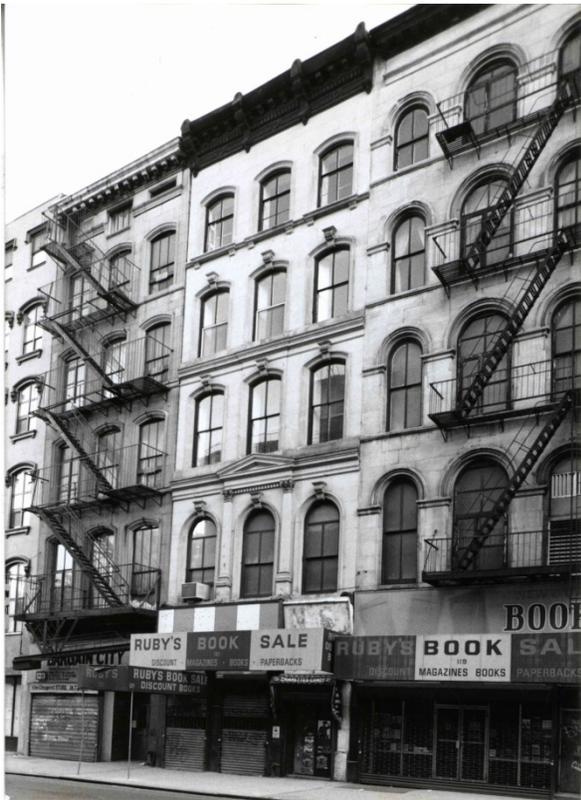


121 Chambers Street AKA 103 Reade Street - Manhattan
Tribeca South Historic District

**EXISTING CONDITION REPORT & BUILDING
RESTORATION PROGRAM**



121 Chambers – Designation Photo, c. 1990



103 Reade Street – Tax Lot Photograph, 1940

**Prepared by Joseph Pell Lombardi, Architect
February 9, 2017**

Primary Facade – Chambers Street:

- a) Existing Condition – Masonry: The entire masonry façade is covered with an evenly distributed thin coat of adhesive material from the top of the existing storefront cornice to the bottom of the building’s cornice. Behind the cement, the building is faced with sandstone above the first story. All of the masonry window frames, sills, water tables, keystones and columns are in excellent condition. There are three areas where the masonry layer has been punctured by ventilation pipes. The cement layer is weathering, staining from pollution, and dirt accumulation is evident; There are several areas where the original sandstone façade surface can be seen beneath the cement. At the second floor aedicule bases, there is cracking at the bottom of the engaged columns.
 - i) Restoration Work – Masonry: Clean all masonry surfaces with Rotec Vortex cleaning process system to remove top layers of dirt. The Vortex process uses pressures from 10 to 55 psi mixed with water that can be precisely regulated within the range of 1 to 15 gallons per hour mixed with extremely fine micro abrasive powders, selected exactly to suit the low-pressure technique and remove dirt and paint surfaces without damaging the original masonry surface beneath. Sample cleaning areas will be performed prior as approved by architect, owner & LPC.
- b)
 - i) Patch and repair all cracked, spalled, deteriorated, metal embankments and punctured areas of sandstone at locations indicated in drawings. For areas larger than three inches, square cut and repatch area with color matching Jahn material as approved by architect, owner and LPC. Provide samples & mockups of matching color, texture and finish for architect approval.
 - ii) Stone repointing: Replace deteriorated, & cracked mortar joints at locations as indicated on drawings. Cut mortar joint to a minimum depth of ¾ inches; install new Spec Mix mortar color to match existing throughout as approved by architect, owner & LPC.
- c) Existing Condition – Windows: There are twelve existing historic painted wood double-hung windows on the second through the fifth floor of the Chambers Street facade. All of the historic window moldings exist and match throughout. Most of the window sashes and moldings are extremely weathered with areas of wood rot on each window sash. The existing second floor window configuration is a two-over-two, double-hung window with a semi-circular fixed glass transom. The remaining nine windows are two-over-two, double-hung windows with a curved upper sash profile to match the masonry opening.
- d) Restoration Work – Windows: All of the twelve existing windows and window frames from the second through the fifth floors will be removed and replaced with painted wood two-over-two double-hung windows of varying heights. The new second floor windows will be replaced without a transom panel. Instead, the second floor windows will have a semi-circular shaped upper sash profile to match the masonry opening. All the new window profiles will match the existing historic profiles from the nine existing nineteenth century painted wood one-over-one double-hung windows and window moldings.
 - i) Investigate historic finish treatment of the existing window sashes and moldings. Preliminary findings show that all windows were most likely painted to match the light brown look of the sandstone façade. The closest present-day paint color match is Sherwin Williams 6158 “Sawdust.”

- e) Existing Condition – Building Cornice: The existing building cornice and dentilled entablature is metal and coated with several layers of paint. The overall condition of the cornice is good with no missing features. There is one bent out of shape cornice bracket.
- f) Restoration Work – Building Cornice:
 - i) Investigate historic finish treatment of cornice at a time when safe access to samples can be provided.
 - ii) Hand bend metal bracket to reshape into original orientation.
 - iii) Hand scrape loose paint.
 - iv) Prime and paint the existing cornice with a color that matches the earliest known color using zinc-rich primers and exterior grade metal paint.

Street Level Storefront – Chambers Street:

- a) Existing Condition – Cast Iron Elements: The early twentieth century metal and non-historic stone storefront layers entirely cover the existing nineteenth century features, including: the painted cast-iron fluted pilasters and columns on bases, arched surrounds with bracketed keystones, transom bars with decorative moldings and cornice with brackets and modillions. The overall condition of all the cast-iron features is currently unknown because almost all of it is covered. An investigation behind the contemporary storefront revealed that the style, size and scale of the columns and bases match the existing historic cast-iron storefront elements at the existing nineteenth century Reade Street storefront. The overall storefront design (number of bays, proportions and decorative elements) are identical to the existing nineteenth century Reade Street cast-iron designs. There is evidence of a fire at the west and center storefront columns, where probes have been performed on the non-historic storefront.
- b) Restoration Work – Cast Iron Elements:
 - i) Carefully remove and discard all of the existing twentieth century storefront layers covering the ground floor's original appearance to reveal the original nineteenth century storefront beneath.
 - ii) Investigate historic finish treatment of cast-iron columns. Preliminary findings show that all storefront columns were most likely a ceramic quality material that was used to create the look of sandstone to match the sandstone façade above.
 - iii) Remove all existing column paint layers using chemical paint remover such as Peel-Away ST-1 or an approved equivalent. Excess paint can be removed by hand-scraping or using the gentlest methods possible. No mechanical removal of paint is allowed.
 - iv) Prime and paint all columns and column elements with a color that matches the sandstone façade above using zinc-rich primers and exterior grade metal paint. The closest present day color is Pratt & Lambert 426D "Expedition."
 - v) Corinthian column foliate capitals possibly exist. Any column elements that have deteriorated beyond repair, or are missing altogether, shall be replaced with cast iron components of the appropriate style, scale, and appearance and painted to match the original column.
 - vi) Any cornice element, including moldings, brackets, and modillions that have deteriorated beyond repair, or are missing altogether, shall be replaced with cast-iron components of the appropriate style, scale, and appearance and painted to match the original cornice.
- c) Existing Condition – Storefront infill: There is no evidence of any earlier historic storefront infill beneath the existing non-historic twentieth century storefront. The

existing storefront is most-likely a conglomeration of several layers of storefront that created the central store entry flanked by show windows (east and west).

- d) Restoration Work – Storefront infill: Install new painted wood and glass storefront at all three bays (one pair of double doors, and two show windows with bulkheads) all with curved transom panels at the top. The new storefront infill will be co-planar with the existing historic cast-iron façade. The new wood storefront infill shall be painted to match columns and facade.

Primary Facade – Reade Street:

- a) Existing Condition – Masonry: The building’s Reade Street façade, also of sandstone, is one section of a tripartite composition, matching the western three bays of the adjoining double façade at 105-107 Reade Street. No work is proposed under this application for 105-107 Reade Street. The sandstone façade is stained from pollution and dirt accumulation. There is a non-decorative fire escape attached to the stone at several locations on the second through fifth floors. There are four dentils that are either cracked or missing where the fire escape is attached at the third floor. Several sandstone window sills are cracked above the second story.
- b) Restoration Work – Masonry: Clean all masonry surfaces with the gentlest method possible, such as low pressure water and detergents, using natural bristle brushes. Water pressure must be below 500 psi.
- i) Spalling stone, fire escape embankment removals and previously patched sign embankments will be restored.
 - ii) Repair spalling stone by removing all adjacent cracked concrete. Patch voids using a cement, matrix color, aggregate size and coloration that matches the historic sandstone. Use a Dutchman repair to complete the restoration.
 - iii) Damages sandstone areas will be cut out to create a uniform void at least a half inch deep.
 - iv) New stone will be fabricated using casting molds will be made with durable rubbers backed with wood. Plaster supports will be used to fabricate new cast stone. A concrete mix of a less than 15% lime to cement ratio will be produced. The cement, matrix color, aggregate size and coloration will match the historic sandstone. Composite mortar will be applied to the holes with a small spatula or trowel. The completed composite will be brushed to remove any residue at the edges of the repair.
 - v) Cracked sandstone pieces at the window sill will be restored by either removing the pieces deteriorated beyond repair and casting new pieces or by patching the voids using a cement, matrix color, aggregate size and coloration that matches the historic sandstone.
- c) Existing Condition – Windows: There are total of twelve windows on the Reade Street façade. The eastern window sashes at the third, fourth and fifth floors are original nineteenth century windows. The remaining windows are a mixture of early twentieth century modified sashes and fire-escape doors with transoms. All the existing historic window trims exist and match throughout. Most window sashes and moldings are extremely weathered with areas of wood rot on each window.
- d) Restoration Work – Windows: All of the twelve existing windows and window frames from the second through fifth floors will be removed and replaced with painted wood

two-over-two double-hung windows of varying heights. The new second floor windows will be replaced without a transom. Instead the second floor windows will have a semi-circular shaped upper sash profile to match the masonry opening. All new window profiles will match existing historic profiles from the nine existing nineteenth century painted wood one-over-one double-hung windows and window moldings.

- e) Existing Condition – Fire Escape: The non-decorative fire escape and drop-down stair on the façade is presumably a twentieth century addition. The design of the fire escape can be attributed to the specifications for exterior fire escapes as outlined in the New York Labor Law 273 of 1913.
- f) Restoration Work – Fire Escape: Fire escape removal will not leave gaps, holes, or unsightly conditions on the marble facade. All fire escape stone connection points will be repaired with Jahn patches no more than three inches square. Remove all existing deteriorated metal anchors embedded in the façade at locations as indicated on the drawings and as directed by the architect. Cut damaged sandstone back, remove metal corroded areas and replace with in kind color-match Jahn Patch. Submit samples patch for architect, owner and LPC to approve.
- g) Existing Condition – Building Cornice: The existing building cornice and dentilled entablature is made from pressed and bent tin and coated with several layers of paint. The overall condition of the cornice is good with one dentil missing and one bent out of shape cornice bracket. The bottom of the entablature is pulling away from the sandstone façade and there are signs of past tin patching.
- h) Restoration Work – Building Cornice: All restoration work will proceed as follows.
 - i) Investigate historic finish treatment of cornice at a time when safe access to samples can be provided.
 - ii) Hand bend metal bracket to reshape into original orientation.
 - iii) Secure and nail back the existing entablature areas that are peeling away from the façade using mechanical fasteners. Caulk all connections on the sandstone façade with paintable exterior caulking.
 - iv) Prime and paint the existing cornice and entablature fastener heads with a color that matches the earliest known color using zinc-rich primers and exterior grade metal paint.

Street Level Storefront – Reade Street:

- a) Existing Condition – Cast Iron Elements: The first floor retains the original cast-iron storefront, which is listed on page 32 in Daniel D. Badger’s Catalogue of *Architectural Iron Works of New York*, published in 1865. The early twentieth century metal and non-historic stone storefront layers partially cover existing nineteenth century features, including: the painted cast-iron fluted pilasters and columns on bases, arched surrounds with bracketed keystone, transom bars with egg-and-dart decorative moldings and cornice with bracket and modillions. The overall condition of the cast-iron features is currently unknown because it is partially covered.
- b) Restoration Work – Cast Iron Elements: All restoration will proceed as follows.
 - i) Carefully remove and discard all of the existing twentieth century storefront layers covering the ground floor’s original appearance to reveal the original nineteenth century storefront beneath.

- ii) Investigate historic finish treatment of cast-iron columns. Preliminary findings show that all storefront columns were most likely a ceramic quality material that was used to create the look of sandstone to match the sandstone façade above.
- iii) Remove all existing column paint layers using chemical paint remover such as Peel-Away ST-1 or an approved equivalent. Excess paint can be removed by hand-scraping or using the gentlest methods possible. No mechanical removal of paint is allowed.
- iv) Prime and paint all columns and column elements with a color that matches the sandstone façade above using zinc-rich primers and exterior grade metal paint. The closest present day color is Pratt & Lambert 426D “Expedition.”
- v) Corinthian column foliate capitals have deteriorated. Any column elements that have deteriorated beyond repair, or are missing altogether, shall be replaced with cast iron components of the appropriate style, scale, and appearance and painted to match the original column.
- vi) Any cornice element, including moldings, brackets, and modillions that have deteriorated beyond repair, or are missing altogether, shall be replaced with cast-iron components of the appropriate style, scale, and appearance and painted to match the original cornice.
- c) Existing Condition – Show window: The wood has deteriorated due to rotting and molding. Parts of the show window are covered by twentieth century additions.
- d) Restoration Work – Show window: Remove all twentieth century additions covering the original show window. All existing work will be repaired and consolidated. New elements will be added based on historic photos and investigation.
- e) Existing Condition – Fire Shutters: Three painted rolling iron fire shutters exist above the transom in the arched storefront windows. The rolling iron fire shutters are original to the Daniel D. Badger storefront. The operability of the shutters is unknown.
- f) Restoration Work – Fire Shutters: All restoration work will proceed as follows.
 - i) Carefully remove all three fire shutters from windows for restoration.
 - ii) Restore the shutter original track to ensure operability.
 - iii) Remove all existing paint layers using chemical paint remover such as Peel-Away ST-1 or an approved equivalent. Excess paint can be removed by hand-scraping or using the gentlest methods possible. No mechanical removal of paint is allowed.
 - iv) Prime and paint all three fire shutters with a color that matches the sandstone façade above using zinc-rich primers and exterior grade metal paint. The closest present day color is Pratt & Lambert 426D “Expedition.”
 - v) Carefully reinstall fires shutters in original location.

Sidewalk – Reade Street:

- g) Existing Condition – Sidewalk: The twenty-five foot wide by fifteen foot deep sidewalk is a mixture of bluestone pavers, concrete curbs, diamond plate, waterproofing membrane, concrete sidewalk flags and cast-iron vault lights. The diamond plate and concrete curb cover a portion of the sidewalk vault.
 - i) The cast-iron sidewalk vault lights exist only at the westernmost bay step tread. The lights are hexagon shaped. A majority of the glass vault lights are cracked, missing or replaced with glass. The cast-iron frames are all intact in this area.
 - ii) The step at the eastern building entrance is a combination of several layers of waterproofing and diamond plate, painted over black many times.

- iii) For the entire length of the facade and approximately five feet from the face of the building (heading North), the sidewalk vault ramps up to the westernmost storefront entry bay. The ramp is constructed with a combination of (mostly) painted diamond plate and concrete. A non-decorative and non-historic railing is attached to the concrete on the west side of the sidewalk vault.
 - iv) At the Northern edge of the concrete and diamond plate sidewalk vault, four bluestone sidewalk pavers (of varying widths) run the entire length of the façade approximately four feet North (towards the street curb) of the building.
 - v) The underlying vault structure is a system of brick barrel vaults resting on foundation walls and cast-iron columns. The barrel vaults show major signs of settling, columns are rusted and mortar joints are not sound.
 - vi) The remaining sidewalk flags (adjacent to the street curb) are twentieth century concrete flags. The adjacent properties' sidewalks do not have any visible granite flags or cast-iron vault lights.
- h) Restoration Work – Sidewalk: To provide ADA access for the commercial and residential building entry points at the east and west storefront bays, the entire sidewalk will be altered. The sidewalk work includes the area from the face of the building to the street curb. The structural supports under the sidewalk vault will be removed and rebuilt from the cellar level up.
- i) A new waterproof concrete and steel deck vault will be installed below the new finished sidewalk vault area.
 - ii) A new cast-iron and glass vault light ramp will be installed and include the entire twenty-five feet of the façade.
 - iii) The existing painted diamond plate step at the east bay will be removed and lowered to the existing adjacent sidewalk grade level. The proposed sidewalk vault cover will ramp up to the level of the historic (to remain) west bay cast-iron and glass step.
 - iv) Two steps and a non-decorative flat metal painted railing will be integrated into the sidewalk vault ramp at the northwest corner of the sidewalk.
 - v) Six new full-length bluestone sidewalk pavers will be installed from the existing street curb to the new sidewalk vault over waterproofing and concrete.

Secondary facades at east and west yards:

- a) Existing Condition – Masonry: Exterior Brick Masonry- Both the east and west yard façades are constructed of running bond red brick from at least two time periods (original nineteenth century handmade brick and twenty-first century machine brick). The majority of the brick on these facades are original. Machine brick was used to infill original windows. The roof parapet terminates with fieldstone slabs that have been tarred and roofed over several times on the interior and top of the parapet.
- b) Restoration Work – Masonry: All restoration work will proceed as follows.
 - i) Clean all masonry surfaces with the gentlest method possible, such as low pressure water and detergents, using natural bristle brushes. Water pressure must be below 500 psi.
 - ii) Very few defective mortar joints have been found. Any defective mortar joints must be scraped out by hand, not with electric saws or tools. The mason shall use a soft mortar mix recipe (1 part Portland cement + 2 1/2 parts lime + 5-6 parts sand). Combine dry ingredients, and then mix thoroughly with potable water. The finished mortar surface shall be tooled so that the mortar is slightly recessed behind the brick.

Any excess mortar shall be cleaned off the face of the masonry, along with the film of cement or lime from the surface of the mortar.

- iii) Remove brick nineteenth century window opening infill at the existing third through fifth floors. Prepare window openings for new fire-rated metal windows.
- iv) Remove all conduits, mechanical equipment connections, wires, etc. from brick surfaces.
- a) Existing Condition – Windows: (8) Eight two-over-two fireproof metal windows exist on the east and west sides of the building facing the inner courts (four on each side). The remaining eight nineteenth century masonry window openings on the east and west facades are filled in with twentieth century brick
- b) Restoration Work – Windows: The existing metal two-over-two windows at the North side of the west court will remain from the second through fifth floors. Existing windows will be washed and remain in place.
 - i) Six new painted metal two-over-two fireproof windows will be installed on the east and west courts from the third through fifth floors.

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Roof Addition:

- a) Existing Condition – Roof: The existing roof is a hot roll roof that pitches to the center with a large skylight in the middle. The entire roof and skylights will be removed and the new sixth floor slab will be approximately four feet below the existing roof level.
- b) Proposed Condition – Roof addition: A two-story brick, concrete, and glass roof addition will be sunk into the existing building's roof. The proposed sixth floor and seventh floor west wall will be minimally visible looking east from West Broadway over an existing two story building. There are no other points of visibility of the proposed addition, required mechanical equipment, railings, flues and pipes.
 - i) The east and west walls of the roof addition will be brick.
 - ii) The north and south walls of the roof addition will be grey architectural concrete and glass and steel.
 - iii) The sixth floor will have two different set-backs on Chambers Street. The east portion of the sixth floor will be set back twenty-five feet from Chambers Street. The west portion of the sixth floor will be set back fifteen feet from Chambers Street.
 - iv) The sixth floor will be set back twenty-feet from Reade Street.
 - v) The seventh floor will be set back fifty feet from Chambers Street and twenty feet from Reade Street.
 - vi) The roof stair, elevator and elevator machine room will be located forty feet from Reade Street.

Paint Analysis:

- a) A paint analysis was conducted by Richbrook Conservation in January 2017. A copy of the paint analysis is attached.

Structural Stability:

- a) William J. O'Hanlon, PE: #067955, has

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Fig. 1- Chambers Street Façade, 2016



Fig. 2- Chambers Street façade, LPC Designation Photograph, c. 1990



Fig. 3- Chambers Street Historical Photo, City of New York, c. 1940



Fig. 4- Reade St cast-iron column- exposed



Fig. 5- Reade St cast-iron column- exposed



Fig. 6- Aerial photograph of Chambers Street and West Broadway, c. 1930



Fig. 7- Reade Street Façade, 2016



Fig. 8- Reade Street façade cast-iron storefront details and fire escape, 2016



Fig. 9- Reade Street façade cast-iron storefront details and fire escape, 2016



Fig. 10- Reade Street sidewalk, west corner, 2016



Fig. 11- Reade Street window and close-up of sandstone façade, 2016



Fig. 12- Photograph of Reade Street storefront, LPC Designation



Fig. 13- Photograph of Reade Street storefront and sidewalk, LPC Designation



Fig. 14- Reade Street Historical Photo, City of New York, c. 1940



Fig. 15- Blow-up of Reade Street Historical Photo of show window, c. 1940



Fig. 16- Sidewalk vault lights at the Reade Street ground floor entrance (west-most bay)



Fig. 17- Detail of Reade Street sidewalk (west-most bay)



Fig. 18- Reade Street storefront and show window, 2016\



Fig. 19- Existing roof skylight, 2016



Fig. 20 Existing roof and two-story adjacent property (east) roof addition, 2016



Fig. 21- View of windows at the “West court” between Chambers and Reade Streets, 2016



Fig. 22- Reade Street cornice and sandstone detail, 2016



Fig. 23- Reade Street cornice and sandstone detail, 2016



Fig. 24- Reade Street fire escape embankment, 2016



Fig. 25- Reade Street fire escape embankment, 2016



Fig. 26- Reade Street fire escape embankment, 2016



Fig. 27- Cracking sandstone sill at Reade Street fire escape window, 2016



Fig. 28-, 2016



Fig. 29- , 2016



Fig. 30- View of windows at the “West court” between Chambers and Reade Streets, 2016

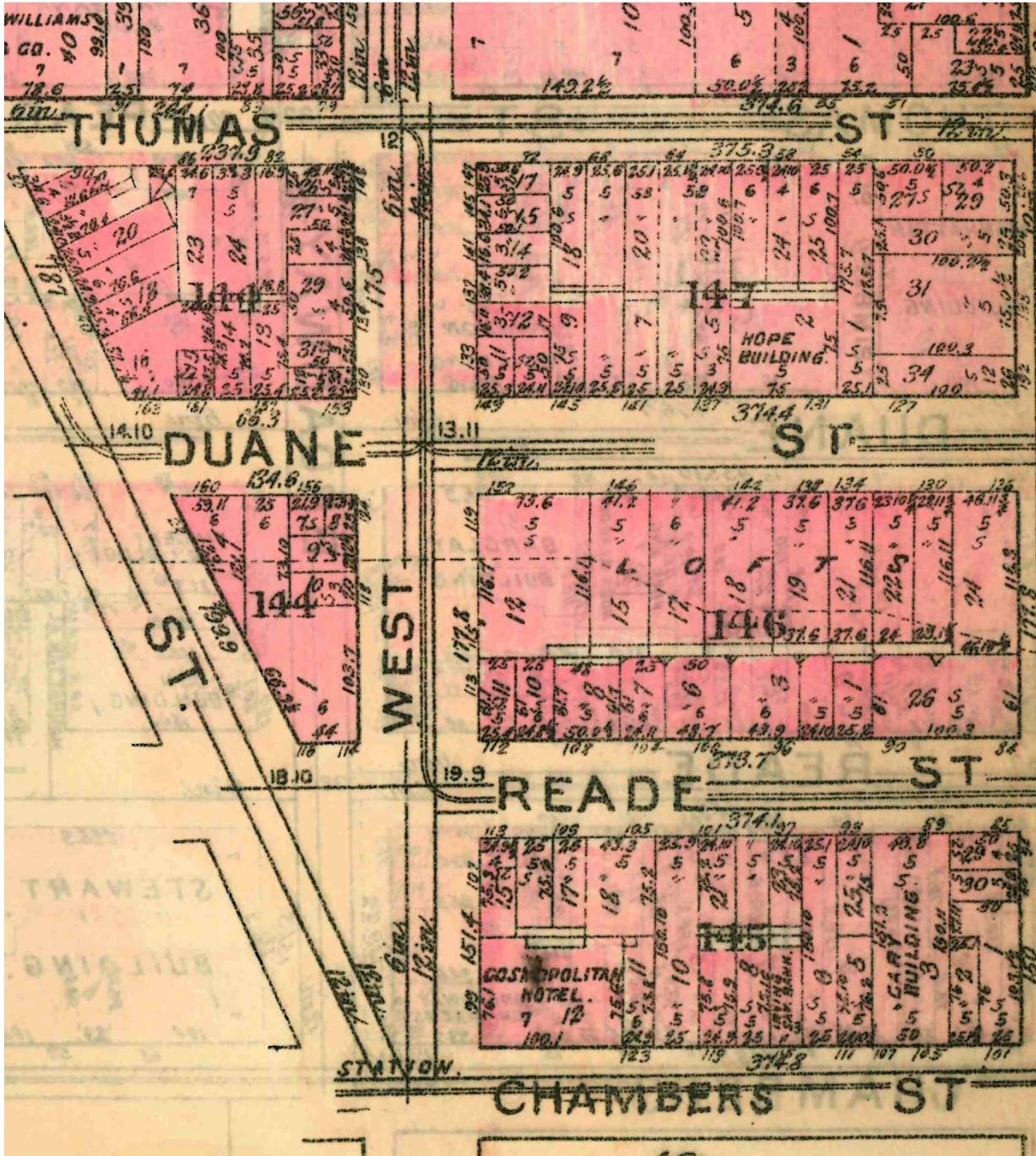


Fig. 29- Tax map, circa 1905