, the warehouse became the company's divisional headquarters, housing its operations offices and production facilities in addition to its storage and shipping functions.

The A&P Buffalo warehouse boasted a number of uncommon architectural characteristics. Because the A&P Company relied so heavily on railroad transportation for the distribution of their products, most warehouses or distribution centers were located strategically close to railroad tracks. Sanborn Insurance maps show that most of the rail lines that served the city of Buffalo had long been established in what was essentially the backyard of this parcel. By 1928, A&P spent close to $25 million for railroad transportation of goods. Because the

[26] Walsh p.167, p. 193-94

company's success was directly attributed to the large quantities of products sold at low prices, the rapid transport of goods via the railroad was critical to allow the company to keep their cost down and pass this savings onto the customer. Clearly the location and the ability to develop rail spurs to the rear of the building influenced A&P's decision for this site. The Pacific Transportation Lines worked with A&P as their contract hauler between Buffalo, Rochester, Syracuse, Youngstown and Cleveland.[27] As mentioned early in the history of the neighborhood, business that spanned from the nineteenth to the twentieth century had to adapt to changing transportation modes. The early plans of this building and the presence of loading docks along Hamburg Street indicate that it embraced and facilitated truck traffic as it became the dominate mode of shipping.

While universally referred to as the Buffalo warehouse, this structure was not simply for storing products *en route* to the stores in the region. From its original occupancy, the building included throughout its floors coffee blending and roasting departments, meat processing departments, and packaging facilities. Cold storage lockers were installed by 1928. An issue of the A&P's company newsletter, *The Tattle Tale* notes that the "bacon department," which comprised 1,200 square feet within the Buffalo factory, had been in operation since April of 1922 with a weekly production of 35,000 pounds of sliced bacon. (Fig. 5) Likewise, the coffee department, which was one of nine plants around the country, was where green beans from Brazil and Columbia were blended and roasted to produce 180,000 pound of coffee per week on 2,500 square feet of floor space. Additionally, a new 3,000 square foot quarters devoted to carefully packing olives was designed to meet the company's strict sanitary standards. (Fig. 4) Over the decades, as the company grew, so did its functions within the warehouse structure. The use of varied transportation methods and the use of refrigerator cars enabled A&P to bring southern produce to the northern markets during winter months. As air travel became more prominent, A&P, in cooperation with United Airlines, began air-transport of perishables, resulting in the first shipment of fully-ripened fruit flown cross-country by air freight. A&P was also the first to develop and offer eggs as a daily commodity rather than a holiday specialty.[28] The Buffalo warehouse had one of the most modern egg handling plants anywhere in the country, where employees in separate booths would check incoming eggs and through mechanization these eggs would be placed into cartons and cases. The interior of the warehouse was remodeled in 1942 with new refrigeration spaces for handling fresh meats, poultry, fresh frozen fish, perishable fruits and vegetables and other foodstuffs. A single cooler room could hold five carloads of fresh produce. In remodeling plans, seven large rooms were set aside for the banana department, where the tropical fruit that must be harvested before maturity would be time-ripened before shipment to the stores. Upper floors were devoted to receiving and storing staple groceries and pre-packaging of many produce items. An adjacent building across Myrtle Street (at 505 Hamburg St) was the location of the A&P bakery, which mixed, baked and packaged Jane

[27] "Giant Warehouse is Cornerstone of Operations Here: A&P, Pioneer Food Firm has been in Buffalo since '84." *Buffalo Courier Express*, July 19, 1953, pg. 30A.
[28] "86th Birthday is Celebrated by Store Chain: History since 1859, One of Pioneering." *Buffalo Courier Express*, October 14, 1945, Section 7 pg 6.

Parker brand bread, cakes, pies, doughnuts, cookies and other baked goods for A&P's Buffalo division stores since 1931.[29] While extant, this building has been significantly altered.

This giant company warehouse also housed the Buffalo unit and Central Division offices, which kept records for all A&P stores in the territory. In late 1944 and early 1945, the administrative offices at 519 Hamburg were renovated and modernized. These improvements were intended to improve employees' working conditions and increase efficiency with the installation of fluorescent light and air and sound conditioning units.[30] This warehouse and office building was a center of activity for A&P's presence in the Western New York region for more than 50 years when in April of 1975, the *Buffalo Evening News* reported that A&P would be shutting down all its supermarkets in Erie and Niagara Counties within the following couple months as the entire Buffalo division is closed out.[31] The total number of employees impacted was in the thousands.[32]

After the A&P company moved out, the warehouse building was used by a number of industrial businesses according to the Buffalo City Directories. It was first used by the Acme Corporation as a distribution center in 1976, then by Wylie Distributing and Warehousing Inc. in 1980. It sat vacant for a number of years before being occupied by Graphic Arts Supply Inc., a commercial printer and printing equipment and supplies company. Most recently the warehouse building has been owned and occupied by Mesmer Refrigeration Company, a business that provides and installs both new and used refrigeration equipment. The warehouse floors are used to store a variety of retail grocer, deli, restaurant, bakery and florist equipment. Mesmer Refrigeration has been in business since 1976.

Summary

The Great Atlantic & Pacific Tea Co. Warehouse building is eligible under Criterion C as an excellent intact example of a reinforced concrete industrial building modeled after the daylight factory method. This building in the east side Hydraulics Neighborhood of Buffalo retains significant interior and exterior architectural features as well as being a work of the prominent industrial building engineers and contractors, John W. Cowper Company. This building is also eligible under Criterion A for its association with the history of the Great Atlantic & Pacific Tea Company (A&P) as the Buffalo Division regional headquarters, production facility and storage and shipping warehouse. For more than one hundred years, A&P was the leading innovator in the specialty food product and grocery industry.

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[29] "Giant Warehouse is Cornerstone of Operations Here: A&P, Pioneer Food Firm has been in Buffalo since '84," *Buffalo Courier Express*, July 19, 1953, pg. 30A.
[30] "A&P Remodels Local Office," *Buffalo Courier Express*, February 7, 1948, pg. 5.
[31] "Buffalo Bakery to Close April 19, A&P Announces." *Buffalo Evening News*,, March 28, 1975, pg.27.
[32] "Company Informed Union Leader of Shutdown." *Buffalo Evening News*,, April 10, 1975, pg. 1.

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Collections of the Buffalo History Museum /Historical Society, 25 Nottingham Terrace, Buffalo, NY. Accessed on 9/2/2014.

Local History Collections of the Buffalo & Erie County Public Library, 1 Lafayette Square, Buffalo, NY. Accessed on 9/3/2014.

Collections of the A&P Historical Society, 1921 Ripley Street, Philadelphia, PA through correspondence with Walt Waholek, President.

City Directory for the City of Buffalo, 1885-1935.

Sanborn Fire Insurance Maps, City of Buffalo 1889 (vol.2, sheet 68a&b), 1916 (vol.2, sheet 231), 1925 (vol.2, sheet 231).

Verbal Boundary Description

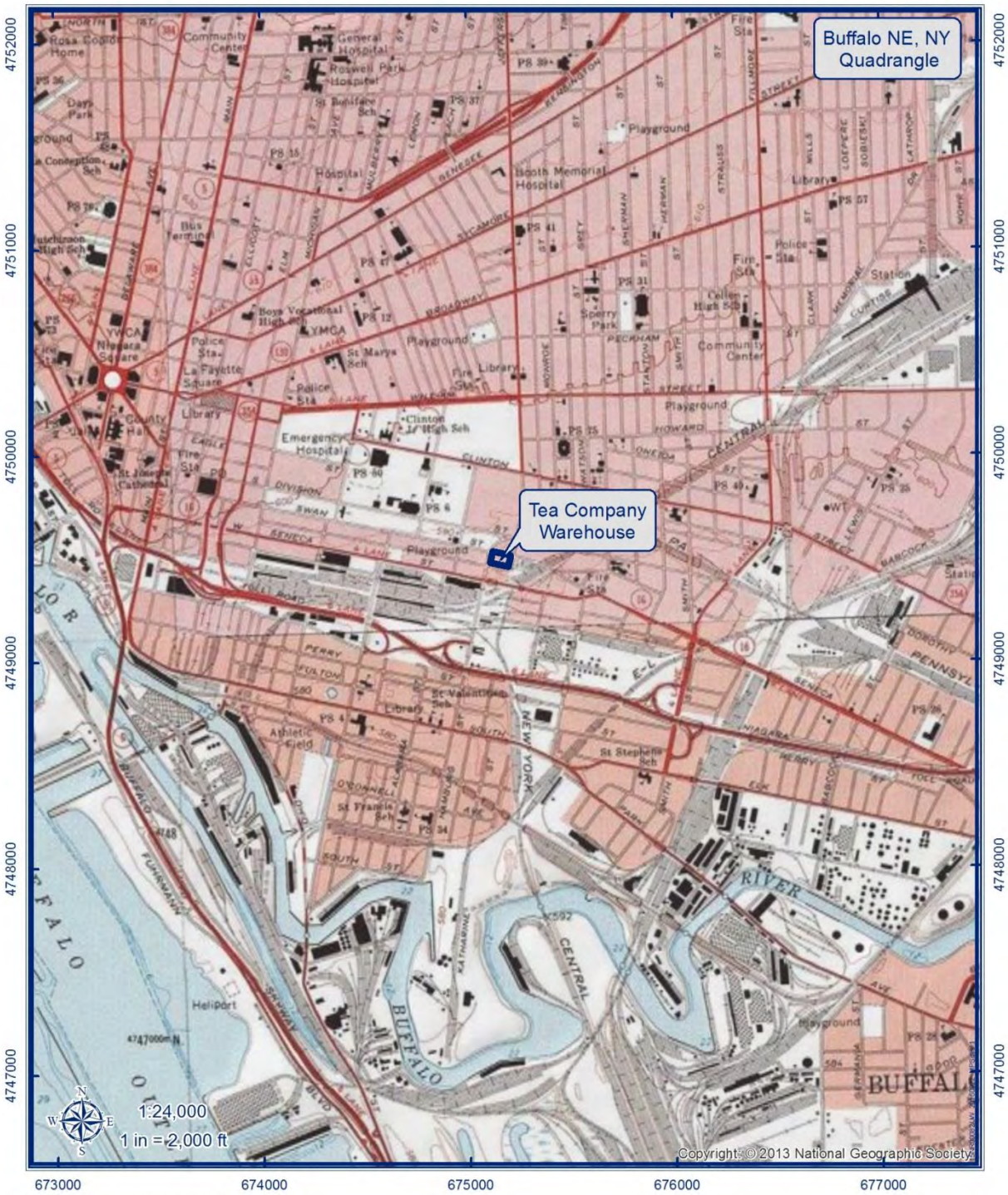
Refer to attached map with scale.

Boundary Justification

These boundaries encompass all land, both historically and currently, associated with the Great Atlantic and Pacific (A&P) Tea Company Warehouse. The Great Atlantic & Pacific (A&P) Tea Company Buffalo Division warehouse and offices occupied this site within one year of its construction (1917) and the current configuration was reached by 1925. The company remained on the site until the warehouse was closed in the spring of 1975. The boundary is drawn to include the full parcel, which fills the entire block since the parcel has been associated with the A&P use and the building's 1917-1965 period significance.

The Great Atlantic & Pacific Tea Co. Warehouse
City of Buffalo, Erie Co., NY

545 Swan Street
Buffalo, NY 14204



Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

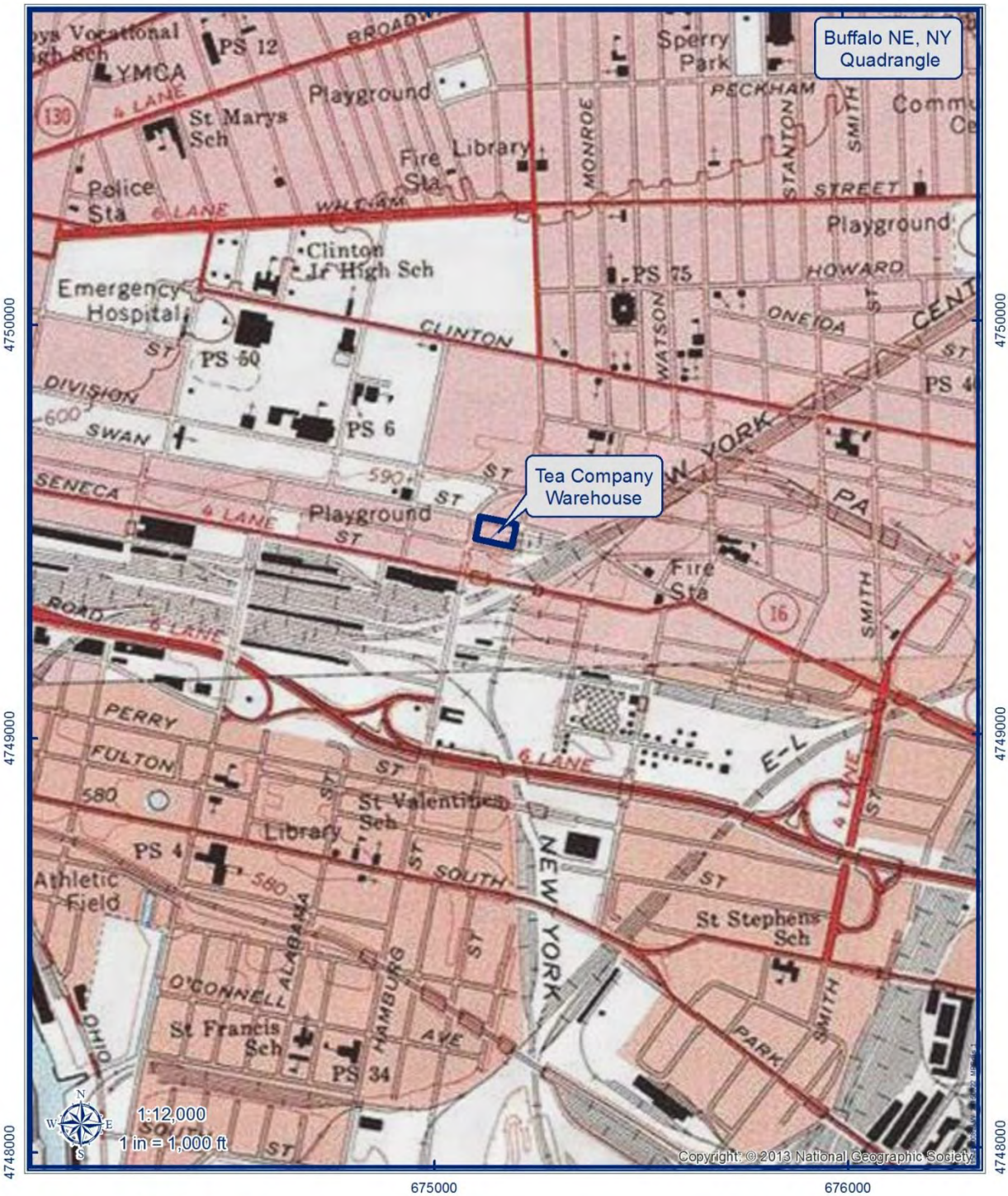
Feet
0 5501,100 2,200

tea co. warehouse

NEW YORK STATE OF OPPORTUNITY.
Parks, Recreation and Historic Preservation

The Great Atlantic & Pacific Tea Co. Warehouse
City of Buffalo, Erie Co., NY

545 Swan Street
Buffalo, NY 14204



Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

Feet
0 295 590 1,180

tea co. warehouse

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation and Historic Preservation

The Great Atlantic & Pacific Tea Co. Warehouse
City of Buffalo, Erie Co., NY

545 Swan Street
Buffalo, NY 14204

675000

Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

Feet
0 55 110 220

tea co. warehouse

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation and Historic Preservation

Additional Information

List of Photographs

Name of Property:	A&P Warehouse (The Great Atlantic & Pacific Tea Company Warehouse)
City or Vicinity:	Buffalo
County:	Erie
State:	NY
Name of Photographer:	Kimberly Konrad Alvarez. (Photos #1, 7, 12, & 13 credited to Annie Leue.)
Date of Photographs:	September 2014
Number of Photographs:	23

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0001
West façade, camera facing northeast

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0002
North and partial south elevations, camera facing southwest

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0003
East elevation and one story enclosed loading dock, camera facing west

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0004
East and south elevations, camera facing west

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0005
South elevation, recessed loading dock arcade, camera facing north

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0006
South elevation, loading dock arcade, camera facing north

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0007
Detail of A&P logo painted on west elevation, camera facing east

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0008
Eight floor, open floor plan and view of freight elevator, camera facing northeast

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0009
Fourth floor, reinforced concrete column and clay structural tile walls, camera facing southeast

NY_Erie County_Hydraulics-LarkinMPS_A&P Warehouse_0010
Second floor, interior cold storage rooms and insulated wood doors, camera facing northeast

Historic Images

Fig. 1. Historic image of the last warehouse building constructed by the Keystone Warehouse Company at Hamburg Street in Buffalo, circa 1917.
Image from photographic collection of the Buffalo History Museum.

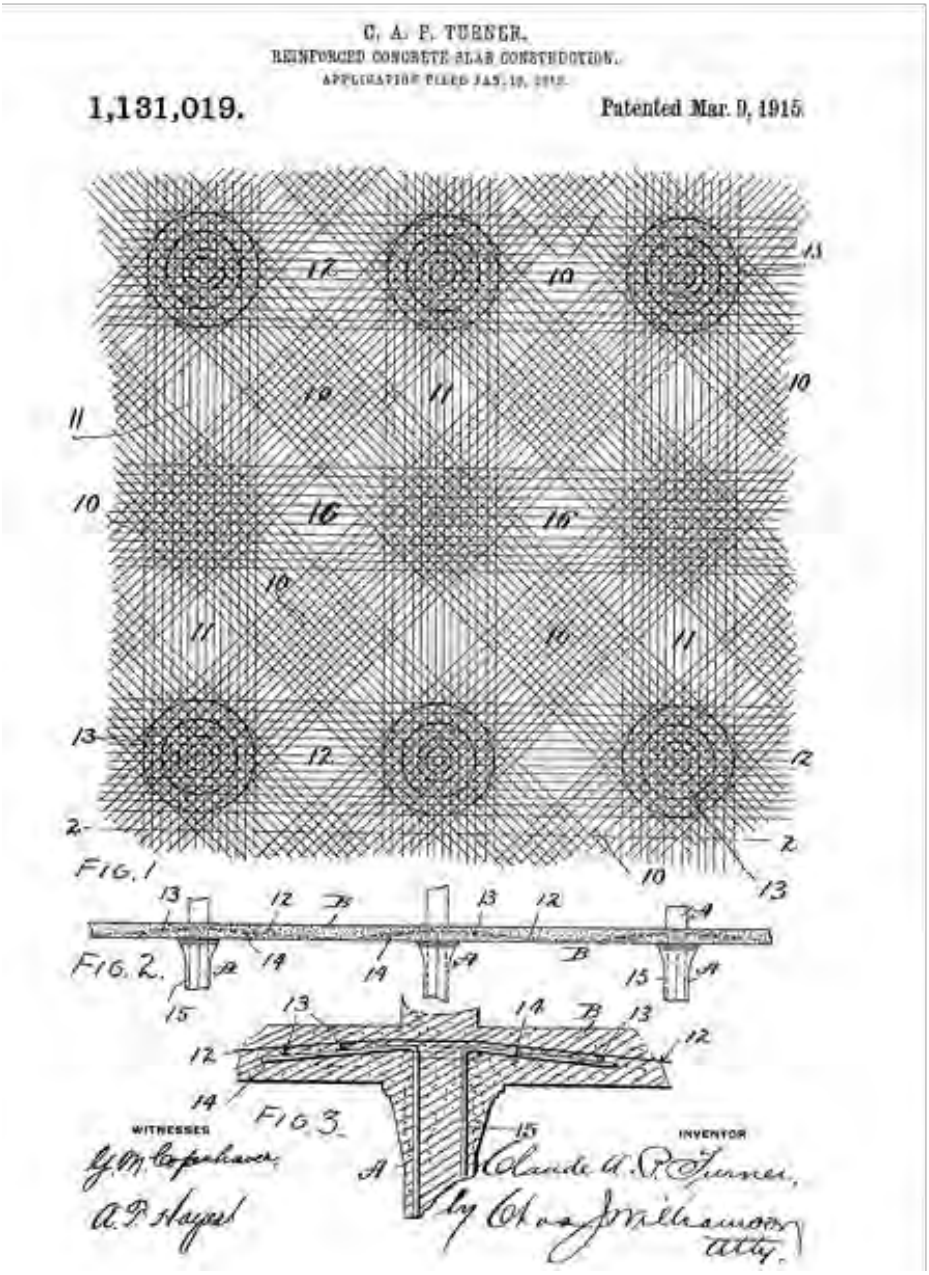


Fig. 2. Patent issued to Claude A. P. Turner for the reinforced flat-slab concrete floor system that was used in the Buffalo A&P Warehouse.

Fig. 3 Image of warehouse (ca. 1922)
as featured in *The A&P Tattle Tale*, Vol. 9 no.10, Oct. 1926.

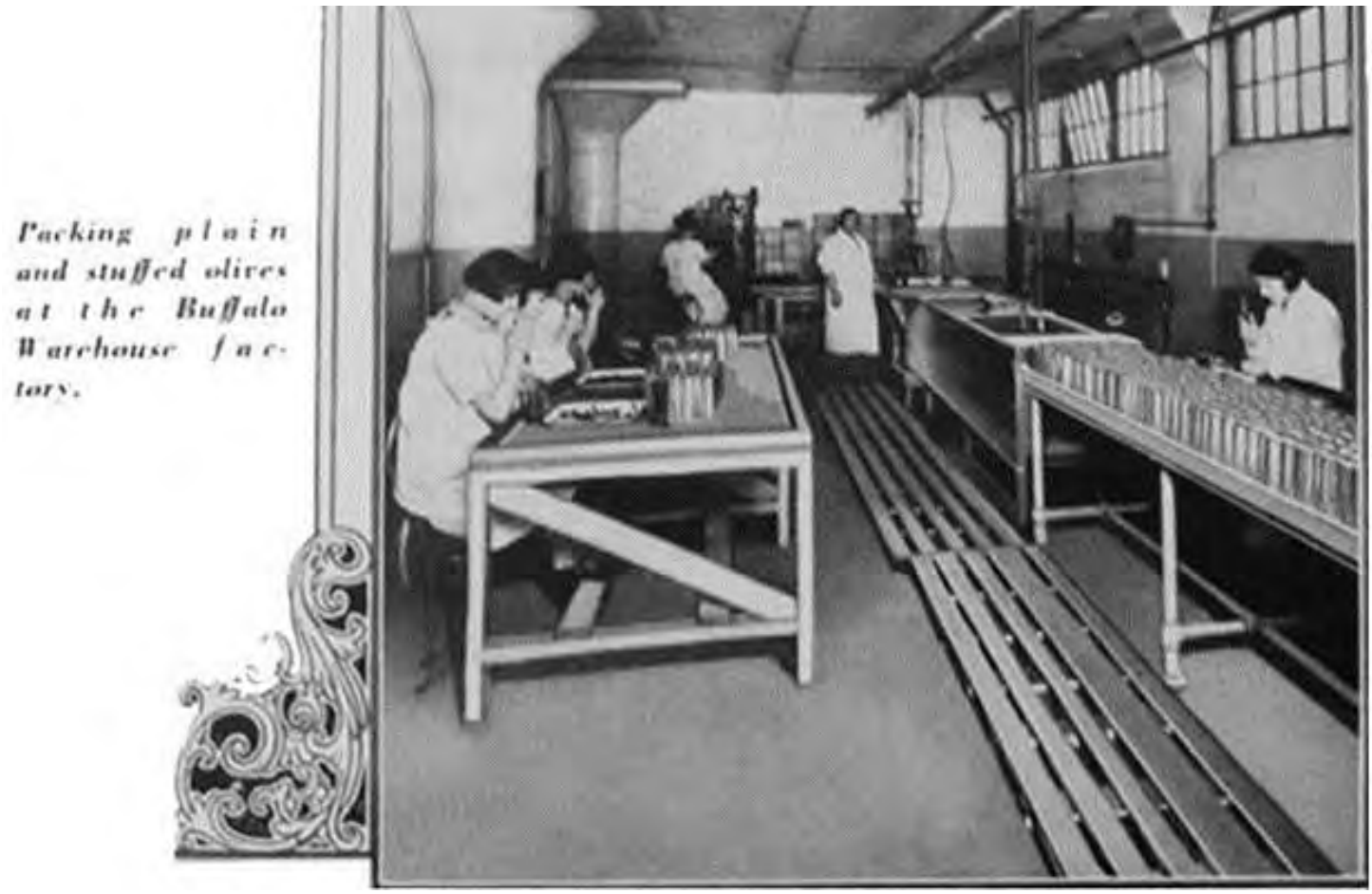


Fig. 4 Photo of the olive packing department within the Buffalo warehouse (ca. 1926)
From *The A&P Tattle Tale.* (Vol. 9 no.10, Oct. 1926)

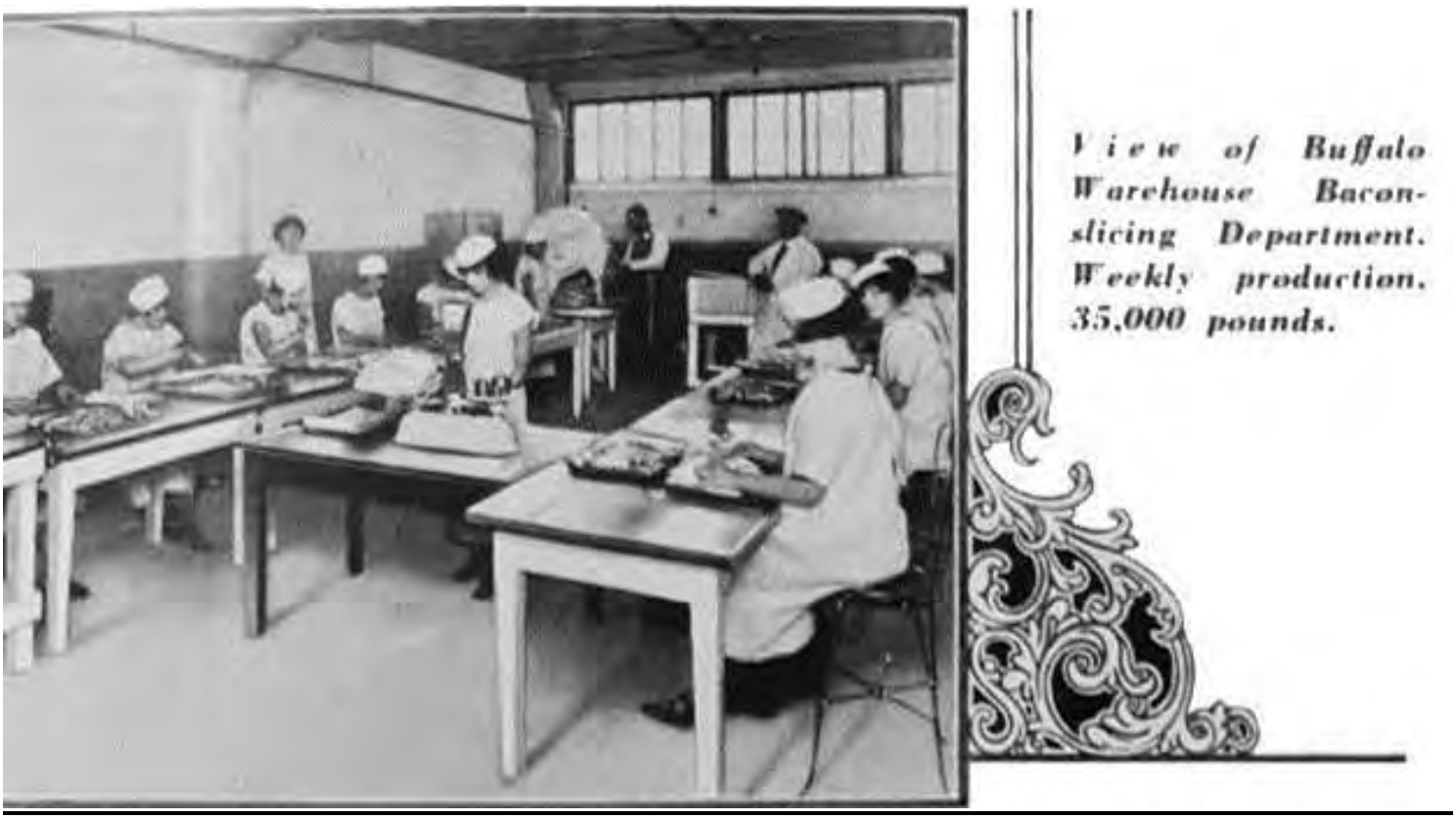
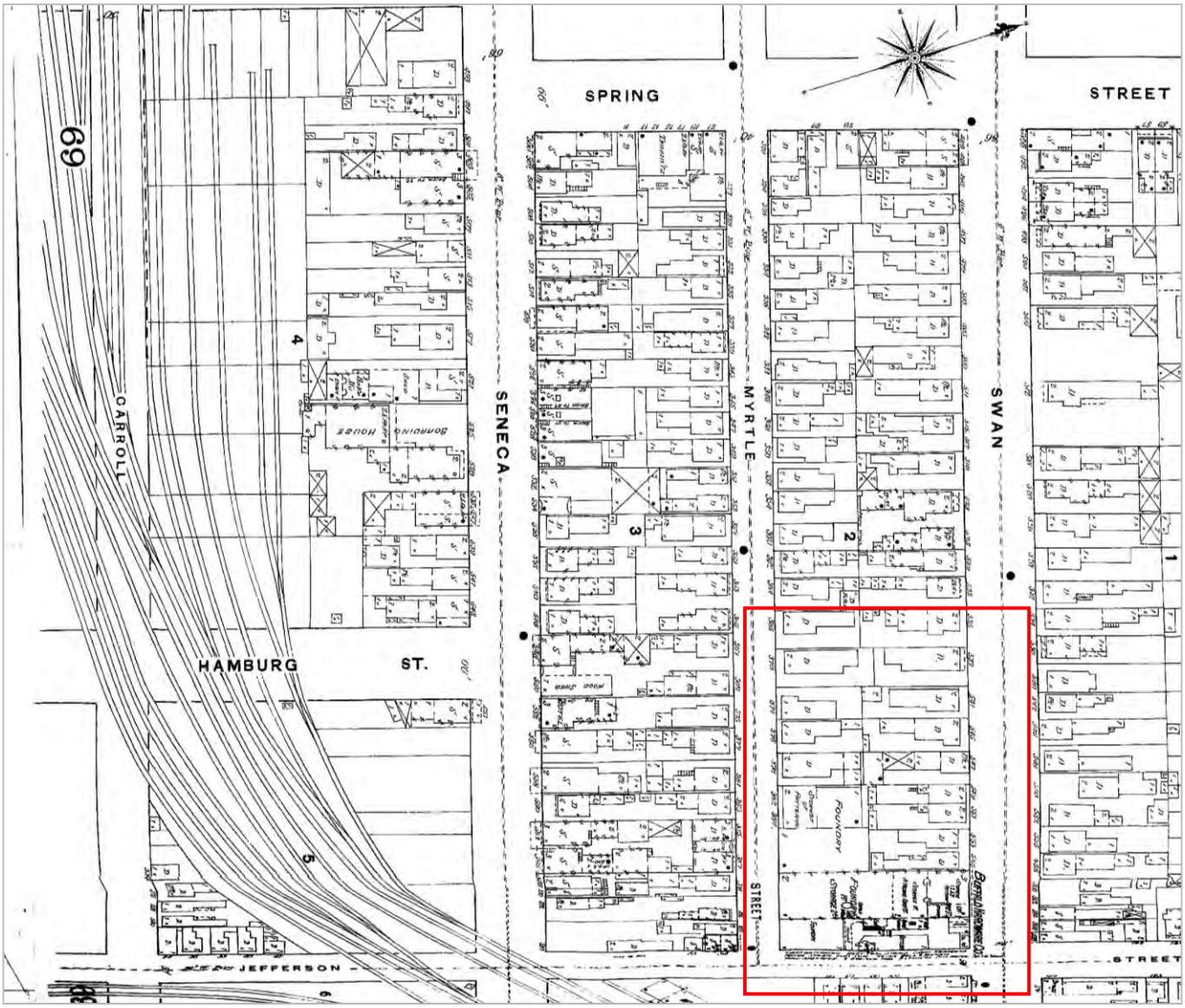
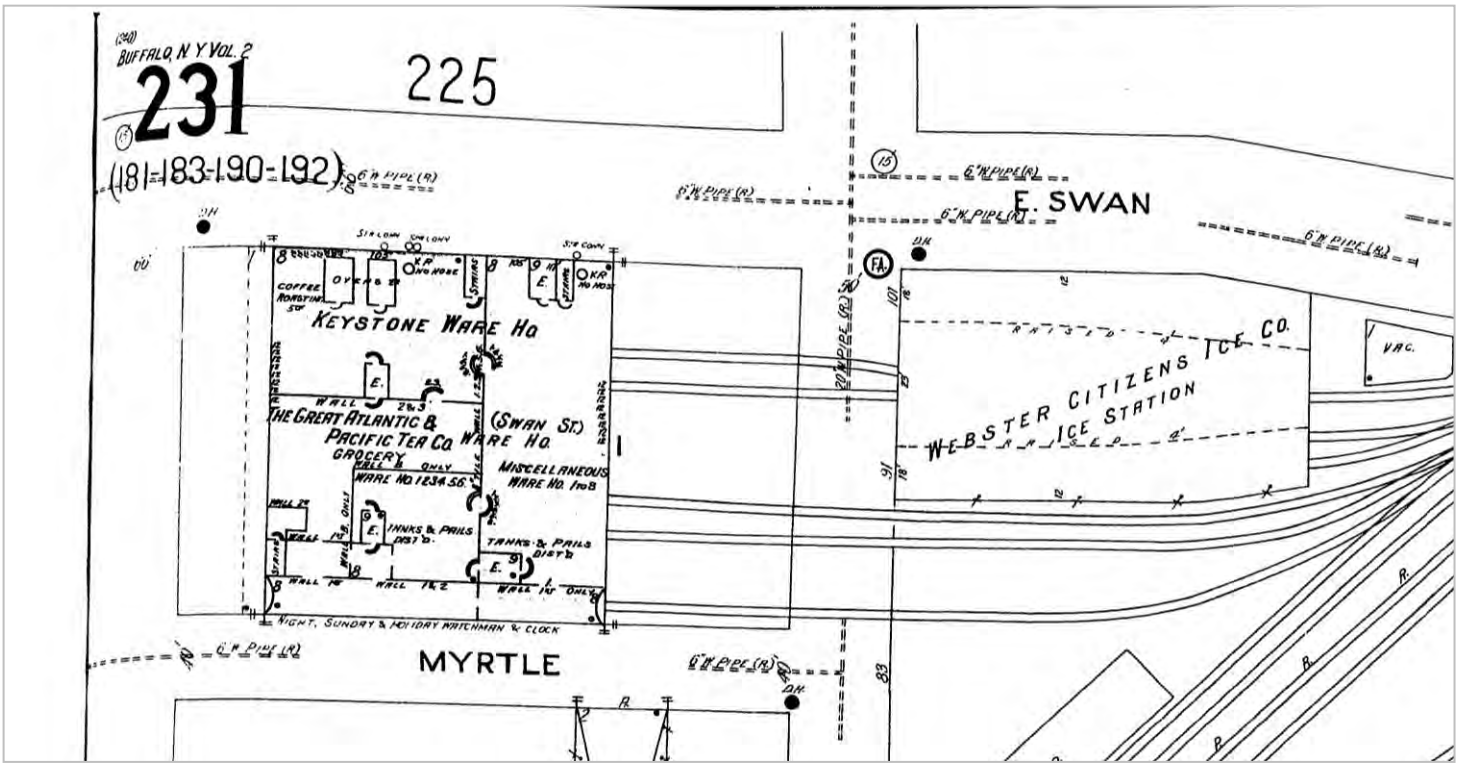


Fig. 5 Photo of the bacon slicing department within the Buffalo warehouse (ca. 1926)
From *The A&P Tattle Tale.* (Vol. 9 no.10, Oct. 1926)

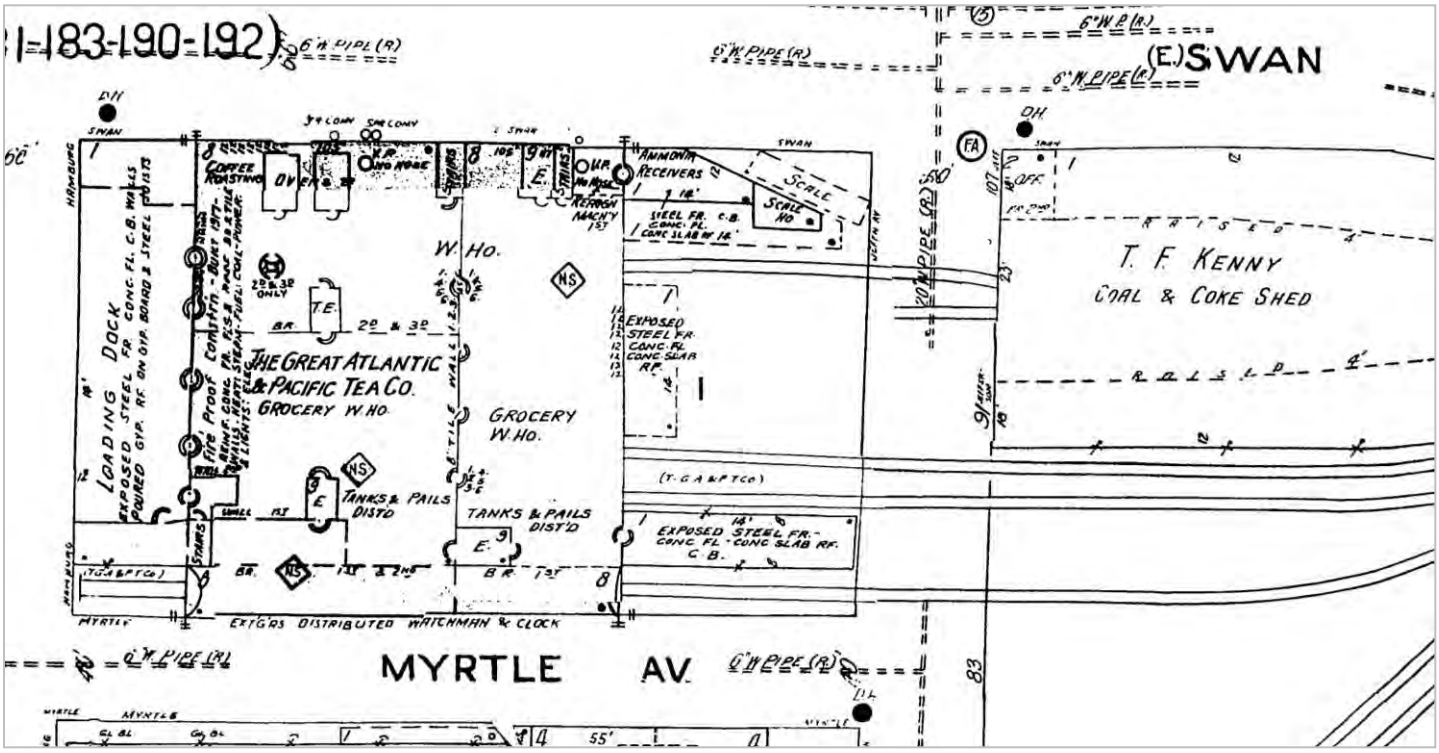
Sanborn Fire Insurance Maps



1889, corrected to 1893, vol. 2, Sheet 68a.
Note that existing block bound by Hamburg, Swan, Jefferson and Myrtle does not yet exist.



1916, corrected to 1925, vol. 2, Sheet 231.
Note that 8-story warehouse now existing, but loading dock wings do not.



1925, corrected to 1951, vol. 2, Sheet 231.
Note that loading dock wings have been added.

THE GREAT ATLANTIC & PACIFIC TEA CO.
MESMER REFRIGERATION
519
GRAINGER

JEFFERSON
TRUCK ROUTE

MYRTLE AVE

A&P

DANGER
NO SMOKING
4B
DANGER
NO SMOKING
OPEN FLAMES PROHIBITED
4B