



Herron Hill Pumping Station

City of Pittsburgh Historic Landmark Nomination

Prepared by Preservation Pittsburgh



412.256.8755
1501 Reedsdale St., Suite 5003
Pittsburgh, PA 15233
www.preservationpgh.org

October, 2019.



INDIVIDUAL PROPERTY HISTORIC NOMINATION FORM

HRC Staff Use Only

Date Received:

Parcel No.:

Ward:

Zoning Classification:

Bldg. Inspector:

Council District:

Fee Schedule

Please make check payable to *Treasurer, City of Pittsburgh*

Individual Landmark Nomination: \$100.00

District Nomination: \$250.00

1. HISTORIC NAME OF PROPERTY:

Herron Hill Pumping Station (Pumping Station
 Building and Laboratory Building)

2. CURRENT NAME OF PROPERTY:

Herron Hill Pumping Station

3. LOCATION

- a. Street: 4501 Centre Avenue
- b. City, State, Zip Code: Pittsburgh, PA 15213-1501
- c. Neighborhood: North Oakland

4. OWNERSHIP

- d. Owner(s): City of Pittsburgh
- e. Street: City-County Building, 414 Grant Street
- f. City, State, Zip Code: Pittsburgh, PA 15219 Phone: () -

5. CLASSIFICATION AND USE – Check all that apply

<u>Type</u>	<u>Ownership</u>	<u>Current Use:</u>
<input checked="" type="checkbox"/> Structure	<input type="checkbox"/> Private – home	<u>Water pumping station</u>
<input type="checkbox"/> District	<input type="checkbox"/> Private – other	_____
<input type="checkbox"/> Site	<input checked="" type="checkbox"/> Public – government	_____
<input type="checkbox"/> Object	<input type="checkbox"/> Public - other	_____
	<input type="checkbox"/> Place of religious worship	_____

6. NOMINATED BY:

- a. Name: Matthew W. C. Falcone
- b. Street: 1501 Reedsdale Street, Suite 5003
- c. City, State, Zip: Pittsburgh, PA 15233
- d. Phone: (412) 256-8755 Email: mfalcone@preservationpgh.org

7. DESCRIPTION

Provide a narrative description of the structure, district, site, or object. If it has been altered over time, indicate the date(s) and nature of the alteration(s). (Attach additional pages as needed)

If Known:

- a. Year Built: 1896 (pumping station); ca. 1897 (laboratory)
- b. Architectural Style: Classical Revival
- c. Architect/Builder: William S. Fraser

Narrative: See attached.

8. HISTORY

Provide a history of the structure, district, site, or object. Include a bibliography of sources consulted. (Attach additional pages as needed.) Include copies of relevant source materials with the nomination form (see Number 11).

Narrative: See attached.

9. SIGNIFICANCE

The *Pittsburgh Code of Ordinances, Title 11, Historic Preservation, Chapter 1: Historic Structures, Districts, Sites and Objects* lists ten criteria, at least one of which must be met for Historic Designation. Describe how the structure, district, site, or object meets one or more of these criteria and complete a narrative discussing in detail each area of significance. (Attach additional pages as needed)

The structure, building, site, district, object is significant because of (check all that apply):

- 1. Its location as a site of a significant historic or prehistoric event or activity;
- 2. Its identification with a person or persons who significantly contributed to the cultural, historic, architectural, archaeological, or related aspects of the development of the City of Pittsburgh, State of Pennsylvania, Mid-Atlantic region, or the United States;
- 3. Its exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship;
- 4. Its identification as the work of an architect, designer, engineer, or builder whose individual work is significant in the history or development of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States;
- 5. Its exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail;

6. Its location as a site of an important archaeological resource;
7. Its association with important cultural or social aspects or events in the history of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States;
8. Its exemplification of a pattern of neighborhood development or settlement significant to the cultural history or traditions of the City, whose components may lack individual distinction;
9. Its representation of a cultural, historic, architectural, archaeological, or related theme expressed through distinctive areas, properties, sites, structures, or objects that may or may not be contiguous; or
10. Its unique location and distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Pittsburgh.

Narrative: See attached.

10. INTEGRITY

In addition, the ordinance specifies that “Any area, property, site, structure or object that meets any one or more of the criteria listed above shall also have sufficient integrity of location, design, materials, and workmanship to make it worthy of preservation or restoration”. (Attach additional pages as needed)

Narrative: _____

11. NOTIFICATION/CONSENT OF PROPERTY OWNER(S)

1.3(a)(2) Community information process.

Preceding submission of a nomination form for a District, the Historic Review Commission shall conduct at least one (1) public information meeting within or near the boundaries of the proposed district, which shall include at least one (1) member of the Department of City Planning and one (1) Commission member, to discuss the possible effects of designation. Notice shall be given to the owners of property in the proposed district in accordance with Section 1.3(b) below. The final public information meeting shall be held no more than six months before the nomination form is submitted.

1.3(a)(1)(a) Subsection F.

In the case of a nomination as a Historic District, by community-based organizations or by any individual, but in either event the nomination shall be accompanied by a petition signed by the owners of record of twenty-five (25) percent of the properties within the boundaries of the proposed District.

- Please attach documentation of your efforts to gain property owner’s consent.-

** The nomination of any religious property shall be accompanied by a signed letter of consent from the property’s owner.

12. PHOTO LOGS: *Please Attach*

13. BIBLIOGRAPHY: *Please Attach*

14. NOMINATION FORM PREPARED BY:

a. Name: Jeff Slack, AICP, Principal, Time & Place, LLC for Preservation Pittsburgh

b. Street: 1651 Beechwood Boulevard

c. City, State, Zip: Pittsburgh, PA 15217

d. Phone: (412) 8025406 Email: j_h_slack@yahoo.com

e. Signature: _____



HISTORIC NOMINATION – INSTRUCTIONS

INSTRUCTIONS FOR FILLING OUT THE NOMINATION FORM

1. Indicate the original name of the property if it is currently known by a different name; e.g. Union Station.
2. Indicate the current name of the property
3. Indicate the street address for the property. For districts, attach a separate sheet listing the street address of each property included in the nomination and a clear street map of the area showing the boundaries of the proposed district.
4. Indicate the owner of the property and his or her mailing address. For districts, attach a separate sheet listing the owner of each property and his or her mailing address.
5. Check the classification as indicated.
 - a. **“Historic Structure”** means anything constructed or erected, the use of which requires directly or indirectly, a permanent location on the land, including walks, fences, signs, steps and sidewalks at which events that made a significant contribution to national, state or local history occurred or which involved a close association with the lives of people of nations, state or local significance; or an outstanding example of a period, style, architectural movement, or method of construction; or one of the last surviving works of a pioneer architect, builder or designer; or one of the last survivors of a particular style or period of construction.
 - b. **“Historic District”** means a defined territorial division of land which shall include more than one (1) contiguous or related parcels of property, specifically identified by separate resolution, at which events occurred that made a significant contribution to national, state, or local history, or which contains more than one historic structure or historic landmarks, or which contains groups, rows or sets of structures or landmarks, or which contains an aggregate example of a period, style, architectural movements or method of construction, providing distinguishing characteristics of the architectural type or architectural period it represents.
 - c. **“Historic Site”** means the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure whether standing, ruined or vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structures.
 - d. **“Historic Object”** means a material thing of historic significance for functional, aesthetic cultural or scientific reasons that may be, by nature or design, moveable yet related to a specific setting or environment.
6. Indicate the person(s) responsible for the nomination. Please note: According to the Historic Preservation Ordinance:

“Nomination of an area, property, site, or object for consideration and designation as a Historic Structure, Historic District, Historic Site, or Historic Object may be submitted to the Historic Review Commission by any of the following:

- a. The Mayor of the City of Pittsburgh
 - b. A Member of the Historic Review Commission
 - c. A Member of the City Planning Commission
 - d. A Member of the Pittsburgh City Council
 - e. The Owner of Record or any person residing in the City of Pittsburgh for at least one year (for the nomination of a Historic Structure, Site or Object)
 - f. A signed petition of 25% of the owners of record (for the nomination of a Historic District)
7. Write a physical description of the nominated property or district. Include the following information as applicable:
- architectural style(s)
 - arrangement of architectural elements
 - building materials
 - method(s) of construction
 - visual character
 - street pattern
 - density
 - type and arrangement of buildings
 - topography
 - history of the development of the area
8. Provide a narrative history of the structure, district, site, or object. Include the following information when available:
- History of the development of the area;
 - Circumstances which brought the structure, district, site, or object into being;
 - Biographical information on architects, builders, developers, artisans, planners, or others who created or contributed to the structure, district, site, or object;
 - Contextual background on building type(s) and/or style(s);
 - Importance of the structure, district, site, or object in the larger community over the course of its existence.
 - Include a bibliography of all sources consulted at the end. Where historical information is uncertain or disputed, reference sources in the text.
9. Listed below are the categories and criteria for historic designation as set forth in the Pittsburgh Historic Preservation Ordinance. Describe in detail how the structure, district, site, or object meets one or more of the criteria. According to that legislation in Section 1.4 of the Pittsburgh Historic Preservation Ordinance, *Criteria for Designation*, a building must meet at least one of the following criteria in order to be designated:
1. Its location as a site of a significant historic or prehistoric event or activity;
 2. Its identification with a person or persons who significantly contributed to the cultural, historic, architectural, archaeological, or related aspects of the development of the City of Pittsburgh, State of Pennsylvania, Mid-Atlantic region, or the United States;
 3. Its exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship;
 4. Its identification as the work of an architect, designer, engineer, or builder whose individual work is significant in the history or development of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States;

5. Its exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail;
 6. Its location as a site of an important archaeological resource;
 7. Its association with important cultural or social aspects or events in the history of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States;
 8. Its exemplification of a pattern of neighborhood development or settlement significant to the cultural history or traditions of the City, whose components may lack individual distinction;
 9. Its representation of a cultural, historic, architectural, archaeological, or related theme expressed through distinctive areas, properties, sites, structures, or objects that may or may not be contiguous; or
 10. Its unique location and distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Pittsburgh.
- 10.** In addition, the ordinance specifies that “Any area, property, site, structure or object that meets any one or more of the criteria listed above shall also have sufficient integrity of location, design, materials, and workmanship to make it worthy of preservation or restoration.”
- 11.** The nomination must be accompanied by evidence that the nominator has made a good-faith effort to communicate his or her interest in the historic designation of this landmark or district to the owner(s) of these properties. Describe how this was done, and attach evidence that the owner(s) of the nominated landmark or of the properties within the nominated district have been informed of the nomination. This may include a copy of a notification letter with a mailing list, a letter confirming phone calls, or a petition signed by affected property owners.
- 12.** Clear photographs of the nominated buildings or districts should accompany the nomination form. The applicant shall include photographs of all elevations of an individual building and its setting, or the front elevation of each building in a district. In the case of closely spaced buildings or rowhouses, several buildings may be included in one photograph. Each photograph must be labeled with the street address of the building(s) and the month and year the photograph was taken.
- 13.** Copies of major supporting documents should accompany the nomination form. Such documents may include, but are not limited to:
- historic photographs;
 - historic and contemporary maps;
 - historic or contemporary texts describing the subject property or district;
 - historic or contemporary texts describing people, places, or events that comprise the historic context of the subject property or district.
 - Oversized materials (such as architectural drawings) and materials too fragile to copy may be accepted.

PLEASE NOTE: It is the responsibility of the nominator to provide the Historic Review Commission and its Staff with information sufficient to fairly evaluate the nomination. **Incomplete nomination forms will not be accepted. Fee must be included. Nominations must be submitted in both electronic and hard-copy format.**

CHECKLIST: Herron Hill Pumping Station

- #1-6 Nomination Form:** Address, Ownership, Classification, Nominator Info.
 - #7: Description
 - #8: History
 - #9: Significance
- #10 Integrity**
- #11 Consent of Property Owners**
- #12 Photographs of Property:** numbered and labeled
- #13 List of Supporting Documents**

- Fee**
- Hard-Copy nomination**
- Electronic nomination (Word Format for text).**

Herron Hill Pumping Station
Historic Nomination Form
Addendum

Herron Hill Pumping Station – Addenda

7. Description

Provide a narrative description of the structure, district, site, or object. If it has been altered over time, indicate the date(s) and nature of the alteration(s).

Site / Setting

The Herron Hill Pumping Station is located at 4501 Centre Avenue in Pittsburgh's North Oakland neighborhood three miles east of Downtown. The setting is urban, with commercial and residential development ranging from the late-nineteenth century to the modern period. The lot (tax parcel number 27-D-35), is bounded on the south by Centre Avenue, on the east by Dollar Street, on the north by the 1934 Art Deco Royal York Apartments (parcel 26-R-285) and on the west by North Dithridge Street (see Site Plan, Figure 1). The lot contains two buildings: 1) the two-story, red brick, Classical Revival Herron Hill Pumping Station Building, designed by architect William S. Fraser, constructed in 1896, which sits prominently atop a grassy rise facing Centre Avenue, and 2) the two-story, red brick Herron Hill Laboratory Building (ca. 1897), which sits approximately fifty feet behind the Pumping Station Building to the north.

The lot is park-like, with grass lawns along the front (south) and west edges of the property, many mature trees, especially to the north, and winding sidewalks. The lot slopes downhill from west to east, which allows the ground floor of the Pumping Station to have an exposed basement accessible at grade on the east side (Figures 2 and 3). The lot also rises steeply to the north beyond the Laboratory Building, where it ends at a retaining wall marking the edge of the Royal York property (Figures 4 and 5). A short paved driveway from Dithridge Street runs in front of the Pumping Station Building, ending just past the front facade, which can also be accessed by a flight of concrete steps from the public sidewalk. A second driveway from Dollar Street leads to a paved parking area adjacent to the east side of the building, which continues north to a small parking area next to the Laboratory Building. Concrete sidewalks run from the west and south sides of the Laboratory Building and curve along the west side of the Pumping Station Building to the corner at Centre and North Dithridge. From here, a wrought iron fence extends north along the entire west edge of the property.

Neighboring the parcel to the west is the three-story, Tudor Revival-style Pennsylvania Apartments (ca. 1930, 300 North Dithridge, designed by Daniel A. Crone). To the southwest is the ten-story, red brick, white stone and terra cotta Bellefield Dwellings apartment building (1904, 4400 Centre, designed by Carlton Strong). Directly across from the Pumping Station entrance is the towering seventeen-story, 329-unit One on Centre apartment building (2018, 4500 Centre Avenue). To the east is a one-story, painted brick commercial building (4519 Centre Avenue, currently vacant) with an early twentieth-century three-story apartment building to its north (317 North Craig).

Exterior Description—Pumping Station Building

The Herron Hill Pumping Station Building contains two sections: 1) the large, two-story Pump House set back approximately forty feet from Centre Avenue, and 2) the two-story, Boiler House attached on its north side and separated from the Pump House by an interior brick wall.

Constructed simultaneously, this two-part arrangement represents the typical building typology for water pumping stations at the time. The Pump House, usually the largest of the two sections due to the size of the original equipment to be contained, was typically the more prominently sited component, with the Boiler House being secondary in size and sometimes of lesser architectural detailing. Pittsburgh's Mission Street Pumping Station (2117 Mission Street) demonstrates this same hierarchy of massing, though the two parts are arranged in a slightly different configuration on their site on the South Side (Figure 6).

The Pump House is two stories tall and consists of a double-height space above grade on the first floor with a ground floor below, exposed on its east side (Figure 7). It continues to serve its original function of pumping water from the Highland Park Reservoir up to the Herron Hill Reservoir for distribution throughout the city. The Boiler House is also two stories in height, though lower in overall height than the Pump House (Figures 8 and 9). Its function and configuration changed when the facility was converted from oil power to electricity in 1931.¹ No longer needed, the boiler equipment was removed and a second floor was subsequently inserted into the original double-height space in 1939.² Today this part of the building houses offices and storage for the Department of Public Works Paving Division and Asphalt Testing Laboratory.

Designed as one building, the Pump House and Boiler House have similar architectural details. The former is four bays wide and five bays deep; the latter three bays wide and four bays deep (Figure 10). Exterior walls are red brick laid in a running bond with smooth mortar joints. The bays on all sides are demarcated by Classically-derived brick pilasters with Tuscan capitals (i.e., a simplified Doric Order with no fluting). Within each bay are large arched openings that originally contained multi-lite, operable, wood sash windows. Sometime in the mid-twentieth century the openings were infilled with brick, but the stone sills and lintels remain. In the Boiler House, multi-lite industrial steel sash windows surrounded by brick infill have been inserted into the openings (mid-twentieth century) to provide light to the office spaces. The pilasters sit atop a coursed sandstone foundation with beaded mortar joints. Atop the arcades, a simple entablature encircles the building. It contains a plain frieze with brick dentils in the cornice (Figure 11).

The four-bay wide, symmetrical, front façade of the building exhibits a higher degree of architectural detailing (Figures 12 and 13). Its two middle bays project slightly and are capped by a triangular pediment with brick dentils in the raking cornices. Here, a rectangular metal grille and brick infill have replaced an original half-round louvered vent. Each pilaster's echinus (i.e., the convex projecting molding of the pilaster capital) contains egg-and-dart ornamentation. The frieze is decorated with carved stone reading "1896 Herron Hill Pumping Station DPW." The arched openings spring from smaller inset pilasters. Each arch is defined by a molded brick intrados and extrados (i.e., the lower and upper curved boundaries, respectively, of the visible face of the arch). At the base of the two middle bays are utilitarian paired steel doors with solid steel transoms (late-twentieth century).

¹ "Big New Pump Put in Operation," *The Pittsburgh Post-Gazette*, 22 August 1931.

² "Alteration to Herron Hill Pumping Station for Use as Bureau of Tests Laboratory," Construction Drawings, City of Pittsburgh Department of Public Works, October 1939.

The center bay of the three-bay wide rear façade contains a similar projecting gabled pediment (Figures 14 and 15). Two small additions have been made to the south end of the building over time. On the east façade is a single-story, red brick enclosed loading dock with rolling overhead door, which provides access to a pump room in a vault that extends under the front driveway; on the west façade is a single-story, red brick addition for a boiler room with infilled brick arches (both date from the mid-twentieth century). The roofs of the Pump House and Boiler House are both hipped in form and covered with silver-colored standing seam metal. Historic Sanborn Fire Insurance Company maps indicate iron truss roof construction with wooden roof deck, which was originally covered with slate (the trusses can be seen in the section drawing in Figure 37).

A number of historic photographs show the exterior of the Pumping Station Building shortly after construction. From these, it can be determined that the building had wood, one-over-one, double-hung sash windows on the ground and first stories and wood, center-pivot sash windows on the second story (these would have had a mechanism to allow them to be opened and tilted inward from below); the roof of the Pump House contained two hipped dormers containing louvered ventilators on the east and west sides; the Boiler House had a massive corbeled brick chimney, which was presumably removed in the 1930s when the boilers were removed; the front driveway was gravel; and the east parking and loading area was cobblestone (Figures 16-19).

Interior Description—Pumping Station Building

The first floor of the Pump House contains one large, double-height space (Figure 20). The floor is cast concrete, walls are plaster and retain their original buff-colored tile wainscoting, and the ceiling consists of a grid of corrugated metal panels from the mid-twentieth century. Window openings contain either brick infill or mid-twentieth century multi-lite industrial steel sash windows, which have been painted (Figure 21). In the center of the space, near the front, are electronic controls. Arrayed around the controls throughout the room are five electric pumps (Figure 22). Overhead is the original traveling crane, which Fraser called for in the 1896 request for proposals for the building. It runs along parallel tracks on the east and west walls, which are supported by cast iron columns (Figure 23). This type of crane was a common component in pump houses of this era and were used to set, replace and repair the pumps. The ground floor of the Pump House contains large diameter intake pipes that distribute water up to the pumps (Figure 24). The water, then under increased pressure, returns by pipe to the ground floor. Here, the pipes exit through the west foundation wall and the water is delivered up to the Herron Hill Reservoir and to water tanks in the Hill District and Squirrel Hill. The underground vault on the south end of the building (beneath the front driveway) contains the sixth pump and access to the loading dock doors of the single-story addition on the east side of the building.

The first floor of the Boiler House is accessed from the sidewalk on the west side of the building. This level contains a number of perimeter office and storage rooms with an open center space containing office cubicles. Finishes date from the late twentieth-century and include dropped ceilings, vinyl composition tile flooring and walls of painted drywall and painted brick (Figure 25). The ground floor is utilitarian and used primarily for testing and storage. The floors are concrete, walls are painted brick and concrete and the ceiling is the

visible underside of metal formwork for the cast concrete first floor above (Figures 26 and 27). Access to grade is in the northeast corner via a steel pedestrian door on the north façade and a steel rolling overhead door on the east façade.

A photograph from 1919 shows the ground level of the Pump House (Figure 28). Much of the water piping is the same or similar to that seen today. However, the first floor above was supported at that time by steel beams rather than concrete. Photographs from 1912 through 1919 show the interior of the Boiler House when it was still one large, double-height open space and illustrate a major construction project in early 1919 to convert the fuel source from gas to oil and to rebuild the brick boiler foundations (Figures 29-35). Construction drawings from 1939 document the insertion of the first floor into the Boiler House after the boilers were removed (Figures 36 and 37). The reconfiguration of this space, having surpassed fifty years in age, is now considered historic in its own right and helps to tell the evolving story of the building.

Exterior Description—Herron Hill Laboratory Building

The Laboratory Building faces west, is three bays wide and five bays deep, rectangular in massing, two stories in height (basement and first floor) and covered by a hip-on-hip roof clad in the same standing seam metal as the Pumping Station Building (Figure 38). Because the building is cut into the hillside like the Pumping Station Building, only one story is visible on the west façade. Its center bay contains a small porch with hipped standing seam metal roof (Figure 39). Materials are similar to those of the Pumping Station Building. Foundation walls are coursed sandstone originally tooled with beaded mortar joints, though many of the joints now appear smooth, having lost their original projecting shape (Figure 40). Rectangular window openings with bricks sills contain two-over-two metal, double-hung sash windows on the south, east and west facades of this level. Access to the ground floor is provided by a door on the south façade.

On the first story, the walls are red brick laid in a running bond with smooth mortar joints. Similar to the Pumping Station Building, the bays of the first story are demarcated by Classically-derived brick pilasters with simple Tuscan capitals. The pilasters rest on a projecting brick stringcourse that encircles the building. The two outer bays of each façade of the first story contain arched window openings, while the inner bays have rectangular openings (Figures 41 and 42). Today, all of these openings contain either multi-lite industrial steel sash windows with surrounding infill brick or have been entirely infilled with brick (mid-twentieth century, possibly at the same time as the fenestration changes to the Pumping Station Building). Around this same time, a large, single-lite picture window was installed on the second floor of the east façade and the openings of the three-side entry porch were bricked in and a steel entry door installed.

When originally constructed around 1897, the Laboratory Building was three stories tall, consisting of full-height exposed basement, first floor and second floor (Figure 43). Sometime around 1909, the second floor was removed and the roof reconstructed to its present form (Figures 44 and 45). The reason for this has not been determined, but is confirmed by published RFPs and historic photographs. In 1900, the Laboratory Building was described in *Popular Science Monthly* as housing laboratories for the Bureau of Water Supply and

Distribution on the ground floor [basement] and first floor (for water analysis) and Bureau of Engineering on the second floor (for cement testing). The building sits largely vacant today, being used minimally for storage.³ Many of these testing functions were relocated to the Boiler House after it was remodeled in 1939—where some functions remain today.

Interior Description—Laboratory Building

In plan, the building is organized around enclosed stairs in the center of the building that connect the ground floor, first floor and unfinished attic. The largest space is a work room on the east side of the first floor (Figure 46). A number of original finishes remain on the interior of this floor, including original red and cream basket weave tiles on the floors of the two west rooms, painted wood floors in the large east room, four-panel wood doors and casings, and painted plaster walls (Figure 47). The ground floor is more utilitarian and contains concrete floors, painted concrete walls and a painted plaster ceiling. In the center of the east room, a cast iron column with decorative capital continues to support the ceiling (Figure 48). In the west room, the large original storage safe remains.

³ George C. Whipple, "Municipal Water Works Laboratories," *Popular Science Monthly*, December 1900.

8. History

Provide a history of the structure, district, site, or object.

The Herron Hill Pumping Station has played a significant role providing water to much of Pittsburgh for more than a century.

The first known attempt to provide a public water supply came in August 1802, just eight years after Pittsburgh was organized as a borough. The burgesses enacted an ordinance to have wells dug and pumps erected throughout the community, which numbered about 1,600 people.⁴ There was also a provision to reimburse private well owners who made their water available to the public. Within a year, the first four public wells had been dug on Market Street.⁵ Prior to this, residents relied on the rivers or springs at the foot of Grant's Hill for water for all household purposes despite complaints that water from the former was dirty and the latter smelled of sulphur.⁶

In 1813 and 1818 proposals were put forth to use steam power to pump water to elevations above the Point to allow for broad distribution of water, but there is no record that either of these projects materialized.⁷ However, the basic concept behind these initial ideas was subsequently enacted and remains valid today. Water gets pumped from the river through pipes to a reservoir on high ground above the most populated areas. From there, gravity is utilized to deliver the water downhill to users.

In 1816 Pittsburgh was incorporated as a city. As the population grew, the system of public and private wells became inadequate. By 1820, with a population over seven thousand, the problem had become acute. People waited in long lines at the wells, returned to hauling water from the rivers by hand, or purchased water from private vendors peddling water from barrels on carts in the street—five water carters are listed in the 1815 city directory.⁸

In 1824, the first concrete steps were taken to develop a general waterworks system when the City approved funds to construct a reservoir with a capacity of one million gallons on the high ground of Grant's Hill at the corner of Fifth Avenue and Grant Street (site of the present-day Frick Building) with a steam-driven pump housed at the corner of Duquesne Way and Cecil Alley to draw water from the Allegheny River (Figure 49). After some construction delays, the reservoir began reliable delivery of water by gravity in 1829. In 1832, a second pump was added to meet increased demand. At this time, Pittsburgh's population had grown to more than twelve thousand people.⁹

Over the next decade, the city outgrew this small system. Development had spread east of Grant Street up into the Hill District and water near the intake at Cecil Alley had become

⁴ E.E. Lanpher, "A Century of the Pittsburgh Waterworks," *Proceedings of the Engineers' Society of Western Pennsylvania*, 1929, 331; Pittsburgh Water and Sewer Authority, "History of the Pittsburgh Water Supply," <http://www.pgh2o.com/history> (hereafter, PWSA).

⁵ Lanpher, "A Century of the Pittsburgh Waterworks," 332.

⁶ PWSA.

⁷ Lanpher, "A Century of the Pittsburgh Waterworks," 332.

⁸ PWSA; Joel A. Tarr, "Infrastructure and City Building in the 19th and 20th Centuries," in S. P. Hays (ed.), *City at the Point: Essays in the Social History of Pittsburgh* (Pittsburgh: University of Pittsburgh Press, 1989), 222.

⁹ Lanpher, "A Century of the Pittsburgh Waterworks," 332.

increasingly contaminated (sewage and other waste were routinely disposed of in the rivers). In 1844, a new, larger pumping plant was constructed “above the City.”¹⁰ It consisted of a pumping station on the Allegheny River at Eleventh and Etna Streets (at the western end of today’s Strip District) and a 7.5 million-gallon reservoir at Prospect Street and Elm Streets (just west of the current Energy Innovation Center on Bedford Avenue in the Lower Hill District). At this time, the plant downtown from the 1820s was abandoned.

In 1847, filtration of the water supply was first recommended. While water was distributed to people’s homes and work places, it came directly from the river untreated. It would take six decades to finally remedy this situation.¹¹

In 1848, with the city’s population approaching fifty thousand and continuing to expand to the east, the City constructed an additional reservoir with a capacity of 2.7 million gallons at a higher altitude on Bedford Avenue (site of the present Bedford Reservoir Parklet and water tank at the intersection with Ledlie Street). These 1840s projects came to subsequently be known as the Lower and Upper Bedford Basins. Expansion was also a likely reaction to the great fire of 1845, in an attempt to ensure adequate water for emergency uses. By 1850, over twenty-one miles of water pipe had been laid and 6,630 dwellings, factories and shops were being served (Figure 50).¹²

In 1868, the largest annexation in Pittsburgh’s history added twenty-one square miles and 35,000 people to the City’s East End. The townships of Liberty, Collins, Peoples, Oakland; part of Pitt Township; and Lawrenceville Borough were incorporated as the city was extended to Penn Hills (then Penn Township). This expansion brought expectations for water distribution that could not be met by the supply of available water. As a stop-gap measure, additional pumping units were installed and a temporary pumping station was constructed at 45th Street and the Allegheny River in 1870.¹³

The next year, with the population having increased to over 86 thousand people, the City began a five-decade investment that has resulted in much of the water infrastructure that serves Pittsburgh today. In 1872, construction began on a 125 million-gallon reservoir at the north end of Highland Avenue (Highland Reservoir No. 1), which was put into service in 1879. To provide water, the Brilliant Pumping Station was erected on the south bank of the Allegheny River upstream of Negley Run (where Washington Boulevard meets Allegheny River Boulevard). The steam powered pumping station functioned until 1932 when it was replaced by a smaller electrified pumping station (that building still stands today). A second reservoir was also constructed, but at a lower elevation immediately to the east. However, rapidly evolving water storage technology made this low reservoir obsolete and it was never put into use. It was subsequently converted into Lake Carnegie—a recreational lake for Highland Park.¹⁴

¹⁰ Ibid., 333.

¹¹ Ibid.

¹² Tarr, 223.

¹³ Lanpher, “A Century of the Pittsburgh Waterworks,” 334.

¹⁴ PWSA.

At the same time, with the old intakes and pumping stations being phased out, planning began for the distribution of water from the new Highland Reservoir, first to the Hill District and Downtown, and soon after to the burgeoning East End. To accomplish this, the 12 million-gallon Herron Hill Reservoir was begun in 1872 and completed in 1880 in the Upper Hill District. Water was piped from the Highland Reservoir to what was an earlier iteration of the Herron Hill Pumping Station on the steep northwest corner of the present Herron Hill Pumping Station's lot (Figures 51, 52A, 52B and 53).

Completed in 1880, this first pumping station was designed by architect John U. Barr, Jr. and constructed by Moore & Caughey.¹⁵ Within a year, significant problems with the building and its site emerged. A newspaper account from May 5, 1881 reported that the facility was collapsing, having been built “upon a sliding hillside.” The boilers had sunk fourteen inches and the walls were “in such dangerous condition that they should be taken down at once to prevent accident.”¹⁶ Nine days later it was reported that the “pumping works had sunk greatly during the past few days and the roof was in great danger of falling in.”¹⁷ Over the next few years, the building underwent a series of temporary stabilization interventions as the architect and contractor pointed fingers at the City for selecting an unstable site.¹⁸ In the end, the City decided that the best course of action was to abandon the works and start over.

In 1896, City Council set aside 100 thousand dollars from the sale of bonds for a new Herron Hill Pumping Station lower on the property, closer to Centre Avenue and out of harm's way.¹⁹ Architect William S. Fraser was selected to design the new, larger facility and the request for proposals (RFP) was first advertised on February 8, 1896 (Figure 54A).²⁰

A week later, *The Pittsburgh Press* ran a lengthy article detailing Fraser's plans for the new building. Though some minor details were obviously modified as the plans were finalized, the account offers the best description found so far of the look and function of the facility.

Herron Hill Pumping Works—Plans for the New Building to Replace That Now in Use
The department of public works has advertised for bids for the erection of the new pumping house for the water plant at Center and Bellefield Avenues [at that time, Bellefield was the designation for the street on the west edge of the property]. The new plant is to replace the one now in use, and will be erected almost in front of the old building, which is at present inadequate to meet the demands of the patrons of the city supplied from Herron Hill reservoir.

The new building is to be constructed of red stock brick with brown stone trimmings, and will be practically two stories in height. Only one of these stories, however, will be above the street level. The roof will be gabled, steep in pitch and will be covered with slate. Each of the gables will be broken by two artistically designed ventilators.

¹⁵ *The Pittsburgh Daily Post*, 5 May 1881; *The Pittsburgh Daily Post*, 21 October 1879.

¹⁶ *The Pittsburgh Daily Post*, 5 May 1881.

¹⁷ *The Pittsburgh Daily Post*, 14 May 1881.

¹⁸ *The Pittsburgh Daily Post*, 25 June 1880; “The Defective Pumping House,” *The Pittsburgh Daily Post*, 5 May 1881.

¹⁹ *The Engineering Record*, v. 34, no. 1, 6 June 1896, 15.

²⁰ *The Pittsburgh Press*, 8 February 1896.

The building will have a frontage of 150 feet on Center avenue and will extend back along Bellefield Avenue for 125 feet. In the rear of the pump house and adjoining it will be the boiler house. This building will be one story in height and will be constructed after the same design as the pumping house. The interior of both buildings will be wainscoted to a height of five feet and the walls plastered with adamant plastering, which will afterwards be painted.

The immense pumps, which are now being constructed at Milwaukee, will be placed on the first story of the new building, which is below the street level. The steam ends of each of the massive engines will extend through the floor of the building and will occupy almost the entire floor space of the second story (Figures 54B and 54C). In addition to the engines there will be a small work room for the engineers. An areaway will be constructed around the foundations, which will permit those working on the first floor to have plenty of light and ventilation.

The boiler room, which is one story in height, will, when completed, have space enough for four batteries of boilers of 200-horse-power each. It is the intention of Director [of Public Works Edward] Bigelow to only place two of the batteries in at present, as it is claimed that they will be adequate to supply all the steam needed by the two monster engines in the pump house. The boilers are now being constructed by the Edgemoore Iron Company.

The engines which are to be placed in the new building are after the triple expansion pattern, and are now being built by the Edward [P.] Allis company, of Milwaukee. They will be two in number and the pumps with which they will be connected will have a capacity of 5,000,000 gallons each per 24 hours. One of the engines, the larger of the two, will be used to force water to the Herron Hill reservoir, and will be compelled to pump against 130 pounds pressure. It will have a 30-inch stroke. The smaller engine will be used for the Bedford Avenue reservoir, and will have to pump against a pressure of 65 pounds. This engine will have a 30-inch stroke. The contract for both engines was let several months ago, and the manufacturer is under bond to deliver one of the two engines on May 1. The combined cost will be \$51,000.

Supt. [A.B.] Sheppard, of the water department, said yesterday that the new engines when finished would be among the finest used in any water plant in the world. All of the exposed machinery will be of a highly ornamental character, and will be of bright work, which is easily kept clean and always presentable. Although the new plant will be constructed on a much larger scale, the force of employees that will be required to operate the station will not be increased. The station will be under the supervision of a chief engineer who will have two assistants and one man for general work.

The bids will be closed on February 2 [a likely typographical error given the date of the article], and work commenced on one of the buildings as soon as the weather permits.²¹

²¹ *The Pittsburgh Press*, 13 February 1896.

Work proceeded at a rapid pace and the building was completed by the end of the year, with the date commemorated in the frieze above the front entrance. Concurrent with the construction of the Pumping Station Building, City Council approved the erection of the Herron Hill Laboratory Building directly behind the new Pumping Station Building. An RFP was issued March 18, 1897 and Council approved money for “furnishing and placing cases and fixtures” in the new building in late September of that year—suggesting that the building was essentially complete by the end of 1897.²²

While the Laboratory Building shares many similar architectural details with the Pumping Station Building, evidence has not been discovered to confirm that Fraser was also its architect, though it is likely. Unlike the RFP for the Pumping Station Building, which indicates that plans and specifications could be obtained from Fraser’s office, the RFP for the Laboratory Building directs respondents to the Bureau of Water Supply and Distribution. The difference in approach is likely explained by Fraser’s death on April 27, 1897. It is unlikely, one month prior, that he was in any condition to handle the details of a proposal process.

The aforementioned article on “Municipal Water Works Laboratories,” in the December 1900 issue of *Popular Science Monthly* describes the Herron Hill Laboratory Building:

At Pittsburg , . . . the laboratory has been made permanent. The Department of Public Works has erected a two-story brick building, known as the Herron Hill Laboratory. The first floor and basement are used by the Bureau of Water Supply for water analysis, tests of supplies purchased and experimental work upon the filtration of water; the second floor is used by the Bureau of Engineering as a cement laboratory. In the water laboratory the floor and operating-shelves are covered with white tiles and the walls are painted with white enamel, so that the room may be washed from ceiling to floor. Steam from a neighboring boiler house is used for heating the water-baths and for distilling water. The incubators used for bacteriological work are placed in the basement, where the temperature can be kept more constant than on the floors above. The ammonia stills, sterilizers, autoclav and other apparatus are of the most modern type. A safe in the basement serves to protect the records in case of fire. One biologist, one chemist and one attendant are employed in the water laboratory, and a chemist is employed in the department of cement testing. Mr. Wm. R. Copeland is the biologist in charge.²³

With the new Herron Hill Pumping Station in place, water could be pumped to the Herron Hill Reservoir or to the Bedford Basins and then distributed by supply mains to tanks in residential areas in the East End. This became known as the Herron Hill Service.

In 1903, the Highland Reservoir No. 2 was put into service. With a capacity of 126 million gallons, it was constructed to serve low-lying sections of the city along both rivers.²⁴

²² *The Pittsburgh Press*, 18 March 1897; *Municipal Record: Proceedings of Common Council of the City of Pittsburgh*, v. 30, no. 13, 27 September 1897.

²³ Whipple.

²⁴ Lanpher, “A Century of the Pittsburgh Waterworks,” 335.

1907 marked the next major milestone in the delivery of water to the city as the first slow sand filtration plant (Ross Station) was completed on the north bank of the Allegheny River across from the Brilliant Pumping Station. By October 1908, additional filters were constructed and all of “peninsular Pittsburgh,” the area between the Allegheny and Monongahela Rivers, was receiving filtered water.

Two major additions were made to the water system with the consolidation of the City of Pittsburgh and the City of Allegheny (Northside) in 1907, and the purchase of the Monongahela Water System (Southside) in 1908. The three previously independent waterworks were merged into a greater city waterworks. The South Side received its first filtered water in February 1909 (fed directly from Highland Reservoir No. 2), and the North Side in March 1914 via the new Aspinwall Station and Lanpher Reservoir in Shaler Township. In 1912, the Mission Street Pumping Station on the Southside was placed into service, replacing an antiquated station at South 29th Street.²⁵

The benefits of filtration and chlorination of the water supply was readily apparent as water-borne illnesses decreased dramatically. For example, in 1907, with a combined population of over 535 thousand people in Pittsburgh and Allegheny, there were 5,652 cases of typhoid fever, 648 of which proved fatal. By 1911, the number of cases had dropped to less than 500 and the number of typhoid fever deaths to fewer than 100.²⁶ By 1930, only four deaths were attributed to typhoid.²⁷

As mentioned, in 1909, published RFPs indicate that the Laboratory Building was significantly remodeled, which included removal of the second floor, though the reason for this has not been determined.²⁸ In 1918, work was approved to convert the fuel source for the Herron Hill Pumping Station Building from gas to oil and to rebuild the brick foundations for the boilers. These projects were completed in early 1919.²⁹ In 1926, initial authorization was made to convert the Herron Hill pumps from steam to electricity, with work completed in 1931.³⁰

From the initiation of filtration in 1907 until the 1950s there was no further chemical treatment performed on the water. Only the addition of chlorine for disinfection and, during periods of acid river water, soda ash to reduce the water prior to filtration.³¹

However, by the mid 1950s, the slow sand filters had aged and became less effective. Alum treatment was then introduced to enhance removal of suspended solids, but that addition could still not keep up with the demand. The requirement to continue to provide satisfactory water pointed to a need for a modern and rapid sand filtration plant.³²

²⁵ PWSA.

²⁶ Ibid.

²⁷ *The Pittsburgh Press*, 23 February 1930.

²⁸ *The Pittsburgh Post-Gazette*, 5 January 1909.

²⁹ *The Pittsburgh Daily Post*, 10 December 1918; *The Pittsburgh Press*, 6 February 1918.

³⁰ *The Pittsburgh Post-Gazette*, 22 August 1931.

³¹ PWSA.

³² Ibid.

This upgrade to the system was undertaken in two stages. The first stage involved construction of a clarifier pretreatment system, to treat the water before it reached the slow sand filters. This structure, constructed in 1962 just west of Ross Pumping Station, provided for the first time complete chemical treatment for removal of iron, manganese, tastes, odors and colors from the water. The second stage involved replacement of outmoded slow sand filters in 1969 with a dual-media, rapid sand filtration system.³³

The modern-day Pittsburgh Water and Sewer Authority was created in 1984. It absorbed the water department in 1995, and became the sole proprietor of the sewer system in 1999.³⁴

³³ Ibid.

³⁴ Ibid.

9. Significance

The Herron Hill Pumping Station meets four of the ten Pittsburgh Code of Ordinances criteria for Historic Designation.

Criterion 3. Its exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship.

The Herron Hill Pumping Station is an example of the Classical Revival or Neoclassical style (popular in the Commonwealth from 1895 to 1950) successfully adapted to the specific program of a late nineteenth-century water works. Important from a design standpoint was the desire to provide large quantities of natural light and ventilation into the building along with the ability for the public to confidently view clean modern infrastructure at work inside. At this time, many municipalities and their architects turned naturally to the Romanesque Revival style (popular in Pennsylvania from 1840 to 1900) for the literal and symbolic solidity of its massive stone or brick construction and the characteristic round arches that easily lent themselves to large windows. However, William S. Fraser turned instead to Classical precedents that were becoming increasingly popular at the time. In doing so, he created a building that was more stylistically up to date, ideally suited to its prominent grassy plinth above Centre Avenue, and was lighter and airier by virtue of the way he elegantly inserted an abundance of windows into the language of the Classical arcade and entablature.

The Classical Revival style is one of the most commonly seen across Pennsylvania and around the country. It was inspired, in large part, by the World's Columbian Exposition in Chicago in 1893 (just three years before Fraser's commission for the Pumping Station), which promoted a renewed interest in Classical architectural forms. Similar to the Colonial Revival style which was popular during the same period, the Classical Revival style was more formal and monumental in its design. Relying on stylistic details of the earlier Greek Revival style, Classical Revival style buildings often have massive columns and/or pilasters with Doric, Corinthian or Ionic capitals, topped by a front facing pediment. One of the most distinctive versions of this style features a full height columned front porch topped with a classical pediment. The arrangement of windows and doors is formal and symmetrical, with the front door often flanked by pilasters or side lights and capped with a flat entablature, broken pediment or rounded fanlight. The Classical Revival style is less ornate than the Beaux Arts style which was also popular in the 1885 to 1930 period and employs similar classical details.³⁵

The Classical Revival style, with its impressive Greek temple-like form, was most often used for civic buildings such as courthouses and schools, along with banks, churches and mansions. It was never quite as popular as the Colonial Revival style for more common residential buildings. The prominent architectural firm of McKim, Meade and White designed many buildings in this style across the nation in the early years of the twentieth century. Examples of this style can be found in many Pennsylvania communities, often in the form of public buildings. One of the most outstanding examples of this style is the imposing Philadelphia Museum of Art, completed in 1928 and designed by prominent Philadelphia architects Horace Trumbauer and Julian Abele, and the firm of Zantzinger, Borie and Medary. Trumbauer and

³⁵ Pennsylvania Historical & Museum Commission, "Pennsylvania Architectural Field Guide: Classical Revival Style, 1895-1950, www.phmc.state.pa.us/portal/communities/architecture/styles/classical-revival.html.

Abele also designed the nearby Philadelphia Free Library Central Building in this style in 1927. The Classical Revival style was chosen for both of these prominent buildings along the newly laid out Fairmount Parkway, a grand boulevard designed to convey a sense of the city's cultural aspirations.³⁶

In Pittsburgh, examples of the style include First Congregational Church, Oakland (now Saint Nicholas Greek Orthodox Cathedral, 1904, 419 South Dithridge Street in Oakland, designed by Thomas Hannah—a draftsman in Fraser's office at the time of his death); the former First Church of Christ, Scientist (1904, 635 Clyde Street in Shadyside, designed by Chicago architect Solon Spencer Beman); and the earliest portion of the South Side High School (1897, 900 East Carson Street, designed by Edward Stotz). See Figures 55, 56 and 57.

Character-defining features of the Classical Revival style that are present on the Herron Hill Pumping Station include the formal symmetrical design, full height Classical pilasters supporting an entablature; the front-facing gable/pediment; and dentiled cornice.

Criterion 4. Its identification as the work of an architect, designer, engineer, or builder whose individual work is significant in the history or development of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States.

[This section is longer than a typical Criterion 4 justification since almost nothing has been written about Fraser's career. What follows is the first attempt to catalogue and understand his body of work. With this established, the Herron Hill Pumping can now be seen in its proper context. See Figure 152 for all known works in list form, arranged by date of completion].

The Herron Hill Pumping Station is significant as a skillfully-designed, surviving example of the work of late nineteenth-century Pittsburgh architect William Smith Fraser (1852 – April 27, 1897; Figure 58).³⁷ Fraser's career was short but illustrious and his architectural output considerable and varied. In a span of only eighteen years, he earned numerous important commissions, was repeatedly published in national and international illustrated architectural journals, and became one of the most highly sought-after designers of his generation in the city. It is only his premature death from cancer at age forty-four, before his career could peak, that has kept him from being studied more by architectural historians and being better known to the general public.

Prologue

W.S. Fraser (as he was known in most published accounts per nineteenth century convention) was born in 1852 in Wellsville, Ohio, forty-five miles northeast of Pittsburgh on the Ohio River. Census records from 1860 indicate that his household consisted of father, William Frazer [*sic.*], age 56, a carpenter by trade, born in Scotland; mother Margaret, age 46, born in Ohio; six children, including William, age 7; and an Alexander Frazer, age 20, presumably a

³⁶ Ibid.

³⁷ Most accounts indicate Fraser's birth year as 1852. His marriage license indicates July 1852 (with the day illegible). His obituary in *The Pittsburgh Bulletin* (1 May 1897) lists this year as does his obituary in *The American Architect and Building News*, which also indicates his birth day as July 19. The 1880 US Census appears to confirm this, listing Fraser's age as 27 (the enumeration date of June 1, 1880 being a month or two shy of his twenty-eighth birthday). However, the official registration of his April 27, 1897 death lists his age as 42 (suggesting he was born in 1854).

relative, listed as an apprentice carpenter. In 1870, the Census was enumerated on June 1 at the Fraser household and listed William, then age 18, at home and working as a carpenter alongside his father and brother Phillip (Figure 59). His obituary in *The American Architect and Building News* indicated that around this time he “began his professional training in the offices of various New York architects, pursuing certain courses of study at the Cooper Institute during the same time.”³⁸ While no records have yet been found connecting him to any specific New York architectural firms, Fraser confirmed years later that he spent considerable time in New York City educating himself at the Cooper Institute (see discussion of his entry for the Carnegie Library in Allegheny below).³⁹ His obituary suggests that he spent five years in New York before “he went to England and became a pupil of William Burges, studying likewise at the Royal Academy Architectural School, and spending time on the Continent, sketching and measuring.”⁴⁰

Fraser’s admission to the Architectural School of the Royal Academy in London was recorded in the July 22, 1876 edition of *The Architect: A Weekly Illustrated Journal of Art, Civil Engineering and Building*.⁴¹ He appears to have had a successful Probation, or initial period of study. At the 1876-77 presentation of Institute Medals and Prizes, he received a Certificate of Honourable Mention for measured drawings of the thirteenth-century French Gothic **Laon Cathedral**.⁴² He was successfully admitted to the second term of study, known as Lower School, in early 1877, which was again recorded in *The Architect* as well as in *The Builder: A Journal for the Architect & Constructor* (Figure 60).⁴³

In 1878, the first-known work by Fraser to be published was a measured drawing of the thirteenth-century Gothic **Coutances Cathedral** in France, which he completed with his classmate, A.S.F. Kirby. The drawings were described in the November 1 edition of *The Building News and Engineering Journal* of London and the lithographic illustrations printed in the November 15 edition (Figure 61). The editor indicated that the “very careful measurements and half-inch details. . . were made and completed on the spot. . . in July 1877” and assessed that Fraser and Kirby had chosen a worthy case study, indicating that “though the present building is considered by M. [Eugene] Viollet-le-Duc and M. [Arcisse] de Caumont [leading authorities on Gothic architecture] to have been completely rebuilt in the early years of the 13th century. . . it is one of the most complete examples of the French Pointed Gothic.”⁴⁴ Fraser’s time spent measuring and drawing the cathedral with Kirby would serve him well in his subsequent career, as he would turn repeatedly to Coutances for inspiration.

³⁸ *The American Architect and Building News*, “Obituary,” v. 56, no. 1115 (8 May 1897), 42.

³⁹ New York City directories for 1871 and 1872 each contain two entries for a “Fraser, William, carpenter” that bear further investigation.

⁴⁰ *The American Architect and Building News*, “Obituary,” v. 56, no. 1115 (8 May 1897), 42.

⁴¹ Fraser was one of fourteen students admitted as Probationers along with three Students of 1st Class and ten Students of 2nd Class (*The Architect: A Weekly Illustrated Journal of Art, Civil Engineering and Building*, “The Royal Academy, 22 July 1876, v. 16).

⁴² Royal Institute of British Architects, Transactions, London, 1877, 45; also reported in the March and June 1877 editions of *The Architect*. Fraser’s address in London is listed as 34 Gower Place, Euston Square.

⁴³ *The Architect* (24 February 1877, v. 17, 130); *The Builder: A Journal for the Architect & Constructor* (24 February 1877). No published record has been found of his admission to or completion of the final stage, or Upper School.

⁴⁴ *The Building News and Engineering Journal* (1 November 1878, v. 35, 448).

No details have been found describing Fraser's tutelage under William Burges (1827-1881). However, J. Mordaunt Crook, the foremost biographer of Burges, describes an architectural office that regularly hired pupils to work alongside the master and his handful of long-term associates.⁴⁵ It was also an office that encouraged travel as an essential for any young architect—a practice that seems to have been embraced by Fraser during his time in London, and possibly again after settling in Pittsburgh. "All architects should travel," Burges believed, "but more especially the art-architect; to him it is absolutely necessary to see how various art problems have been resolved in different ages by different men."⁴⁶

Among the greatest of the Victorian art-architects, Burges sought in his work to escape from both nineteenth-century industrialization and Neoclassical architectural style and re-establish the architectural and social values of a utopian medieval England. Scholars have tended to see Burges resolutely stuck in thirteenth-century France for his inspiration with little tolerance for designs other than French Gothic. However, more recent research, like that by Crook, paints a portrait of a more inquisitive, playful, creative designer who drew on a number of sources, including the arts of the Middle Ages, the Islamic world and East Asia and who was "able to turn his hand to almost anything; from cathedrals in Brisbane, an art school for Bombay, a chimney piece for Lord Charrington, to miscellaneous furniture, lecterns, candelabra, pulpits, goblets and even bishops' mitres."⁴⁷

While Fraser was clearly schooled in the Gothic Revival, as seen from his early measured drawings of French cathedrals, he would establish an architectural practice adept at working in a multitude of styles—both traditional and contemporary. He would also demonstrate an ability, not unlike that of Burges, to adapt these designs to a variety of building types, including some of Pittsburgh's earliest skyscrapers, churches, residences and utilitarian structures like warehouses and the Herron Hill Pumping Station. As *The American Architect and Building News*, affirmed: "Those who recall the designs executed by Mr. Fraser . . . will appreciate how thoroughly he was imbued with Burges's love for thirteenth-century Gothic, and how skillfully he modified it to meet the conditions of our time and civilization."⁴⁸

1879

In 1879, Fraser began his architectural practice in Pittsburgh. His name first appears in the city directory that year, where he is listed as "architect" with a business address of McCance's Block, the triangular block bounded by Smithfield Street and Liberty and Seventh Avenues. One of his first commissions was for a **New Insane Department for the Guardians of the Poor** at the city poor farm, then located on the Southside and later subsumed by the Carnegie Steel Company's Homestead Steel Works in 1892 (Figure 62).⁴⁹ Today, the site is the parking lot for the Lowe's store in Munhall.

1880

⁴⁵ L. Mordaunt Crook, *William Burges and the High Victorian Dream* (Chicago: The University of Chicago Press, 1981), 80.

⁴⁶ Burges quoted in L. Mordaunt Crook, 44.

⁴⁷ "Study Guide: Gothic Revival," Victoria and Albert Museum, <http://www.vam.ac.uk/content/articles/s/style-guide-gothic-revival/>; "William Burgess (1827-1881) – Thinkpiece," *The Architectural Review*, <https://www.architectural-review.com/essays/william-burges-1827-1881/10016439.article>

⁴⁸ *The American Architect and Building News*, "Obituary."

⁴⁹ *The Pittsburgh Daily Post*, June 17, July 1 and August 23, 1879.

In 1880, Fraser was living in Sewickley with his sister Kate, her husband John D. Miller, and their family. The 1880 US Census lists Fraser as an architect and a boarder; John Miller as a school teacher; and Kate Miller as a house keeper. While only one year into practicing as a professional architect, Fraser was already being noticed by the national architectural press. That year, plans for two new buildings and one measured drawing were published in *The American Architect and Building News*.

For his current hometown, Fraser had created “**A Competitive Sketch for Sewickley M.E. Church,**” which the journal’s editors selected for publication (Figure 63).⁵⁰ It shows a front elevation concept for a large French Gothic Revival house of worship with large bell tower and steeple reminiscent of Coutances Cathedral. His design does not appear to have been constructed.

However, his design for a “**Public School House, Wellsville, Ohio,**” in his childhood home was constructed (Figures 64 and 65).⁵¹ The published drawing and photographs of the completed building show a large, symmetrical, three-story, red-brick building with four projecting wings and a 120-foot tower modeled after the Palazzo Vecchio in Florence. Inside, it contained twelve classrooms all located in the wings to provide natural light and fresh air on three sides, and a public hall on the third floor suitable for concerts and featuring moveable partitions. *The Saturday Review* of East Liverpool, hailed it as “the model school house of Eastern Ohio” and praised their “talented young townsman” for both his adherence to historical precedents and his ability to adapt them: “The character of the style has been rigidly adhered to throughout, so that should any one conversant with architecture as an art visit our town, they will find a perfect example of early French Gothic architecture, i.e., as far as the requirements of a modern school building will permit of an ancient style of architecture being used.”⁵² It is not known if Fraser’s connections to his hometown played any role in him securing the commission. The school was demolished in 1955.

Lastly, a second measured drawing by Fraser and his former classmate A.S.F. Kirby was published. The subject matter was “**Old Timber House, Rue St. Malo, Bayeux, France,**” and was described as having been “made on the spot by Wm. S. Fraser and A.S.F. Kirby.”⁵³ The page shows a front elevation, section and profile of the side wall (Figure 66). Apparently, the building still exists and is today the Grand Hôtel d’Argouges.

1881

While specific projects have not been identified for the year 1881, news of one event surely would have reached Fraser. On April 20, his mentor, William Burges, died in London at the age of fifty-four.

1882

Fraser’s next known major commission demonstrates his ability to readily shift stylistically and typologically. It also shows his confidence to design for a significant firm with a nationwide

⁵⁰ *The American Architect and Building News*, 16 October 1880.

⁵¹ *The American Architect and Building News*, 12 June 1880. *The Saturday Review* of East Liverpool, Ohio identifies the builder as “Contractor McCoy” (7 August 1880).

⁵² *The Saturday Review*, East Liverpool, 11 September 1880.

⁵³ *The American Architect and Building News*, 14 August 1880.

business presence. This would be seen again in his work for Standard Oil Company and Standard Manufacturing (see below). The September 9, 1882 edition of *The American Architect and Building News* illustrates “Warehouses for Messrs. Arbuckles & Co.” (Figure 67). These were a six-story commercial office building at 808 Liberty Avenue Downtown and an eight-story warehouse to the rear on Strawberry Way that were part of brothers John and Charles Arbuckle’s wholesale grocery business. In 1868, their company became the first to prepackage roasted coffee. Before this, coffee was sold “green,” by the raw bean, and would require roasting at home.⁵⁴ By 1879, having also invented a machine that automatically measured one pound of coffee into an oiled bag, they were ready to expand and automate and turned to W.S. Fraser, whose office was just one block away, to begin planning their new operations.

Fraser connected the two buildings, which were separated by Church Way, with elevated walkways. Church Way was eventually renamed with the honorific moniker it has today of Coffey Way [*sic.*]. Fraser’s rendering graced the Arbuckles & Company letterhead and other business documents of the company in the 1880s and 1890s, even though most of their coffee roasting was then being handled at their plant in Brooklyn, New York. Within the next decade, Arbuckles would become “the largest importer of coffee on the continent” and “the largest firm in the country in the business of roasting coffee for sale in small packages.”⁵⁵ In 1910, a photograph was taken in Pittsburgh from Liberty Avenue looking south on Wood Street, which shows the right-most bay of the office building (Figure 68). A photograph of Harry Houdini performing an escape in 1916 shows most of the front façade (Figure 71B). Neither Pittsburgh building remains today. The warehouse burned in 1916 and was subsequently demolished to make room for a rear addition to the Duquesne Club and the commercial block is reported to have not been worth salvaging after the 1936 flood. Today, a two-story building from the late-1930s sits on its site and contains a number of fast food restaurants. However, four bas-relief stone sculptures have been incorporated into the rear wall of the current building facing Coffey Way. They are remnants from the old Arbuckles building and have been identified by Rick Sebak as Abraham Lincoln, George Washington, the Liberty Indian and an unknown woman (Figure 69, 70 and 71A).⁵⁶

1884-85

Fraser had a number of commissions that allowed him to combine his religious faith with his architectural skills. He was a devout Presbyterian and member of the Young Men’s Christian Association of Pittsburgh from the time of his arrival in 1879 until his death, and was a member of their board of directors from 1885 onward.⁵⁷ The relationships he developed within the religious community, especially among Pittsburgh’s East End Presbyterians, would account for many of his commissions. In 1884, he designed the **Freedman’s Mission School** in Norfolk, Virginia, on the corner of Princess Anne Avenue and Charles Street (no longer extant; no known drawings or photographs) to serve the educational and spiritual needs of over 770 African Americans who were unable to obtain a quality education in antebellum Norfolk. This

⁵⁴ Ruth McCartan, Allegheny City Society, “The Arbuckle Family Fortune: Cotton, Coffee, Sugar,” *Reporter Dispatch*, v.4, no. 1, Special February 2000 issue.

⁵⁵ *The National Cyclopaedia of American Biography*, v. 15 (New York: James T. White & Company: 1916), 25; *The Scrap Book*, First Section, v. 4, July-December 1907 (New York: The Frank A. Munsey Company: 1907), 1082.

⁵⁶ Rick Sebak, “Pittsburgh was the Coffee Capital of America!” *Pittsburgh Magazine*, 29 April 2010.

⁵⁷ *The Pittsburgh Post-Gazette*, 15 May 1897.

particular school was developed, in large part, through the mission efforts of the United Presbyterian Church, so it is not known if Fraser worked for fee or pro bono.⁵⁸ Two years later, he designed the **Freedman’s Mission Teacher’s Home** on a lot adjoining the school property.⁵⁹

The year 1884 also marked the beginning of a long and profitable patronage under petroleum pioneer Charles Lockhart. Lockhart is a very significant, but often overlooked, force in Pittsburgh’s nineteenth century industrial and financial development. He built the first commercial scale oil refinery in Pittsburgh in 1861. In 1872, he teamed with John D. Rockefeller, Henry M. Flagler, and William G. Warden to start the South Improvement Co., which subsequently became the Standard Oil Company. Lockhart received Standard Oil stock in exchange for the seven refineries that he then owned. From 1874 to 1892, Lockhart served as President of the Standard Oil Company of Pittsburg.⁶⁰ He was also actively involved in the affairs of the United Presbyterian Church, especially at Sixth United Presbyterian Church, where he was a member. Shortly after his death in 1905, the financial community was astounded to learn that his estate was valued at \$200 million. By comparison, Andrew Carnegie’s estate was \$300 million and Rockefeller’s was \$250 million. Henry Clay Frick and J.P. Morgan were valued at a mere \$70 million and \$60 million, respectively.⁶¹

Lockhart hired Fraser to design a new office for **Standard Oil of Pittsburg** on the southeast corner of Duquesne Way (present Fort Duquesne Boulevard) and Eighth Street Downtown. On September 30, 1884, *The Pittsburgh Press* reported that the old headquarters was being demolished. A rendering of the new building was published in the August 8, 1885 edition of *The American Architect and Building News* (Figure 72). The three-and-one-half-story building was decidedly Romanesque Revival in style with round-arched openings, deeply-set windows, heavy brick walls, carved stone details, ornate cushion capitals, and steeply pitched hipped roof clad in slate. In 1915, as part of the documentation of street improvements to Duquesne Way, the Pittsburgh City Photographer captured an image of the building (Figure 73). The building stood into the mid twentieth-century; today the lot is occupied by Goodyear Auto Service.

In November 1884, Fraser published a request for proposals for the erection of a frame **carriage house and wash house**; their location have not been determined.⁶²

In the summer of 1885, *The American Architect and Building News* published the first known residential design by Fraser. The June 6, 1885 edition shows “**The Residence of H.L. Richmond, Esq., Jr., Meadville, PA**” (Figure 74). Richmond was a prominent attorney and former mayor of Meadville, ninety miles north of Pittsburgh. Constructed on Diamond Park Square in the center of town, the two-and-one-half story brick house was designed in the Queen Anne style. As shown in Fraser’s drawing, it had a steeply pitch hipped roof with lower

⁵⁸ “Report of the Board of Freedmen’s Missions,” *Minutes of the Twenty-Sixth General Assembly of the United Presbyterian Church of North America—Appendix*, May 28-June 4, 1884, v. 6, no. 1, 72.

⁵⁹ “Report of the Board of Freedmen’s Missions,” *Minutes of the Twenty-Eighth General Assembly of the United Presbyterian Church of North America—Appendix*, May 6-June 2, 1886, v. 6, no. 3, 473.

⁶⁰ Alfred N. Mann, “Some Petroleum Pioneers of Pittsburgh,” extended draft for *Western Pennsylvania History Magazine*, Summer 2009; Ida M. Tarbell, *The History of the Standard Oil Company* (New York: McClure, Phillips & Co., 1905).

⁶¹ *The New York Times*, 4 February 1906; Quentin R. Skrabec, *The World’s Richest Neighborhood: How Pittsburgh’s East Enders Forged American Industry* (New York: Algora Publishing, 2010).

⁶² *The Pittsburgh Post-Gazette*, 21 November 1884.

cross gables, asymmetrical facades, a wrap-around front porch, turned wooden porch posts, a cutaway bay window, second-story porches, and decorative half-timbering in the front gable. The house still stands today, though it has lost some of its details (Figure 75).

A week after publication of the Richmond House drawing, *The Pittsburgh Post-Gazette* published a request for proposals from W.S. Fraser on June 13, 1885, to obtain bids from contractors for “altering and adding to **Hill Schoolhouse**, Twelfth Ward, Allegheny.” Plans were made available at his office, which was then listed as being in the Y.M.C.A. Building at Penn Avenue and Seventh Street. The location and status of this school have not been determined.

Fraser likely closed out 1885 finalizing the design for the **Pittsburgh Daily Post Building** on the southwest corner of Wood Street and Virgin Alley (present-day Oliver Avenue). Reporting on the progress of their own building, *The Daily Post* provided a drawing and lengthy description of their new edifice and indicated that construction commenced on March 15, 1886 and was completed by August 12, 1886 (Figure 76).⁶³ The five-story structure was characterized as being “of the modern style of architecture” with pressed brick walls and stone facings with a cornice stone reading “Post Building” and “1886.” The corner lot allowed Fraser to design a building with abundant natural light. “No other building in the city, probably, has such a well-lighted interior. Large windows of plate glass pierce the outside walls at every available place. The entire front may be said to consist of glass, the handsome, ornamental walls, merely forming a strong frame for them.” The building measured 25 feet wide on Wood Street and extended back 80 feet. Walls ranged from 22 to 18 inches in thickness. Following the exterior description, a floor-by-floor description of the interior was provided. Lastly, the editors thanked Fraser for the “symmetry of design and beauty of details,” then thanked contractor C.A. Balph and all of the other contractors involved in the project. Today, the site is occupied by the north wing of One PNC Tower.

Construction of the new building was one of the last major projects initiated by Colonel James P. Barr, veteran editor of *The Daily Post*. He died after an extended illness only a month after the building was completed. Upon his death, his son A.J. Barr managed the paper as part of the newly organized Post Publishing and Printing Company, of which he was president. It was the younger Barr who published the above account of the new building and the accolades of Fraser. In less than four years, he would again hire Fraser—this time to design a new residence in Shadyside (see below).

1886-87

The commission from Charles Lockhart for the Standard Oil Company Building was not the only proof that Fraser had established a successful firm in just a few years’ time. A letter from the archives of Henry Clay Frick illustrates that he was attracting attention from the very biggest names among Pittsburgh’s elite. The short note, dated July 26, 1886 is from Henry Clay Frick to Andrew Carnegie and reads:

My dear Mr. Carnegie:-

⁶³ *The Pittsburgh Daily Post*, 4 October 1886.

I learned through Mr. Chas. Lockhart, of this city, of an architect by name of W.S. Fraser Corner Penn & 7th Sts., Pittsburgh, who is considered by Mr. Lockhart as a genius in his line. Mr. Lockhart speaks so highly of his capabilities that I thought it well to bring him to your notice.

He spent five years in Europe most of the time in London with some famous firm whose name Mr. L. did not remember and when he left them he was their head man.

Respectfully yours,

H.C. Frick

In May 1886, Andrew Carnegie announced his desire to erect a free **Public Library for the City of Allegheny**.⁶⁴ Allegheny had been his first home in the United States and it would become the first American city to receive a Carnegie library gift. A library commission was formed, with half the members appointed by Carnegie and half appointed by the City. In July, after touring libraries in major East Coast cities, “five architects with a National reputation” were asked to submit plans by October 1.”⁶⁵ Among the invitees was Smithmeyer and Pelz of Washington, DC, whose principals were finalizing designs for the Library of Congress, and Shepley, Rutan and Coolidge of Brookline, Massachusetts, the successor firm to H.H. Richardson, which was overseeing construction of the Allegheny County Courthouse.⁶⁶ According to *The Post-Gazette*, the committee made it clear that “Home talent is not to be shut out, though, and if any city architect presents a plan of equal merit he will secure the contract for building the library.”⁶⁷

Eighteen entries were ultimately submitted, including six from local firms.⁶⁸ Smithmeyer and Pelz’s Romanesque Revival design ultimately received unanimous approval on January 10, 1887. However, it was Fraser’s refined design—which he described as “early French-Gothic with an Early English feeling”—that captivated the professional press, who reproduced and discussed it at length, both domestically and internationally—a considerable coup and affirmation of his talents.⁶⁹

The editors of *The American Architect and Building News* made the unprecedented decision to feature Fraser’s submission in their next possible issue, with no mention of Smithmeyer & Pelz, stating: “We adopt the very unusual course of devoting all the illustrations of this issue to a single design—and that, too, not the successful one—submitted in a recent competition. But since, *comme dessins* to say the least, the work is of unusual excellence we believe that we shall not be too severely chidden.”⁷⁰ Their coverage of Fraser’s design included a detail of

⁶⁴ “Allegheny Library,” *The Pittsburgh Post-Gazette*, 31 May 1886.

⁶⁵ “Specifications Ready,” *The Pittsburgh Post-Gazette*, 14 July 1886.

⁶⁶ Abigail A. Van Slyck, *Free to All: Carnegie Libraries & American Culture* (Chicago: University of Chicago Press, 1998): 11.

⁶⁷ *The Pittsburgh Post-Gazette*, 14 July 1886.

⁶⁸ “The Plans Opened,” *The Pittsburgh Post-Gazette*, 7 December 1886.

⁶⁹ “The Carnegie Library: Plans of the Building Adopted Yesterday,” *The Pittsburgh Daily Post*, 11 January 1887; *The American Architect and Building News*, v. 21, no. 581 (12 February 1887): 80.”

⁷⁰ *The American Architect and Building News*, v. 21, no. 581 (12 February 1887): 80. The phrase *comme dessins* here means “as drawings.”

dormer followed by three 2-page spreads featuring plans, perspectives, elevations and additional details—nine drawings in total (Figures 77-80).

The German architectural and building trade journal, *Centralblatt der Bauverwaltung*, featured the Allegheny Library competition in their December 10, 1887 edition. While they were perhaps more balanced than *The American Architect and Building News* in their coverage, they had considerable praise for Fraser, calling him an excellent talent with an independent concept and concluding that his artistic design equaled if not surpassed that of the winning firm (Figure 81). In perhaps a subtle indication of their design preference, they published four drawings by Fraser (front elevation, plan, interior elevation and detail) but only two by Smithmeyer & Pelz (perspective and plan).⁷¹ The French architectural journal, *Le Moniteur des Architectes*, also carried favorable coverage of Fraser's design for the library, stating that Fraser had been the main competitor of Smithmeyer & Pelz and that his "plans were no less remarkable."⁷²

In the narrative that accompanied his drawings for the Carnegie Library competition, Fraser offered some insights into his personal life in the interval between Wellsville and London and shared the value he placed on educational opportunities. Explaining the program for the second and third floors, he proposed that space be set aside "for a free art school and galleries." He wrote, "The author remembers with gratitude several years in which he spent all his evenings in Cooper Institute [i.e., Cooper Union], New York, gaining free an education which he could not otherwise have obtained; and for the sake of the poor boys who crave an art education, in our vicinity, would respectfully ask that the Committee, even [if] they do not adopt his plans, would consider a school of this kind in connection with the institution they are about to organize. . . ."⁷³

1888

The loss of the Carnegie Library competition in 1887 did not slow Fraser down. In fact, it is likely that coverage of his design in the local and professional press increased his notoriety and his business prospects. He spent 1888 working on a variety of commercial and residential projects, had a paper on fireproofing published in a professional journal, and rounded out the year with an entry in one the most important ecclesiastical design competitions in the nation.

His most significant commercial project that year was for a new **National Bank of Commerce Building**—one of Pittsburgh's first skyscrapers—on the southeast corner of Wood Street and Sixth Avenue. Announcement of Fraser's commission was covered locally in the September 24 edition of *The Pittsburgh Press*, which indicated that Robert McCain & Co., would serve as general contractor and that the estimated cost was \$200,000. The October 29 edition of *The Philadelphia Real Estate Record and Builders' Guide* reported additional information, stating that "The new bank building to be erected by the National Bank of Commerce will be eight stories high, or about 131 feet. It will have a frontage of 74 feet on Wood Street, and 60 feet on Sixth Ave. The style of architecture will be French Gothic. The front will be of granite [from the Hallowell quarries in Maine]. The building will be nine stories in the rear. The first floor

⁷¹ *Centralblatt der Bauverwaltung*, 10 December 1887. The article also indicates that Fraser was awarded second prize in the Allegheny Library design competition, but no other sources have been found to corroborate this claim.

⁷² *Bibliothèque de Pittsburg*, "Le Moniteur des Architectes," v. 2, A. Levy, ed., 1888.

⁷³ *The American Architect and Building News*, v. 21, no. 581 (12 February 1887): 80.

will be occupied by the bank, the upper stories for offices. Three fire-proof vaults will be erected on each floor, and the building will be provided with two passenger elevators.”⁷⁴ Sanborn Fire Insurance Company maps and newspaper accounts indicate that Fraser designed a steel frame commercial tower with “beams, columns and girders of iron, covered with terra cotta” in order to be “as near fireproof as possible.”⁷⁵ This was testament to Fraser’s ongoing concern for public safety and illustrates his application of the latest construction techniques to a building type in which he had not previously worked. The world’s first steel skeleton skyscraper, the Home Insurance Building in Chicago, had only been completed three years earlier in 1885.

It should be noted that the Pittsburgh in which Fraser was designing at this time was still a low-rise metropolis consisting largely of buildings under five stories—many constructed after the great fire of 1845. A review of all downtown buildings shown on the 1893 Sanborn maps shows a sea of pink (signifying a city of predominantly brick buildings) and a smattering of yellow (indicating frame structures). Only six buildings are shown in tan (the color for fire-proof buildings). At least one of these, the Westinghouse Building at Penn Avenue and Ninth Street, was built after the National Bank of Commerce. Of the remaining five, Fraser’s new bank is the tallest.

Charles Lockhart, Fraser’s patron for the Standard Oil Company Building, served on the board of the National Bank of Commerce at the time, suggesting a possible factor in Fraser being awarded the project.⁷⁶ The building, which later became the Home Trust Building and then the Grogan Building, was torn down in 1966. Today, the site is home to the K & L Gates Building, which was completed in 1966.⁷⁷

Smaller commercial work in 1888 included plans for a three-story brick store and office at 6123 Penn Avenue in East Liberty for **Denholm Brothers Meat Market**.⁷⁸ The company had been renting the storefront of the Flath Building at 6229 Penn Avenue (site of the current Target store) prior to this. The two-bay wide building featured an ornate brick cornice with carved stone accents. It stood until the summer of 2018, when it was demolished by Alpha Prime East Liberty LP, which reportedly plans to construct a new building on the site (Figures 84, 85 and 86A). In recent years the building had been home to Yen’s Gourmet Chinese Restaurant.

That same year, Fraser is listed as “the architect for **eight tin roof, stone and brick stores**, to be 30 x 120 feet, and to be erected on Fifth Avenue, Pittsburg, to cost \$29,000. C.A. Balph has

⁷⁴ *The Philadelphia Real Estate Record and Builders' Guide*, v. 3, no. 43 (21 October 1888).

⁷⁵ *The Pittsburgh Dispatch*, 19 December 1889.

⁷⁶ George H. Thurston, *Allegheny County's Hundred Years* (Pittsburgh: A.A. Anderson & Son, 1888), 266.

⁷⁷ In his essay, “The Romanesque Revival in Pittsburgh” (*Journal of the Society of Architectural Historians*, Vol. 16, No. 3, Romanesque Issue, Oct., 1957, 22-29), James D. Van Trump arguably describes the Commerce Bank/Grogan Building as Romanesque. It is not known if the French Gothic description in *The Philadelphia Real Estate Record* came from Fraser. In the same essay, Van Trump attributes the design to Struthers and Hannah (who both worked for Fraser), but no other documentation of their involvement has been found, while much exists to credit Fraser. It is possible that Van Trump’s misattribution stems from a notice in the May 1904 edition of *Ohio Architect and Builder*, that does indicate that Struthers and Hannah were hired “for altering of the former Commercial National Bank Building at 316 Fourth Avenue”—a wholly different building.

⁷⁸ *The Philadelphia Real Estate Record and Builders' Guide*, v. 3, no. 52 (31 December 1888).

the contract.”⁷⁹ With no other information provided, it has not been confirmed that these were built and where on Fifth Avenue they were located.

Fraser also designed **two brick store buildings for C.B. and R.M. Head**. The buildings at 1230 and 1232 Penn Avenue measured 36 x 100 feet, had tin roofs and cost \$15,000 (Figures 86B and 86C).⁸⁰ The buildings were completed in 1889 after work was initially delayed by a neighbor’s lawsuit over the location of a party wall.⁸¹ Brothers Charles B. and Reuben M. Head were local businessmen who rented the two stores and apartments above as investment properties. Charles B. Head was the owner of Keystone Nut and Bolt Works in Allegheny. Today, the site is home to Penn Liberty Plaza I (1200-1250 Penn Avenue; a Buncher Company property).

It is known from publication in professional journals that Fraser completed drawings for at least three major residences in 1888. In March, *The American Architect and Building News* published his design for a **“House for James McKay, Esq.”**⁸² The house, known as “Oak Hill,” stood on a five-acre lot at the north end of Amberson Avenue in Shadyside on a hillside that extended to Centre Avenue above the Shadyside Station of the Pennsylvania Railroad (Figure 87). McKay was founder of the James McKay Company, a manufacturer of metal chains and was also active in the early oil and gas industry in Pittsburgh. In December 1891, *The Philadelphia Real Estate Record and Builders' Guide* indicated that “James McKay has taken out a permit for the erection of a three-story stone dwelling to be erected at Shady Side, Pittsburg, at a cost of about \$35,000.”⁸³ This was an impressive price for a home at the time and would have represented a significant commission for Fraser’s firm. While photographs have not been uncovered, Fraser’s rendering aligns with the footprint of the house shown in the 1903 edition of the Sanborn Fire Insurance Company map and the 1904 edition of the G.M. Hopkins Company map (Figure 88). While somewhat eclectic, the design appears to have been generally Queen Anne in style. Fraser’s illustration shows a massive house with rough-faced ashlar walls and a steeply-pitched hipped roof with multiple cross gables and gabled dormers. Facades were asymmetrical, with numerous projecting bays, porches and balconies. A three-story octagonal tower on the northwest corner would have been the main feature visible to guests arriving from the Centre Avenue entrance to the estate. In 1914, McKay’s daughter Edna married architect Benno Janssen at the family estate.⁸⁴ The house stood until the early 1950s, when a series of brick apartment buildings known as Amberson Towers and Gardens were built on the former McKay property reportedly to help solve the city’s post-war housing shortage.⁸⁵

In June 1888, *The Pittsburgh Daily Post* reported that a building permit had been issued for a **House for Dr. T.A. Rex** on the northeast corner of Neville Street and Ellsworth Avenue at a

⁷⁹ *The Philadelphia Real Estate Record and Builders' Guide*, v. 3, no. 41 (15 October 1888).

⁸⁰ *Architecture and Building: A Journal of Investment and Construction*, v. 9, no. 21 (November 24, 1888).

⁸¹ *The Pittsburgh Press*, 30 September 1894.

⁸² *The American Architect and Building News*, v. 23, no. 639 (24 March 1888).

⁸³ *The Philadelphia Real Estate Record and Builders' Guide*, v. 6, no. 51 (23 December 1891).

⁸⁴ *The Pittsburgh Post-Gazette*, 15 February 1914.

⁸⁵ *The Pittsburgh Post-Gazette*, 7 September 1949.

cost of \$12,000.⁸⁶ Shortly thereafter, *The Philadelphia Real Estate Record and Builders' Guide* offered that it would be in the Queen Anne style and that the stone would come from the Kerper quarry at Chestnut Hill in Philadelphia.⁸⁷ In January 1889, *The Times* newspaper of Philadelphia reported that “Dr. Thomas Rex. . .is very much please with his new house, recently erected in Pittsburgh. . .[with stone] laid by Jacob Uhle, the stonemason” of Chestnut.⁸⁸ A photograph taken during the first decade after construction shows that Fraser designed it to fit its corner lot well. The Queen Anne-style house, clad in rough-faced stone, featured a large gable facing Neville and a prominent cross gable facing Ellsworth. At the southeast corner was a round, three-story tower anchored at its base by a wrap-around porch that welcomed visitors from either street. On the Neville side was a porte-cochere with hipped roof (Figure 89). Rex was a prominent Pittsburgh physician who was born in Pittsburgh and had served as an army surgeon in the Civil War during 1864 and 1865. He later practiced medicine in Pittsburgh until 1904, when he retired to Los Angeles. He died there in 1914.⁸⁹ A decade after the house was completed, the Church of the Ascension was constructed on the lot to the north. In 1918, the Church purchased the house and immediately tore down the garage near the front entrance of the church.⁹⁰ The 1923 G.M. Hopkins Company map indicates that house was then serving as the church rectory. Based on Sanborn Fire Insurance Company maps, the house was torn down sometime between 1924 and 1951. Today, the triangular lot where the Rex house stood is the south lawn of the church.

In July, *The American Architect and Building News* published Fraser’s design for a **“House for Moses Atwood, Esq.”** (Figure 90).⁹¹ The house was located at 946 Ridge Avenue, in what was then Allegheny City, near the intersection of Ridge and Allegheny Avenues. Today, the site is the parking lot for a Subway restaurant. Moses Atwood and his brothers Henry and Frederick were members of the firm of Atwood & McCaffrey Brass Founders, which later became the Pittsburgh Valve Foundry and Construction Company. The two-and-one-half story stone house was designed in the Queen Anne style. As shown in Fraser’s drawing, it had a steeply pitch hipped roof with lower cross gables, a corner tower, asymmetrical facades, a full-width front porch, paired wooden porch posts, decorative gables and large corbeled chimneys.

Around this time, Fraser relocated from Sewickley to 306 Shady Lane in Pittsburgh’s East End.⁹² The house he moved to was near the corner of Shady Avenue and Alder Street. The property is now the east lawn of the Depaul School for Hearing and Speech across from Calvary Episcopal Church.

The Southern Insurance Directory published a paper in its 1888 edition that Fraser had delivered to a group of fire underwriters in Pittsburgh. In the paper, he argued that the term “fire-proof” was misleading and that “fire-resisting” should instead be used. He then explains the best way to “construct our most fire-resisting building” and provides considerable detail

⁸⁶ *The Pittsburgh Daily Post*, 13 June 1888. Attribution to Fraser comes from a description of Fraser’s firm in *History and Commerce of Pittsburgh and Environs* (see below).

⁸⁷ *The Philadelphia Real Estate Record and Builders' Guide*, v. 3, no. 25 (25 June 1888); v. 3, no. 43 (29 October, 1888).

⁸⁸ *The Times* (Philadelphia), 27 January 1889.

⁸⁹ *The Los Angeles Times*, 2 April 1914.

⁹⁰ *The Churchman*, 30 March 1918, 433.

⁹¹ *The American Architect and Building News*, v. 24, no. 657 (28 July 1888).

⁹² Pittsburgh City Directories.

about materials and construction techniques for all major components, including walls, roofs, windows, doors, floors, stairways, and elevator shafts.⁹³ Fraser's approach and careful attention to detail proved invaluable a decade later when the Joseph Horne department store and office buildings survived a major fire. Fraser had designed them with the very latest fire-resisting techniques. The store opened in 1892; the office building in 1893.

While few details of the daily operations of Fraser's firm exist, it can be assumed that the design competition for the **Cathedral of Saint John the Divine** in New York City occupied much of their time during the latter half 1888. The competition had been announced in June and a drawing set was due in New York on December 15, consisting of a ground plan, front and side elevations, longitudinal section and perspective view. The building was to be strictly fireproof and clad in marble or granite or some other non-porous stone.⁹⁴ The initial step in the process consisted of a "first competition," open to an invited list of fourteen architects who were paid for their entries as well as any other interested designers, such as Fraser. By January 1889, sixty-eight proposals had been accepted. In May, the "second competition" began when the four finalists were announced. They were William Potter and R.H. Robertson, Huss & Buck, William Halsey Wood, and Heins & LaFarge. In July 1891, the cathedral trustees selected an eclectic design scheme by Heins & LaFarge, which incorporated Byzantine, Romanesque, and Gothic influences.⁹⁵

1889

Though Fraser did not advance beyond the first competition, his decidedly Gothic design was featured prominently in the professional press. Throughout 1889 and 1890, *The American Architect and Building News* featured the entries of twenty-one of the competitors—less than a third of the total number of contributors. Fraser's perspective drawing, east elevation and plan were published in the October 5, 1889 edition (Figures 91-93). There was no lengthy excerpt from his design narrative this time; just a sentence explaining one of his main goals: "In planning this building, the chief care was to keep the floor at the level with the highest point of the site and make the entrance most used the one in the transept, while the proper relative importance of the front was not lost to sight."⁹⁶ The editors subsequently assembled the entries from these architects into a portfolio that featured fifty-seven plates on 14 x 20-inch paper. Advertisements for its sale ran in the pages of the journal throughout the next decade.

In March of 1889, a major residential project being designed by Fraser was announced that would surpass the scale of his previous residential work, which had focused on individual houses. *The Philadelphia Real Estate Record and Builders' Guide* reported in their March 20 edition that "Mr. Charles Lockhart has purchased twenty-eight lots on **Dinwiddie Street**, each 21-1/4 by 100 feet. The consideration was \$37,000, upon these lots Mr. Lockhart purposes to erect about fifty modern dwellings, containing nine and eleven rooms, and modern conveniences. The material used will be brick and stone. The plans have been prepared and

⁹³ W.S. Fraser, "Building—Fire Resisting," *The Southern Insurance Directory*, Second Annual Issue (New Orleans: Brown & Janvier), 315.

⁹⁴ "New Episcopal Cathedral for New York," *The Engineering & Building Record*, V. 18, no. 4 (23 June 1888), 38.

⁹⁵ Donald G. Presa and Jay Shockley, *Cathedral of St. John the Divine and the Cathedral Close: Designation Report*, New York City Landmarks Preservation Commission, 21 February 2017, 8.

⁹⁶ *The American Architect and Building News*, v. 26, no. 179 (5 October 1888).

work will begin in a short time. The operation will cost about \$250,000.”⁹⁷ An update a month later, lists Fraser as the architect and Henry Shenk as the contractor and offers that each dwelling will be of brick with stone fronts and contain bay windows and porches.⁹⁸ Reese Lindsay & Co. Stone Contractors of Liberty Avenue were hired as the stone masons. The building permit was obtained in July and fifty complete residences appeared in the 1890 edition of the G.M. Hopkins Company maps (twenty-nine on the north side of the street and twenty-one on the south).⁹⁹ Three years later, in 1893, the houses are shown in greater detail in a Sanborn Fire Insurance Company map (Figure 94). An advertisement from the November 9, 1890 edition of *The Pittsburgh Dispatch* lists all fifty stone houses for rent. However, by 1903, Lockhart appears to have had a change of heart about being a landlord and began selling off the buildings.¹⁰⁰ Subsequent advertisements from various newspapers indicate that each house contained both a laundry and a bath and that many people living there sought live-in or daytime help. This, along with the cost and size of each house, suggests that Lockhart and Fraser designed them for the city’s middle managers and rising merchant class.

Today, the dozen houses that survive in the block between Colwell and Reed Streets in the Crawford-Roberts/Lower Hill neighborhood are being rehabilitated by the Rothschild Doyno Collaborative, Trek Development and Mistick Construction and the empty lots in between are getting new compatible infill housing (Figures 95 and 96). Remaining architectural details and notes from Sanborn Fire Insurance Company maps indicate that each house was clad in rough-faced ashlar stone, had an attic story of frame construction featuring a front-facing gabled dormer (some of which had balconies), and had a front porch paired with that of its neighbor that contained turned posts.

Other residential work in 1889 included two adjacent brick buildings on the east side of Shady Lane between Arabella and Howe Streets reported in the August 14 edition of *The Philadelphia Real Estate Record and Builders’ Guide*: A single-family house at what is now **518 Shady Avenue**, with a construction cost listed at \$10,000, and a duplex to its north at **512 Shady Avenue**, at a cost of \$16,000 (Figures 97 and 98). James C. Wilson was the contractor for both buildings.¹⁰¹ The client was Captain Jacob Jay Vandergrift, noted riverboat captain and pioneer producer, refiner and transporter of petroleum in Western Pennsylvania. He has been credited with the first successful development of pipe lines to transport oil in the region.¹⁰² He organized the Pittsburg Petroleum Exchange, was on the board of Standard Oil Company (where he associated with Charles Lockhart) and helped found the Keystone Bank, for which Fraser designed a new building that same year (see below).¹⁰³ An 1890 G.M. Hopkins Company map shows the completed houses with Vandergrift listed as the owner, suggesting that the buildings were part of his portfolio of rental properties (Figure 99). Both buildings are still standing today and retain many of their Queen Anne architectural features. 518 Shady has been converted to apartments, while 512 Shady contains condominiums.

⁹⁷ *The Philadelphia Real Estate Record and Builders’ Guide*, v. 4, no. 11 (20 March 1889).

⁹⁸ *The Philadelphia Real Estate Record and Builders’ Guide*, v. 4, no. 21 (29 May 1889).

⁹⁹ *The Philadelphia Real Estate Record and Builders’ Guide*, v. 4, no. 29 (24 July 1889).

¹⁰⁰ “Closing Deal for Dwellings: Charles Lockhart’s 50 Dinwiddie Street Houses Have Been Traded.” *The Pittsburgh Daily Post*, 30 December 1903.

¹⁰¹ *The Philadelphia Real Estate Record and Builders’ Guide*, v. 4, no. 16 (24 April 1889) and v. 4, no. 32 (14 August 1889).

¹⁰² *The Pittsburgh Daily Post*, 27 June 1909.

¹⁰³ *The Pittsburgh Daily Post*, 27 December 1899.

In September, *The Philadelphia Real Estate Record and Builders' Guide* reported that “Mrs. **C.T. Edwards** will erect a three-story dwelling on Moorhead Lane, cost \$9,000, W.S. Fraser. . .architect, Henry Shenk contractor.”¹⁰⁴ The identity of the client has not been verified, but might have been Mrs. E.T. (Eliza Thaw) Edwards. The seven-acre Edwards estate was located on Forbes Avenue, extending north to Fifth Avenue, on the eastern edge of Oakland. Moorhead Lane (present-day Boundary Street) defined the west edge of the property. It has not been confirmed whether the house was built. G.M. Hopkins Company maps from 1890 and 1903 suggest that the footprint of the main house changed considerably during this interval and also that a large brick building was constructed to its north. Regardless, no buildings from the estate survive. Today the property is the site the new Tepper School of Business on Forbes Avenue at Carnegie Mellon University.

In December, the local and professional press reported that Fraser was working on residential projects for at least three clients. On December 25, *The Philadelphia Real Estate Record and Builders' Guide* reported that “W.S. Fraser, architect. . .has furnished the plans for a 3-story brick and frame residence for **John A. Renshaw**, to be erected on Ellsworth Avenue, at a cost of \$10,000.”¹⁰⁵ It is believed that Renshaw, head of the wholesale grocery firm of John A. Renshaw & Co. and one of the founders of Shadyside Presbyterian Church, had the house constructed next door to his home for his daughter, Mary Bailey Renshaw who had married Richard E. Chislett in 1880 (Figure 100). The house at 5131 Ellsworth Avenue survives today and retains many of its original Queen Anne style details, including its brick first story and wood shingle cladding on the second story, hipped roof with front-facing gable, lower cross gable, hipped dormer and corbeled chimneys (Figure 101).

Also in December, *The Inland Architect and News Record* announced that Fraser had designed “for **Chas. A. Wolff** [a misspelling of Wolfe] a brick two-story and attic dwelling; cost \$9,700.”¹⁰⁶ Wolfe was an officer with Baird Machinery Company of Pittsburgh. It is believed that the house, which is no longer extant, stood at 5060 Forbes Avenue, site of the current East Campus Parking garage at Carnegie Mellon, just north of Gesling Stadium.

Fraser also worked again for **James McKay** in 1889. In March, a building permit was issued for “**nine 2 and 3 story brick dwellings** to cost \$10,000, W.S. Fraser is the [architect].”¹⁰⁷ It has not been confirmed that these were constructed or where they were located.

Commercial work appears to have been a secondary pursuit for Fraser’s firm in 1889. In May, it was announced that he had designed a one-story **addition for Arrott & Torrance**, with a construction cost of \$8,750. This marks the first known relationship between Fraser and James W. Arrott and Francis J. Torrance, founders of the Standard Manufacturing Company that would grow into the international plumbing fixtures giant, American Standard. At this time, Standard Manufacturing was located at 286-317 River Avenue in Allegheny (on the north

¹⁰⁴ *The Philadelphia Real Estate Record and Builders' Guide*, v. 4, no. 37 (18 September 1889).

¹⁰⁵ *The Philadelphia Real Estate Record and Builders' Guide*, v. 4, no. 51 (25 December 1889).

¹⁰⁶ *The Inland Architect and News Record*, v. 14, no. 7 (December 1889).

¹⁰⁷ *The Philadelphia Real Estate Record and Builders' Guide*, v. 4, no. 11 (20 March 1889).

shore of the Allegheny River, across from the present Armstrong Cork Factory Lofts (Figure 102).¹⁰⁸ It is believed that Fraser's one-story addition was for this plant.

Fraser's largest commercial project in 1889 was a new building for the **Keystone Bank** on Fourth Avenue between Wood and Smithfield Streets at what was then 108 Fourth Avenue. Plans were announced in April and a building permit applied for in July. The building was described as being constructed of "granite, three stories high, and contain[ing] all modern improvements."¹⁰⁹ A photograph shows a narrow French Gothic building with a front-facing gabled dormer and clustered columns defining the openings on all three floors (Figure 103). It survived until 1902, when it was demolished for a much larger Keystone Bank tower designed by MacClure and Spahr, which opened in 1903. Today, that building is known as the Pittsburgh Technology Center and has an address of 322 Fourth Avenue.

Commercial work also included a ten-thousand-dollar renovation of East Liberty's Liberty Hall into the **YMCA's new East End Branch** and headquarters, made possible through the patronage of Charles Lockhart. Lockhart owned Liberty Hall, a large, three-story brick meeting and entertainment venue on the southeast corner of Penn and Centre Avenues that was constructed around 1858. In 1889, he leased the building to the YMCA for twenty years for a rent of one dollar. *The Pittsburgh Dispatch* outlined Fraser's plans for the second and third floors in detail in their September 26 edition—offering one of the few descriptions known of his interior design work. When completed, the second floor would house a reception room, "the walls will be hung with rich paper, the ceiling will be exquisitely frescoed, and three magnificent chandeliers will hang therefrom." There would also be a reading room and library with antique carved bookcases, a rostrum and pulpit. It would be "considerably larger than the central reading room on Seventh Avenue" at the Central YMCA downtown and could seat four hundred people. This floor would also have two parlors "luxuriously appointed, where the members may invite their friends for an evening's enjoyment" and a comfortable office for the Secretary. The third floor would house a gymnasium measuring 53 x 55 feet containing a wide variety of nineteenth century exercise equipment, like parallel and horizontal bars, dumbbells, swings, traveling rings and a horse along with three hundred adjacent lockers. Lastly, "leading from the gymnasium, a bathroom will be fitted up where the young men may indulge in a needle or shower bath in hot or cold water."¹¹⁰ Liberty Hall was demolished in 1930 for construction of the Penn Center Building, which itself was subsequently demolished. Today the site, across from the East Liberty Target store is occupied by the Eastside Bond Apartments.¹¹¹ The YMCA left Liberty Hall around 1907 and moved to its own building on South Whitfield Street across from East Liberty Presbyterian Church (the current Ace Hotel). A photograph of Penn Avenue from 1928 shows the exterior of Liberty Hall with a ghost sign for the YMCA still visible in the upper right corner of the west façade (Figure 104).

It is interesting to note that 1889 marked the last year of Fraser renting space in the Central YMCA Building downtown on the southeast corner of Penn Avenue and Seventh Street (see Figure 105 for view of building). City directories and historic maps indicate that Fraser

¹⁰⁸ *The Philadelphia Real Estate Record and Builders' Guide*, v. 4, no. 19 (15 May 1889).

¹⁰⁹ *The Philadelphia Real Estate Record and Builders' Guide*, v. 4, no. 14 (10 April 1889); *The Pittsburgh Dispatch*, 16 July 1889.

¹¹⁰ *The Pittsburgh Dispatch*, 26 September 1889.

¹¹¹ *The Pittsburgh Press*, 8 June 1930.

conducted business there from around 1884 (when the building was constructed and he moved from his first office in McCance's Block), until 1890, when the firm relocated to No. 4 Eighth Street, across from the side entrance to the Standard Oil Company Building (Figure 106). The Eighth Street building appears on an 1893 G.M. Hopkins Company map labelled "Architect" (Figure 107). The map key indicates that it was a three-story, brick building with a metal cornice, a slate or tin roof, and a skylight. The building appears again on a Sanborn Fire insurance Company map in 1900, this time labelled as the William S. Fraser Estate.

In 1889 Fraser designed what is believed to be his first work of public infrastructure, seven years before designing the Herron Hill Pumping Station. The much smaller project was for "a one-story brick power house at a cost of \$6,000" for the **East End Electric Company**. The location has not been determined.¹¹²

In 1889, we see the first of a number of indications that Fraser had an active interest in publicly advocating for the architecture profession when he signed a petition published in *The American Architect and Building News* under the heading "A General Protest Against Improper Conditions of Competition," protesting new rules proposed for designing an addition to the state house in the Commonwealth of Massachusetts that would relinquish ownership of drawings from finalists to the state and not guarantee that the selected competitor would actually be hired to execute the design. He was one of 230 architects to sign from 18 states, the District of Columbia and Canada. He was the only architect from Pittsburgh.¹¹³

1890

Fraser's advocacy carried into the next year as a debate was growing nationally over whether architects should be licensed in order to practice. In July, *The Pittsburgh Dispatch* interviewed Fraser on the topic and he replied, "The architect who is called upon to design a large structure frequently has over 100 lives in his hands. He should necessarily possess an adequate knowledge of construction, and in order to insure safety he should be compelled to pass a thorough examination in the principles of the profession. The lives of the people are imperiled by dangerous buildings put up by unskilled architects. This matter is being widely discussed in Pittsburg, and all the best architects are agreed that a license law would be a desirable thing. Public sentiment will soon be brought to the point where an examination of architects will be almost universally required, and I think all persons practicing at the time when the enactment of the law may take place should be compelled to pass an examination as well as novitiates." Sharing similar views were architects Edward Stotz and Joseph Stillberg.¹¹⁴ The urgency of Fraser's concern likely stemmed, in part, from the collapse five months prior of the seven-story Willey Building being constructed on Diamond Street (Forbes Avenue) near Wood Street, in which fifty-six workers were buried and seventeen lost their lives.¹¹⁵

It appears that Fraser started and ended 1890 working on a different type of drawing—one that wasn't architectural. In April, he filed drawings and specifications for a patent to shade electric lights. It had four moveable petals, resembling those of a flower, that could be opened or

¹¹² *The Philadelphia Real Estate Record and Builders' Guide*, v. 4, no. 15 (17 April 1889).

¹¹³ *The American Architect and Building News*, v. 25, no. 682 (19 January 1889).

¹¹⁴ *The Pittsburgh Dispatch*, 24 July 1890.

¹¹⁵ *The Pittsburgh Post*, 10 January 1889.

closed around the light bulb to vary the intensity of illumination (Figure 108). His application was witnessed by D.I. Kuhn, Thomas Hannah and William F. Struthers, three draftsmen in his office.¹¹⁶ Patent number 442577 was approved December 9, 1890.¹¹⁷ In addition to demonstrating that Fraser, like his mentor William Burges, worked on a wide range of creative projects outside of formal architecture, this is the first time any insight into the staff that surrounded Fraser and supported him in his work. A description of his firm published in 1895 offers only a bit more context, indicating that he had seven draftsmen in his office at that time (see below). In William Struthers, Fraser appears to have been mentoring a member of the family. An obituary for Struthers from 1941 indicates that he was Fraser's nephew.¹¹⁸

At the end of the year Fraser was concluding his application for a second patent, which he filed in January 1891. It was for an automatic brake for streetcars "designed to be thrown into gear by the backward or forward motion of the car to automatically apply the brakes, holding them at any desired degree of tension, while they be instantly released before starting the car" (Figure 109). The application was witnessed by Kuhn and Struthers of Fraser's office. Patent number 452700 was approved May 19, 1891. A month later, *Scientific American* featured Fraser's invention and included a detailed perspective drawing by one of their artists showing the proposed brake and undercarriage of a streetcar (Figure 110).¹¹⁹

In May of 1890, two measured drawings created by Fraser and his schoolmate from the Royal Academy, A.S.F. Kirby were juried into the Boston Architectural Club's First Annual Exhibition, held at Horticultural Hall. The exhibit catalogue indicated that the subjects were "**Old House, Lisieux, Normandy**" and "**Old House at Bayeux.**" A reviewer in *Architecture and Building* wrote, "The large measured drawings by Messrs. A.S.F. Kirby and W.S. Fraser are useful and instructive examples of how to occupy one's time profitably in Europe."¹²⁰ *The American Architect and Building News* hailed the exhibit as "certainly the best collection of architectural drawings ever shown in this country."¹²¹ It is not known if the Bayeux drawing was the same as the one published by *The American Architect and Building News* in 1880, or if both drawings represented new work created by the pair during some recent trip together to France. Elsewhere in the catalogue, Kirby has a number of individual entries, including six drawings of Coutances Cathedral. His address accompanying these works suggests that he was an architect working at 96 Washington Street, Boston.

In June of 1890, *The Philadelphia Real Estate Record and Builders' Guide* announced that Fraser was designing "a handsome three-story brick store on Penn Avenue" for **D.C. Kuhn** at a cost of \$10,000.¹²² The 1890 G.M. Hopkins map indicates that the building was located at 6117 Penn Avenue in East Liberty, though almost all later accounts and city directories list the address as 6113-6115 Penn. The building was four storefronts west of the Denholm Brothers meat market, which Fraser had designed in 1888. The owners were listed as D.C. and E.S.

¹¹⁶ The occupations of Fraser's witnesses for his patent application were determined from city directories.

¹¹⁷ United States Patent Office records.

¹¹⁸ *The Evening Review* (East Liverpool), 8 July 1941.

¹¹⁹ "An Automatic Car Brake," *Scientific American*, v. 64, no. 24 (13 June 1891); United States Patent Office records.

¹²⁰ *Architecture and Building*, v. 12, no. 21 (24 May 1890).

¹²¹ "The Exhibition of the Boston Architectural Club," *The American Architect and Building News*, v. 28, no. 753 (31 May 1890), 134.

¹²² *The Philadelphia Real Estate Record and Builders' Guide*, v. 5, no. 25 (25 June 1890).

Kuhn. The Kuhn Bros. Co. was a family-owned grocery, which had been established in 1875 near the corner of Collins and Station Streets a few blocks to the north. With the advent of the new building on Penn Avenue, E.S. Kuhn assumed management. A year later, in December 1891, it was reported that “Mr. D.C. Kuhn is putting a stone front in his building on Penn Avenue near Collins,” (though historic maps show a stone front on the W.J. Spahr grocery next door, and not on Kuhn’s building).¹²³ It is not known if Fraser played a role in the design. An 1894 article in *The Pittsburgh Post-Gazette* suggests that D.C. Kuhn had gone on to develop a career as a successful confectioner and caterer.¹²⁴

In 1907, the building was sold to the Liberty Amusement Corporation, which hired contractor McGovern & Lytle to gut and transform the grocery into the Liberty Theater, a vaudeville venue that opened in September of that year—thus obliterating any vestige of Fraser’s design.¹²⁵ The theater can be seen in the 1907 photograph that captured a portion of the Denholm Building (Figure 85). Subsequent directories indicate that Kuhn & Brothers Company had relocated their grocery a block away to 6100 Centre Avenue. The Liberty Theater would eventually become the Alhambra, then part of the Harris theater chain, then the Family Theater. More recently it was a Rent-A-Center and is now the Villa clothing and shoe store. While exterior photographs have not been found to show Fraser’s exterior, a photo captioned “Interior of Kuhn’s Grocery” is included in the book *Up-Town, Greater Pittsburgh’s Classic Section: East End, the World’s Most Beautiful Suburb* (Figure 111).¹²⁶ The January 1907 publication date means that the image is of the Penn Avenue store designed by Fraser, not the later Centre Avenue location.¹²⁷ It shows, a long counter on the right running the full depth of the store, where customers could sit while the staff, using a rolling ladder, brought them items from floor-to-ceiling shelves that lined the wall. In the center are displays of fresh produce. To the left is a butcher’s counter. Overhead is a decorative tin ceiling with what appears to be a combination of gas and electric light fixtures. The interior appears much more elaborate and better stocked than that of competitor W. J. Spahr, the interior of which is also shown.

In August, it was announced that a building permit had been issued for newspaperman **Albert J. Barr** to “build a three-story stone house on Bidwell Street, Twentieth Ward, cost \$31,000.”¹²⁸ Bidwell is now Devonshire Street in Shadyside. The address at the time was 809 Devonshire. In 1927, William Larimer Jones, Jr., of Jones & Laughlin Steel had the house razed and constructed the current brick and stone late-Gothic-Revival house (now 803 Devonshire).¹²⁹ Jones had purchased the property from the University of Pittsburgh in 1927 after it was willed to the school by Mary O’Hara Darlington. Darlington and her sister Edith

¹²³ *The Pittsburgh Dispatch*, 27 December 1891.

¹²⁴ *The Pittsburgh Post-Gazette*, 18 April 1894.

¹²⁵ *The Pittsburgh Press*, 20 July 1907.

¹²⁶ *Up-Town, Greater Pittsburgh’s Classic Section: East End, the World’s Most Beautiful Suburb* (Pittsburgh: The Pittsburgh Board of Trade, January 1907).

¹²⁷ *The Pittsburgh Press*, 23 January 1907.

¹²⁸ *The Pittsburgh Dispatch*, 13 August 1890; also reported in *The Philadelphia Real Estate Record and Builders’ Guide*, v. 5, no. 33 (20 August 1890) and *The Inland Architect and News Record*, v. 16, no. 2 (September 1890).

¹²⁹ *The Pittsburgh Press*, 5 September 1927.

Darlington Ammon had purchased the fifteen-room house from Mary A. Barr in 1918.¹³⁰ Images of the house designed by Fraser have not been found.

Fraser closed out 1890 completing the drawings and overseeing the start of construction for the **Arbuthnot-Stephenson Building**, hailed as “the tallest mercantile building in the city” at the time. Located on the northeast corner of Penn Avenue and Eighth Street downtown, the “eight-story building, brick, with stone trimmings” had been announced in the architectural press in March with a construction cost estimated at \$175,000.¹³¹ When completed the next year, the 140-foot building was considered by some to be “Pittsburgh’s first skyscraper,” even though Fraser’s previous National Bank of Commerce rivaled it at 131 feet in height.¹³² It was located at the south end of the block where Fraser had designed his Romanesque Standard Oil Company Building just six years before.

Charles Arbuthnot had established his dry goods business in 1843. He was joined by John G. Stephenson around 1862. In 1882, after the withdrawal and admission of some other partners, the firm became Arbuthnot-Stephenson & Co., one of the largest wholesale dry goods stores in Western Pennsylvania.¹³³

In August of 1890, *The Pittsburgh Dispatch* featured a drawing of the building under the headline “How Pittsburg is Progressing Architecturally” (Figure 112), and included the following description:

Eight magnificent stories will accommodate 93,000 feet of floor space for the great drygoods traffic conducted by Messrs. Arbuthnot, Stephenson and & Co., who expect to occupy the new quarters early-next year, marking nearly the fiftieth year of their business in this city. The frontage on Penn avenue will extend 90 feet, and 115 on Eighth street. The architecture, designed by W. S. Fraser, places the building among the foremost in the city. Beaver Valley stone, the finest used in Pittsburg, will form the piers and walls of the lower floors, while brick with stone trimmings will be employed on the rest of the building. Three immense arches on the fifth floor of the Penn Avenue side and nine on the eighth floor will give the edifice an imposing appearance. The main entrance on Penn avenue opens directly into the store room. The great number of windows make the Arbuthnot unequalled for lighting facilities. Woodwork in the interior of the building will be finished in oak. Steam heating, four elevators, an elaborate suit of offices and toilet rooms for the employees on every other floor will add to the great convenience of the new structure, while sidewalks of flag pavements and Hyatt lights will beautify the whole.¹³⁴

The article concluded by stating that “the building will be fireproof,” again illustrating Fraser’s commitment to life safety and utilization of the most up-to-date construction methods.

¹³⁰ *The Pittsburgh Press*, 20 July 1918; *The Pittsburgh Daily Post*, 10 February 1927.

¹³¹ *The Inland Architect and News Record*, v. 25, no. 2 (March 1890); *The Philadelphia Real Estate Record and Builders' Guide*, v. 5, no. 9 (5 March 1890).

¹³² *The Pittsburgh Press*, 8 March 1938.

¹³³ *The Story of Pittsburgh and Vicinity* (Pittsburgh: The Pittsburgh Gazette Times, 1908).

¹³⁴ *The Pittsburgh Dispatch*, 16 August 1890.

Historic photographs from 1908 and 1915 show a building in transition stylistically (Figures 113 and 114). From the fifth-floor arches upward, one could easily argue that Fraser had designed a somewhat expected Romanesque Revival commercial block. However, the impressive expanses of glass on the first four stories—from floor-to-ceiling and pier-to-pier—indicate a much more modern and innovative approach not found before in Fraser’s portfolio. While similar in scale and massing to the National Bank of Commerce, the Arbuthnot-Stephenson Building marks a clear departure and demonstrates Fraser’s ability to skillfully abandon precedents and manipulate new building techniques.

In July 1907, the company constructed a second building at 811 Penn Avenue. In 1943, the Arbuthnot-Stephenson Company, as it was then called, sold their business to the Ely & Walker Co. of St. Louis, but it remained in operation under the old name until 1955, when the company went out of business. Around 1961, the building was demolished so that Julius Halpern could construct a modern, three-story building for his newly-formed Commercial Bank and Trust Company. The building opened in 1963 and was “the only bank in Downtown Pittsburgh with parking and drive-in windows.”¹³⁵ Halpern’s bank later became home to the Pittsburgh Opera from 1998 to 2008, but it too was subsequently demolished around 2010 for the anticipated creation of RiverParc, a multiphase \$500 million commercial and housing development of the Cultural Trust, which ultimately did not materialize.¹³⁶ A parking lot currently occupies the site.

1891

Fraser’s advancement of the architecture profession can again be seen in March of 1891 when the Western Pennsylvania Chapter of the American Institute of Architects was founded in Pittsburgh. He was one of twelve inaugural members and remained a member until his death. The name of the organization was changed to the Pittsburgh Chapter in 1896.¹³⁷ In May 1898, within a year of his death, the chapter hosted its first exhibition of architectural drawings.

A major focus of attention for Fraser and his firm for the last half of the year and into 1892 would have been their entry in the design competition for the new **Carnegie Library in Pittsburgh**. In April 1891, after years of debate between the City and Carnegie over ownership, management and location, a site at the entrance to Schenley Park in Oakland was announced.¹³⁸ On July 1, James B. Scott, president of the Carnegie Library Commission issued the official circular containing the rules of the competition. The program called for inclusion of a library with stacks to accommodate 200,000 volumes and arranged so that it could be enlarged to contain 500,000 volumes “without injury to the artistic effect of the exterior;” a music hall with a minimum seating capacity of 2,000 and able to accommodate a chorus of 400 singers; an art gallery with not less than 600 lineal feet of clear hanging space “capable of future indefinite extension;” a museum consisting of several rooms; rooms for various societies including art, engineering, microscopy, amateur photography, and architecture; rooms for classes for the study of art; and administrative and mechanical space. Materials and

¹³⁵ Alvin Rosensweet, “He Is Starting a Bank at the Age of 71,” *The Pittsburgh Post-Gazette*, 1 June 1962.

¹³⁶ Pittsburgh Opera, *News Release*, 11 October 2007.

¹³⁷ *Proceedings of the Twenty-Seventh Annual Convention of the American Institute of Architects* (Chicago: Inland Architect Press, 1893); *The Inland Architect and News Record*, v. 27, no. 5 (June 1896).

¹³⁸ *The Pittsburgh Dispatch*, 21 April 1891.

architectural style were left to the discretion of the architect. A total project cost of \$700,000 was stipulated.¹³⁹

Drawings to be submitted included four elevations, at least two sections, plans of each story and at least one perspective view. These were to be accompanied by a typewritten narrative explaining the materials and methods of construction and decoration. The deadline given was November 1, 1891. In an effort to perhaps avoid the backlash encountered by the Commonwealth of Massachusetts in 1899 described above, it was clearly stipulated that the competitor furnishing the winning design would be “employed to furnish the working and detail drawings and specifications and to superintend the erection of the building” and that compensation for this would be five percent of the cost of the building. Lastly, as an incentive to attract the best talent and in recognition of the amount of work required to create an entry, it was announced that in addition to the overall winner, the six architects whose drawings were judged to be next in merit would each receive a premium of two thousand dollars. Competition was open to all qualified architects.

Ninety-six architects responded, submitting one hundred and two sets of plans, totaling over thirteen hundred individual sheets. All entries were displayed in the Ferguson Building for much of November 1891. Twelve local architects in addition to Fraser submitted drawings.¹⁴⁰ In January 1892, the Renaissance Revival design of Longfellow, Alden and Harlow was announced as the winner and the Gothic Revival submission from Fraser was one of the six premiated (i.e. award-winning) designs to earn two thousand dollars each.¹⁴¹ Fraser was joined by two other Pittsburghers: Frank I. Cooper and James T. Steen, along with Kreis & Richards of New York, George R. Mann of St. Louis, and Shepley, Rutan & Coolidge of Boston.

As he did for the Carnegie Library competition in Allegheny, Fraser submitted a refined French Gothic design that featured an interior courtyard behind a massive central tower. The tower might have been his downfall, for it was reported that Andrew Carnegie did not like towers and had Longfellow, Alden and Harlow submit a revised version of their design sans towers (even though twin towers were eventually built).¹⁴² Once again, the architectural press responded favorably to Fraser’s design. While *The Inland Architect and News Record* responded quickly to news of the competition by publishing the winning design in their January 1892 issue, they only showed the perspective drawing by Longfellow, Alden and Harlow.¹⁴³ Two months later, when they illustrated Fraser’s design they include five of his drawings (front elevation, perspective view, main entrance and first and second floor plans; Figures 115 and 116).¹⁴⁴ Attesting to the global reach of Fraser’s drawings, his entry was also published in *Australasian Builders’ and Contractors’ News* headquartered in Sydney, Australia.¹⁴⁵

¹³⁹ *The Inland Architect and News Record*, v. 17, no. 6 (July 1891).

¹⁴⁰ *The Inland Architect and News Record*, v. 19, no. 2 (March 1892); *The Pittsburgh Press*, 12 November 1891.

¹⁴¹ *The Pittsburgh Dispatch*, 8 January 1892.

¹⁴² *The Pittsburgh Dispatch*, 8 January 1892.

¹⁴³ *The Inland Architect and News Record*, v. 18, no. 6 (January 1892).

¹⁴⁴ *The Inland Architect and News Record*, v. 19, no. 2 (March 1892).

¹⁴⁵ Reported in Philip John Kent, *The Meaning of the Romanesque Revival: A Study of Romanesque Revival Architecture and its Associations in Britain, the United States, and Australia*, Ph.D. dissertation (Bryn Mawr: Bryn Mawr College: 1993), 54.

In September, Fraser is known to have again worked for Francis J. Torrance when it was announced that “Mr. **F.J. Torrance**, of the Standard Manufacturing Co., will erect a **row of dwellings** from plans prepared by W.S. Fraser.”¹⁴⁶ It has not been determined if these buildings were constructed or where they would have been located.

During the second half of 1891, much of Fraser’s attention was likely devoted to two activities of a more personal nature. First, in July, he obtained a building permit for the new house he had designed for himself at **5655 Stanton Avenue** in Highland Park. Permits were actually issued for “two stone and wood two-story dwellings, 34 x 50 feet.”¹⁴⁷ However, it has not been determined if the second house was constructed or what its address was. Sanborn maps suggest that it might be the house immediately to the east at 5657 Stanton. Fraser’s home, which still stands and is in good condition, is a large, two-and-one-half story, Shingle Style house with a steeply-pitched front-facing gable roof and lower cross gables that cover two-story projecting bays (Figures 117 and 118). The first story is clad in rough-faced, randomly-coursed stone, which is also used for the posts of the recessed front porch. The second story is clad in wood shingles that meet at the corners with no corner boards (in typical Shingle Style fashion). Wood shingles also clad the faces of the gables. A flared water table encircles the house, separating the first two stories. Flared water tables are also present in the gables above the windows.

Second, Fraser planned this house with his wedding in mind. On December 17, 1891, he married Ella May Elkins, the daughter of George W. Elkins, president of the Pittsburgh Traction Company. The ceremony took place at the Sixth United Presbyterian Church, which was located at the northwest corner of Station and Collins Streets (next door to the just-vacated Kuhn Brothers grocery mentioned above). The bride’s brother-in-law, Reverend Harry Peebles of Rochester, New York, officiated. A reception followed at the Elkins house at 815 North Highland Avenue.¹⁴⁸ One of the bridesmaids was a “Miss Lockhart,” who was presumably one of the daughters of Charles Lockhart, and was possibly Janet W. Lockhart who attended the Pennsylvania College for Women (present Chatham University) where the bride had also attended.¹⁴⁹ The article indicated that “Mr. Fraser has a handsome residence for his bride in the East End, which they will occupy after the honeymoon. In his profession, that of architect, Mr. Fraser probably stands second to none in Pittsburg. He has cultivated a taste for art, and unites the sensibilities of the dilettante with the practical nature of a man of business.” The newlyweds spent their honeymoon shortly after the holidays at the St. James Hotel in Jacksonville, Florida, where they reportedly enjoyed “a delightful tour of Florida.”¹⁵⁰

¹⁴⁶ *The Philadelphia Real Estate Record and Builders' Guide*, v.6, no. 38 (23 September 1891).

¹⁴⁷ *The Pittsburgh Dispatch*, 24 July 1891.

¹⁴⁸ *The Pittsburgh Dispatch*, 18 December 1891. The Elkins house was located on the west side of North Highland Avenue between Stanton and Jackson Streets, just three blocks from Fraser’s house. G.M. Hopkins Company maps indicate that it was demolished sometime between 1910 and 1923.

¹⁴⁹ *Alumnae Recorder*, Pennsylvania College for Women, June 1891. Janet W. Lockhart is listed as a member of the class of 1887. An announcement of the Elkins-Fraser wedding does not indicate that Miss Elkins graduated. She is listed as “a former student of the college.”

¹⁵⁰ *The Pittsburgh Press*, 24 January 1892.

1892

A month later, on February 24, 1892, *The Philadelphia Real Estate Record and Builders' Guide* announced that a new **YMCA building** designed by Fraser would be erected in **Sharpsburg**. The Romanesque Revival building, which was completed in November of that year, still stands but has been modified considerably. The November 6 edition of *The Pittsburgh Press* described the building as follows:

“The new building is three stories high, and has a frontage of 51 feet on North Canal street and 90 feet on Eleventh street. The walls from the pavement up to the second-story windows are of massive stone range work. Above they are of pressed brick with rough stone trimming. The main entrance is from North Canal street, through a high stone archway. A flight of stone steps leads up to a tiled loggia with carved pannelings [*sic.*] of beautiful design. From the loggia the visitor passes through folding doors into the reception room. On the first floor there is located a barber shop. Further back are located the bath rooms, lockers and dressing rooms for members. The gymnasium is in the rear of the building and rises to the top of the second story, a distance of 22 feet. The third floor is trussed, thus doing away with pillars. The gymnasium is much larger than that of the Pittsburg Y. M. C. A., having a floor space of 40 x 48 feet. . .The second floor contains the reception room, parlors and the general secretary's office. . .The second floor extends but part way back, as the rear is given over to the gymnasium. A broad stairway leads from the second story to a large ball on the third floor, into which all the rooms open. The reading room is situated on this floor directly over the front parlor. Across the hall from the reading room are three class rooms. . .In the rear of the building over the gymnasium is the auditorium, which has a seating capacity of 1,000 persons. The classrooms ore connected with the auditorium by folding doors, so that the whole can be thrown together, giving a seating capacity of 1,500. The auditorium is 16 feet high and a largo stage occupies one end.”

A postcard from 1914 shows an attractive building in a simple Romanesque style with a two-story addition to the west (Figure 119). Today the building is the Linden Gymnasium, with most of the interior having been demolished to accommodate a much larger athletic floor. On the exterior, all of the original windows have been removed and infilled with brick or glass block. The arched front entry is gone, and the main entry moved to the southeast corner. Also gone is the original cornice, which has been replaced by metal panels (Figure 120).

In April, *The Pittsburgh Post-Gazette* reported that **Edward Gensenleiter's new livery** at 6-12 Eighth Street had just been completed. Fraser is credited with its design in an 1895 description of his firm in *History and Commerce of Pittsburgh and Environs* (see below). Fraser did not have to go far to work on this project—his office was next door at 4 Eighth Street. The *Post-Gazette* article stated that Fraser's design exemplified “advanced ideas in the care of equines” and that this new “home for horses. . .is evidence of Pittsburgh's recent and comparatively rapid advancement in the manner of strictly new and modern building, coupled with exterior effects of architectural beauty.” At five stories in height, it was touted as “the largest livery, sale and boarding emporium for horses in Western Pennsylvania.” The three-bay wide building was constructed of brick with cast iron details on the front façade. At street level, a large arched opening in the center bay provided access for horses and vehicles. To each side was a

storefront with tall glass windows. On the inside, in addition to these stores, the first floor was used for unhitching horses and also contained an office. The basement and second floor were used for horse stalls. Ramps from the first floor allowed horses to walk between floors. The third floor contained a veterinary department, and the fourth and fifth floors were used for vehicle storage. A steam elevator connected all floors.¹⁵¹ A plan of the building can be seen in the 1893 Sanborn Fire Insurance map shown in Figure 107.

In 1893, Gensenleiter leased the two storefronts and part of the third floor to the County for use as a temporary morgue. The storefronts served as a waiting room and the “dead room,” where bodies could be identified; the third floor space was used as the embalming room to prepare and store bodies.¹⁵² In 1903, Gensenleiter sold his building to the Smith Woodenware Company.¹⁵³ In 1906, Smith purchased the building immediately to the north, which had been Fraser’s office, and subsequently expanded their building one-bay. The resulting wider façade can be seen in a photograph from 1915 (Figure 121). A photograph of the rear façade from the same year shows a series of small square windows indicating the location of horse stalls (Figure 122). The former Gensenleiter building was demolished sometime in the late twentieth century.¹⁵⁴ Today the site is a parking lot.

In spring and summer of 1892, Fraser’s firm was working on at least three residential projects in Pittsburgh. In May, it was reported that Fraser had prepared plans for “a two-story stone dwelling, to be erected for **H.S.A Stewart** on Morewood Avenue, at a cost of \$4,000.”¹⁵⁵ The house at 814 Morewood, which no longer stands, was located on the west side of the street in what is now the parking lot for Rodef Shalom Congregation. It shared part of its rear property line with the home of Albert J. Barr, which Fraser had designed two years earlier. Historic photographs of the house from 1895 and 1902 show a massive, two-and-one-half story, stone Romanesque Revival house with a steeply pitched hipped roof, lower cross gables and gabled dormers and a porte cochere (Figures 123 and 124). Henry S. Atwood Stewart was a prominent Pittsburgh realtor and businessman and a director of the Fidelity Title & Trust Company. Stewart hired Fraser to design the house for his new family. In 1888, he had married Annie E. Armstrong of Williamsport and in May 1890 they had their only son, H.S.A. Stewart, Jr.. H.S.A. Stewart, Sr. died in the house in 1922.

In July, it was announced that “**W. J. Edmundson** will erect a dwelling, to cost about \$9,000, from plans prepared by W.S. Frazer [*sic.*] of Pittsburgh. Brown Brothers are the builders.”¹⁵⁶ No mention of this client has been found in historic newspapers or city directories. It is not known if this house was built or where it would have been located. Historic maps indicate that an M.H. Edmundson constructed a three-story masonry house 3509 Fifth Avenue in Oakland sometime between 1890 and 1898.

¹⁵¹ *The Pittsburgh Post-Gazette*, 12 April 1892.

¹⁵² *The Pittsburgh Daily Post*, 19 November 1893.

¹⁵³ *The Pittsburgh Press*, 21 May 1903.

¹⁵⁴ *The Pittsburgh Post-Gazette*, 5 November 1936.

¹⁵⁵ *The Philadelphia Real Estate Record and Builders' Guide*, v. 7, no. 20 (18 May 1892).

¹⁵⁶ *The Philadelphia Real Estate Record and Builders' Guide*, v. 7, no. 29 (20 July 1892).

In August, it was reported that “**W. J. Moreland** will erect a two-story brick dwelling, with slate roof, to cost about \$8,000. The plans were drawn by W.S. Fraser, and A. & S. Wilson are the builders.”¹⁵⁷ The house, which no longer stands, was located on the east side of North Craig Street just north of Bayard Street where the King Edward Apartments are today. Moreland was a wholesale dealer in hats, caps, furs and straw goods and had his office on Wood Street downtown.¹⁵⁸ Images of the house have not been found.

Throughout the summer of 1892, a number of advertisements in *The Indiana Democrat* indicate that W.S. Fraser was accepting bids from contractors for a new **Farmers Bank of Indiana** until September, 1892. Construction by Hastings & Lockard of Indiana began soon after and the building opened in April 1894. The Romanesque Revival bank was located immediately east of the county courthouse on Philadelphia Street (Figures 125 and 126). In 1924, the bank moved to new location and sometime in the middle of the twentieth century the building was demolished. Today a contemporary PNC Bank occupies the site. Upon its opening, *The Indiana Democrat* described the bank as follows: “The plans and specifications of the new building were made by Architect W.S. Fraser, of Pittsburg, and reflect credit on his good taste and ability. The architectural design of the building is of the composite order, with a tendency to the roman order, is three stories in height, and is built of the best light colored vitrified brick, with Indiana County sandstone trimmings, and presents a beautiful and harmonious appearance, the brick work and stone work harmonize well. . . The building is covered with slate and tin . . . The first floor of the building is occupied by the Postoffice on one side, and the bank, vault room, directors’ room and three large double offices on the eastern side. The second floor is divided up into double offices. . . The third floor is occupied entirely by T.B. Clark’s Photographic Rooms, and Art Gallery—and it is safe to say that there is not a finer arranged or more comfortable gallery in the State.”¹⁵⁹

Building on his success with the design of the Bank of Commerce and the Arbuthnot-Stephenson Buildings, Fraser was hired to design a new downtown store for **Joseph Horne & Company**. On August 8, 1892 a permit was taken out for the new building “on Penn Avenue between Fifth and Sixth Streets. . . to be a six-story structure of brick, stone and steel, 120 feet front by 180 deep, and a rear building in addition 120 by 20 feet deep. . . The first story is to be 22 feet 8 inches from floor to ceiling and the other stories 16 feet and 14 feet. The architect is W.S. Fraser and the contractor is A. & S. Wilson. The total cost is to be \$305,000.”¹⁶⁰ Founder Joseph Horne, who had opened his first dry goods establishment in 1849, died suddenly on October 19, 1892 and did not live to see his flagship store completed.

The new store opened to the public at the end of July 1893. It featured 150,000 square feet of floor space and thirty-eight different merchandising departments (Figure 127). *The Pittsburgh Press* lauded the design stating that “the inspection by the public was not a tedious one, for the structure, with its story piled upon story, is a model in its arrangement for the convenience of patrons. In fact, ease and comfort for the public while shopping was one of the main points kept in view while planning the new place of business.” The building offered amenities not

¹⁵⁷ *The Philadelphia Real Estate Record and Builders' Guide*, v. 7, no. 33 (17 August 1892).

¹⁵⁸ Invoice, W.J. Moreland, dated October 22, 1896.

¹⁵⁹ *The Indiana Democrat*, 5 April 1894.

¹⁶⁰ *The Pittsburgh Daily Post*, 9 August 1892.

offered before in Pittsburgh retail establishments. Not only were there fast elevators, but sumptuous parlors and a Waiting and Resting Room exclusively for women, all with adjacent toilet rooms of solid white marble. . .fitted up in the best sanitary manner possible.” The company proclaimed that “Pittsburg people [can finally] do their shopping as in eastern [retail] houses where ample time is given to shopping with greater satisfaction to the customer and merchant.”¹⁶¹ In an advertisement from the same week, the company boasted of their new emporium, stating “We think Pittsburgh and Pittsburghers will be proud of it. . . We mean its occupancy to mark a new era in retail merchandising in Pittsburgh—a broader uplifting movement.”¹⁶²

The Pittsburgh Press described the new store as being six stories high plus basement, with two mezzanine stores on the north end and retail on all but the top floor, which housed administrative space. Four safety elevators and one freight elevator efficiently connected floors. The first story of the exterior was clad in Oolitic limestone, while the upper stories were buff Pompeian brick and terra cotta with copper cornices and copper moldings at the windows. At the center of the roof was a large skylight that brought natural light through openings in each floor down to the first. The Penn Avenue entrance was octagonal in plan and two stories high and finished in carved limestone with a domed ceiling of copper and polished Sienna marble. The wood work was quarter-sawn oak and the floor contained a tile mosaic of a great stag’s head with spreading antlers. Fraser had designed a modern Commercial Style building with a state-of-the-art retail plan with the only hints of earlier architectural precedents being seen in the rusticated Romanesque first story and arched entrances.

More importantly, as he had done with the Bank of Commerce and the Arbutnot-Stephenson Building, he had incorporated the very latest fire-resisting technology. This would be severely tested four years later in May of 1897 when a massive fire causing three million dollars in damage spread from the Thomas H. Jenkins wholesale grocery establishment across the street on Penn Avenue to engulf the Horne’s department store and adjacent **Horne’s office building** (also designed by Fraser and opened within a year of the store; Figure 128). While historic photographs show both Horne’s buildings completely gutted, Fraser’s design allowed both buildings to quickly be rebuilt (Figure 129).

Fraser’s design and the work of the Pittsburg Terra Cotta Lumber Company, which installed the fireproofing, were intensely studied by engineers and insurance underwriters and became an important case study in the design of fire-resisting buildings. The major engineering and design journals of day, such *Engineering News* and *Architecture and Building*, published extensive analyses. Writing in *The Brickbuilder*, Peter B. Wright declared that “. . .the Horne Department Store is of steel skeleton construction throughout, and is the first building of that kind ever tested by an actual fire which permeated every part of its interior. . . This gigantic test is a vindication of the main features of the system. . . Everything combustible in the department store had been consumed. . . The triumph of fire-proofing with fire-clay has been reached in the Horne Department Store, in the simple fact that it has saved the steel skeleton. . . The predictions of croakers who claimed that buildings all of steel would be warped out of

¹⁶¹ *The Pittsburgh Press*, 1 August 1893.

¹⁶² *The Pittsburgh Daily Post*, 31 July 1893.

shape when protected by the modern systems of light-weight fire-proofing have not been verified.”¹⁶³

Within a year of the fire, William H. Birkmire dedicated a twenty-six-page chapter to Fraser’s design and the Horne’s fire in the first edition of his book *The Planning and Construction of High Office-Buildings*. It would be included in at least three subsequent editions published for more than a decade. While he had some criticism of the large front windows being unprotected by rolling fire-proof shutters (aimed mostly at the owner’s desire to merchandise and not at the architect), Birkmire concluded that because of Fraser’s careful attention to detail, “eighty percent of the steelwork and a considerable part of the outside walls can be saved intact and used as basis upon which to construct a new building.”¹⁶⁴

Fraser spent time in 1892 working on the aftermath of another devastating fire. On the night of May 6, 1891, a fire had started in a seven-story warehouse owned by the Arbuckle brothers on the east side of Seventh Street downtown and quickly spread to adjacent buildings on Eighth Street. A half-dozen buildings were destroyed, including the Arbuckle building, Christ Methodist Episcopal Church and the **Pittsburgh Female College**, however, the Gensenleiter Livery and Fraser’s office escaped damage.¹⁶⁵ On December 14, 1892, the college, which had been chartered in 1854, announced that “William S. Fraser, the architect, has the plans in preparation” for a new “first-class college building” to cost \$85,000. It was envisioned as “five stories high, constructed of brick with a brown stone front” and containing “a large gymnasium, chapel and music hall, parlors, class rooms, bedrooms, elevator, etc.”¹⁶⁶ However, all of the details had not been worked out. Most notably, a site had not yet been secured. Subsequent newspaper articles, city directories and histories of the college indicate that nothing was ever built. A much smaller version of the college continued to operate for a few years, primarily out of the home of the school’s president, Rev. A. H. Norcross, at 115 Homewood Avenue, but ceased to exist after that.

In 1892, Fraser likely began his largest project for Arrott and Torrance. As mentioned, they had started Standard Manufacturing on the north shore of the Allegheny River in 1875, where in their early years they were able to produce two enameled bathtubs a day. On July 24, 1892, *The Pittsburgh Dispatch* reported that they were accepting bids for construction of their new **Standard Manufacturing Plant** on Preble Avenue in the Ninth Ward of Allegheny City, just south of Western State Penitentiary.¹⁶⁷ While an explicit account of Fraser having designed the new facility has not yet been found in any newspaper or journal accounts of the time, an 1895 description of his firm in *History and Commerce of Pittsburgh and Environs* credits him with the design (see below). The first incarnation of the plant can be ruled out as the subject of this attribution since written accounts and historic maps indicate that the site was largely built out by the time of Fraser’s arrival in Pittsburgh in 1879.

¹⁶³ Peter B. Wright, “The Recent Fire at Pittsburgh: A Real Test on a Great Scale of Fire Resisting Construction and Material, *The Brickbuilder*, v. 6, no. 6 (June 1897), 117-23.

¹⁶⁴ William H. Birkmire, *The Planning and Construction of High Office-Buildings*, 4th ed. (New York: John Wiley & Sons: 1906), 161-87

¹⁶⁵ *The Pittsburgh Dispatch*, 6 May 1891.

¹⁶⁶ *The Pittsburgh Dispatch*, 14 December 1892.

¹⁶⁷ *The Pittsburgh Dispatch*, 24 July 1892.

Construction on the ten-acre site at 551-583 Preble appears to have advanced quickly from 1892 into 1893. A Sanborn Fire Insurance Company map dated September 28, 1893, shows the plant nearing construction, but with notes like “Light not decided upon” suggesting that some work still remained (Figure 130). Completed buildings included a foundry and power house, both of brick, with brick oven rooms being built. Also finished were three iron-clad buildings: pickling rooms, storage platform and cleaning house. Dotted lines showed a proposed warehouse that would replace housing and a Welsh church along Preble Avenue, a proposed extension that would double the size of the foundry, three additional oven rooms, and an electric crane to be installed in the foundry. Construction continued into 1894. In February, *The Pittsburgh Dispatch* indicated that Martsoff Brothers of New Brighton had been hired by the Standard Manufacturing Company to construct “an addition to its new works on Preble Avenue.”¹⁶⁸ In June, building permits were approved for a “one-story wareroom costing \$30,000, and a four-story foundry-room, costing \$4,300, both of brick.”¹⁶⁹ By August, construction was sufficiently complete to allow the company to relocate their operations to new site.¹⁷⁰ However, work was not complete, as indicated by a building permit in August 1895 “to erect a brick foundry building on Preble Avenue, to cost \$8,000; and another in August 1897 for “a warehouse costing \$9,300.”¹⁷¹

An advertisement from 1897 shows a rendering of the facility, with a caption that indicates it is “The largest plant in the world devoted exclusively to the manufacture of porcelain enameled baths and plumbing goods.” Branch addresses are listed in New York, Chicago, Buffalo, San Francisco and Montreal.¹⁷² Advancements since 1875 meant that the eight hundred workers employed at the site could now manufacture over two hundred enameled bathtubs per day. Today, nothing remains of the plant; the site is occupied by the Duquesne Light Woods Run facility on what is now Beaver Avenue.

1893

In January 1893, *The Inland Architect and News Record* reported that W.S. Fraser had under construction “for the **Hamilton Avenue U.P. Church**, a frame church, size 68 by 54 feet; slate roof; cost \$6,000.”¹⁷³ The church, located on the northwest corner of Hamilton Avenue and Lang Street in Homewood (across from the current Homewood Library, had been “organized in 1886 as the Dallas Mission or Branch of the Sixth United Presbyterian Church in Pittsburgh.”¹⁷⁴ Fraser’s membership at Sixth U.P. likely explains his receiving the commission. The building was dedicated on March 19, 1893. *The Pittsburgh Daily Post* indicated that new church was “a frame structure of modern architecture,” finished in hard wood and able to seat 500 people, and that the final cost was \$12,500.¹⁷⁵ The congregation worshipped in the building for more than a decade, before constructing a larger brick church at Homewood

¹⁶⁸ *The Pittsburgh Dispatch*, 24 February 1894.

¹⁶⁹ *The Pittsburgh Press*, 28 June 1894.

¹⁷⁰ *American Manufacturer*, 17 August 1894, 229.

¹⁷¹ *The Pittsburgh Dispatch*, 17 August 1895; *The Pittsburgh Press*, 9 August 1897. It is presumed that Fraser completed the design for the latter prior to his death in April 1897.

¹⁷² *City of Allegheny, Pa.: History and Institutions—Illustrations and Sketches of the Banking, Wholesale and Manufacturing Interests and the Representative Professional Interests of Allegheny County* (Allegheny: Evening Record, 1897), 22.

¹⁷³ *The Inland Architect and News Record*, v. 20, no. 6 (January 1893).

¹⁷⁴ Homewood United Presbyterian Church Records, 1891-1914.

¹⁷⁵ *The Pittsburgh Daily Post*, 20 March 1893.

Avenue and Idlewild Street a few blocks away, at which time the congregation changed its name to Homewood United Presbyterian. The Fraser-designed building was subsequently purchased by the Christ Reformed congregation, which undertook a number of renovations, including the excavation of a basement. At some point after 1923 (determined from G.M. Hopkins Company maps), Fraser's frame building was clad in brick, but the form and massing are still visible (Figures 132 and 133). Today, the Nazarene Baptist Church occupies the building.

A second, and much grander church would have occupied Fraser's time throughout much of 1893. In April 1892, *The Pittsburgh Press* had announced that his home church, Sixth United Presbyterian, was planning to erect a new building to cost \$158,000, but that the site hadn't been finalized.¹⁷⁶ The specificity of the cost figure suggests that they already Fraser retained as their architect and had preliminary plans underway. The article goes on to say that Charles Lockhart had initiated the fundraising with a donation of \$50,000 and was joined by his wife and five sons who each pledged \$5,000. Ultimately, the present site of the church at the southeast corner of North Highland Avenue and Station Street was selected for construction, meaning a move of just two blocks from the congregation's old location. The cornerstone was laid in September 1893 and the building dedicated on December 30, 1894 (Figure 134).¹⁷⁷

The congregation had been organized in 1856 after members left East Liberty Presbyterian Church in protest of organ music being introduced. In 1858, the church became the First United Presbyterian Church of East Liberty. After East Liberty was annexed into the City of Pittsburgh in 1868, the name was changed to Sixth United Presbyterian Church. In 1963, the present name of **Eastminster Presbyterian Church** was adopted when Sixth U.P. merged with Third U.P.¹⁷⁸ In an article covering the dedication, *The Pittsburgh Press* described the church as follows:

The new building is one of the handsomest in this part of the state. The structure was designed by Architect W.S. Frazer [*sic.*]. The design is after the early French Gothic style, which is carried out with fidelity to every detail of the building with pure effect, care being taken to have it representative of the style. The structure is built of buff Amherst stone, and the main tower is of stone up to the copper gutters, while the fleche at the intersection is all copper, with hammered ornamental work. The porch, or rather the cloister, connecting the Sunday school room with the main, or church building, is of stone with tile floors, as are also the floors of the vestibules and logias [*sic.*].

. . .The ceilings of the main auditorium are of open oak timber, richly decorated in fossil work and moulding. The pews are arranged in circular form and so that an unobstructed view of the pulpit is obtained by each auditor. . .[In] the Sunday school room. . .there are 14 class rooms, all radiating from the superintendent's desk, so that there is no pupil that the superintendent cannot see. . . Under the Sunday school room is a large dining-room and pantry, fitted with cupboards; also a fire-proof boiler room, from where the entire group of buildings is heated.

¹⁷⁶ *The Pittsburgh Press*, 15 April 1892.

¹⁷⁷ *The Pittsburgh Press*, 15 September 1893; *The Pittsburgh Press*, 23 December 1894.

¹⁷⁸ Sixth United Presbyterian Church Records, 1857-1907.

. . .The church will seat 1,500 people. In dimensions the ground is 200 x 200 feet and the building covers almost the entire space. The general contractor for the erection of the church was George S. Fulmer. . .The carving of the stone is ornamental, intricate and in harmony with the style of architecture of the building. The embellishments are noticeable for their clearness of outline and the grace and beauty of their cameo and intaglio effects. The painting, frescoing and other work which belongs to the painters' art is of high character and in admirable taste.¹⁷⁹

In an interesting note, which suggests that the congregation's tolerance for music had changed over the preceding half century, the article indicates that the auditorium has an organ that "is a large two manual instrument, and was built by John Brown, of Wilmington, Del. It concludes by stating the final cost for the church as \$260,000."¹⁸⁰

Fraser's design was received favorably in the architectural press. In March 1894, *The American Architect and Building News* published his perspective drawing and floor plan (Figure 135).¹⁸¹ More recently, the late Walter C. Kidney said "with its rock-faced stone, numerous round arches, and broad proportion, this is a very convincing work. . . ." Commenting on the spired corner tower with its upper story octagon and four square turrets, Kidney connected Sixth U.P. back to Fraser's very earliest drawings, stating that the "compositional scheme is probably derived from the towers of Coutances Cathedral in France."¹⁸²

Near the end of 1893, Fraser was again working on collegiate academic plans—this time ones that would actually be constructed. In November, the trustees of the State Normal School in Indiana, Pennsylvania (present Indiana University of Pennsylvania) announced that they had settled on the sites for two campus buildings: A new building for the **Model School** (Figure 136), where future teachers could practice their craft in structured classrooms with actual students, and a new boys' dormitory, to be named **Silas M. Clark Hall** (Figure 137). Plans were being developed by W.S. Fraser, architect of the recently constructed Farmers Bank Building.¹⁸³

In July, lengthy descriptions ran in *The Indiana Gazette*, in advance of the buildings opening in August:

"The Model School building stands on a slight knoll near the northern entrance to the grounds. The structure is 72 feet wide and 86 feet long, having a foundation of brown stone and being itself of brick, pointed with red mortar and trimmed with rock face brown stone. The roof is of slate. It contains a basement 10 feet in height, and two 13-1/2 foot stories. Within, the building is finished throughout in North Carolina Yellow Pine. . . [and] is entered through a double vestibule, arched with brick arches. . . .The center of the building is occupied by the halls and stairways. On either side of the main hall, on either floor, are

¹⁷⁹ *The Pittsburgh Press*, 23 December 1894.

¹⁸⁰ *The Pittsburgh Press*, 23 Dec 1894.

¹⁸¹ *The American Architect and Building News*, v. 43, no. 953 (31 March 1894).

¹⁸² Walter C. Kidney, *Landmark Architecture: Pittsburgh and Allegheny County* (Pittsburgh: Pittsburgh History & Landmarks Foundation, 1985).

¹⁸³ *The Indiana Weekly Messenger*, 29 November 1893.

two school rooms, making a total of eight. . .In the basement are two room, 33 x 28 feet, which will be used as playrooms, one for the girls, the other for the boys. . . .

The Boys' Dormitory, too is of brick, with brown stone foundation and trimmings and slate roof. . . .It is 147 x 40 feet, having three stories and a basement. It is situated in the southwest corner of the grounds, and commands a view for a number of miles down the Indiana Valley. . . .The building has both front and rear porches supported by Colonial columns. There are altogether 70 rooms in the building. . . .The main hall of the building will be finished in quartered oak, the remainder of the building in North Carolina yellow pine. . . .There are of course fire escapes upon the building.¹⁸⁴

Unfortunately, the budget Fraser was provided did not permit the boys' dormitory to be of fire-resisting construction. It was destroyed by fire in November 1905. The Model School still stands and is today known as Wilson Hall. In 2003 it underwent a total rehabilitation and now houses the Department of Criminology.¹⁸⁵

In the design of these buildings, Fraser's first definitive expression of Classical Revival formalism can be seen. The main facades of the boys' dormitory and side facades of the Model School strongly anticipate his design for the front façade of the Herron Hill Pumping Station with their slightly projecting center bays, triangular pediments and Classical detailing.

1894

In January 1894, Fraser's ongoing advocacy for the architecture profession and the rights of architects was struck a legal blow. On January 30, Judge Joseph Buffington of the United States Circuit Court for the Western District of Pennsylvania refused to issue a temporary injunction in a lawsuit Fraser had filed on October 14, 1893 (Fraser v Culver & Hudson). Fraser asserted that architects Culver & Hudson of Williamsport, Pennsylvania, had infringed upon his copyright and adopted his unbuilt design for the Carnegie Library in Allegheny (Figure 78) for a new city hall in erected in Williamsport (Figure 138). Fraser argued that publication of his drawings by Ticknor & Co. (publishers of *The American Architect and Building News*, who were subsequently added to the case as plaintiffs) protected his design since the journal was copyrighted. He sought to have construction stopped and to be compensated. Judge Buffington found in favor of the defendants on technical grounds, stating: "Assuming for the purpose of this motion that such plans are the subject of copyright protection, still we are of [the] opinion that under the facts of this case and the status of affairs at the time the application was made, we are not warranted in granting a preliminary injunction. This view of the matters renders it unnecessary for us to pave upon the first question, which on account of its novelty and importance, had better be disposed of on final hearing."¹⁸⁶

That final hearing was concluded on October 14, 1895, when Judge Buffington essentially ruled that architects' plans are not protected. He dismissed the case, saying that when the design was printed in *The American Architect and Building News* it was given to the public.

¹⁸⁴ *The Indiana Gazette*, 11 July 1894.

¹⁸⁵ *Indiana University of Pennsylvania: Preservation Plan* (Pittsburgh: Pittsburgh History & Landmarks Foundation, 2009).

¹⁸⁶ *The Pittsburgh Press*, 30 January 1894.

More specifically, he ruled that the section of copyright law under which Ticknor & Co. registered their journal, which grants rights to the “author, inventor, designer, or proprietor of any book, etc.” was different from the one which protects “a painting, drawing, chromo, statue, statuary, and of models or designs intended to be perfected as works of the fine arts.” As such, the defendants had not infringed since established precedent (*Baker v Selden*) established that “the copyright of a book or prospectus, no matter how many drawings and illustrations it may contain, gives no exclusive right to the modes of drawing described. . . .” A comparison was made to the copyright of a work on mathematics, which cannot give its author exclusive right to the methods described or diagrams employed so as to prevent an engineer from using them—the drawings or diagrams being seen as mere expressions of ideas. Journals like *The American Architect and Building News* were seen as being published for the use of architects who may legally take and absorb all the ideas they can from the designs. The copyright simply prevents others from republishing those design, not from adopting those design for construction.¹⁸⁷

A comparison of Fraser’s drawings for the Allegheny library and the completed Williamsport City Hall immediately demonstrates the cause for Fraser’s concern. The completed building is nearly identical, with some modification to fenestration and the number of bays, apparently because the city hall did not require quite as large a building.

On November 28, *The Philadelphia Real Estate Record and Builders' Guide* announced that W.S. Fraser “has plans for a **fire engine house to be erected at Allegheny, Pa.**” However, it has not been determined if this piece of public infrastructure was ever constructed or where it was located. *The History of the Allegheny Fire Department*, indicates that as of its December 1, 1894 writing, “a new engine house is about completed in the eleventh ward.” The short interval between the announcement of Fraser’s plans and the near-completion of the building suggests that this was likely not Fraser’s design. An account two weeks later in *The Pittsburgh Post-Gazette* indicated that Allegheny City had a budget shortage and that \$13,000 that had been appropriated for a new engine house had instead gone to the police department and that the engine house would not be built. This could have been the demise for Fraser’s plans.¹⁸⁸

The November 28 announcement for the fire engine house also indicated that Fraser was “the architect for a new school building to be erected at New Bethlehem” in Clarion County. **The New Bethlehem Public School**, which no longer exists, appears from a historic postcard to have been similar to the Model School at Indiana in size and architectural details (Figure 139). Like the Model School, it was constructed of brick with stone trimmings and was covered by a steeply-pitched hipped roof; its front façade was symmetrical and the main entrance was flanked by two-story octagonal bays. One main difference was the addition of a large cupola in the center of the roof, which contained the school bell.

1895

Despite the setback from his lawsuit, Fraser’s spirits were likely lifted in 1895 when the only known biography of him was published in *History and Commerce of Pittsburgh and Environs*. Fraser is the first architect to be profiled in the pages of the volume. While works of this type

¹⁸⁷ “Protection of Architects’ Plans,” *The Real Estate and Building Journal*, 23 May 1896.

¹⁸⁸ *The Pittsburgh Post-Gazette*, 12 December 1894.

are by their nature laudatory, the account does offer some insight into how Fraser was seen at the time and how he conducted his business:

W.S. Fraser, Architect, No. 4 Eighth Street—The genius and skill of American architects is now recognized the world over. Among those who have won distinction in the profession in Pittsburgh, none stand higher than Mr. W.S. Fraser. He has been established in the business for a period of fifteen years, and is justly ranked among our leading and most responsible architects, while his patronage, which is of the most substantial and flattering character, is fully commensurate with the high reputation for skill and ability which he employs. Occupying spacious and commodious premises, recently rebuilt for the purposes of his business, and assisted by a corps of seven expert draughtsmen, he is prepared to devote his close personal attention to all branches of the business. He is intensely practical, executing plans for all styles of architecture and furnishes plans and estimates for any proposed structure, personally supervising construction when desired. He has drawn plans for some of the finest creations of capital in the country, and among the commissions executed by him may be mentioned the National Bank of Commerce, Keystone National Bank, Jos. Horne & Co.'s new dry goods building, the Arbuthnot Building, Standard Manufacturing Company's works, and the residences of A.J. Barr, H.S.A. Stewart, W.M. McKelroy, Chas. Lockhart, Jas. McKay, and Dr. F. [*sic.*] A. Rex, among others in this city; also the Atwood residence in Allegheny; General Mexia's residence in Mexico City, and Gensenleiter & Co.'s livery stable—the largest in Pittsburgh. . . .¹⁸⁹

Of the list of projects, only two have yet to be mentioned. First, no information has been found so far to link Fraser to Mexia or Mexico City. Presumably this was Gen. Enrique Guillermo Antonio Mexia (1829-1896), Mexican businessman and statesman and owner of large landholdings in Texas throughout the nineteenth century. Second, no one named W.M. McKelroy has been identified in any Pittsburgh directories or Pittsburgh histories. It is possible that this is a spelling error (like that of Dr. Thomas A. Rex, where he was listed as Dr. F.A. Rex). The article could be referring to S.M. McElroy, a Pittsburgh attorney and senior banking official at the National Bank of Commerce. However, information from city directories and historic maps is inconclusive. For example, in 1892, *The Philadelphia Real Estate Record and Builders' Guide* reported that McElroy was building “a handsome new residence,” and directories indicate that it was located on Thomas Boulevard. However, Hodgson & Thomas are listed as the architect.¹⁹⁰ More likely, the article could be referring to W.M. McKelvey. William McCully McKelvey (less frequently spelled McKelvey), was a pioneer in the local oil and Portland cement industries. He was a colleague of Charles Lockhart, who could easily have introduced Fraser. McKelvey was a director at Standard Oil and later served as president when it became the Atlantic Refining Company. He was also was a neighbor of Lockhart's daughter. The McKelvey's constructed a large home on the northeast corner of Fifth Avenue and College Street in 1894. At the same time, Fraser was designing the mansion across the street for Charles Lockhart (Figure 140).¹⁹¹

¹⁸⁹ *History and Commerce of Pittsburgh and Environs, Consisting of Allegheny, McKeesport, Braddock, and Homestead*, (New York: A.F. Parsons Publishing Co., 1894).

¹⁹⁰ *The Philadelphia Real Estate Record and Builders' Guide*, v. 7, no. 37 (14 September 1892).

¹⁹¹ *The Pittsburgh Press*, 22 May 1894.

1895

Two large projects for Charles Lockhart would have filled Fraser's calendar in 1895. In May 1895, it was reported that Fraser had completed plans "for a three-story stone dwelling to be erected on Fifth Avenue for Chas. Lockhart. Cost about \$38,000."¹⁹² Lockhart was having the Chateausque Style house built as a gift for his daughter, Janet Walker Lockhart, who had married John R. McCune, III the year before. By November, the **Lockhart-McCune House** was under construction and *The Pittsburgh Daily Post* ran a lengthy article detailing the features it would have under the heading, "A Magnificent East End Home: The Slightly Combination of Grandeur, Elegance and Beauty" (Figure 140). The house was described as

. . .an accurate reproduction, barring necessary adaptations to modern conveniences, of the style in vogue during the height of the French Renaissance. . .The two most notable buildings of this time in France were the castle of Francis I, who was King of France from 1515 to 1547, and the private residence of Jacques Cours, a noted merchant of Bourges. . .The characteristic architectural features of both are embodied in Mr. Lockhart's house; and Mr. W. S. Fraser, who is the architect, says it is the only house in Pittsburg that has these features unmodified, and that is free from the encroachments of other styles.

The house has the dimensions of 95 and 78 feet, the latter extension including a kitchen "L," a severely modern acquisition. The building is two stories high, with an abnormally elevated roof; the latter is given additional prominence by the sharp pitch of its sides. The material of construction, is red sandstone from Lake Superior; the roof is covered with slate of a corresponding shade of red. . .The house faces Fifth Avenue. Looked at from that street, the cynosure of every eye will be the portico, which might even be called a colonnade; running along for more than the middle third of the house. On top is a balustrade with stocky posts. . .In front, the porch has four columns, 16 inches square, fluted, with Doric moldings. These pillars give room for three very flat arches that rest on pilasters set up against them. . .On the left of the porch is a two-story bay. . .On the roof are two gables or pediments of Gothic form, amply ornamented with carved figures. . .

As viewed from the College Avenue side, the distinguishing features are a double porch and a second-story oriel. . .Not a piece of wood, copper, or zinc is used; the pillars, pilasters, balustrade and posts, cornice, moldings and frieze are all of red stone. Hence the ornamentation naturally looks better heavy and plain. The effect of the house is one of concentrated stability. The main hall will be in the rear, roomy, of course, and extending to the ceiling of the second story with a balcony on the second floor something entirely new here.¹⁹³

In January 1897, *The Pittsburgh Press* reported that the "palatial stone residence" was complete, that A. & S. Wilson had been the contractor, and that estimated cost, with furnishings, was \$500,000.¹⁹⁴

¹⁹² *The Philadelphia Real Estate Record and Builders' Guide*, v. 10, no. 21 (22 May 1895). A nearly identical announcement ran in *The Inland Architect and News Record*, v. 25, no. 4 (May 1895).

¹⁹³ *The Pittsburgh Daily Post*, 19 November 1895.

¹⁹⁴ *The Pittsburgh Press*, 30 January 1897.

The house, which no longer exists, was one of many mansions on Pittsburgh's Millionaire Row. An article from the August 13, 1961 edition of *The Pittsburgh Press* indicated that the house would be demolished within weeks and offered some additional details about its history and architecture. Janet Walker McCune had died in 1956 at the age of 88, leaving an estate worth over \$77 million. However, the article contends that after federal and state taxes left less than \$20 million to be divided between five children, it was no longer affordable to maintain the house as a single-family dwelling. The main hall featured a 14-foot imported Siena marble fireplace mantel and imported Swiss carved oak banisters; the dining room had gold-plated chandeliers and French hand-painted wall coverings with gold leaf; the library had mahogany casework and Italian silk wall coverings; and in the back yard was a two-story coach house with room to park six cars.¹⁹⁵

In October and November 1895, a number of sources reported that Fraser's plans for a six-story, fireproof business building for Charles Lockhart were complete and that William F. Trimble & Sons had begun construction.¹⁹⁶ The **Lockhart Building**, located on the south side of Penn Avenue just east of Ninth Street remains today and contains first floor retail with apartments above; the address is 908-10 Penn Avenue (Figures 142 and 143). In November 1896, Fraser was hired by Lockhart to undertake some modifications to the building to accommodate new tenants, the Spear & Co. furniture store.¹⁹⁷

The building is Classical Revival in style and is clad in orange Pompeiian brick.¹⁹⁸ While the first-floor retail spaces have been modified over the years, the upper stories retain integrity. Windows are delineated by classical pilasters and a large cornice contains modillions and dentils. The June 27, 1896 edition of *The Metal Worker* indicated that Rasner & Dinger "are now engaged on contract for the copper cornice, skylights and roofing for the Lockhart Building."¹⁹⁹ The building is a contributing resource in the Penn-Liberty National Register historic district and in the locally-designated Penn-Liberty district.

1896

In January and February 1896, a number of sources reported that the school board at Greensburg, Pennsylvania, in Westmoreland County was planning a new high school building. *The Punxatawney News* announced that "W. S. Fraser, of Pittsburg, was selected architect, the contest for the place among several architects being spirited." **The Greensburg High School** was to be constructed of stone and brick, measure 155 x 110 feet and cost \$55,000.²⁰⁰ An account of the school in *History of Greensburg and Greensburg Schools* published in 1899 indicates that the board had selected an efficient and responsive architect. With a goal of having the building ready for the next school year, Fraser completed his drawings within months and proposals from contractors were opened May 5. When initial bids exceeded the budget, Fraser was asked to make some modifications to his design and new bids were opened June 1. Kennedy, Hamilton & Fair were awarded the contract of \$58,027. Ground was broken

¹⁹⁵ *The Pittsburgh Press*, 13 August 1961.

¹⁹⁶ *The Pittsburgh Daily Post*, 18 October 1895; *Electricity: A Popular Electrical Journal*, v. 9, no. 18 (13 November 1895), 246; *The Philadelphia Real Estate Record and Builders' Guide*, v. 10, no. 45 (6 November 1895).

¹⁹⁷ *The Pittsburgh Press*, 7 and 8 November 1896.

¹⁹⁸ *Pennsylvania Historic Resource Survey Form*, completed by Pittsburgh History & Landmarks Foundation, 20 March 1980.

¹⁹⁹ *The Metal Worker* (June 27, 1896), 39-40.

²⁰⁰ *The Punxatawney News*, 8 January 1896; *The Inland Architect and News Record*, v. 7 no. 1 (February 1896).

June 16 and “the magnificent temple of education was finished just over a year later in time for the first day of school, September 6, 1897.”²⁰¹

The three-story building was Gothic Revival in style, and featured a 70-foot central tower flanked by front-facing cross gables with large pointed arch windows at the top floor (Figure 144). A major feature was the auditorium on the third floor, which had a seating capacity of 1,150 people and “was the largest auditorium in the county.”²⁰² The 1899 history described the school as follows:

The building is constructed of Pompeiian repressed buff brick, with Cleveland cut-stone trimmings and rock-faced foundation. The roof is of slate, and the gutters copper. From north to south the extreme length of the structure is 138 feet, and from front to rear, west to east, 118 feet, or, including the handsome stone porch, 134 feet. Its height is 78 feet. Nearly two hundred tons of structural steel were used on the interior construction of the building. The wood finishing is of oak, and the ceilings and walls, white plaster, hard finish. The splendid structure is supplied with electric light, illuminating gas and city water. . . In every respect, the Greensburg High School is regarded as a complete, modern and model school building.²⁰³

Fraser would likely have been pleased, based on the plea in his narrative for the Carnegie Library in Allegheny, that the eastern half of the basement was reserved as a room for manual training to instruct boys in mechanical drawing and the use of tools. The school was demolished in the mid-twentieth century (perhaps around 1927 when the current Greensburg Salem Middle School was constructed on the lot to the south). Today, the site of Fraser’s school is a grass playing field for the middle school.

In February 1896, what is believed to be Fraser’s first government commission was announced with publication of the RFP on behalf of the City of Pittsburgh for the erection of the **Herron Hill Pumping Station** (Figure 54A). While the timeframe suggests his hiring sometime in 1895, no documentation has yet been found to indicate when he started.²⁰⁴

He also had the opportunity in 1896 to help another Mission of the Sixth United Presbyterian Church, when he designed a small chapel for the **Larimer Avenue Mission** on Orphan Street, three blocks to the northeast of the Larimer school, which was under construction at the time (Figure 145). The church board hired contractor W.R. Thompson, who constructed the small frame chapel for \$1,348.²⁰⁵

Fraser is known to have worked on two large residential projects in 1896 and both demonstrated his ability to adapt architectural styles to meet current market demands. In June, *The Philadelphia Real Estate Record and Builders' Guide* reported that “At New Brighton, Beaver County, Mr. [Edward L.] Dawes of the firm of Dawes & Myler, will erect a handsome

²⁰¹ *History of Greensburg and Greensburg Schools* (Greensburg: Vogle & Winsheimer, 1899), 148-54.

²⁰² *The History of Greensburg, 1799-1949* (Greensburg: Westmoreland County Historical Society, 1949).

²⁰³ *History of Greensburg and Greensburg Schools*, 148-54.

²⁰⁴ *The Pittsburgh Press*, 14 February 1896.

²⁰⁵ *A Book of Remembrance—Centennial History of the Sixth United Presbyterian Church* (Pittsburgh, [1956]).

residence from plans prepared by W.S. Fraser, architect, of Pittsburg, Pa. It will be Colonial in design, of handsome interior finish, and be provided with all modern conveniences. The estimated cost is \$12,000.”²⁰⁶ The two-story, brick, **Edward L. Dawes House**, which still stands, was designed with a symmetrical, three-bay wide front façade with curved two-story bay windows flanking the entrance. A front porch with Classical columns extends across the front of the house, the center bay of which projects in a graceful arc toward the street. Above the porch, in the center bay, is a Palladian window (Figures 146 and 147).

Dawes had been a manager of Arrott and Torrance’s Standard Manufacturing Company plant on the Allegheny River in Pittsburgh until 1887, which is how he likely met Fraser. At that time, he entered into business with William Albert Myler. They formed Dawes & Myler and built their own plant for creating porcelain-lined bathtubs and other sanitary fixtures on a four-acre site in New Brighton. In 1899, Dawes & Myler became part of Standard Sanitary Manufacturing Company and Dawes became general manager of factories and by 1901 had become second vice president. In 1912, he was divorced by his wife Katherine Torrance (daughter of Francis J. Torrance); donated his house, then valued at \$30,000, to the Home for the Aged and Infirm; married Sarah Lindsey Toerge, his stenographer; and moved to Canada in hopes of avoiding public ostracism. The one stipulation of his gift of the house was that any future dormitory additions “harmonize with the architecture of the residence.” Dawes worked for Standard Sanitary Manufacturing in Canada before retiring and moving to Chicago. He died in 1944 in Sewickley. Today, Dawes Manor, with its recently renovated residential wings that flank the original house, continues to provide housing to seniors in New Brighton.²⁰⁷

In December, it was reported that “At Carnegie, Allegheny Co., William Hill, Esq., will erect a handsome Colonial dwelling, to cost about \$10,000, from plans prepared by W.S. Fraser, Eighth Street, Pittsburgh.”²⁰⁸ While the **William Hill House** at 846 Washington Avenue no longer remains, a photo from c. 1960 shows what some call a Free Classic Queen Anne style house, or a Queen Anne with Classical Revival details (Figure 148).²⁰⁹ The frame house was two-and-one-half stories tall, with a steeply-pitched hipped roof and lower, front-facing cross gable. The house shared two architectural details in common with the Dawes House. First, its full-width front porch with curved center bay and Classical columns is nearly identical. Second, it too contains a Palladian window, although in the case of the Hill House, it was in the front cross gable.²¹⁰ A classified advertisement from 1930 indicated that the property was a “modern center hall house with fourteen rooms and three baths.” Hill was a member of the County Board of Tax Assessment and Revision at the time of his death in 1910. In 1877 he began the first of two terms in state legislature. In 1887 he was elected Treasurer of Allegheny County. He then served ten years as Superintendent of the county workhouse. He was a director of the Carnegie Trust Company and had been president of First National Bank of

²⁰⁶ *The Philadelphia Real Estate Record and Builders' Guide*, v. 1, no. 26 (24 June 1896). Similar announcements were published in *The American Architect and Building News* (1 August 1896) and *The Brickbuilder* (July 1896).

²⁰⁷ *Book of Biographies: Biographical Sketches of Leading Citizens of Beaver County, Pennsylvania* (Buffalo: Biographical Publishing Company, 1899); “Home is Donated,” *The Pittsburgh Post-Gazette*, 29 November 1912; “Tub Trust Head Marries Typist,” *The Time-Democrat* (New Orleans), 217 December 1912; *The Book of Prominent Pennsylvanians* (Pittsburgh: Leader Publishing Co., 1913); Obituary, *The Pittsburgh Sun-Telegraph*, 20 November 1944.

²⁰⁸ *The Philadelphia Real Estate Record and Builders' Guide*, v. 11, no. 53 (30 December 1896).

²⁰⁹ *The Pittsburgh Press*, 14 January 1930.

²¹⁰ *The Carnegie Signal-Item*, [17 April 1966].

Carnegie.²¹¹ Today, the front/north portion of the Hill estate contains two small, c. 1965 houses. The portion which contained the Fraser-designed house is a parking lot for adjacent apartment buildings constructed in the mid-1950s.

Fraser was again hired by the City late in 1896 to renovate the first floor offices of City Hall, which was located on the southwest corner of Smithfield Street and Virgin Alley (today's Oliver Avenue). The **City Hall Renovation** was necessary because the Department of Public Works was preparing to move to a new building on Sixth Street between Smithfield and Grant Streets.²¹²

1897—Epilogue

William S. Fraser died on the morning of April 27, 1897 at his home on Stanton Avenue. By most accounts he was only forty-four years old. His death certificate indicates that the cause of death was sarcomatous tumor of the abdomen (a malignant form of soft tissue cancer).²¹³ The duration of illness is listed as nine months, meaning he was beginning to get ill around the time he was designing the Dawes House in New Brighton, if not sooner.

Fraser does not appear to have taken on any new plans in 1897, and had likely relied heavily on his staff of draftsmen to carry out projects from the time his symptoms first appeared. On April 29, he was interred in the Homewood Cemetery columbarium.

The only known photograph of Fraser accompanies his obituary in the May 1, 1897 edition of *The Pittsburg Bulletin* (Figure 58).²¹⁴ While this account of Fraser's life is invaluable for its image of him, it contains a number of errors. For example, it indicates that he designed the Carnegie Library in Oakland and was survived by a daughter, rather than a son. Other obituaries were more accurate, including a number that were published in national architectural journals. *The Inland Architect and News Record* hailed Fraser as "one of the foremost architects of the city" and "one of the leading members of his profession in western Pennsylvania." He was described as "a man whose social as well as his exceptional mental and professional traits rendered him among the most popular and successful residents of Pittsburg. . . His taste, originality and skill find embodiment in some of the finest business houses, private residences and churches hereabouts."²¹⁵ His passing was also covered in *The American Architect and Building News*, *The Brickbuilder*, and *The California Architect and Building News*.²¹⁶

Fraser was survived by his wife, Ella May Elkins, and a son, Harold Thornton Elkins. Tragically, the couple's only child died at the age of thirteen on the evening of August 3, 1906

²¹¹ *The Pittsburgh Post-Gazette*, 25 October 1910.

²¹² *The Pittsburgh Post-Gazette*, 23 December 1896. The scope of the project was elaborated upon a month later in *The Pittsburgh Daily Post*, 14 January 1897.

²¹³ *Registration of Deaths in the City of Pittsburgh, State of Pennsylvania, A.D. 1897; The Pittsburgh Press*, 21 April 1897.

²¹⁴ *The Pittsburg Bulletin*, v. 34, no. 26 (1 May 1897).

²¹⁵ *The Inland Architect and News Record*, v. 29, no. 4 (May 1897), 39.

²¹⁶ *The American Architect and Building News*, v. 56, no. 1115 (8 May 1897), 42; *The Brickbuilder*, v. 6, no. 5 (May 1897), 90; *The California Architect and Building News*, v. 18, no. 6 (June 1897), 67.

at the home of his grandmother, Mrs. George W. Elkins, on Highland Avenue.²¹⁷ Fraser's widow apparently continued to live in the house until October 1911, when she sold it to Joseph P. Cowan for \$32,500.²¹⁸ She would eventually remarry, her second husband being Harry Osborne Withers. She died in March of 1945 in Winter Park, Florida, where she had been a resident since 1929.²¹⁹

Two of Fraser's draftsmen mentioned above took over the work of his firm: Fraser's nephew William F. Struthers and Thomas Hannah. The first known appearance of their new firm name, Struthers & Hannah, was in the June 1897 edition of *The Brickbuilder*. An article on Pittsburgh construction projects indicated that Peabody and Stearns was creating plans to rebuild the Joseph Horne store and that "the Horne Office Building. . . will be rebuilt from plans by architects Struthers & Hannah, successors of the late W.S. Fraser."²²⁰ The rapid transition, within two months of Fraser's death, suggests that Fraser had developed a succession plan. The 1897 city directory does not list Fraser, but does list Struthers as an architect and Hannah as a draftsman, both at the old Fraser office at 4 Eighth Street. The 1898 and 1899 directories list the firm name of Struthers & Hannah, still on Eighth Street; in 1900, their firm is listed at 146 Sixth Avenue in the Jackson Building.

Thomas Hannah (c. 1867-1935), appears to have had the longer and more successful career of the two partners. Among his best-known buildings are the Andrew Carnegie Free Library (1899) in Carnegie, First Congregational Church, Oakland (1904), now St. Nicholas Greek Orthodox Cathedral, the Keenan Building (1907) on Liberty Avenue, with its distinctive red dome, and the Western Pennsylvania Seminary dormitory (1911-12) on Ridge Avenue, now West Hall on the campus of the Community College of Allegheny County.²²¹

The only other known draftsman in Fraser's firm, David Innis Kuhn, retired shortly after witnessing Fraser's second patent application in 1891 due to an injury obtained during the Civil War. He played no role in Fraser's succession.²²² It is interesting to note that Kuhn had a successful career as an architect prior to working for Fraser as a draftsman. At one point in the 1870s, he was a partner in the firm of Drum & Kuhn, with advertisements appearing regularly in local newspapers from 1873 to 1875. Later, he practiced on his own, with a number of cottage and carriage house plans having been published in *The Rural New Yorker* in 1885.

One final note of clarification: There is a W. S. Fraser cited repeatedly as having collaborated with Henry Hornbostel on the design for Congregation B'Nai Israel at 327 North Negley Avenue, which was completed in 1923. Walter Kidney cites him, as does Frank Toker, and a Pittsburgh History & Landmarks Foundation plaque. Clearly this is not the same Fraser as the subject of this account. The W.S. Fraser documented here died in 1897 and Hornbostel didn't start working in Pittsburgh until 1904. Additional research will be needed to clarify the identity of Hornbostel's confederate.

²¹⁷ *The Pittsburgh Press*, 4 August 1906; *The Pittsburgh Daily Post*, 4 August 1906. The 1900 U.S. Census lists the birthdate for Harold Fraser as April 1895, which would have made him eleven at the time of his death.

²¹⁸ *The Pittsburgh Post-Gazette*, 19 October 1911.

²¹⁹ *The Orlando Evening Star*, 26 March 1945.

²²⁰ *The Brickbuilder*, v. 6, no. 6 (June 1897)

²²¹ Albert M. Tannler, "First Presbyterian Church, Edgewood," *PHLF News*, no. 173 (December 2007), 19.

²²² *The Pittsburgh Daily-Post*, 12 January 1901;

Conclusion

William Smith Fraser was an important architect in late-nineteenth century Pittsburgh. He was a skillful and creative designer who created dozens of significant buildings and worked for many of the most influential patrons in the city. He designed corporate headquarters, where his buildings represented the success and security of not just local companies, but companies with regional and national impact. He placed near the top in a number of important national design competitions and was highly regarded and regularly published in the national architectural press.

In an age when most architects received their education through apprenticeships or through architectural or engineering programs at local universities, Fraser received a formal education abroad at London's Royal Academy, a school perhaps bested at the time only by the Ecole des Beaux Arts in Paris. Significant also, was his study under master art-architect William Burges. Like Burges, Fraser was inquisitive and able to work skillfully outside the bounds of pure architecture—as seen in his two patents—and also outside the confines of Gothic Revival precedents.

Fraser also demonstrated success in his short career at navigating the changing role of the professional architect. The multitude of architectural styles and building typologies in which he worked suggests a start as a generalist in the craft-oriented tradition of master builder. However, increasingly complex projects like steel-frame fireproof buildings and a water pumping station demonstrate a shift in roles to that of project manager, where the implementation of his vision was assisted by a team of specialized consultants. Furthermore, he helped to define this changing role of the architect through numerous forms of advocacy for the profession and the public in their care, including his involvement at the start of Pittsburgh's chapter of the American Institute of Architects.

Fraser is known to have completed designs for fifty-nine architectural projects. The number of actual buildings he designed approaches one hundred fifty, when multi-structure projects are considered, such as the fifty townhouses on Dinwiddie Street and the plant for the Standard Manufacturing Company. Stylistically, while clearly fond of thirteenth-century French Gothic designs, he proved to be adept at working in many different motifs. Among his portfolio of fifty-nine projects where a specific style was clearly evident, only nine projects were Gothic in style, tied with the number of Queen Anne designs (9) and followed closely by Commercial (8), Classical Revival (6), Romanesque Revival (4), Shingle Style (1) and Chateausque (1). His design for the Arbuthnot-Stephenson Building perhaps shows his most advanced gesture stylistically, where the wide expanses of glass extending up the building's lower floors was clearly looking forward and demonstrating Modern principles.

Of his fifty-nine projects, forty-three are known to have been constructed, with another eight presumed to have been completed based on the existence of a building permit and/or named contractor. The most common typology among the projects known to have been built is residential (21 projects), followed closely by commercial (16), then educational (8), religious (5), institutional (5), and infrastructure (3). Of his built projects, only thirteen are extant (representing two dozen buildings). Three of these projects are severely compromised in

integrity: Sharpsburg YMCA, Hamilton Avenue U.P. Church, and the townhouses on Dinwiddie Street (where only a dozen of the original fifty buildings survive).

While most of Fraser's work was executed in the Pittsburgh area (24 projects in Pittsburgh or what was then Allegheny City; with nearby projects in Munhall, Sharpsburg and Carnegie), he was not provincial in his practice. In Pennsylvania, he had buildings erected in Meadville and New Brighton and three in Indiana. He also worked out of state, with buildings in Wellsville, Ohio, and Norfolk, Virginia. He was not hesitant to pursue competitions that attracted the country's top architects, regardless of the project's location, as demonstrated by his competition entry for the Cathedral of Saint John the Divine in New York City and his entries for the Carnegie Libraries in Allegheny and Pittsburgh.

Within the boundaries of Pittsburgh, his fifty-nine projects tended to be located close to downtown or in the East End. Near downtown, six were in what is today the Cultural District (where his various offices were located); four were in the downtown business district; six were in what was then Allegheny City; one in the Strip District; and one in what is today Crawford-Roberts. Further east, eight were in Shadyside; four in Oakland; four in East Liberty; and one each in Homewood, Larimer, Squirrel Hill and Highland Park.

Fraser's reputation was also not provincial. Throughout his short career, thirteen of his designs were published in the national architectural press, including at least three designs that were published and/or reviewed by journals overseas. Additionally, two measured drawings were printed in the pages of national journals. This accounting does not include the many instances where his designs were reported, often in great detail, in local newspapers, and where images of his buildings were published locally in books, magazines and newspapers.

Two factors have kept Fraser from being better known and possibly even being considered a master by today's architectural historians. First, and most obvious, is when he died. Succumbing to cancer at the relatively young age of forty-four severely limited his creative output. He simply did not live long enough to amass a body of work large enough to attract serious subsequent academic study, despite the amount of attention he received from patrons and the press while he was alive. Historians remark on the brevity of the career of his mentor, William Burges. But Burges, who died at age 53, managed to outlive Fraser by almost a decade.

Second, is when Fraser lived. From the standpoint of his legacy, Fraser had the misfortune of working during the last two decades of the nineteenth century. This was a time when cities, especially industrial and financial powerhouses like Pittsburgh, were undergoing profound transformation of their urban landscapes at a scale never before seen. As mentioned, Fraser largely worked in low-rise Pittsburgh, a city whose buildings were only a handful of stories high. Much of that city would soon be replaced by the steel-framed towers of the late-nineteenth and early-twentieth centuries—including by some of his own design, like the National Bank of Commerce and the Arbuthnot-Stephenson Building. Many of those that survived this first redrawing of the landscape would not outlive its second, as the city redefined itself during its renaissance of the 1950s and 1960s. The only building of Fraser's to survive downtown is the Lockhart Building on Penn Avenue.

Fortunately, his more suburban work fared slightly better. In Pittsburgh, extant buildings include the Herron Hill Pumping Station Building in Oakland; the Renshaw-Chislett House and the houses at 512 and 518 Shady Avenue in Shadyside; Fraser's own house in Highland Park; Eastminster Presbyterian Church in East Liberty; a dozen of the fifty townhouses on Dinwiddie Street (though fairly altered); and the Hamilton Avenue United Presbyterian Church in Homewood (very altered). Surviving outside Pittsburgh are the H.L. Richmond, Jr. House in Meadville; the Edward L. Dawes House in New Brighton; the Model School at what is now Indiana University of Pennsylvania; and the Sharpsburg YMCA (very altered).

The time during which Fraser practiced has also impacted the level of awareness that exists about his patrons. While he worked for some of the richest and most powerful people and companies in the city, they have largely been eclipsed by the generation of Pittsburghers to follow them in the early years of the twentieth century. For example, few people are likely to remember the impact Charles Lockhart had shaping early industrial Pittsburgh, or to realize that Pittsburgh was once home to the Arbuckle brothers, the leading coffee manufacturers in the county.

Outside of architecture, Fraser left a legacy of decades of service to the United Presbyterian Church—which could fill a volume on its own. Professionally, his legacy was carried on through the draftsmen he mentored and in the subsequent work of Struthers & Hannah. Though Fraser's career was short, it was impactful and demonstrated a significant level of skill as a designer, entrepreneur and advocate for the profession.

Criterion 5. Its exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail.

The Herron Hill Pumping Station is significant for its role in dependably providing public water to Pittsburgh's notoriously hilly neighborhoods for over a century and for allowing rapid urban development of the city's East End in the early twentieth-century.

Securing an adequate water supply for the nation's towns and cities has been a major preoccupation of local officials since the beginning of the American urban experience. Fire protection, public health, bathing, washing, cooking and sewerage are all dependent on the distribution of one of nature's most abundant, yet most precious, resources. "Without it, cities simply could not exist," wrote Nelson M. Blake in *Water for the Cities*, a history of urban water supply problems in the United States.²²³ Like many cities throughout the country in the nineteenth century, Pittsburgh faced the problem of constructing a public waterworks. As the population grew, wells, springs, river water and small initial reservoirs proved to be inadequate or became polluted.

It was not until the second half of the nineteenth century that municipal authorities recognized that, if they wished their towns and cities to grow and prosper under the impact of urbanization and industrialization, a dependable public water supply was an absolute necessity. Public health, fire protection, personal comfort, and the needs of industry all dictated good quality water be available to the community. In response to this demand, the number of public water systems grew from 136 to 3,196 between 1860 and 1890. By 1923, ninety-seven percent of the country's urban population was served by public water systems.²²⁴ Throughout the last century, with the rise of the environmental movement and concerns about the impact of global warming, the quality and quantity of the nation's water has remained a constant matter of public attention. The Herron Hill Pumping Station helps illustrate how one American city supplied its inhabitants with reliable water.

Following the largest annexation of surrounding communities into the City of Pittsburgh in 1868, long-term infrastructure improvements were implemented. Key among these was construction of the water distribution network known as the Herron Hill Service, where water is piped from the Highland Reservoir No. 1 to the Herron Hill Pumping Station and then pumped up to the Herron Hill Reservoir through 1,250 feet of 12-inch water main. Located, on one of the highest hills in the city with an elevation of 1,261 feet, the reservoir then provides water primarily by gravity to residential neighborhoods on four lower hilltops: Herron Hill, Squirrel Hill, Garfield Hill and Heberton Hill, with a range of elevations from approximately 1,000 to 1,230 feet (see distribution map and diagram, Figures 149 and 150). Summarizing a century of successful water delivery, Managing Engineer of the Pittsburgh Bureau of Water, Erwin E. Lanpher, indicated in 1930, that these four communities totaled over 100 thousand people, or more than 15 percent of the city's population and represented some of the fastest growing, most desirable residential neighborhoods in the city.²²⁵

²²³ James W. Sheire, "Shreveport Waterworks, Pump Station," National Register nomination.

²²⁴ Ibid.

²²⁵ Erwin E. Lanpher, *City of Pittsburgh, Pennsylvania: Its Water Works*, 1930, 18.

Numerous accounts link the growth of Squirrel Hill directly to the development of the Herron Hill Service. While the advent of electric trolleys in 1893 and construction of the Boulevard of the Allies in 1923 are often cited and, admittedly, played significant roles, it is the presence of reliable water that ultimately made the neighborhood a desirable destination worthy of investment. In a 1911 article titled “History of Pittsburgh Water Supply” in the journal *Fire and Water Engineering*, author L.C. MacPherson discussed the challenges of Pittsburgh’s topography and the significance of water being carried directly from the Herron Hill Reservoir “across the lowlands to supply the Squirrel Hill District.” A 1927 article in *The Pittsburgh Press* featuring a photograph of the Herron Hill Pumping Station, explained the distribution process, and discussed the importance of the facility to “the tremendous growth in population of Squirrel Hill” (Figure 151).²²⁶ In 1929, Erwin E. Lanpher concluded in *A Century of the Pittsburgh Waterworks* that “the rapid development of the Squirrel Hill section forced the building of a new and larger Herron Hill pumping station at the corner of Center [*sic.*] Avenue and Dithridge Street.”²²⁷ In 1930, a new pump was installed specifically to “increase the water pressure in Squirrel Hill” and shortly thereafter, when the facility was electrified, newspaper accounts cite part of the impetus for the upgrade as the need to “maintain sufficient pressure to supply water for the Squirrel Hill district.”²²⁸

The Herron Hill Pumping Station is an extant, working, historic resource that helps interpret the establishment of the municipal waterworks in Pittsburgh—the single largest expenditure made by the city during its first century. “The initial cost of construction constituted 40 percent of all municipal spending from 1827 to 1833. The expansion in the 1840s increased the size of expenditures, and in 1854 the Water Committee estimated the total cost of the water system as \$677,709. . . . Pittsburgh was not unusual in the extent to which waterworks costs constituted a substantial part of the total municipal budget. The building of New York’s Croton Aqueduct in 1842, for instance, increased the city’s debt from \$500,000 to over \$9 million and caused many citizens to predict financial disaster.”²²⁹

Additionally, the Pumping Station is significant for illustrating advances in technology at a typical late nineteenth-century American waterworks. The Pumping Station shows the evolution from steam power—first coal- then oil-fired—followed by electrification. With the addition of water filtration to the system in 1907, the Herron Hill Service played a pivotal role in reducing water-borne illness in the city.

Lastly, the Herron Hill Laboratory Building is significant as a historic site that encouraged the application of rigorous scientific standards to urban design and planning projects. Civil engineer and sanitary microbiologist George C. Whipple helps establish historic context and significance for water analysis facilities like those in the Laboratory Building in the previously mentioned *Popular Science Monthly* article “Municipal Water-Works Laboratories:”

The laboratory idea is fast taking hold of our municipalities. It is the natural result of modern science and American practicality. More and more our civilization is making use

²²⁶ *The Pittsburgh Press*, 18 Sep 1927.

²²⁷ Lanpher, “A Century of the Pittsburgh Waterworks,” 335.

²²⁸ *The Pittsburgh Press*, 14 August 1930; “Big New Pump Put in Operation,” *The Pittsburgh Post-Gazette*, 22 August 1931.

²²⁹ Tarr, 223.

of the great forces of nature, and more and more is it becoming necessary that nature's laws should be understood: hence the need for the precise data of the expert and the long-continued observations of the specialist. This is emphatically true in the domain of sanitary science, where the advances in chemistry, microscopy and bacteriology have wrought revolutionary changes. The microscope is no longer a toy, it is a tool; the microscopic world is no longer a world apart, it is vitally connected with our own. The acceptance of the germ-theory of disease has placed new responsibilities upon health authorities and has at the same time indicated the measures necessary to be taken for the protection of the public health. With the knowledge that certain diseases are caused by living organisms and that these may be transmitted by drinking-water has come the need of careful supervision of public water supplies, which has resulted in the establishment of many laboratories devoted to water analysis.

The work of supplying water to a community is . . . an engineering problem. . . . Accordingly, there has been developed in this country during the last decade an interesting group of water-works laboratories devoted to sanitary supervision and to experiments upon water purification.²³⁰

The paving analysis functions in the Laboratory Building were also significant. A 1916 Public Works report indicates that

The [Herron Hill] Laboratory is well equipped with facilities for making both chemical and physical tests of various materials. The mechanical installation includes a 300,000-pound Universal machine for tensile and compression tests; a standard brick rattler; a complete equipment for the physical testing of rubber materials; ductility and penetration machines for asphalt, and other equipment and apparatus.

At this laboratory not only these materials used by the Department of Public Works are inspected and tested, but also materials purchased and used by other bureaus and departments. Among the materials which are tested in the ordinary course of business of the laboratory, are the following: Portland cement, paving and sewer brick, refined asphalt and flux, asphalt wearing surface (samples taken from pavements being laid under contract), wood block, creosote oil, water-proofing materials, bridge timber, concrete, sand, gravel, coal, soap, lubricating oil, brass, bearing metal, fire, street and filtration hose, and other materials. Tests are made to determine not only the physical and chemical qualities of the materials, but also to determine the value for payment.

Research work is also carried on by the Laboratory and some interesting experiments and research work have been done upon paving materials, particularly relating to asphalt and wood block. Data and information regarding materials for the preparation of specifications are also supplied to the various bureaus and departments. A valuable feature of the laboratory is in the records which are kept showing the life and relative good or poor qualities of materials used in construction work, particularly those used in street paving and wearing surface. These records show the analyses of materials used and

²³⁰ George C. Whipple, "Municipal Water Works Laboratories," *Popular Science Monthly*, December 1900.

their performance during a term of years. Tests are made at the laboratory and where necessary, as in the case of wood block treatment, at the point of origin.²³¹

The Herron Hill Pumping Station, consisting of the Pumping Station Building and Laboratory Building, represent important examples of late nineteenth-century municipal commitment to providing state-of-the-art technological and scientific advancements to the community. The fact that both buildings retain integrity and, most importantly, the fact that the Pump House continues to serve its original function after more than a century of service, supports the argument for local historic designation and the enhanced preservation planning that comes with it. It is important to ensure that these significant examples of civic infrastructure can continue to serve the residents of Pittsburgh.

²³¹ Department of Public Works, City of Pittsburgh, "The City of Pittsburgh and Its Public Works," 1916.

Criterion 10. Its unique location and distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Pittsburgh.

The Herron Hill Pumping Station is significant for a number of reasons as a visual landmark in North Oakland, a neighborhood that is undergoing a considerable amount of new development. First, it is important aesthetically for the historic composition of its site. Fraser placed his Classical Revival building appropriately upon a pedestal. The grassy knoll from which the building rises not only adds to its prominence, but would have offered sweeping views of the East End and the much of the Herron Hill Service area when first constructed. He created a site that is both ordered and unordered, with winding walkways and paved driveways to the south and a forested hillside rising to the north. More than a decade after his death, the property was noted for its landscaping, which was planted with Cannas, Geraniums and Coleus.²³²

Second, the Herron Hill Pumping Station is important visually for its scale and the era represented by that scale. At the time it was constructed, the two-story building would have been the largest structure for a block or two in any direction. Subsequent construction in the neighborhood during the early part of the twentieth century brought some larger apartment buildings, but on the whole, the neighborhood remained one of largely of low-rise construction into the twenty-first century. Construction of the One on Centre apartment building across the street from the Pumping Station radically altered the compatible scale of buildings in neighborhood and resulted in the loss of five c. 1890 houses on Centre along with a duplex on North Dithridge.

²³² *Annual Report of the Bureau of Parks* (Pittsburgh: Department of Public Works, 1910), 21

10. Integrity

Both the Herron Hill Pumping Station Building and the Herron Hill Laboratory Building meet the criteria for integrity as it applies to location, design, materials, and workmanship.

Location: The Herron Hill Pumping Station Building and the Herron Hill Laboratory Building both retain integrity in regard to location. They both remain in their original locations, from which the Pumping Station has pumped water to the Herron Hill Reservoir since 1896 and the Laboratory advanced the scientific basis for water and paving analysis for more than half a century.

Design: The buildings retain integrity in regard to design. Both retain their form, massing, method of construction, and general plan. The Pumping Station Building, in particular retains character-defining features that allow its significance as an example of the Classical Revival style to be conveyed. These include its symmetrical design, full height pilasters, front facing pediment, dentiled cornice, arcaded window openings and encircling entablature. While the infill of the windows is a loss, this does not keep the style and function of the building from being understood.

Materials: The buildings retain integrity in regard to materials. They retain their coursed sandstone foundations, brick walls, decorative pilaster capitals with egg-and-dart ornament, stone sills and lintels, and carved stone frieze containing the building's name and date of construction.

Workmanship: The buildings retain integrity in regard to workmanship. The exterior masonry details reflect a high level of skill and care that has allowed the walls to stand with little signs of unwanted movement or the need for repointing.

Herron Hill Pumping Station

Historic Nomination Form

Site Plan, Photo Log, & Supplemental Images

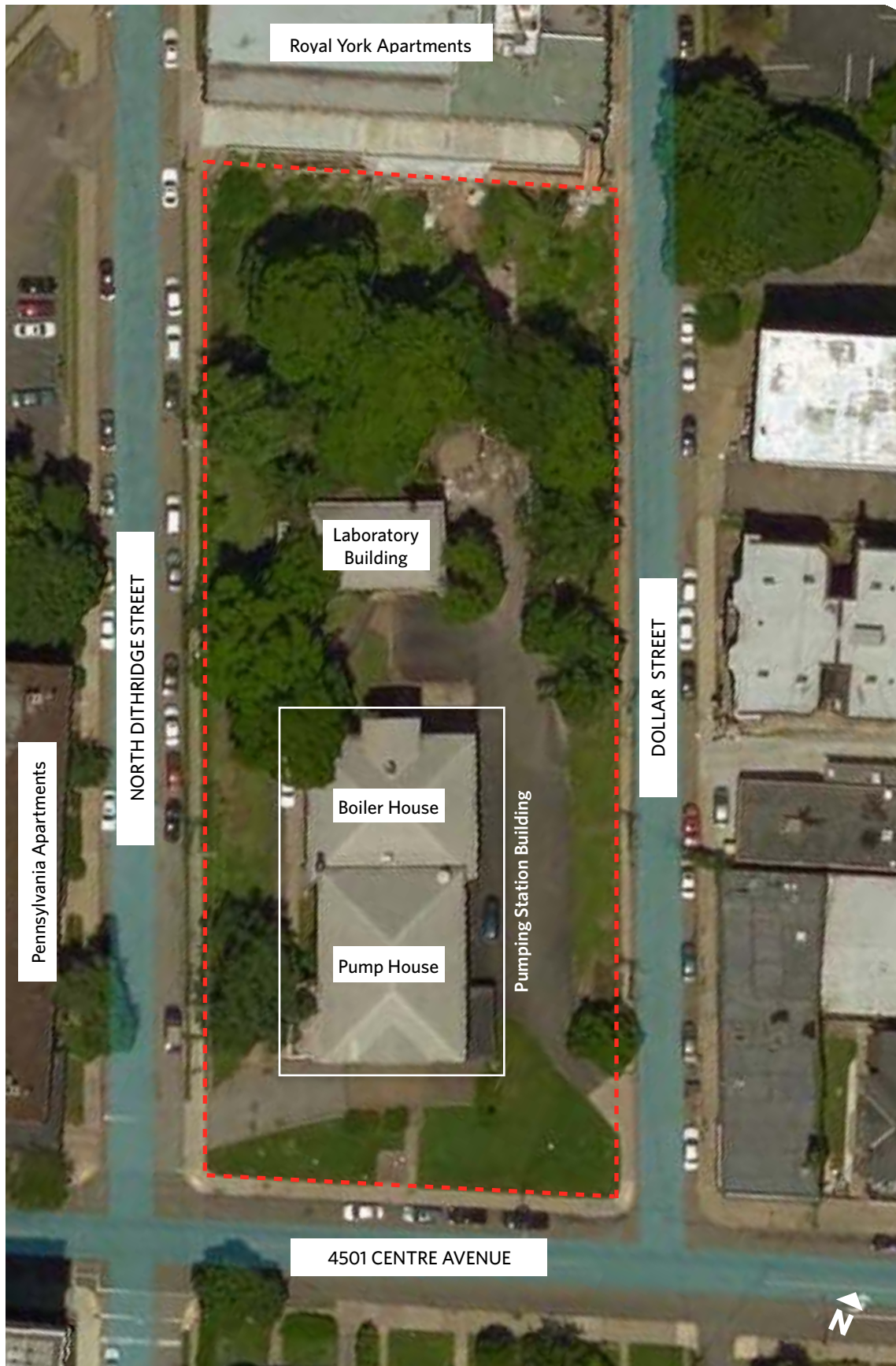


Figure 1. Site plan. Herron Hill Pumping Station (Bing Maps).

----- Nomination boundary / Parcel 27-D-35

Note: All images are by author, unless noted otherwise.



Figure 2. Front facade from across Centre Avenue, showing the downhill slope of the site from west to east and the exposed basement on the east side of the building. To the left are the Pennsylvania Apartments; to the right, behind the property are the Royal York Apartments.



Figure 3. Front (south) facade and west facades, showing the rise of North Dithridge Street up to the Royal York Apartments.



Figure 4. Looking down N. Dithridge Street to the south, showing (from left to right) the Laboratory Building, the Pumping Station Building, and One on Centre.



Figure 5. View from the Royal York Apartments, looking south, showing the steep slope of the site from north to south, with the One on Centre apartment building in the background.

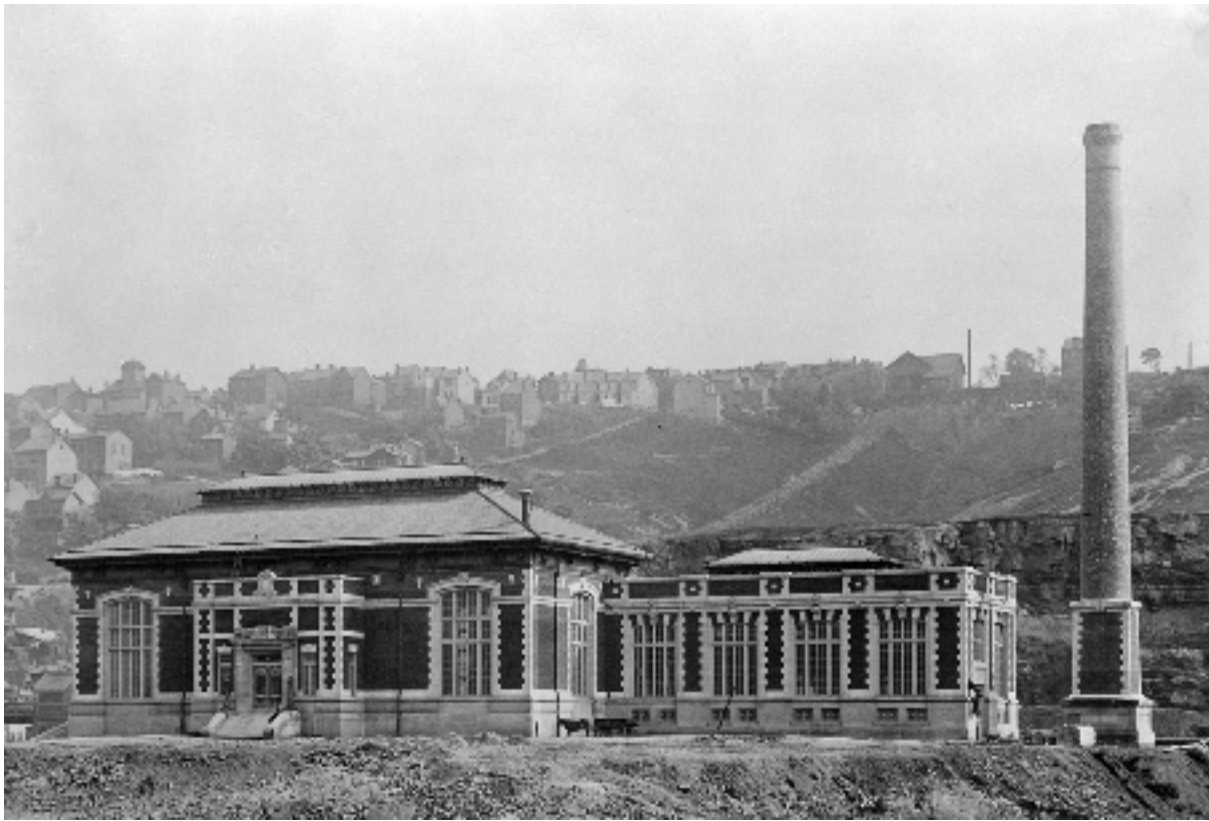


Figure 6. Pittsburgh's Mission Street Pumping Station in 1912, showing the common typology of large pump house and more subordinate boiler house (Historic Pittsburgh).



Figure 7. The Pumping Station Building consists of the Pump House facing Centre Avenue (left) and the Boiler House attached behind it. Further to the rear is the detached Laboratory Building.



Figure 8. East facade of the Pumping Station Building looking west, showing the lower height of the Boiler House (right).



Figure 9. Rear facade of the Pumping Station Building looking south, showing the rear of the Pump House.



Figure 10. The Pump House, looking northeast, showing the four-bay wide front facade and five-bay wide west facade with the Boiler House to the rear.



Figure 11. West wall of the Pump House, showing typical red brick walls and Classically-derived pilasters with Tuscan capitals supporting a simple entablature above.



Figure 12. Front (south) facade of the Pumping Station Building, showing the formality and symmetry of William S. Fraser's Classical Revival design.



Figure 13. Detail of the front facade of the Pumping Station Building, showing a pilaster with Tuscan capital and egg-and-dart molding; the frieze containing the name and date of the building; and the triangular pediment above with its raking cornice of brick dentils.



Figure 14. Rear facade of the Pumping Station Building, showing a the projecting center bay on the rear of the Boiler House.



Figure 15. Rear and west facades of the Pumping Station Building, looking southeast.



Figure 16. The Herron Hill Pumping Station in 1907, showing original windows and doors, hipped dormers on the roof and a tall flag pole that stood in the west lawn (Historic Pittsburgh).



Figure 17. The Pumping Station Building c. 1900, showing the large corbeled brick chimney (left) that vented exhaust from the coal-fired boilers in the Boiler House (Harry B. Johnston, Carnegie Library of Pittsburgh).



Figure 18. Front facade, October 12, 1912, showing the gravel driveway to the main entrance and the southwest corner of the building prior to construction of the single-story addition (Historic Pittsburgh).



Figure 19. East facade, October 17, 1912, looking south, showing the cobblestone driveway and southeast corner of the building prior to construction of the single-story loading dock entrance (Historic Pittsburgh).



Figure 28. Ground floor of the Pump House, October 17, 1919, showing the water distribution pipes (Historic Pittsburgh).



Figure 29. Interior of the Boiler House, October 12, 1912, looking south, showing the open double-height space and steel truss roof system above (Historic Pittsburgh).



Figure 30. Interior of the Boiler House, December 8, 1915, looking southwest, showing a balcony (top left) that allowed workers in the Pump House to see into the Boiler House (Historic Pittsburgh).



Figure 31. Interior of the Boiler House, December 8, 1915, looking northeast, showing Boiler No. 3 (right). The inscription on the cast iron doors of the boilers reads "Edgemoor Iron Co. — Edge Moor — Delaware" (Historic Pittsburgh).



Figure 32. Interior of the Boiler House, January 8, 1919, looking northwest, showing demolition in preparation for new brick boiler foundations (Historic Pittsburgh).



Figure 33. The east side of the Boiler House, January 4, 1919, looking northwest, showing new oil tanks that will soon be buried in the east yard. At the top center is a temporary frame enclosure attached to the east side of the Pump House to facilitate construction (Historic Pittsburgh).

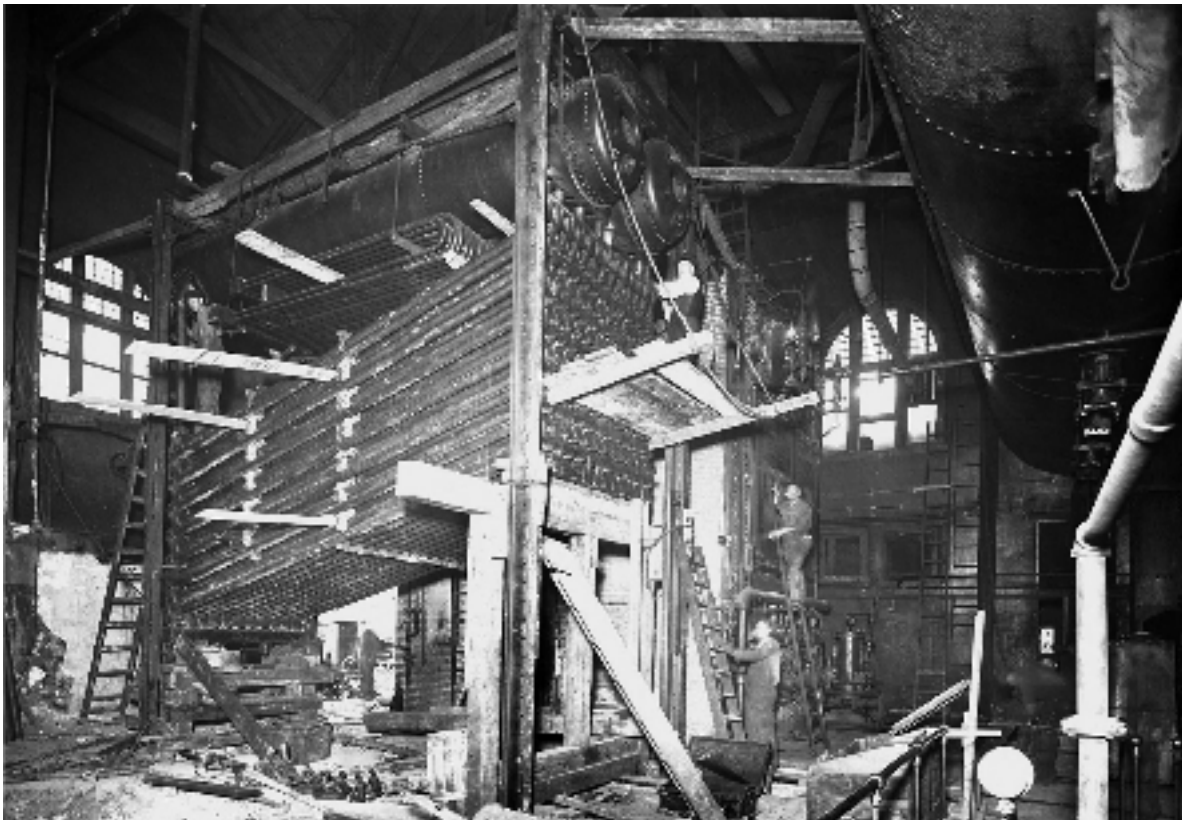


Figure 34. Interior of the Boiler House, January 23, 1919, looking southeast, showing one of the boilers stripped of its enclosing brick foundation (Historic Pittsburgh).



Figure 35. The same boiler on February 18, 1919, showing erection of its new brick foundation in progress (Historic Pittsburgh).

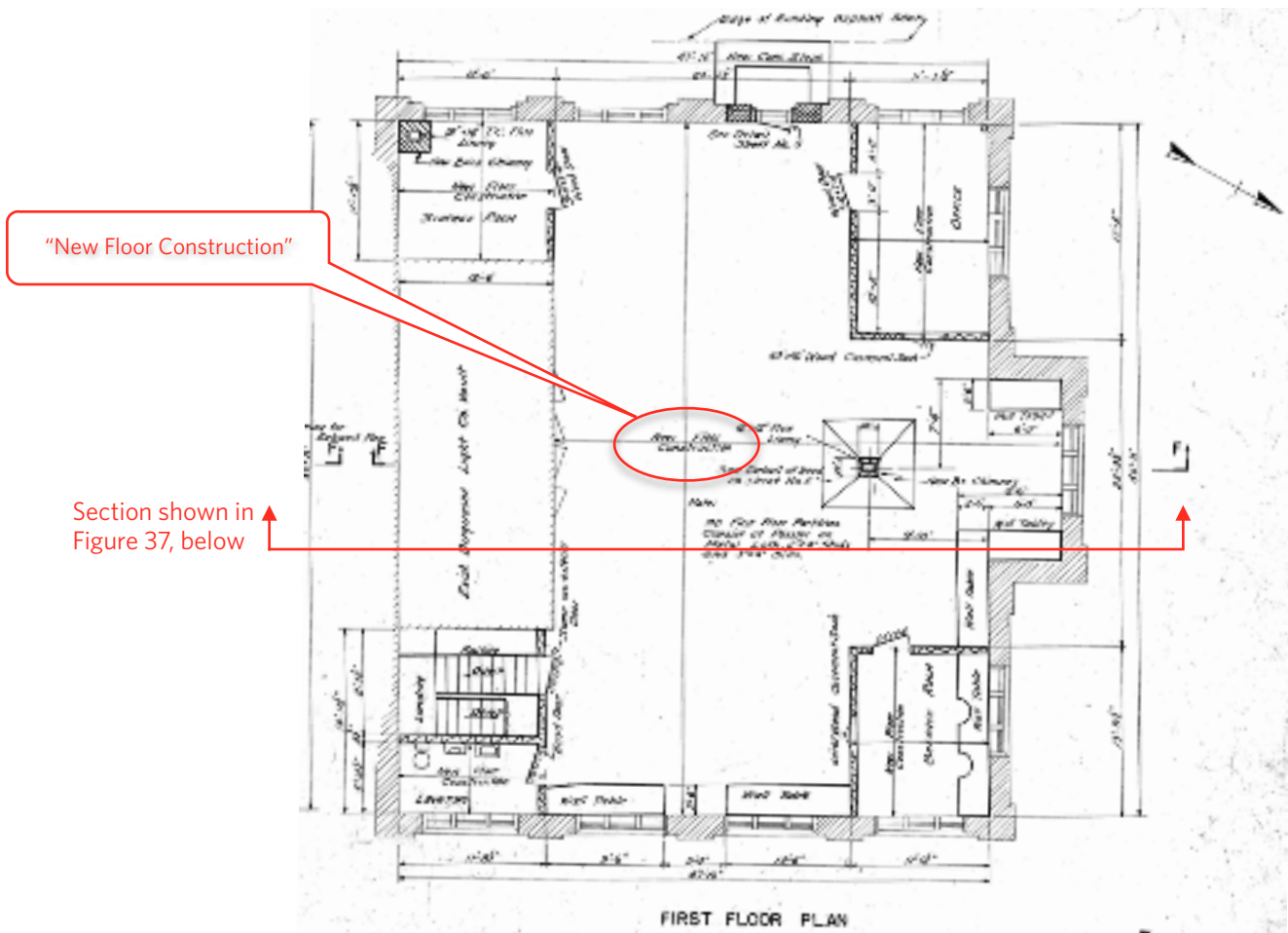


Figure 36. Plan of the new first floor of the Boiler House from 1939 construction drawings (City of Pittsburgh, Department of Public Works).

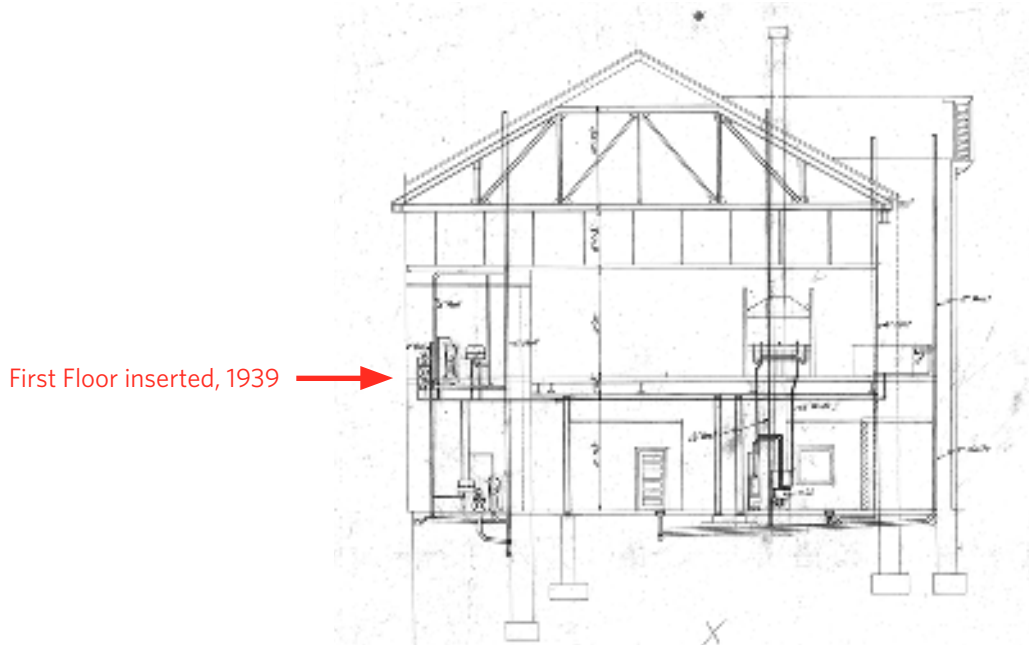


Figure 37. Section drawing through the Boiler House from 1939 construction drawings, looking west, showing insertion of the new floor after the boilers were removed (City of Pittsburgh, Department of Public Works).



Figure 38. The Laboratory Building, looking southeast, showing the bricked-in entry porch of its front (west) facade.



Figure 39. Front facade of the Laboratory Building, looking east.



Figure 40. Laboratory Building, showing typical foundation stone details.



Figure 41. East and north facades of the Laboratory Building, looking southwest.



Figure 42. South facade of the Laboratory Building, looking north.



Figure 43. Detail from a 1907 photograph, showing that the Laboratory Building originally contained a third story (Historic Pittsburgh).



Figure 44. South facade of the Laboratory Building in 1909, looking north, showing the new roof being constructed after the top floor of the building was removed (Historic Pittsburgh).



Figure 45. North facade of the Laboratory Building in 1909, looking south, showing the new roof being constructed (Historic Pittsburgh).



Figure 49. Detail from *Map of Pittsburgh and Its Environs*, 1835, showing Pittsburgh's nascent water supply system. Water was drawn from the Allegheny River at Cecil Alley into a steam powered engine house (A). From there it was pumped to the basin, or reservoir on Grant's Hill (B), 116 feet above the Allegheny River. Gravity was then used to distribute the water to the city below (Darlington Digital Library, University of Pittsburgh).



Figure 50. Detail from *The Cities of Pittsburgh and Allegheny, with Parts of Adjacent Boroughs*, 1855, showing Pittsburgh's expanded water supply system. Water was drawn from a new intake on the Allegheny River (A) then pumped to the Lower Basin (B) and the Upper Basin (C) in the Hill District (Historic Pittsburgh).



Figure 51. Detail from *Map of Pittsburg and Allegheny, PA, Mathews-Northrup Co., 1891*, showing part of Pittsburgh's late-nineteenth century water supply system, much of which was created following annexation of twenty-one square miles of eastern suburbs into the city in 1868. Shown here are the "Old Water Works," referring to the the Lower Basin in the Hill District (Point A), the Upper Basin (B), the Herron Hill Reservoir (C), completed in 1880, and the first Herron Hill Pumping Station (D), also completed in 1880.



Figure 52A. Detail from an 1889 G.M. Hopkins Company map, showing the first Herron Hill Pumping Station



Figure 52B. Page from a 1904 G.M. Hopkins Company map, showing the relationship of the Herron Hill Pumping Station (A) to the Herron Hill Reservoir (B), as well as to the remains of the original pumping station (C) (Historic Pittsburgh).

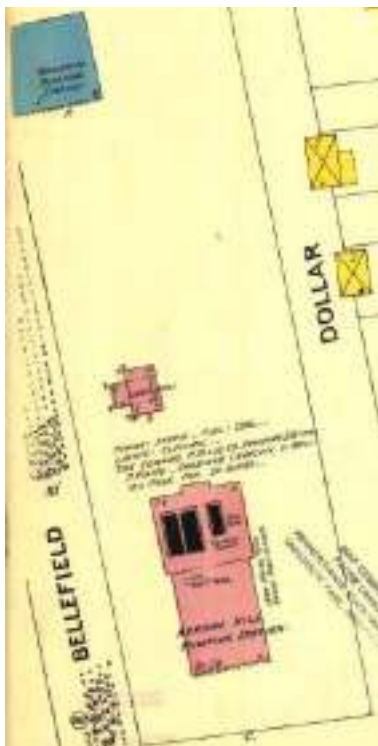


Figure 53. Detail from a 1905-06 Sanborn Fire Insurance Company map, showing the Pumping Station Building, Laboratory Building and the first pumping station, which by this time was abandoned.

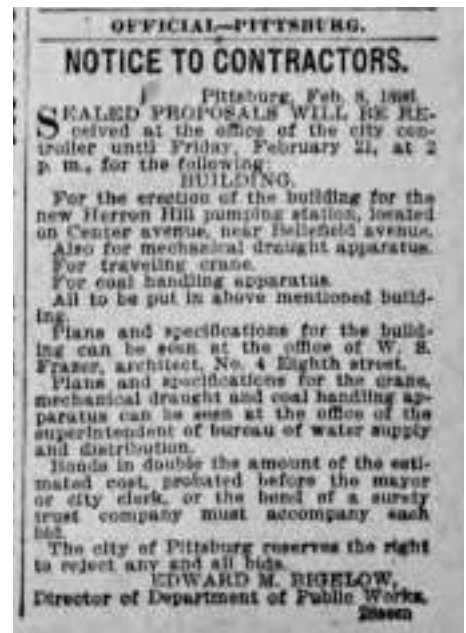


Figure 54A. Announcement of the request for proposals from the February 8, 1896 edition of *The Pittsburgh Press* for erection of the Herron Hill Pumping Station, which included provision of a traveling crane. Contractors could obtain drawings from Fraser's Eighth Street office.

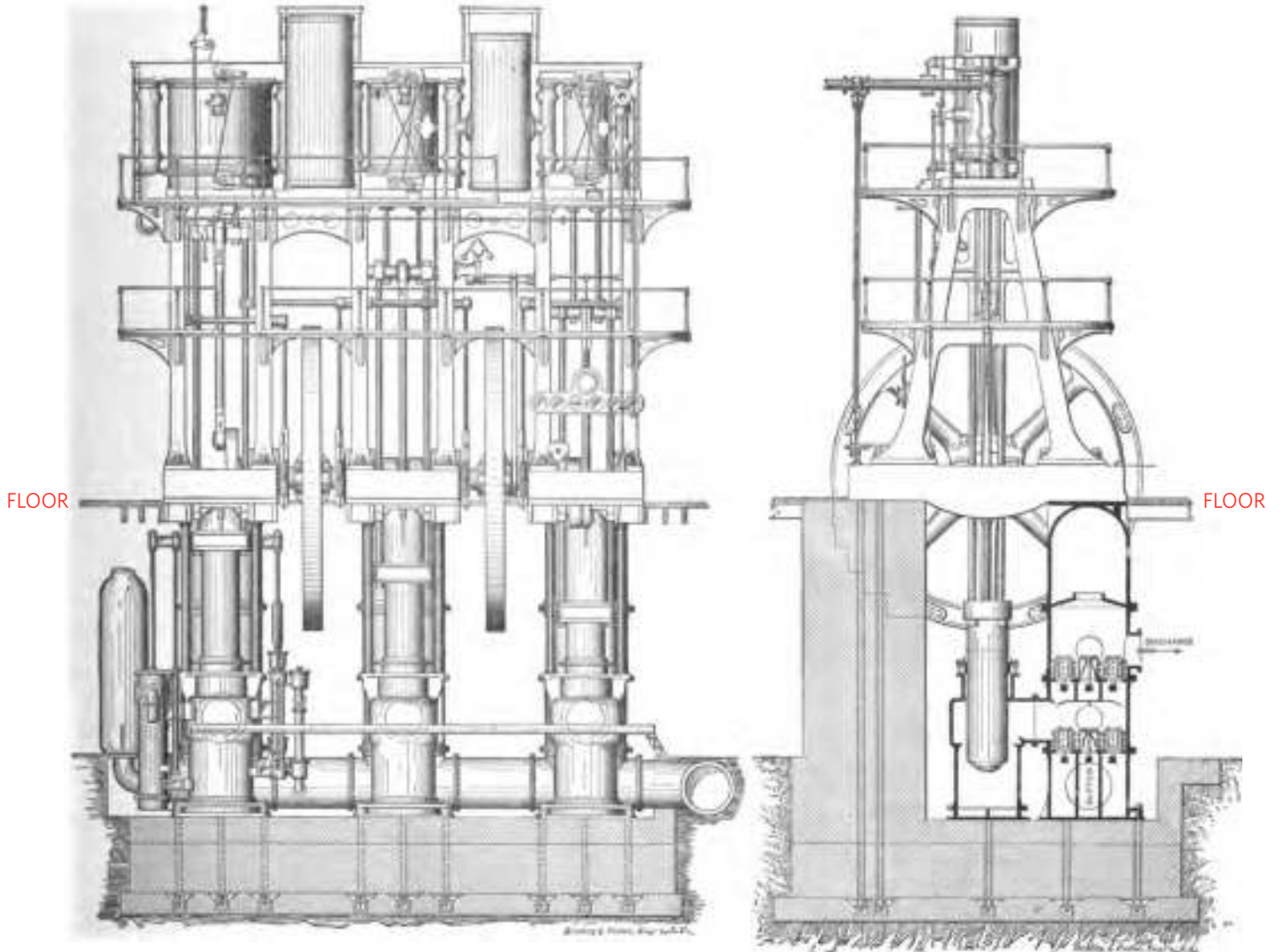


Figure 54B. Side and end elevation drawings of an Allis triple expansion pumping engine, similar to those used at the Herron Hill Pumping Station, showing the pumps on the ground floor and the engines extending up through the floor into the first story ("Testing of an Allis Pumping Engine," *The Engineering Record*, 2 December 1893, 5).



Figure 54C. Perspective drawing of just the engine component of an Allis triple expansion pump. This would have been similar to the equipment visible through the windows on the first floor of the Herron Hill Pump House ("American Inventors: Elisha Gray," *The National Magazine*, May-June 1893, v. 18, no. 1, 65).



Figure 55. First Congregational Church by Thomas Hannah, 1904, now Saint Nicholas Greek Orthodox Cathedral (Detail from historic postcard).

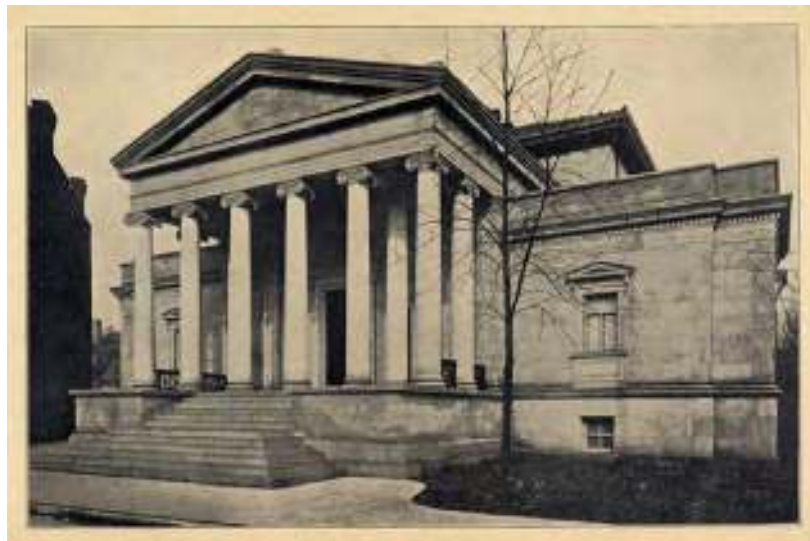


Figure 56. First Church of Christ, Scientist by Solon Spencer Beman, 1904 (Historic postcard).



Figure 57. South Side High School by Edward Stotz, 1897 (Historic postcard).



Figure 58. The only known image of William S. Fraser (*The Pittsburg Bulletin*, 1 May 1897).

23	21	Fraser William	66	M	W	Carpenter	4500	300	Scotland	1								31
		— Margaret	57	F	W	Keeping House			Ohio									32
		— Phillip	32	M	W	Carpenter	4500	2200	Ohio	1								33
		— Margaret	25	F	W	At Home			Ohio	1								34
		— Arthur	22	M	W	At Home			Ohio	1								35
		— Kate	20	F	W	At Home			Ohio	1								36
		— William	18	M	W	Carpenter			Ohio	1								37
		— David	14	M	W	Attending School			Ohio	1			1					38

Figure 59. The 1870 U.S. Census for Wellsville, Ohio, enumerated June 1, showing 18-year-old William working as a carpenter along with his father and brother, Phillip.

ROYAL ACADEMY.

The following is a list of the admissions to the Architectural School this year: Mr. Phené Spiers, master:—

As Students of Lower School:—H. Bradfield, H. W. Burrows, H. B. Callens, A. Frampton, W. S. Fraser, A. J. Gale, F. Hemings, J. F. Hennessey, A. B. F. Kirby, R. J. Lovell, W. Millard, R. J. Morris, H. A. Pelly, G. H. Prynna, J. Robbins, G. Vigers.

As Probationers:—J. M. Brooks, Max. Clarke, E. L. Drew, S. W. Grant, P. P. Green, A. Gillespie, W. G. B. Lewis, C. Mariner, W. Murray, W. H. Peck, H. O. Picochto, G. C. Richardson, G. H. Shackie, E. C. Shearman, H. W. Stock.

Figure 60. Announcement of Fraser's acceptance into his second term of study at the Royal Academy in London (*The Builder*, 24 February 1877).

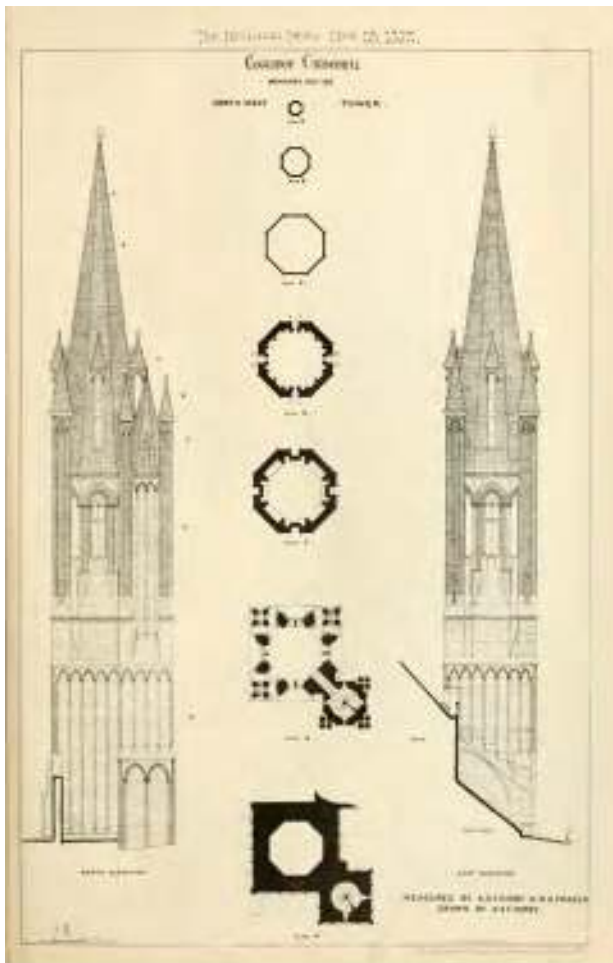


Figure 61. Measured drawing of Coutances Cathedral published in *The Building News and Engineering Journal*, November 15, 1878. This particular sheet was measured by Fraser and his classmate, A.S.F. Kirby, and drawn by Kirby.

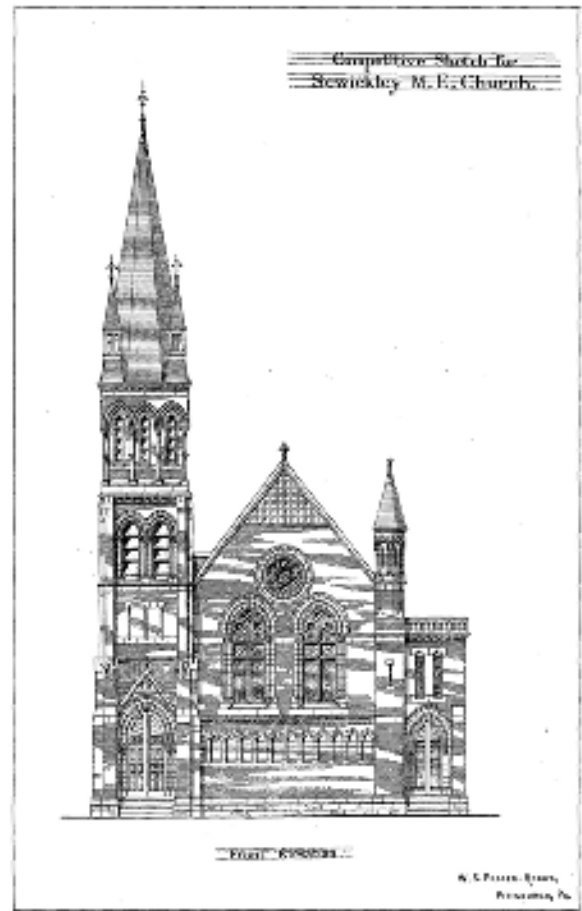


Figure 63. Competition drawing by Fraser for a church in Sewickley. The design of the steeple suggests a clear lineage from Coutances Cathedral (*American Architect and Building News*, 16 October 1880).



Figure 62. Detail from an 1886 G.M. Hopkins Company map, showing the location of the city poor farm in what is today Munhall, PA. One of the buildings was an insane asylum designed by Fraser in 1879.

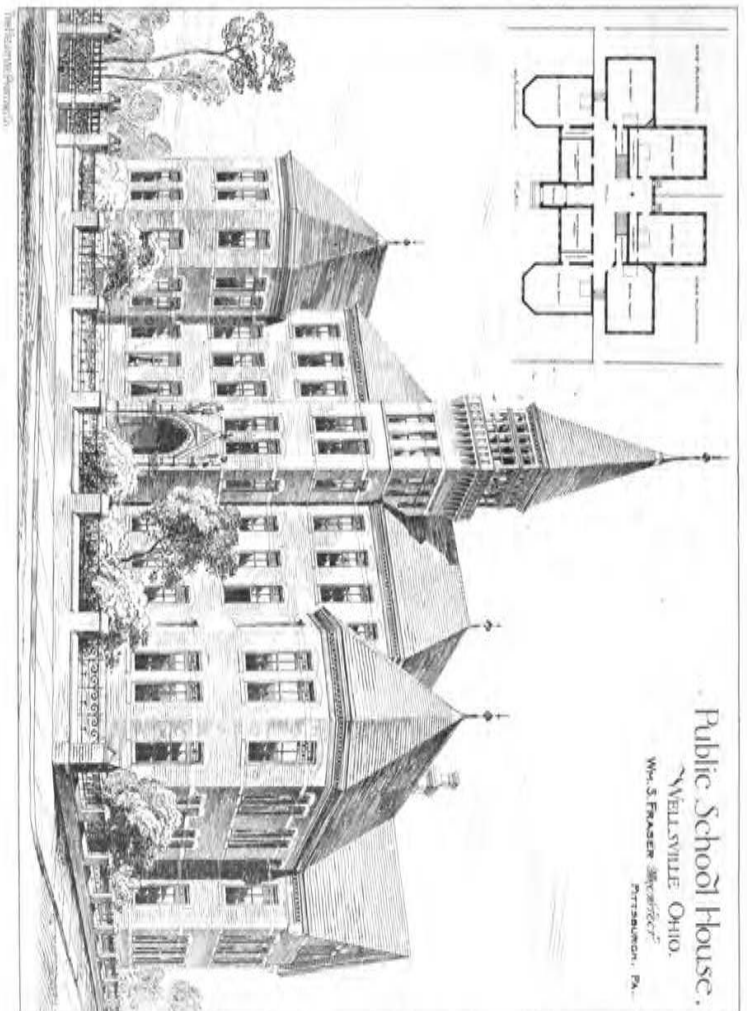


Figure 64. Fraser's rendering of Wellsville High School, *The American Architect and Building News*, June 12, 1880.

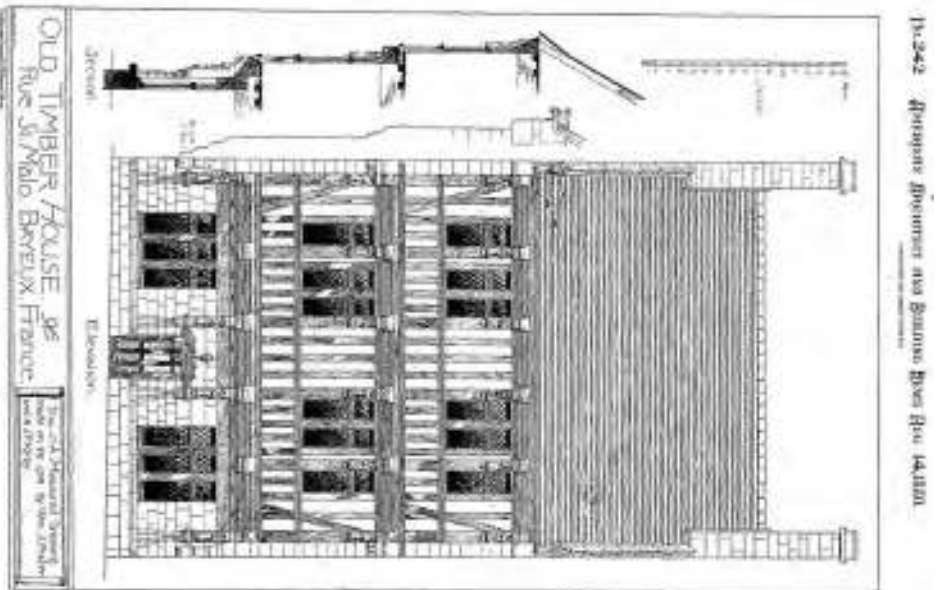


Figure 65. Wellsville High School (Undated postcard).

Figure 66. Measured drawing by Fraser and classmate A.S.F. Kirby, *The American Architect and Building News*, August 14, 1880.

REPUBLICAN ARCHITECT AND BUILDING NEWS, SEPT 9, 1882.



Figure 67. Fraser's rendering of the warehouse (left) and office (right) for Arbuckles & Co. on Liberty Avenue, *The American Architect and Building News*, September 9, 1882. Wood Street is at the far right, looking south.



Figure 68. Wood Street, looking south from Liberty Avenue in 1910, showing the right-most bay of the former Arbuckle's office building on the left (Detroit Publishing Company, Library of Congress).



Figures 69 and 70. Detail of a bas-relief stone sculpture from the top of the second story (left); four of which were salvaged when the building was demolished c. 1936 (right).



Figure 71A. Coffey Way, looking southwest, showing the four salvaged bas-reliefs incorporated unceremoniously into the rear of the building that now occupies the Arbuckles site.

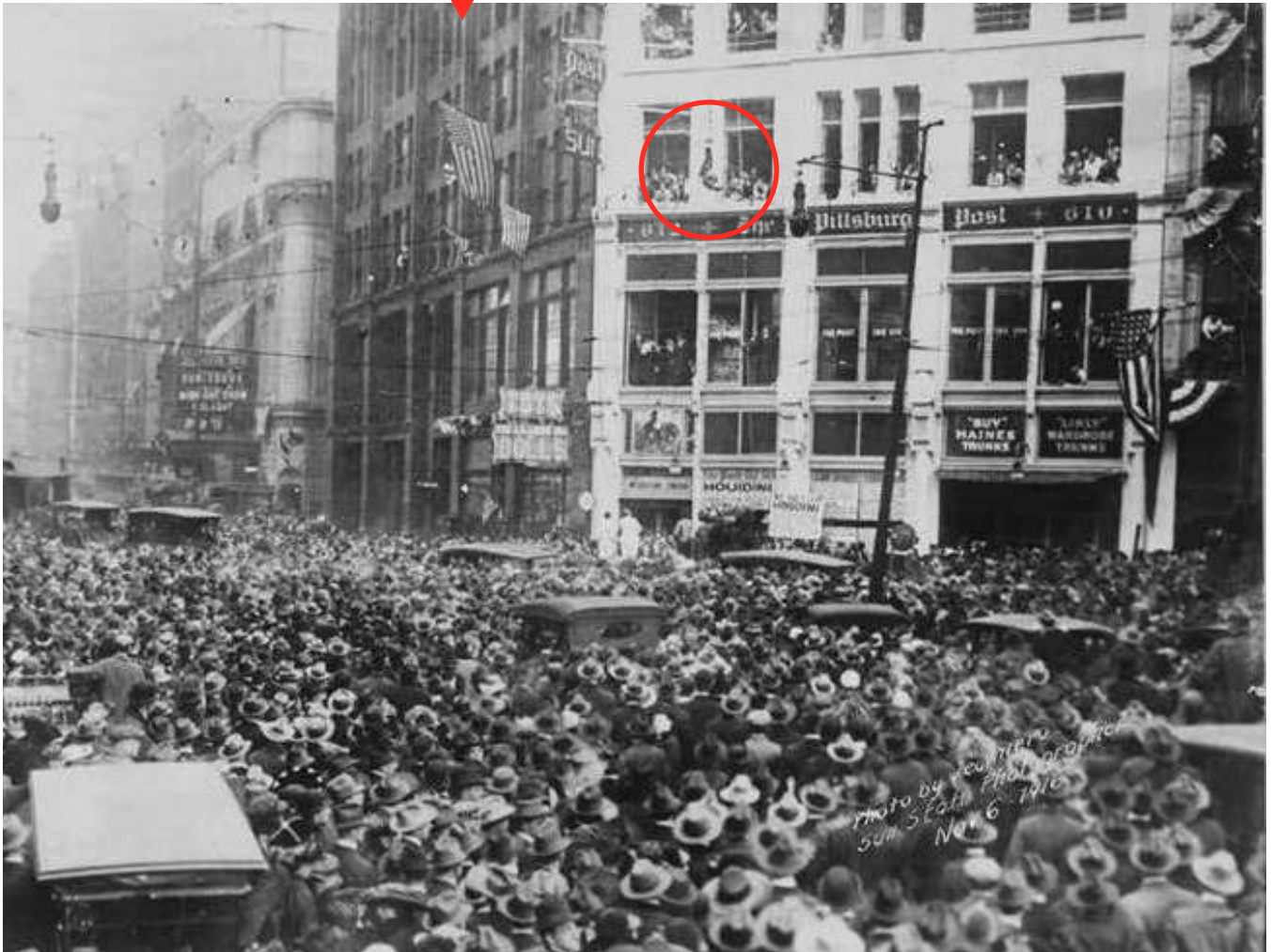


Figure 71B. Harry Houdini visited Pittsburgh on November 6, 1916 and escaped from a straightjacket while suspended in front of The Pittsburgh Post Building (red circle). The Arbucks Building can be seen to the left (*The Pittsburgh Sun*).



Figure 72 (left). Fraser's rendering of the Standard Oil Company Building, *The American Architect and Building News*, 8 August 1885. Figure 73 (above). Photograph of the building in 1915 (Pittsburgh City Photographer Collection, Historic Pittsburgh).



Figure 74 (left). Fraser's rendering of the house of H.L. Richmond, Jr., in Meadville, *The American Architect and Building News*, 6 June 1885. Figure 75 (above). A contemporary view of the house (Google Street View).

THE POST'S NEW BUILDING.



Commenced March 15, 1886, and Completed August 12, 1886

Figure 76. The new building of *The Pittsburgh Daily Post*, completed in 1886 (*The Pittsburgh Daily Post*, 4 October 1886).

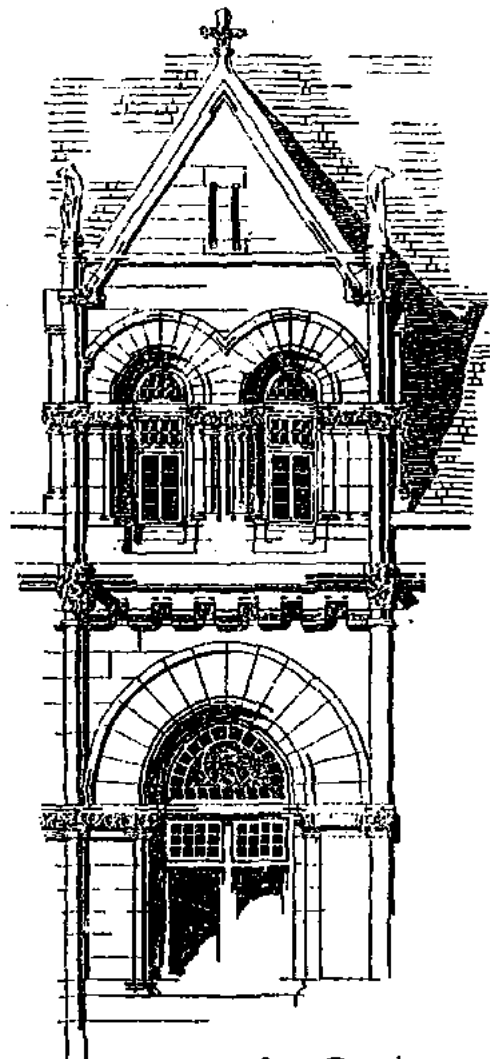
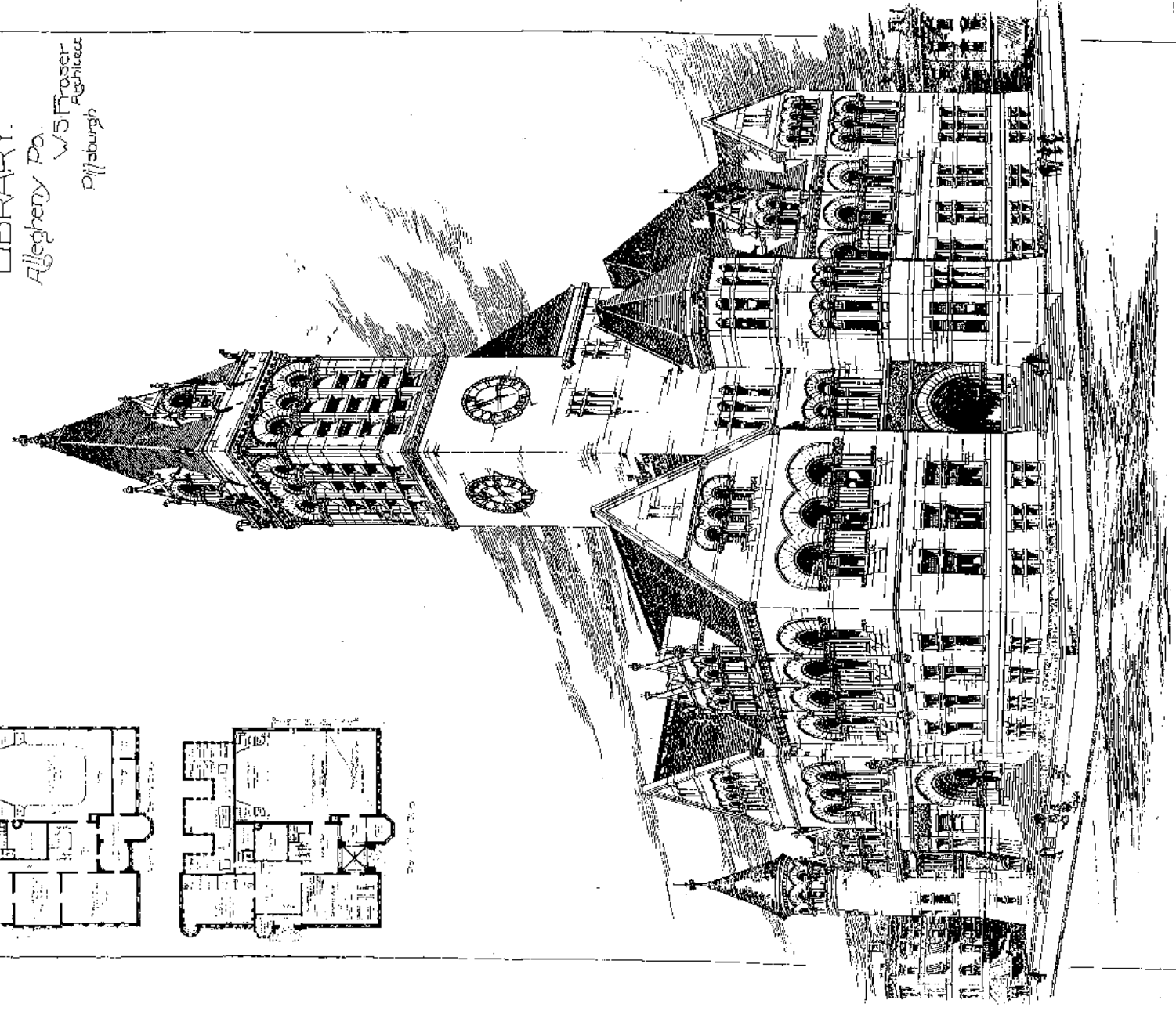
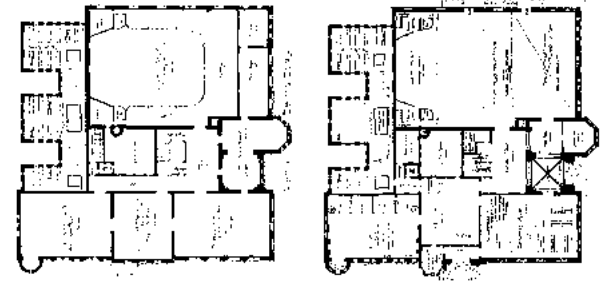


Figure 77. Detail from Fraser's Carnegie Library of Allegheny submission, *The American Architect and Building News*, 12 February 1887.

Design for Proposed
CARNEGIE LIBRARY
Allegheny Co.
W. J. Fraser Arch
Pittsburgh Pa.

Design for Proposed
CARNEGIE
LIBRARY.
Allegheny Pa.
W.S. Fraser
Architect
Pittsburgh



W.S. Fraser & Son

Figure 78. Perspective and floor plans from Fraser's Carnegie Library of Allegheny submission, *The American Architect and Building News*, 12 February 1887.

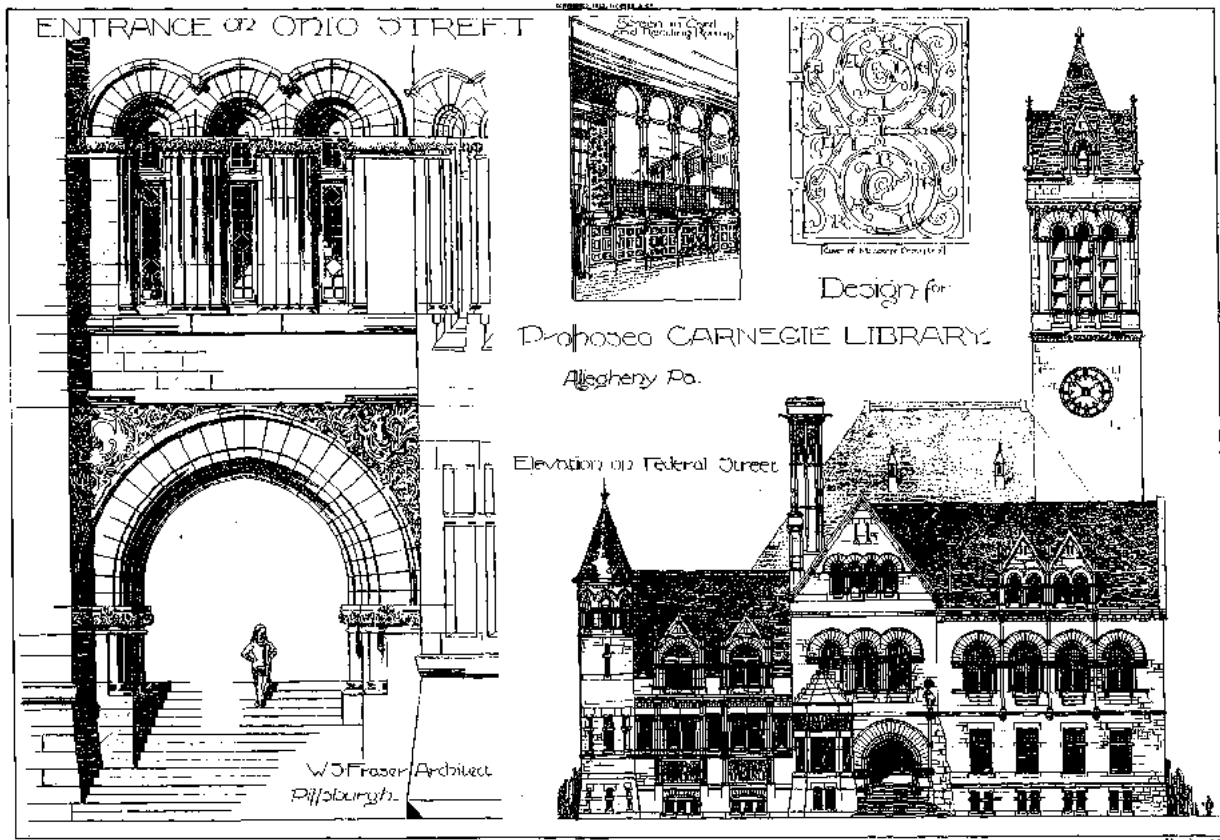


Figure 79. Elevation and details from Fraser's Carnegie Library of Allegheny submission, *The American Architect and Building News*, 12 February 1887.

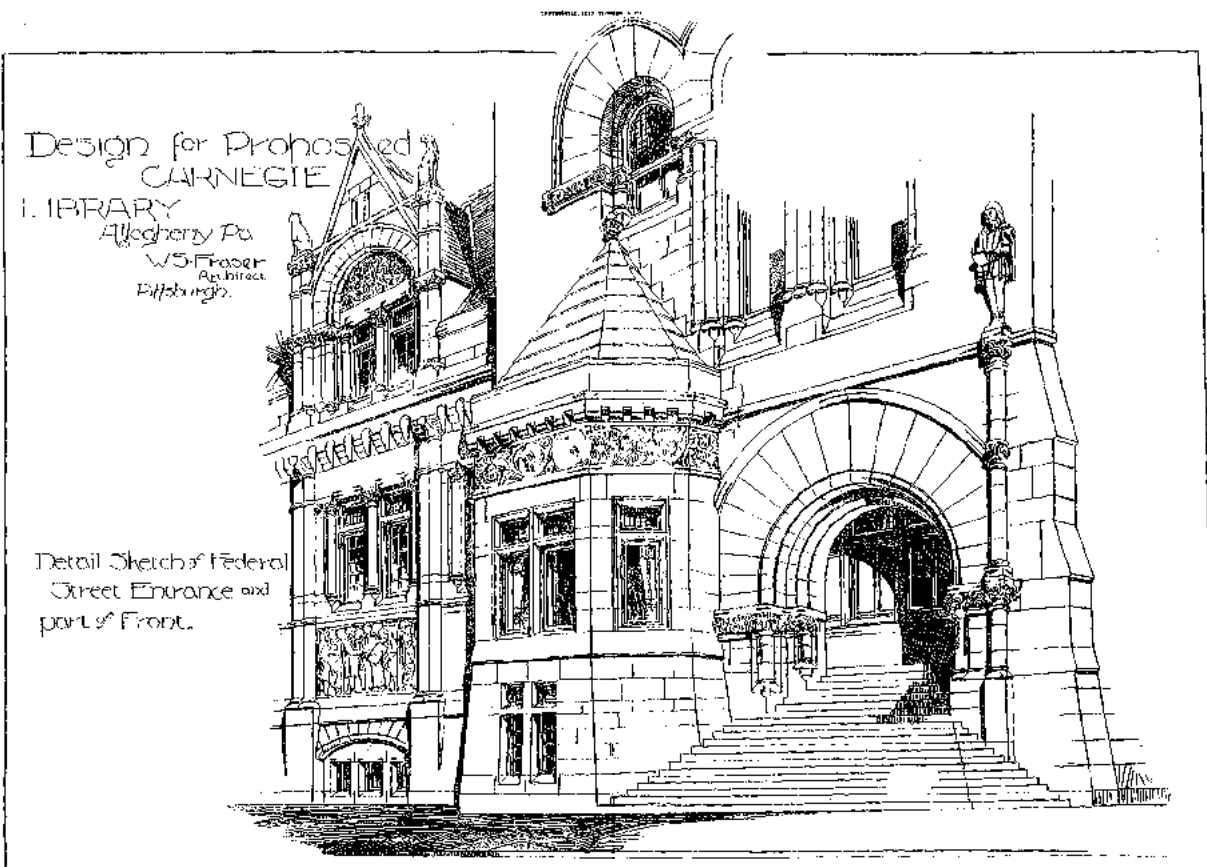


Figure 80. Detail of the Federal Street entrance from Fraser's Carnegie Library of Allegheny submission, *The American Architect and Building News*, 12 February 1887.

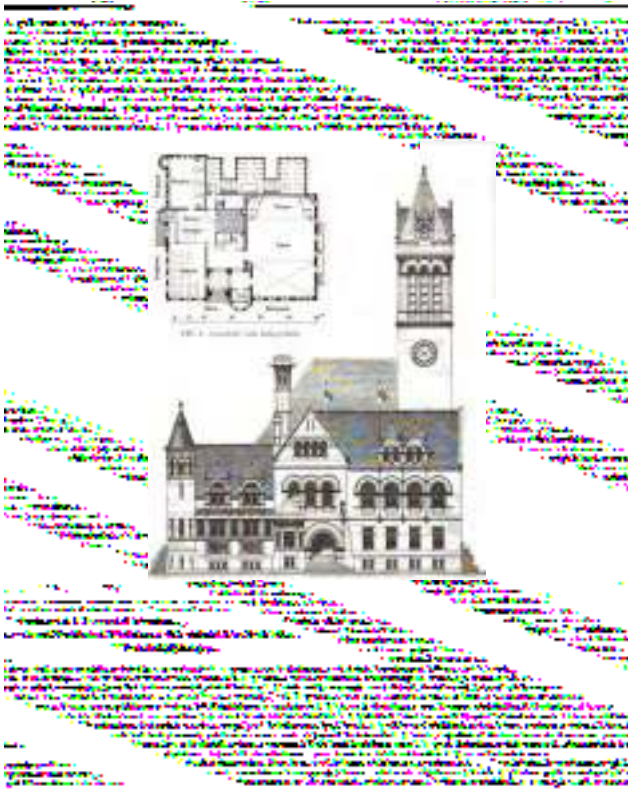


Figure 81. Two of the four drawings of Fraser's design for the Carnegie Library of Allegheny that appeared in the German architectural journal, *Centralblatt der Bauverwaltung*, 10 December 1887.



Figure 82. The National Bank of Commerce on the corner of Wood Street and Sixth Avenue about a decade after construction (*Greater Pittsburgh: The "Iron City," Illustrated*, 1896 (New York: The Graphic, 1896).



Figure 83. The National Bank of Commerce, then named the Grogan Building, shortly before its demolition in 1966 (Paul Russell Photography, Historic Pittsburgh).



Figure 84. The Denholm Building on Penn Avenue in East Liberty, 1935 (Pittsburgh City Photographer Collection, Historic Pittsburgh).



Figure 85. The Denholm Building, 1907 (Pittsburgh City Photographer Collection, Historic Pittsburgh).



Figure 86A. The Denholm Building shortly before its 2018 demolition (Google Street View).



Figure 86B. 1232 Penn Avenue in 1918. At right is one of two commercial buildings that Fraser designed for C.B. and R.M. Head (Pittsburgh City Photographer Collection, Historic Pittsburgh).

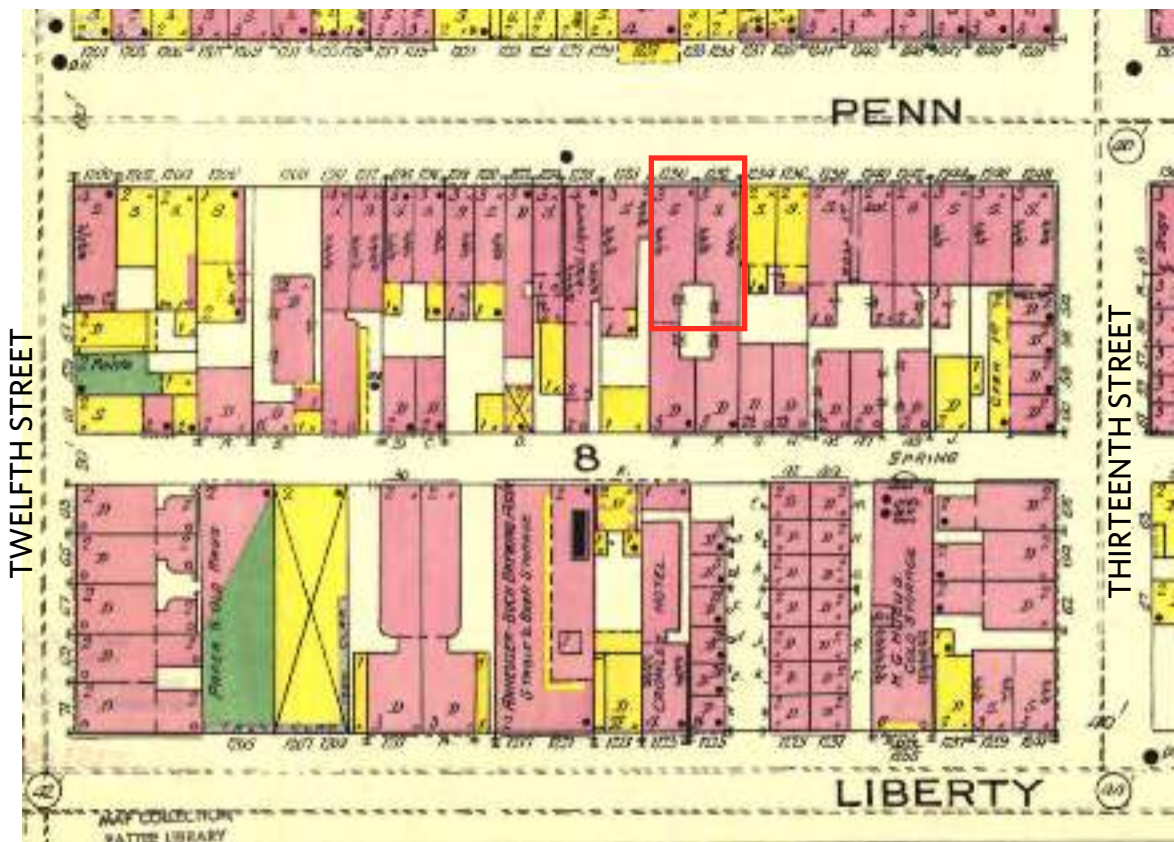


Figure 86C. 1893 Sanborn Fire Insurance Company map showing the recently completed three-story buildings that Fraser designed for the Head brothers.



Hopkins Printing Co. Boston

Figure 87. Fraser's rendering of "Oak Hill," the home of James McKay, *The American Architect and Building News*, 24 March 1888.

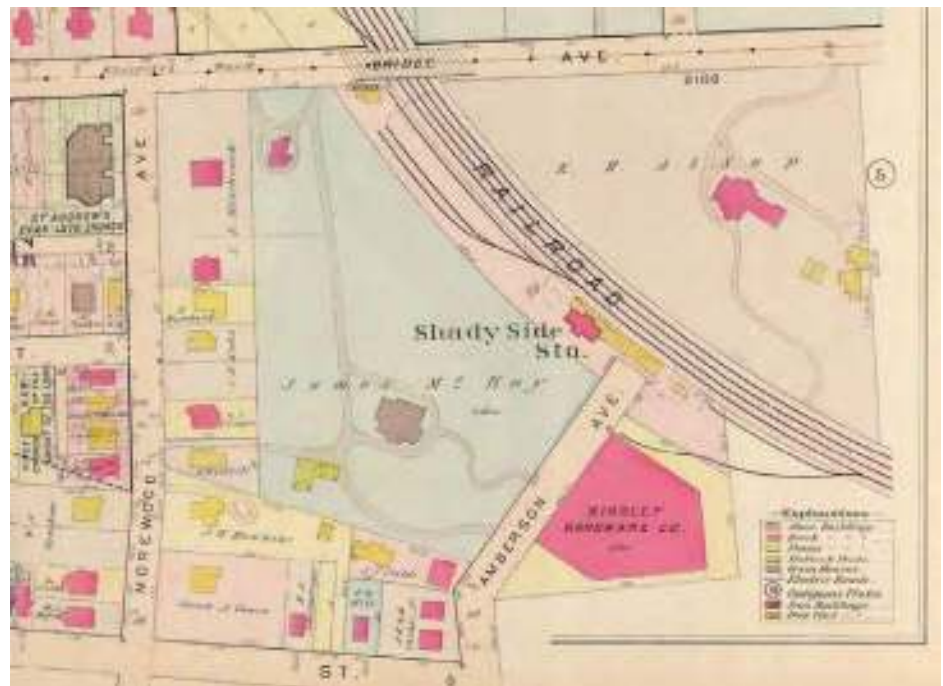


Figure 88. Detail from a 1904 G.M. Hopkins Company map, showing the five-acre McKay estate at the north end of Amberson Avenue in Shady Side.



Figure 89. The Dr. Thomas A. Rex House on the corner of Ellsworth Avenue and Neville Street. The image was taken sometime between late 1888 when the house was completed and 1898, when the Church of the Ascension was constructed in the empty lot to the north of the house (Carnegie Library of Pittsburgh).



Figure 90. Fraser's rendering of the Moses Atwood house on Ridge Avenue in Allegheny, *The American Architect and Building News*, 28 July 1888.

Competitive Design for the CATHEDRAL of
ST JOHN the DIVINE New York.
W. S. FRASER ARCHT. & ENGR.
PITTSBURG PA.

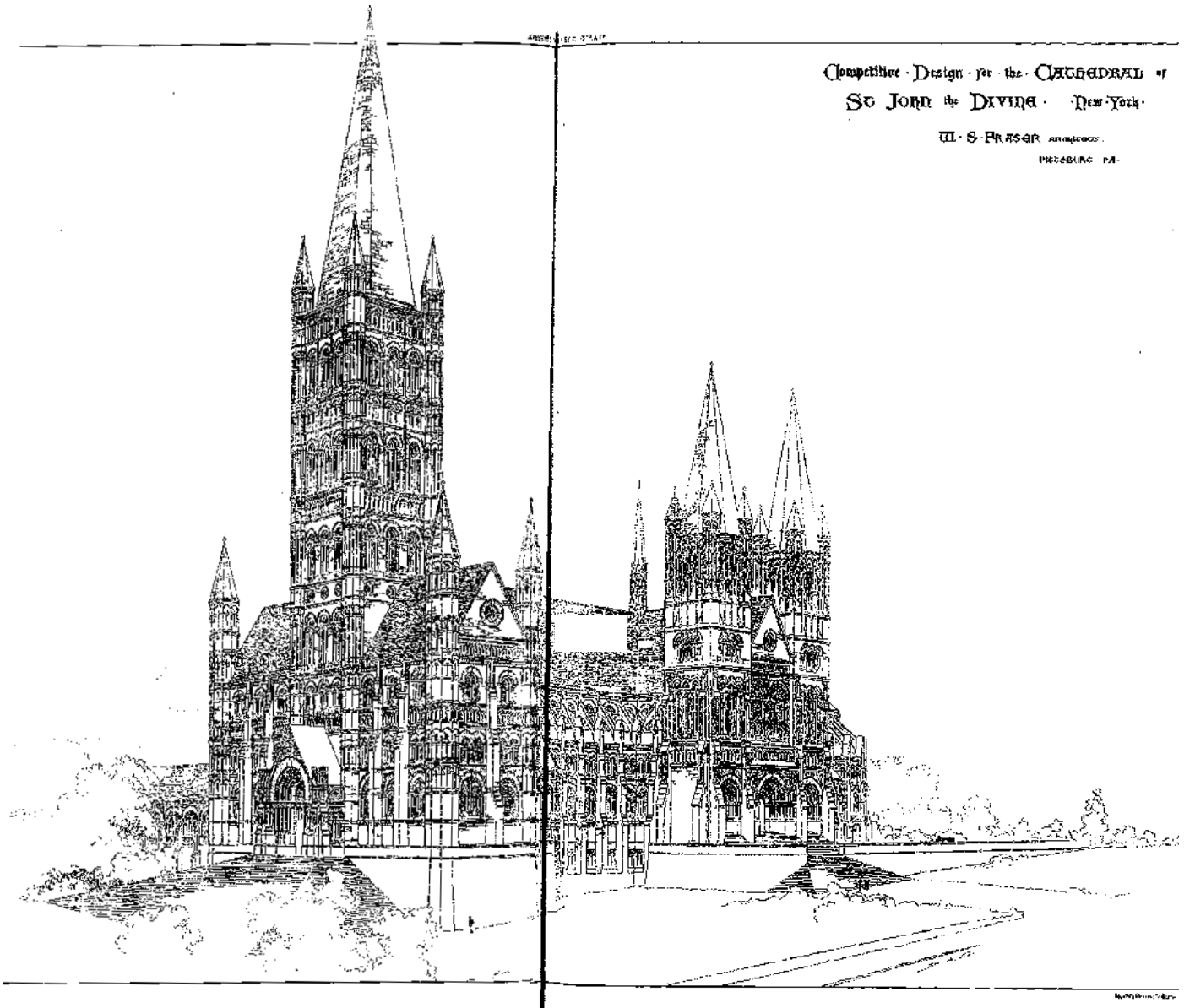


Figure 91. Fraser's perspective rendering for the design completion for the Cathedral of Saint John the Divine, *The American Architect and Building News*, 5 October 1889.

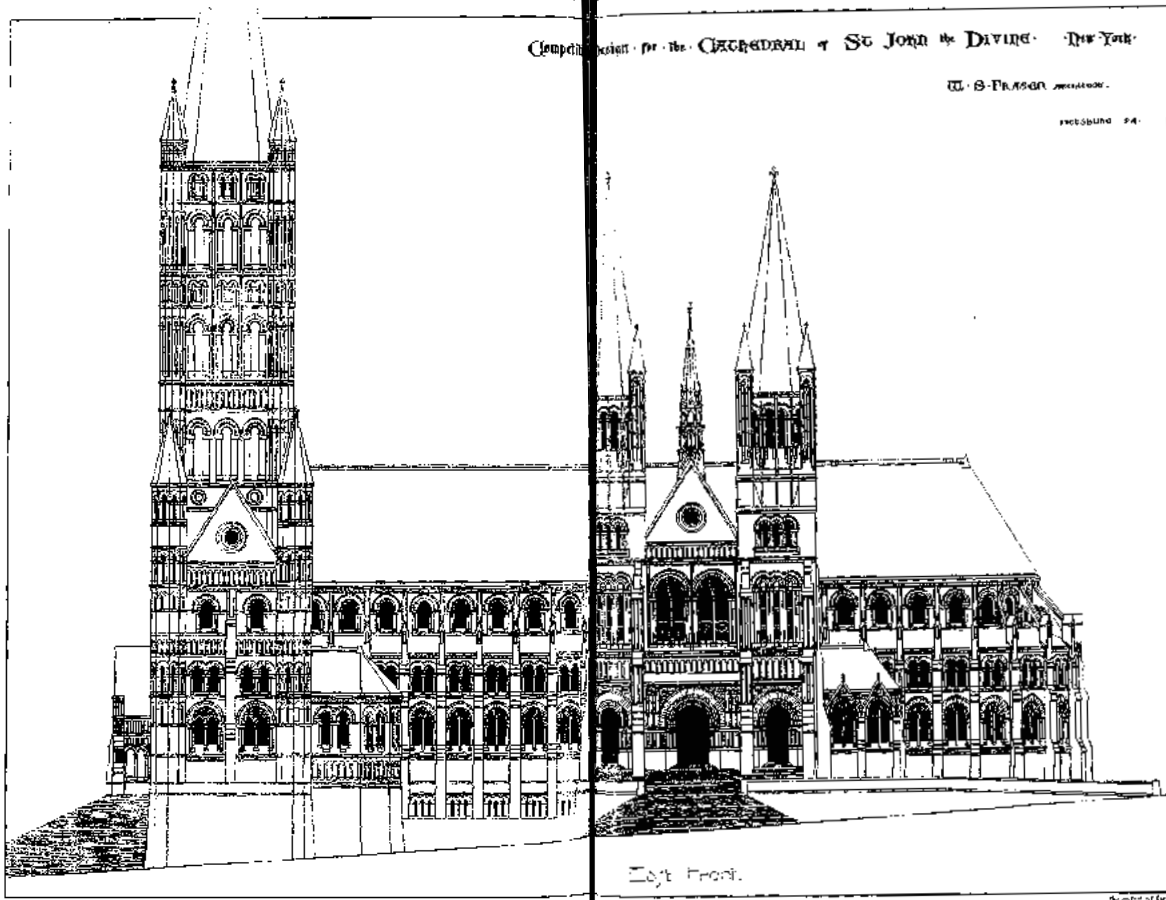


Figure 92. Fraser's elevation drawing for the Cathedral of Saint John the Divine, *The American Architect and Building News*, 5 October 1889.

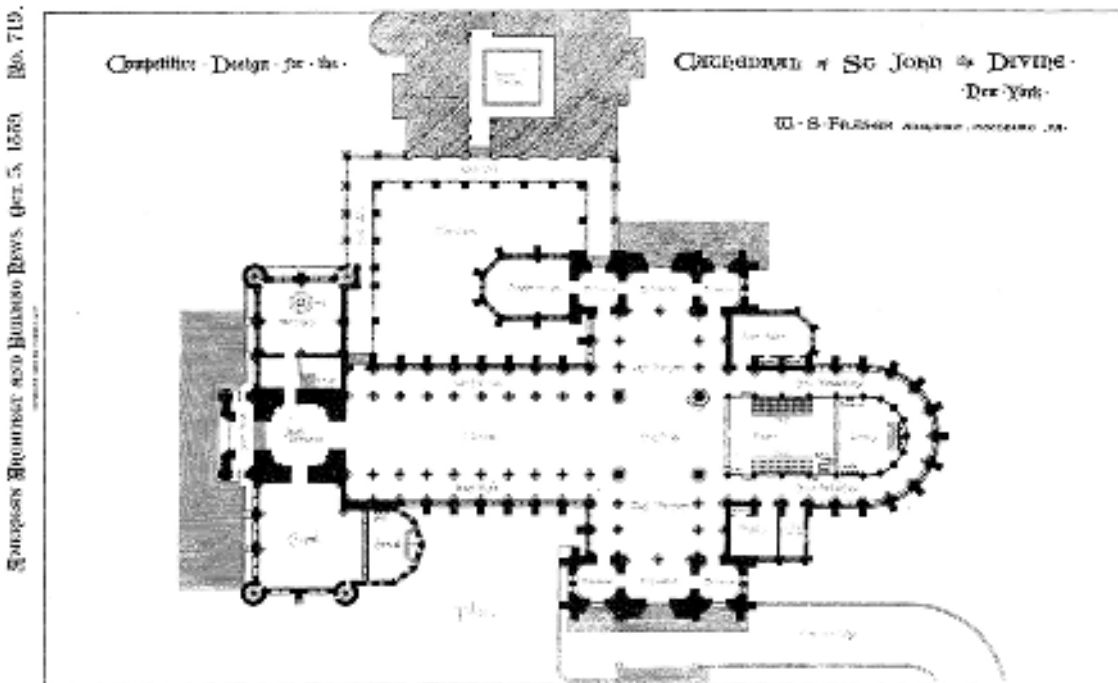


Figure 93. Fraser's floor plan for the Cathedral of Saint John the Divine, *The American Architect and Building News*, 5 October 1889.



Figure 94. 1893 Sanborn map showing the fifty townhouses Fraser designed for Charles Lockhart on Dinwiddie Street.



Figure 95. One of a dozen houses to survive into the twenty-first century, shown prior to its rehabilitation (Trek Development).



Figure 96. On the left are two of Fraser's townhouse after renovation (Rothschild Doyno Collaborative).



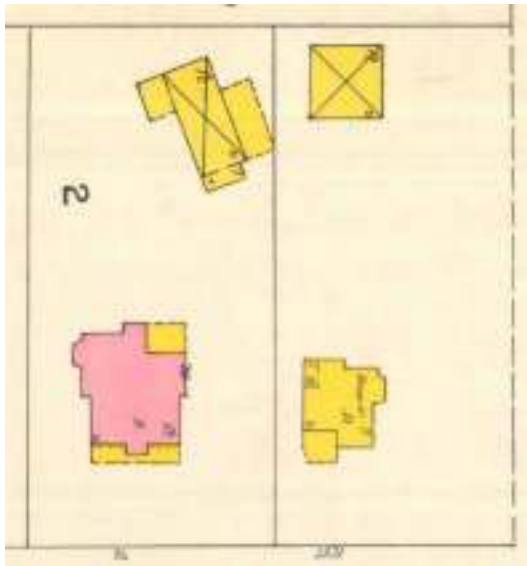
Figure 97. 518 Shady Avenue.



Figure 98. 512 Shady Avenue (Google Street View)



Figure 99. Detail from an 1890 G.M. Hopkins Company map, showing the house and double-house Fraser designed for Captain J.J. Vandergrift on Shady Avenue.



ELLSWORTH AVENUE

Figure 100. Detail from an 1893 Sanborn Fire Insurance Company map, showing the brick home of the late John A. Renshaw (left) and the brick and frame house he had built for his daughter, Mary Bailey Renshaw Chislett (right).



Figure 101. A contemporary view of 5131 Ellsworth Avenue (Google Street View).



Figure 102. View of the Standard Manufacturing Company in 1890. Fraser designed a one-story addition for owners Arrott and Torrance in 1889 (Carl Wilhelm, ed., *The Complete History of the City of Allegheny in Pennsylvania: 1740-1890*, 1891, [iv]).



Figure 103. The Keystone Bank on Fourth Avenue (*Greater Pittsburgh: The "Iron City," Illustrated*, 1896, New York: The Graphic, 1896).



Figure 106. Advertisement from *The Pittsburgh Daily Post*, 20 May 1886.



Figure 104. Liberty Hall on the southeast corner of Penn and Centre Avenues as it looked in 1928. Fraser renovated the building in 1889 for the YMCA, whose sign can be seen on the upper right corner of the west facade (Historic Pittsburgh).



Figure 105. The Central YMCA downtown in 1889—the last year that Fraser had his office in the building (*Pittsburgh Illustrated*, H. R. Page & Co., 1889).

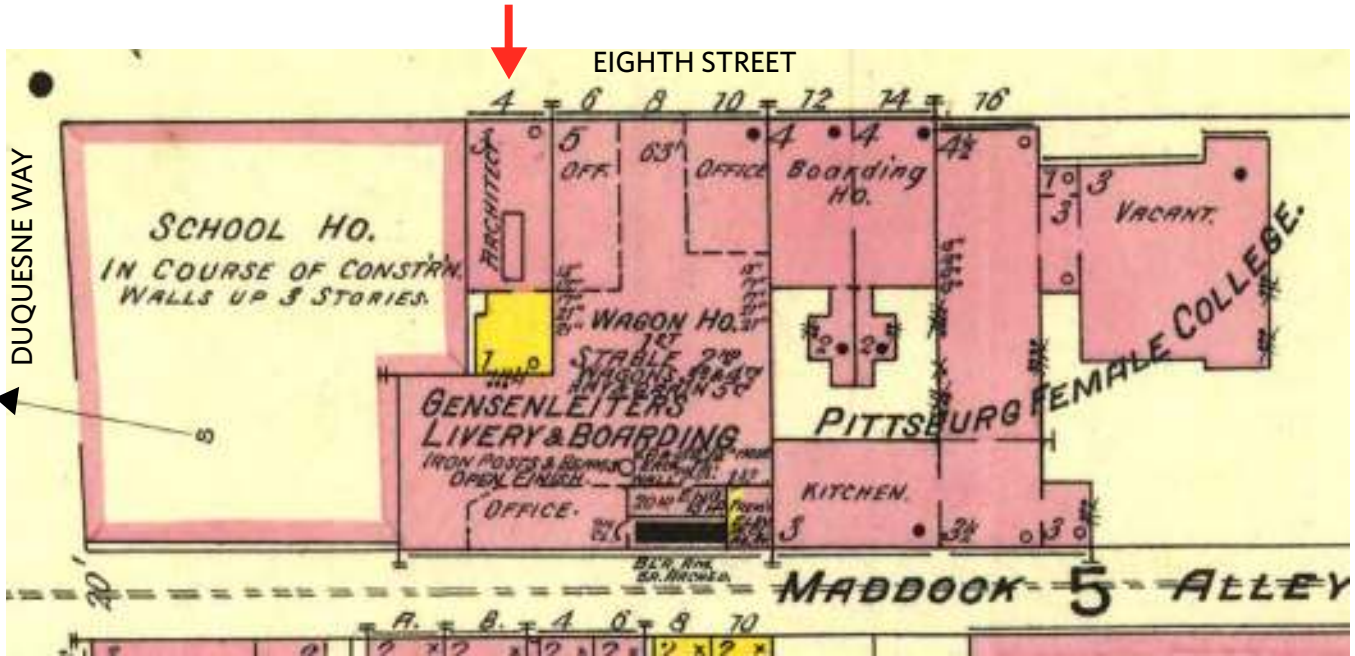


Figure 107. Detail from an 1893 Sanborn Fire Insurance Company map showing Fraser's office at No. 4 Eighth Street.

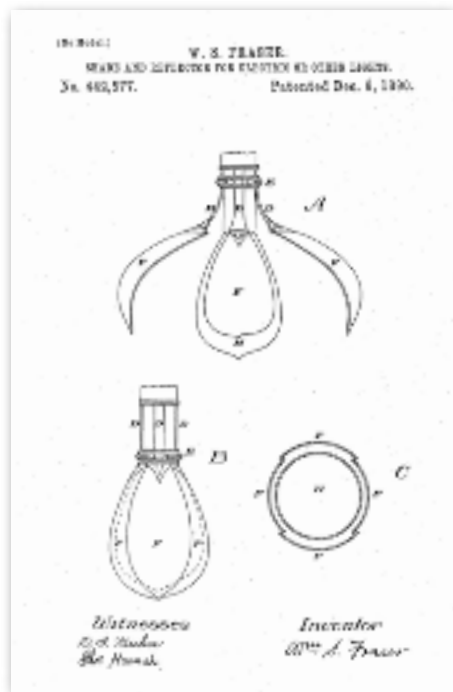


Figure 108. Fraser's 1890 patent for an adjustable light shade (US Patent Office).

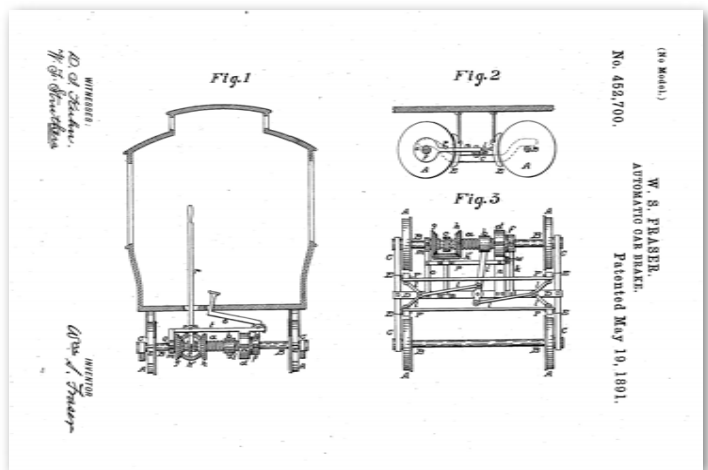


Figure 109. Fraser's 1891 patent for an automatic streetcar brake (US Patent Office).

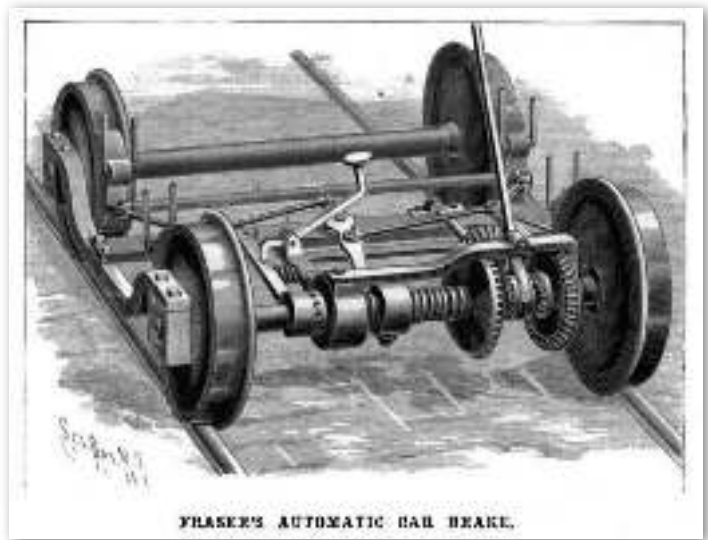


Figure 110. Fraser's street car brake as illustrated by *Scientific American*, 13 June 1891.



Figure 111. Interior of Kuhn's Grocery on Penn Avenue in East Liberty, as it looked c. 1906 (*Up-Town, Greater Pittsburgh's Classic Section*).



Figure 112. Fraser's design for the Arbutnot-Stephenson Building on Penn Avenue made headlines (*The Pittsburgh Dispatch*, 16 August 1890).



Figure 113. 1908 photograph of the Arbutnot-Stephenson Building, showing Fraser's modern use of vast expanses of glass on the lower stories (*The Story of Pittsburgh and Vicinity: Illustrated*, Pittsburgh Gazette Times, 1908).



Figure 114. Penn Avenue in 1915, looking east, showing the lower stories of the Arbutnot-Stephenson Building on the left (Pittsburgh City Photographer Collection, Historic Pittsburgh).

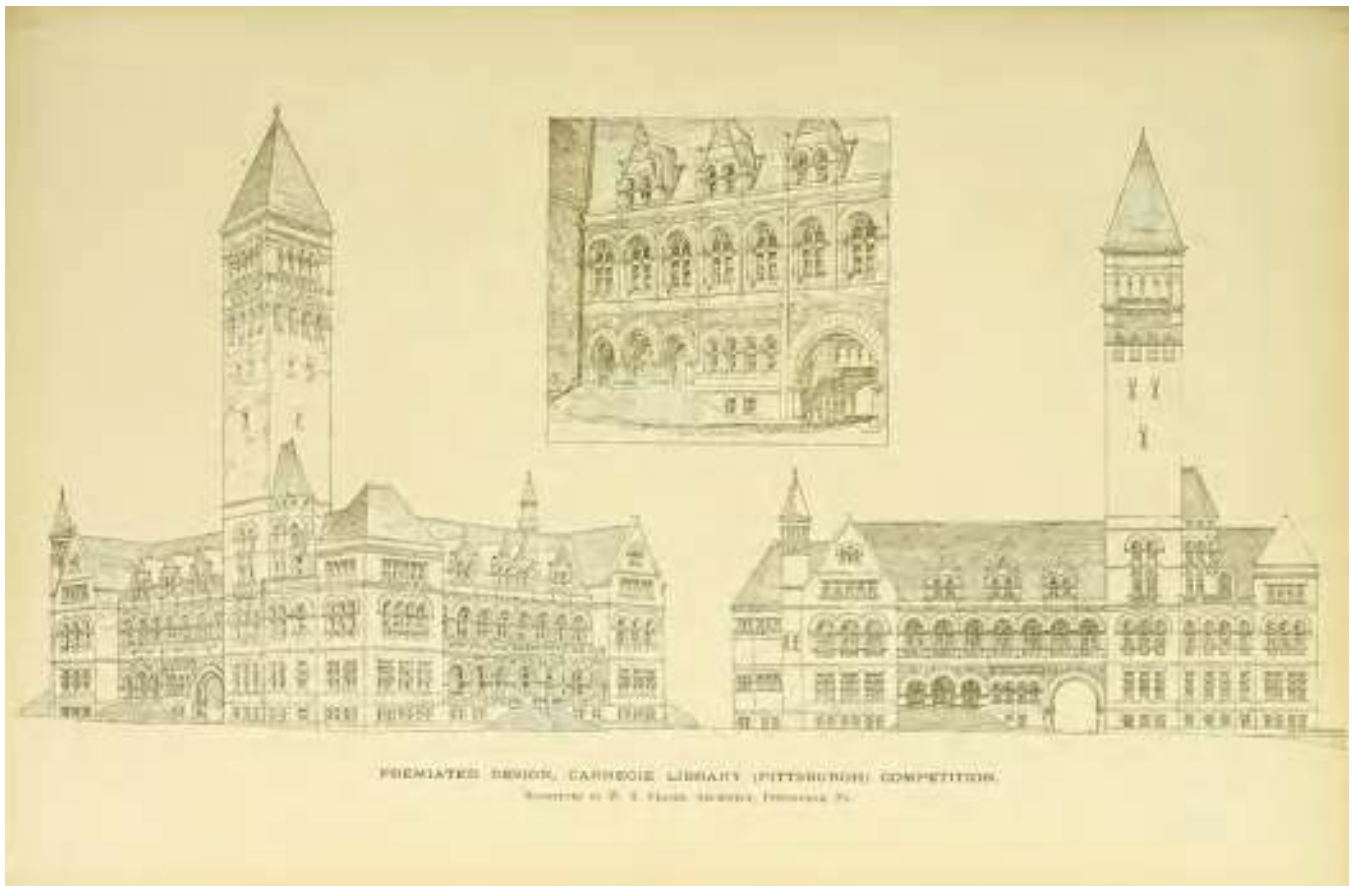


Figure 115. Fraser's renderings for the Carnegie Library of Pittsburgh (*The Inland Architect and News Record*, March 1892).

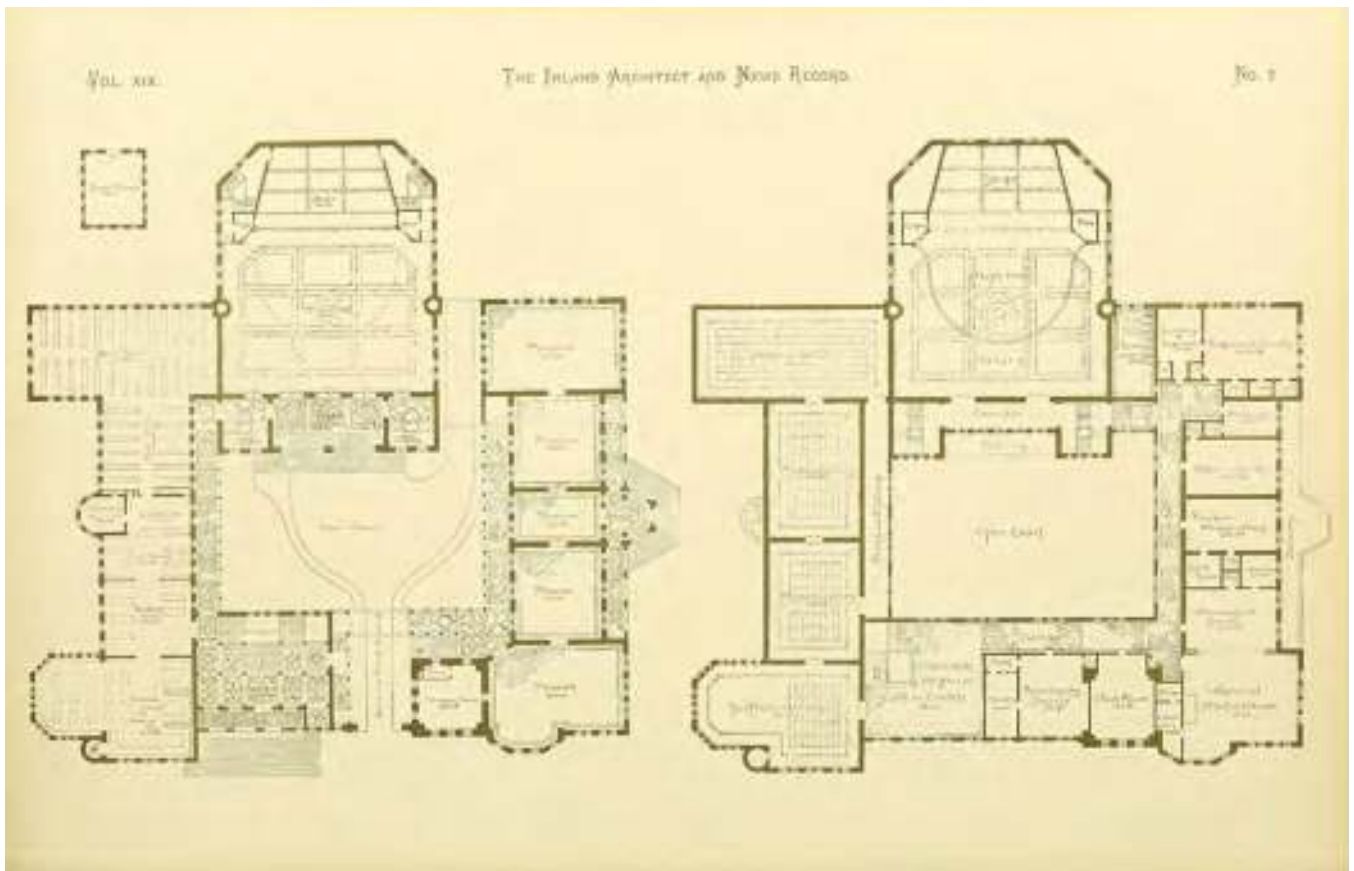


Figure 116. Fraser's plans for the Carnegie Library of Pittsburgh (*The Inland Architect and News Record*, March 1892).



Figure 117. The Shingle-Style house at 5655 Stanton Avenue that Fraser designed for himself and his future wife in 1891, showing the west elevation.



Figure 118. The front elevation of Fraser's house, looking north.



Figure 119. The YMCA Building in Sharpsburg as seen in a postcard from 1914.



Figure 120. Contemporary view of what is now the Linden Gymnasium, showing some of the major modifications to Fraser's design (Google Street View).



Figure 121. Eighth Street in 1915, looking south toward Penn Avenue, showing the four-bay-wide Smith Woodenware Company. Prior to 1906, the three left bays were home to the Gensenleiter Livery and the right-most bay was the site of the three-story building that housed Fraser's office (Pittsburgh City Photographer Collection, Historic Pittsburgh).

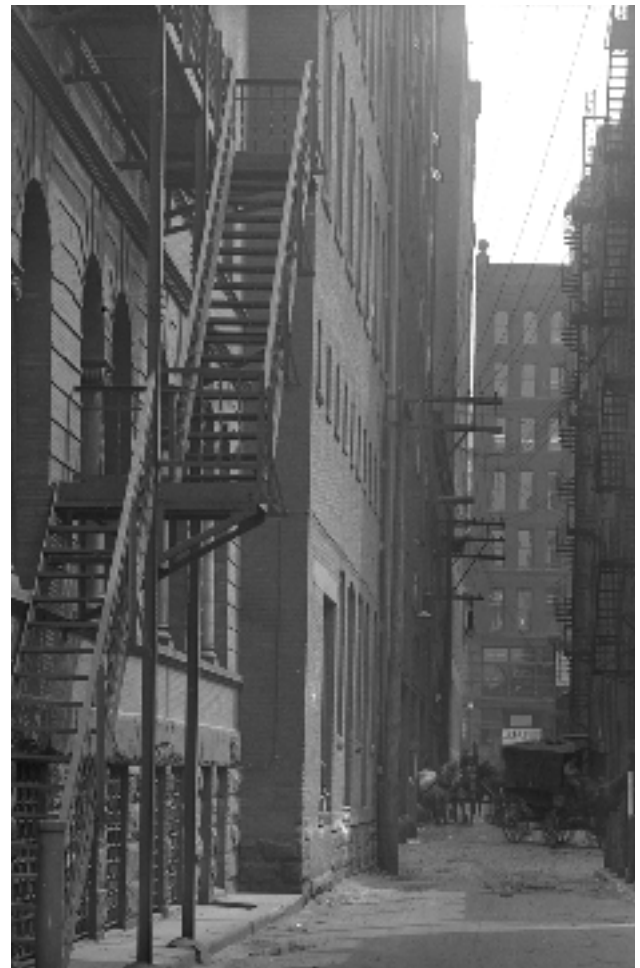


Figure 122. Maddock Alley in 1915, looking south, showing the rear of the former Gensenleiter Livery in the center. The location of horse stalls on the second floor can be discerned from the series of small square windows (Pittsburgh City Photographer Collection, Historic Pittsburgh).



Figure 123. Front facade of the Henry S. Atwood Stewart house on Morewood Avenue, c. 1895 (Carnegie Library of Pittsburgh).



Figure 124. South facade of the H.S.A. Stewart house, c. 1902 (Carnegie Library of Pittsburgh).



Figures 125 and 126. The Farmers Bank of Indiana as seen on one of the bank's checks from 1894 (left) and an undated postcard (right).

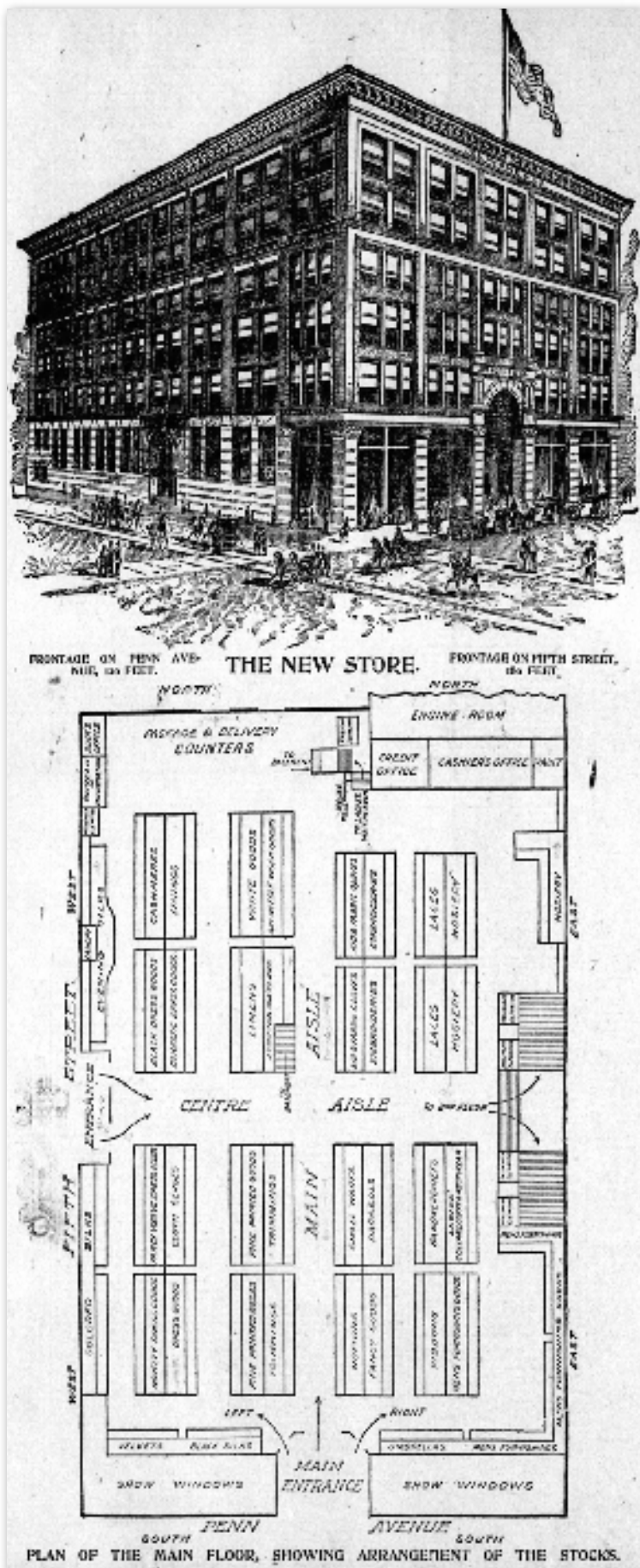


Figure 127 (left). Drawing and first floor plan from the opening of the Joseph Horne Store, *The Pittsburgh Press*, 31 July 1893.

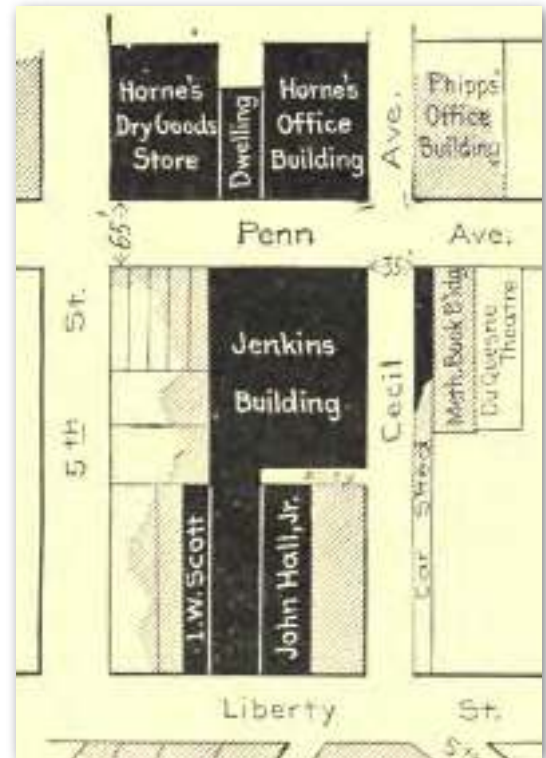


Figure 128. Site plan, showing the extent of the May 1897 fire in black (*The Planning and Construction of High Office-Buildings*).

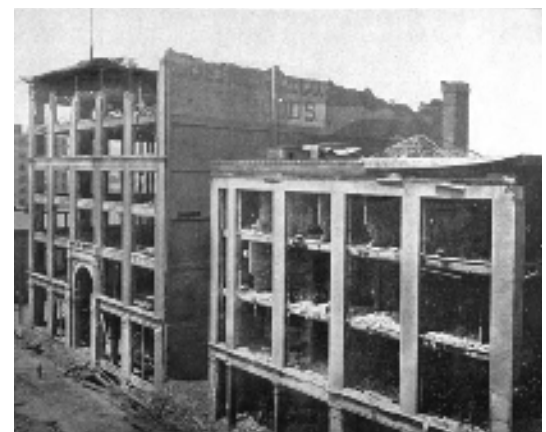


Figure 129. The fire-gutted, but salvageable, Horne's Store (left) and Office Building (right), from *Engineering News*, 20 May 1897.

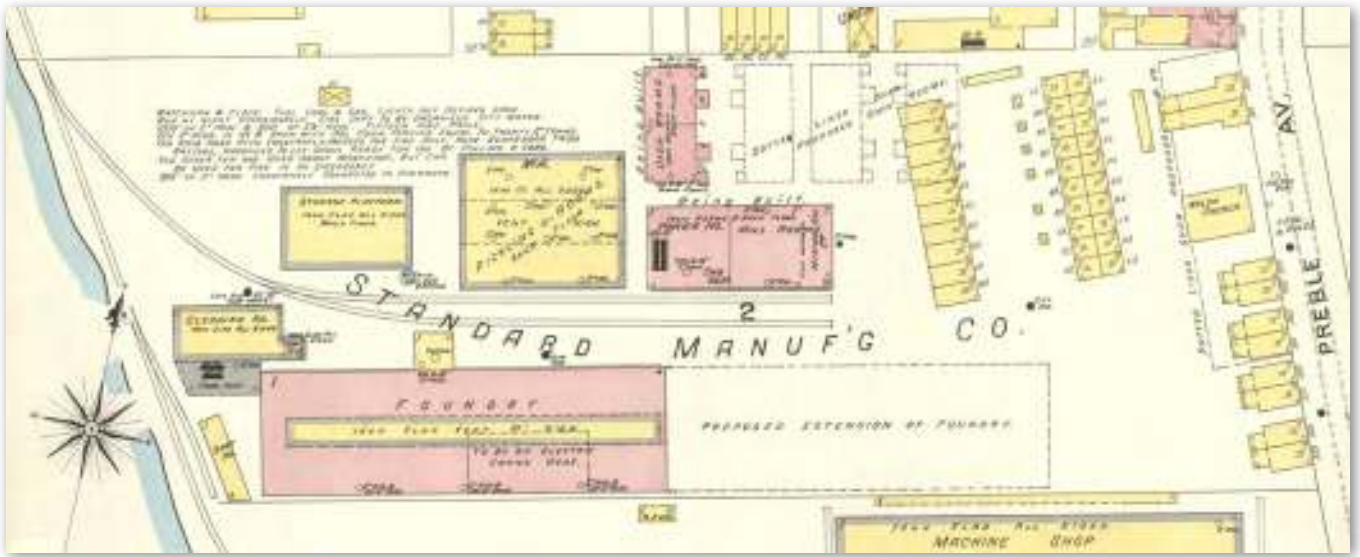


Figure 130. Detail from a Sanborn Fire Insurance Company map from 1893, showing the rapidly growing plant of the Standard Manufacturing Company on the banks of the Ohio River.

STANDARD MANUFACTURING COMPANY,

PITTSBURGH, PA.

THE largest plant in the world devoted exclusively to the manufacture of PORCELAIN ENAMELED BATHS and PLUMBING GOODS.

FACTORY,
551-583 PREBLE AVENUE, ALLEGHENY.

CITY SALES DEPARTMENT,
531-533 WOOD STREET, PITTSBURGH.

BRANCHES:
8 EAST 42ND STREET, - NEW YORK.
31 DEARBORN STREET, - CHICAGO.
218 PEARL STREET, - BUFFALO.
318 MARKET STREET, - SAN FRANCISCO.
10 ST. JOHN STREET, - MONTREAL.

Figure 131. An advertisement for Standard Manufacturing from 1897, showing a rendering of the largely completed plant, looking north (*City of Allegheny, Pa.: History and Institutions*, 1897).



Figure 132. The Hamilton Avenue United Presbyterian Church, c. 1900, at the corner of Hamilton Avenue and Lang Street in Homewood (*Official Souvenir Program, 1900 -1941, Homewood Board of Trade*).



Figure 133. A contemporary view of the church, now clad in brick and stripped of much of its original ornament (Google Street View).



Figure 134. Eastminster United Presbyterian Church in East Liberty, 1896, showing the Church (left) and the attached Sunday School Building (right). At the time, this was Sixth United Presbyterian and Fraser's home church (*Greater Pittsburgh: The "Iron City," Illustrated, 1896, New York: The Graphic, 1896*).

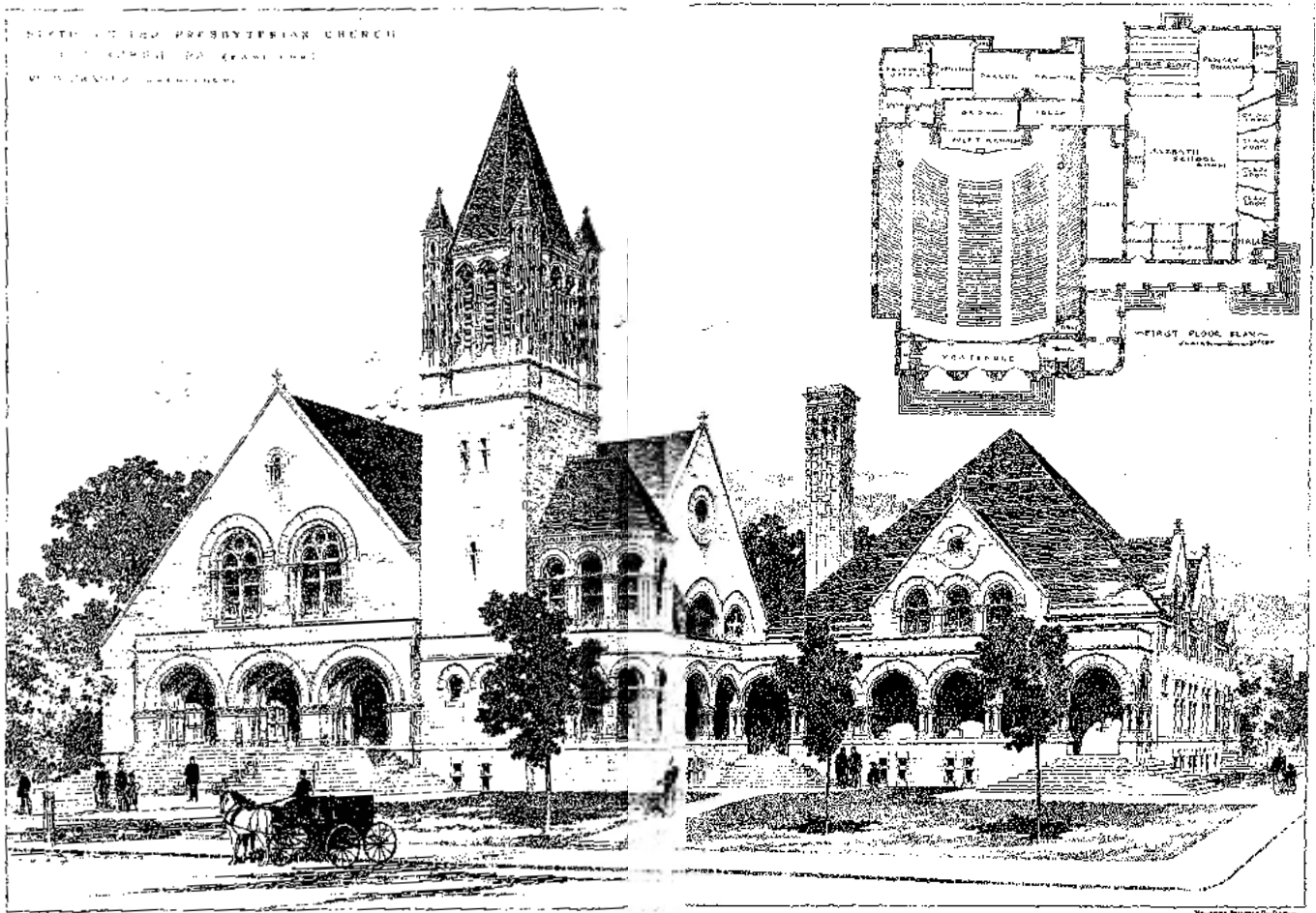


Figure 135. Fraser's rendering for Sixth United Presbyterian Church in East Liberty (*The American Architect and Building News*, 31 March 1894).



Figure 136. Side facade of the Model School of the State Normal School in Indiana, PA, showing a symmetrical, Classical Revival facade similar to the front facade Fraser would soon design for the Herron Hill Pumping Station (*Twenty-Ninth Annual Catalogue of the Indian Normal School of Pennsylvania*, 1902-03).



Figure 137. Silas M. Clark Hall, the boys' dormitory designed by Fraser, showing Classical Revival details that he would again employ for the Herron Hill Pumping Station (*Twenty-Ninth Annual Catalogue of the Indian Normal School of Pennsylvania, 1902-03*).



Figure 138. Williamsport City Hall, alleged by Fraser in a lawsuit to be a copy of his design for the Carnegie Library in Allegheny (detail from an undated postcard).



Figure 139. New Bethlehem Public School (detail from an undated postcard).

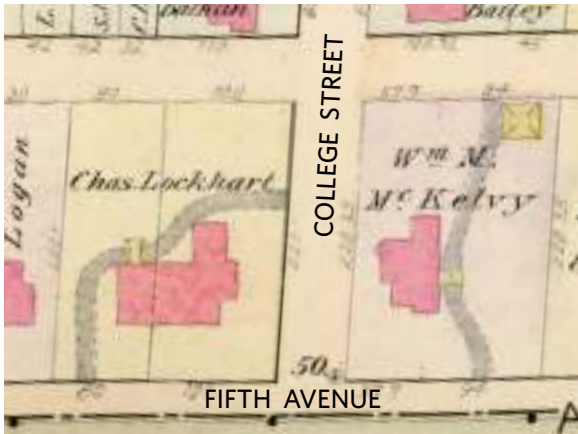


Figure 140. Detail from an 1899 G.M. Hopkins Company map, showing the house Charles Lockhart had constructed for his daughter in Shadyside (left) and the home of William M. McKelvy across the street (right).



Figure 141. The house at Fifth Avenue and College Street that Charles Lockhart had Fraser design for his daughter, Jane Walker Lockhart McCune (Donald Doherty, ed., *Pittsburgh's Shadyside*, 2008).



Figure 142 (above). The Lockhart Building at 908-10 Penn Avenue.



Figure 143 (right). The Lockhart Building in 1915, when it contained "The Household" furniture store (Pittsburgh City Photographer Collection, Historic Pittsburgh).



Figure 144. The Greensburg High School, 1899 (*History of Greensburg School*, Vogle & Winsheimer, 1899).



Figure 145. Detail from a Sanborn Fire Insurance map from 1905-06, showing the former chapel of the Larimer Mission. By this time, members had formed a new congregation and built a new church a few blocks away.



Figure 146. The Edward L. Dawes House in New Brighton, c. 1915, shortly after it was converted to the Home for the Aged and Infirm. The north dormitory wing can be seen at the right (Karen Helbling, ed., *New Brighton*, Arcadia Publishing, 2013).



Figure 147. A contemporary view of the Dawes House, now known as Dawes Manor (Housing Authority of the County of Beaver).



Figure 148. The William Hill House in Carnegie, c. 1960, showing an east addition at a time when the building served as the Rohm Apartments (*The Carnegie Signal-Item*, [17 April 1966]).

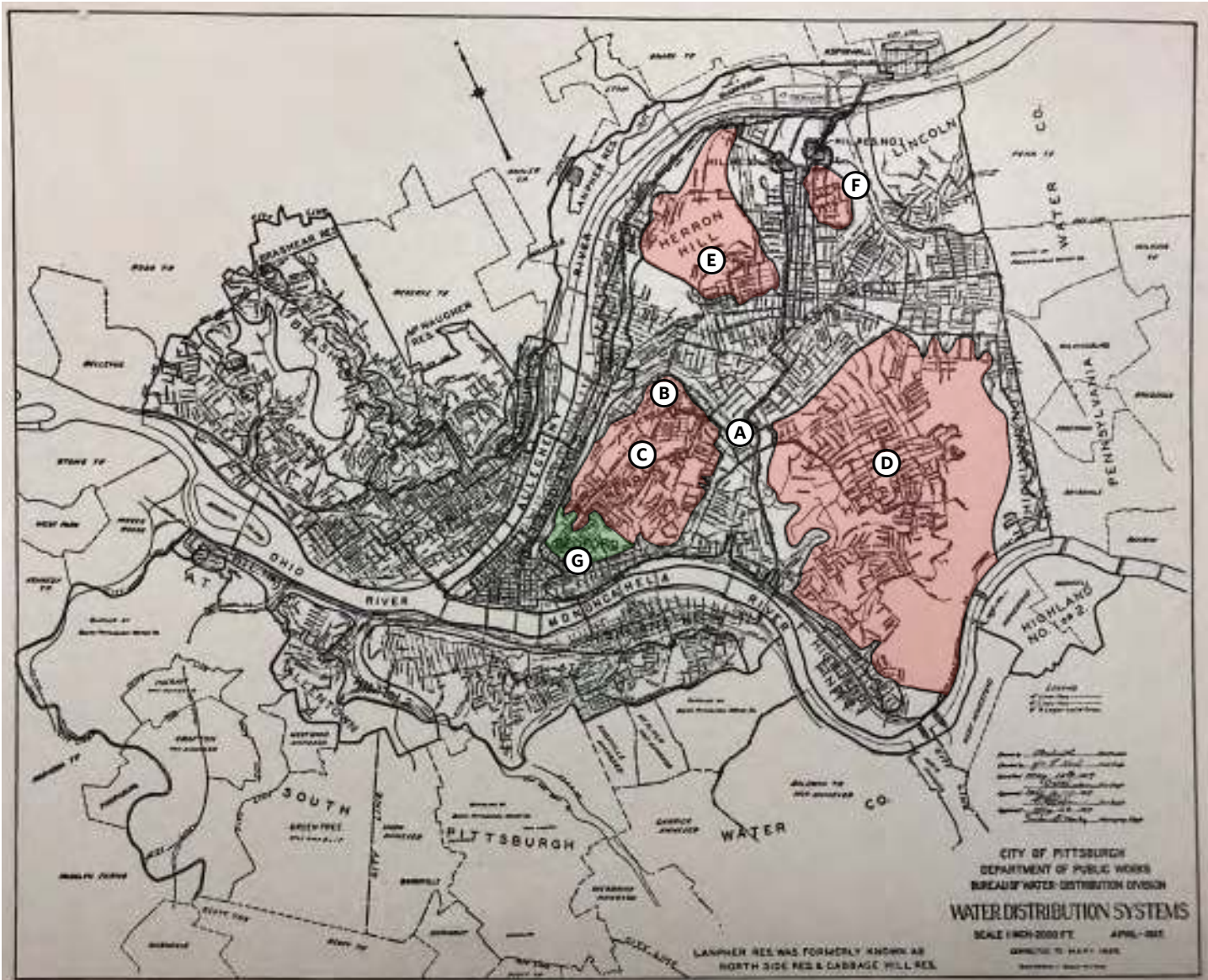


Figure 149. Map of the water distribution system in Pittsburgh in 1930, showing the large area of the East End that received its water from the Herron Hill Service (shaded in red). At its heart is the Herron Hill Pumping Station (A), which supplied water to the Herron Hill Reservoir (B). From there, largely by gravity, four lower hilltops received water: Herron Hill (C), Squirrel Hill (D), Garfield Hill (E), and Heberton Hill (F). The Herron Hill Pumping Station also indirectly served the Lower Hill (G; shown in green), by pumping water to the Bedford Basin. Most of this distribution system remains in place today (Erwin E. Lanpher, *City of Pittsburgh, Pennsylvania: Its Water Works*, 1930, 17).

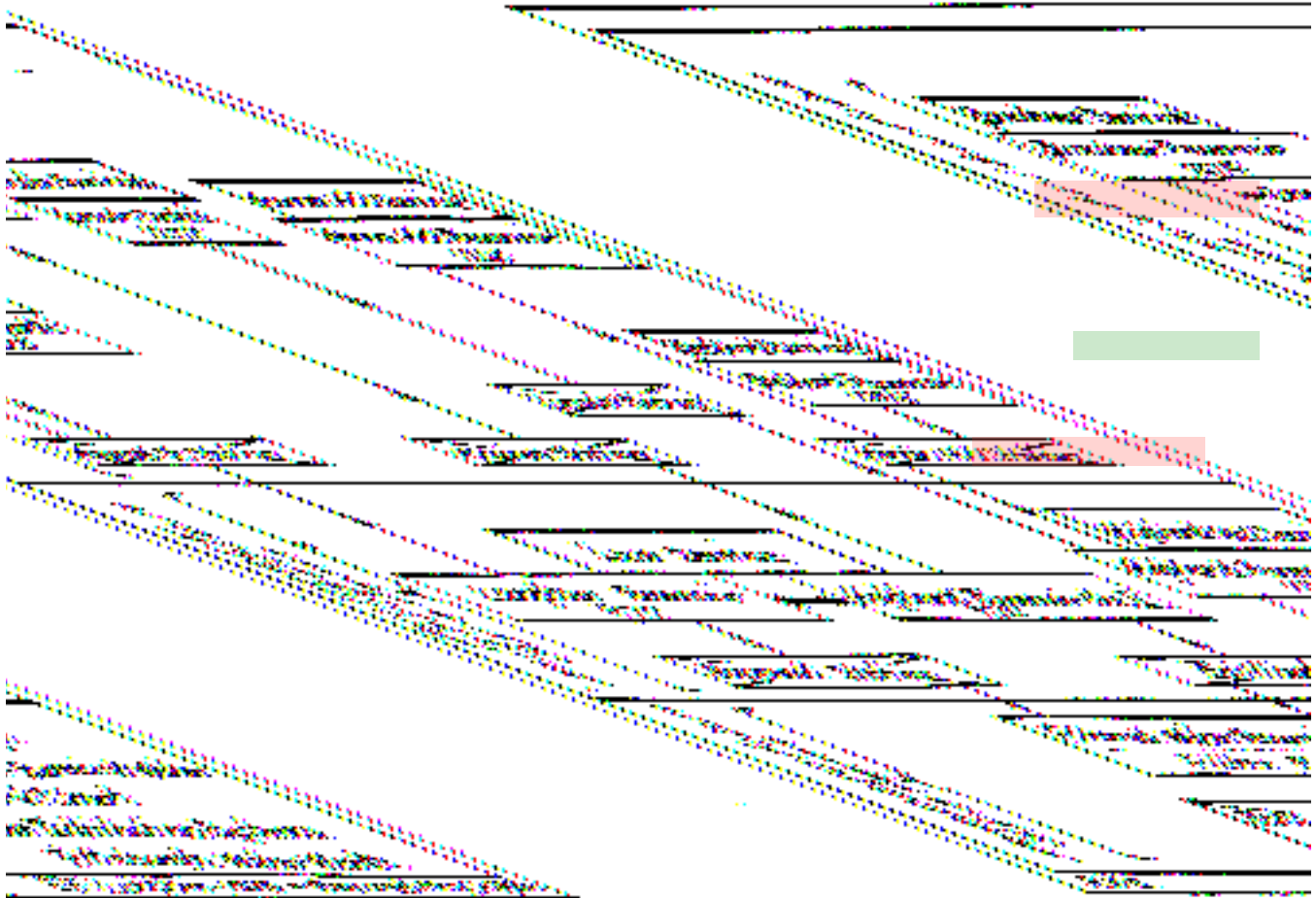
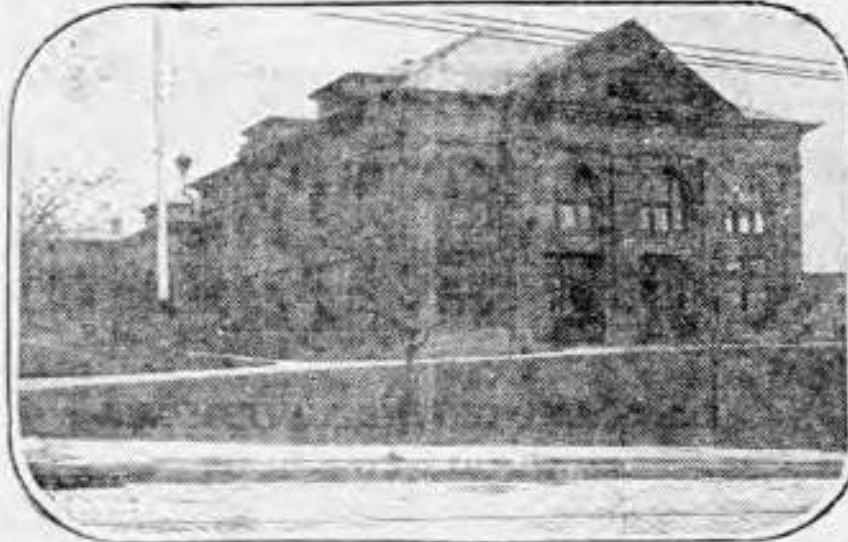


Figure 150. Diagram of the general water distribution system in Pittsburgh in 1930, showing the route by which the Herron Hill Pumping Station (in red) received its water and how that water was subsequently distributed to the Herron Hill Service (red) and Bedford Service (green). From Erwin E. Lanpher, *City of Pittsburgh, Pennsylvania: Its Water Works*, 1930, 12.

Herron Hill Pumping Station



Water from Highland park reservoir No. 1 flows to the Herron Hill pumping station, from which it is raised to Herron Hill reservoir, whose elevation is 1,259 feet. This reservoir was completed in 1889; it was relined in 1926. It supplies a population of about 80,000 residing in Herron Hill, Squirrel Hill, Garfield and Heberton Hill areas.

The Herron Hill pumping station also pumps water to Bedford Hill reservoir, whose capacity is 27,000,000 gallons, which supplies about 25,000 people. The Bedford Hill reservoir was built in 1854; it was relined in 1907. Renewal of relining is now necessary and the work will be started next year.

The capacity of the Herron Hill station has been inadequate for some time due to the increased draft made upon it by the tremendous growth in population of Squirrel Hill and other districts it supplies. New pumps, boilers and auxiliary equipment are being planned and contracts will put underway early next year.

Figure 151. This article from *The Pittsburgh Press* on September 18, 1927 not only explained the distribution of the Herron Hill Service, but stressed the importance of the Pumping Station to burgeoning Squirrel Hill. Also of note is the fact that the divided wood windows are still present at this time.

Figure 152. A Catalogue of Known Works by Architect William S. Fraser

Date	Project	Project	Location	Neighborhood	Constructed	Client	Function	Style, if Clear	Building Status	Published
1876	Laon Cathedral	Dwg.	France		N/A					
1878	Coutances Cathedral	Dwg.	France		N/A					Yes
1879	Insane Department	Plans	Munhall, PA		Yes	Guardians of the Poor	Institutional		Demolished	
1880	Design for Sewickley M.E. Church	Plans	Sewickley, PA		No		Religious	Gothic Revival		Yes
1880	Wellsville High School	Plans	Wellsville, OH		Yes	Board of Education	Educational	Gothic Revival	Demolished	Yes
1880	Old Timber House in Bayeux	Dwg.	France		N/A					Yes
1883	Arbuckles & Co. Office and Warehouse	Plans	Pittsburgh	Cultural District	Yes	Arbuckles & Co.	Commercial	Commercial	Demolished	Yes
1884	Freedman's Mission School	Plans	Norfolk, VA		Yes	United Presbyterian Church	Educational		Demolished	
1884	Carriage House and Wash House	Plans	Pittsburgh		Presumed		Residential		Unknown	
1885	Standard Oil of Pittsburgh Office	Plans	Pittsburgh	Cultural District	Yes	Standard Oil	Commercial	Romanesque	Demolished	Yes
1885	H.L. Richmond, Jr. House	Plans	Meadville, PA		Yes	H.L. Richmond, Jr., Esq.	Residential	Queen Anne	Extant	Yes
1885	Hill Schoolhouse Alterations	Plans	Pittsburgh	Allegheny	Presumed	Board of Education	Educational		Unknown	
1886	Freedman's Mission Teacher's Home	Plans	Norfolk, VA		Yes	United Presbyterian Church	Educational		Demolished	
1886	Pittsburgh Daily Post Building	Plans	Pittsburgh	Downtown	Yes	Pittsburgh Daily Post	Commercial	Commercial	Demolished	
1886	Carnegie Library, Allegheny	Plans	Pittsburgh	Allegheny	No		Institutional	Gothic Revival		Yes
1888	Eight Stone and Brick Stores	Plans	Pittsburgh		Presumed		Commercial		Unknown	
1888	Dr. Thomas A. Rex House	Plans	Pittsburgh	Shadyside	Yes	Dr. Thomas A. Rex	Residential	Queen Anne	Demolished	
1888	Cathedral of Saint John the Divine	Plans	New York City		No		Religious	Gothic Revival		Yes
1889	Denholm Building	Plans	Pittsburgh	East Liberty	Yes	Denholm Brothers	Commercial	Commercial	Demolished	
1889	Store Buildings for CB and RM Head	Plans	Pittsburgh	Strip District	Yes	CB and RM Head	Commercial	Commercial	Demolished	
1889	Moses Atwood House	Plans	Pittsburgh	Allegheny	Yes	Moses Atwood	Residential	Queen Anne	Demolished	Yes
1889	C.T. Edwards House	Plans	Pittsburgh	Oakland	Presumed	C.T. Edwards	Residential		Unknown	
1889	Addition for Arrott & Torrance	Plans	Pittsburgh	Allegheny	Presumed	Arrott & Torrance	Commercial			
1889	East End Electric Power House	Plans	Pittsburgh		Presumed	East End Electric Company	Infrastructure			
1890	National Bank of Commerce	Plans	Pittsburgh	Downtown	Yes	National Bank of Commerce	Commercial	Gothic Revival	Demolished	
1890	Dinwiddie Street, 50 Townhouses	Plans	Pittsburgh	Crawford-Roberts	Yes	Charles Lockhart	Residential	Queen Anne	Extent (partial)	
1890	Double-House at 512 Shady Avenue	Plans	Pittsburgh	Shadyside	Yes	Jacob Jay Vandergrift	Residential	Queen Anne	Extant	
1890	House at 518 Shady Avenue	Plans	Pittsburgh	Shadyside	Yes	Jacob Jay Vandergrift	Residential	Queen Anne	Extant	
1890	Renshaw/Chislett House	Plans	Pittsburgh	Shadyside	Yes	James A. Renshaw	Residential	Queen Anne	Extant	
1890	Charles A. Wolfe House	Plans	Pittsburgh	Squirrel Hill	Yes	Charles A. Wolfe	Residential		Demolished	
1890	Nine 2- and 3-Story Dwellings	Plans	Pittsburgh		Presumed	James McKay	Residential			
1890	Keystone Bank	Plans	Pittsburgh	Downtown	Yes	Keystone Bank	Commercial	Gothic Revival	Demolished	
1890	East End YMCA Renovation	Plans	Pittsburgh	East Liberty	Yes	Charles Lockhart	Institutional		Demolished	
1890	Patent for Light Shade	Patent			N/A					
1890	D.C. Kuhn Store	Plans	Pittsburgh	East Liberty	Yes	D.C. Kuhn	Commercial	Commercial	Demolished	
1890	Old House, Lisieux	Dwg.	France		N/A					
1890	Old House, Bayeux	Dwg.	France		N/A					
1891	Patent for Streetcar Brake	Patent			N/A					
1891	A.J. Barr House	Plans	Pittsburgh	Shadyside	Yes	Albert J. Barr	Residential		Demolished	
1891	Arbuthnot Stephenson Store	Plans	Pittsburgh	Cultural District	Yes	Arbuthnot, Stephenson & Co.	Commercial	Romanesque	Demolished	
1891	Carnegie Library, Pittsburgh	Plans	Pittsburgh	Oakland	No		Institutional	Gothic Revival		Yes
1891	Nine Dwellings for F. J. Torrance	Plans	Pittsburgh		?		Residential			
1891	W.S. Fraser House	Plans	Pittsburgh	Highland Park	Yes	W.S. Fraser	Residential	Shingle Style	Extant	
1892	James McKay House	Plans	Pittsburgh	Shadyside	Yes	James McKay	Residential	Queen Anne	Demolished	Yes
1892	YMCA, Sharpsburg	Plans	Sharpsburg, PA		Yes	YMCA	Institutional	Romanesque	Extant (altered)	
1892	Gensenleiter Livery	Plans	Pittsburgh	Cultural District	Yes	Edward Gensenleiter	Commercial	Commercial	Demolished	
1892	W.J. Edmondson House	Plans	Pittsburgh		Presumed	W.J. Edmondson	Residential			
1892	Pittsburgh Female College	Plans	Pittsburgh	Cultural District	No	Pittsburgh Female College	Educational			
1893	H.S.A. Stewart House	Plans	Pittsburgh	Shadyside	Yes	Henry S. Atwood Stewart	Residential	Romanesque	Demolished	
1893	W.J. Moreland House	Plans	Pittsburgh	Oakland	Yes	W.J. Moreland	Residential		Demolished	
1893	Joseph Horne Store	Plans	Pittsburgh	Downtown	Yes	Joseph Horne	Commercial	Commercial	Demolished	
1893	Hamilton Avenue U.P. Church	Plans	Pittsburgh	Homewood	Yes	Sixth U.P. Church	Religious	Queen Anne	Extant (altered)	
1893	Model School, Indiana Normal School	Plans	Indiana, PA		Yes	Indiana State Normal School	Educational	Classical Revival	Extant	
1893	Dormitory, Indiana Normal School	Plans	Indiana, PA		Yes	Indiana State Normal School	Educational	Classical Revival	Demolished	
1893	Fire Engine House	Plans	Pittsburgh	Allegheny	?	Allegheny City	Infrastructure			
1894	Joseph Horne Office Building	Plans	Pittsburgh	Downtown	Yes	Joseph Horne	Commercial	Commercial	Demolished	
1894	Farmers Bank of Indiana	Plans	Indiana, PA		Yes	Farmers Bank of Indiana	Commercial	Romanesque	Demolished	
1894	Standard Manufacturing Company	Plans	Pittsburgh	Allegheny	Yes	Standard Manufacturing Co.	Commercial	Commercial	Demolished	
1894	Eastminster Presbyterian Church	Plans	Pittsburgh	East Liberty	Yes	Sixth U.P. Church	Religious	Gothic Revival	Extant	Yes
1895	Lockhart Building	Plans	Pittsburgh	Cultural District	Yes	Charles Lockhart	Commercial	Classical Revival	Extant	
1896	Lockhart-McCune House	Plans	Pittsburgh	Shadyside	Yes	Charles Lockhart	Residential	Chateausque	Demolished	
1896	Herron Hill Pumping Station	Plans	Pittsburgh	Oakland	Yes	City of Pittsburgh	Infrastructure	Classical Revival	Extant	
1896	Chapel, Larimer Avenue Mission	Plans	Pittsburgh	Larimer	Yes	Sixth U.P. Church	Religious		Demolished	
1897	Greensburg High School	Plans	Greensburg, PA		Yes	School Board	Educational	Gothic Revival	Demolished	
1897	Edward L. Dawes House	Plans	New Brighton, PA		Yes	Edward L. Dawes	Residential	Colonial Revival	Extant	
1897	William Hill House	Plans	Carnegie, PA		Yes	William Hill	Residential	Colonial Revival	Demolished	

Notes

Construction status is listed as "Presumed" if the project advanced far enough in the design process for a building permit to be issued and/or for a contractor to have been named.

"Published" refers to the printing of drawings in national or international architectural journals.