



Rendering of proposed façade improvements for the Sledge and Barkley Building

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804 Builders

TABLE OF CONTENTS

I.	Purpose	5
II.	Role of Sledge & Barkley Building in Downtown Revitalization Efforts	6
III.	Proposed Adaptive Reuse Concepts	9
IV.	Architectural Study	11
A	. Historical Photos	13
В	. Existing Conditions	18
C	. Preliminary Findings	52
D	. General Requirements for Feasible Improvements	59
E	. Detailed Recommendations and General Approach to Blocking Plans	76
V.	Consistency with Prior Plans, Studies and Zoning Regulations	86
VI.	Conclusion	91

APPENDICES

A.		Engineering Study	93
:	1.	Existing Conditions and Structural Problems	93
	2.	Engineering Photos	101
3	3.	Existing Conditions and Engineering Drawings	163
B.		Environmental (Asbestos) Report	174

I. PURPOSE

The purpose of this report is to present the findings and recommendations of a feasibility study undertaken for a proposed adaptive reuse plan of a historic building located at 307 N. Main Street in Lawrenceville, Virginia, as requested by the Brunswick County Industrial Development Authority (BCIDA), the building owner. The now-vacant c. 1896 building was formerly home to the family-owned Sledge & Barkley hardware store for over a century, which closed in 2000. Known historically as the "Sledge & Barkley Building," it is the oldest building retaining its original name and site within the Town of Lawrenceville. It is located directly across from the Brunswick County Courthouse and County offices and is a contributing building in the Lawrenceville Historic District that was listed on the National Register of Historic Places in 2000. It is also located in the local Lawrenceville Historic Overlay District.

A key strategic property with the potential for serving as a catalyst in downtown revitalization efforts, the Sledge & Barkley Building is being actively marketed by the BCIDA to help spur investment in downtown revitalization. To this end, the BCIDA requested the following analysis:

- Determine if there is sufficient space on lower floor for agricultural refinement center;
- Develop potential 2nd floor flexible office space;
- Develop blocking plans for 2nd and 3rd floor apartments; and,
- Determine if the proposed reuse plan aligns with adopted plans and zoning regulations.

An adaptive reuse plan has been proposed for the building, based on community input and focused discussions that have ensued for the past 6-12 months between the BCIDA and the Southside Planning District Commission. The adaptive reuse plan includes a proposed blocking plan for the near-term and longer-term opportunities for the building, as articulated to us by the BCIDA. A structural engineering feasibility analysis has also been conducted to determine the viability of the uses proposed for the building, based on its architectural and structural integrity at present and feasible remediation to accommodate the proposed uses. A consistency review of the proposed adaptive reuse plan in relation to all documents provided by the BCIDA pertaining to prior plans, market studies, and current zoning ordinances relevant to this building was conducted. Findings and recommendations are provided, which can be used in future marketing efforts of the building; they can also be helpful in the pursuit of economic development and revitalization incentive funding resources, such as grants.

II. ROLE OF SLEDGE & BARKLEY BUILDING IN DOWNTOWN REVITALIZATION EFFORTS

The Sledge & Barkley Building has been an integral part of Downtown Lawrenceville since the establishment of the Sledge & Barkley Company in 1896. It is an iconic building, both architecturally and historically, with a commanding presence on Main Street.

The BCIDA has acquired multiple strategic properties in and around Lawrenceville and Brunswick County in an effort to market them for appropriate adaptive reuse and potential sale, depending on the circumstances as best suited to the site. As one of these properties, the Sledge & Barkley Building's central location in Downtown Lawrenceville is key to the Town's and BCIDA's efforts to stimulate downtown revitalization to help realize the aspirational goals in the visioning and planning efforts that have been undertaken for downtown revitalization. Adaptive reuse of the Sledge & Barkley Building could take advantage of recently adopted enabling zoning tools for mixed use development, as well as economic incentive grant programs and historic rehabilitation tax credit incentive programs. The Town of Lawrenceville is an affiliate member of Virginia's Main Street Program and Main Street USA. The significant portion of Downtown Lawrenceville is included in the boundaries of the Lawrenceville Historic District, listed on both the Virginia Landmarks Register and the National Register of Historic Places; an update of the district survey is currently planned. In tandem, these various tools have the objective of downtown revitalization.

Many efforts have been undertaken by the Town and the BCIDA to stimulate activity of a variety of sorts in Downtown. The Brunswick County Courthouse and offices are located directly across from the building, as is the Town Municipal Office and the Brunswick County Museum. The BCIDA office is located a short walk from the building around the corner at 116 W. Hicks Street. There is active recruitment of investors and appropriate businesses for the BCIDA's fifteen (15) strategic economic development properties. Community outdoor events sponsored by the BCIDA, the Town and community organizations take place seasonally in the public parking area situated behind the building, attracting both residents and visitors. The campus of the former St. Paul's College, an Historically-Black College/University (HBCU), is situated just to the west of and adjacent to Downtown. With its

significant acreage and historic college buildings, the nexus and potential synergy between any future planned adaptive reuse or redevelopment of the St. Paul's College campus and the Sledge & Barkley Building cannot be understated.

From a regional accessibility and marketing perspective, Lawrenceville is in close proximity to the Meherrin River Scenic Waterway, which lies south of the Town across U.S. Route 58 and draws visitors interested in recreational tourism. Fort Christanna Historic Park is an important historic resource in the environs. Downtown Lawrenceville sits just 30 miles north of Lake Gaston, a premier lake resort destination within the Southside Virginia region's Lake Country, and is thus situated geographically to benefit from the lake's seasonal travel tourism with visitors to Downtown. According to the BCIDA staff, Lawrenceville is accessible within a day's drive to 70% of the U.S. population.

The potential for investment in and appropriate planning for reuse of the building has drawn together various interested parties, coordinated by the BCIDA. These have included the Southside Planning District Commission, the Tobacco Region Revitalization Commission, and representatives from Virginia Tech. Virginia Tech's involvement has been in the interest of advancing training and job creation in the agribusiness sector.

Early interest in the building was expressed for a mixed-use development concept, with ground-floor commercial use and office and residential uses on the upper floors. There is also the potential for seasonal outdoor retail space adjacent to the building on the same parcel.

Any adaptive reuse plan for the building and marketing efforts should consider the multi-faceted natural, recreational, historical, municipal, commercial and educational assets that comprise the Lawrenceville landscape, both physically and economically, and seek to maximize the potential synergies present. Multiple regional and site-specific economic market analyses have been undertaken in the past twenty years. Considered together, they provide valuable insight into the traditional economies of the Southside region, Brunswick County and the Town of Lawrenceville and how economic cycles have necessitated an evolution and repositioning of industry and economic strategies.

7

These necessary strategies are being implemented to enable the region, the county and the town to remain relevant and poised to capture economic investment in a changed economy in a way that maintains a connection to its cultural past.

The Sledge & Barkley Building is well-positioned to play a significant role in these efforts in a catalytic manner.

III. PROPOSED ADAPTIVE REUSE CONCEPTS

When the BCIDA acquired the Sledge & Barkley Building in 2019, a public outreach effort was undertaken to solicit community priorities for its reuse. The BCIDA sought ideas from the public at an October 2019 community meeting and subsequently through social media. A Facebook post in April 2020 asked the Brunswick County community: "If you owned the Sledge and Barkley Building in Lawrenceville, what type of business would you provide to the community?" The responses from both the meeting and the social media engagement included the following:

- Multi-use/retail/service business
- Restaurant with outdoor seating/coffee shop or café/ice cream shop/bakery/food court
- Apartments in upper floors
- Business incubator
- Microbrewery
- Small market facility
- Indoor/outdoor farmer's market
- Youth-oriented activities including: arcade, youth center, laser tag, indoor trampoline park
- Rentable space for private parties/events
- Entertainment venue including: bowling alley, axe throwing, pool hall
- Community center including: library, computer center, senior activities, cooperative extension program, space for community events
- WiFi space/internet cafe
- Food bank/diaper bank/etc.
- Retail space/mini shopping outlet/ clothing store
- Shared office space/ trade center

Also in 2020, the Virginia Tech Cooperative Extension Service and Southside Planning District Commission also engaged with the Town of Lawrenceville and BCIDA in a focused set of discussions to consider the feasibility of a small-batch frozen food processing center in the former Sledge & Barkley Building and Warehouse that would utilize local and regional produce to position products for largescale distribution. This idea was considered by a team of local and regional subject matter experts and deemed an appropriate use of the building, pending confirmation that the building could support the use. Commonwealth Preservation Group and Roland McPherson, P.E. were tasked with performing an in-depth analysis in coordination with several internal and external stakeholders through weekly meetings, site analysis, and a conceptual design exercise. Ultimately, the team concluded that the building footprint was of insufficient size to support the small-batch frozen food processing center at a scale desired by the team, and so this concept was abandoned.

Another concept which was strongly supported by community interest and prior studies is a mixeduse building including 1st floor commercial use(s) (restaurant and/or retail) with upper floor office and residential uses. There is also the potential for seasonal outdoor sales of locally grown or locallysourced goods, such as produce, flowers, garden supplies, prepared foodstuffs, and items made by local artisans. This report was prepared assuming the building will be repurposed for this range of uses. The uses listed appear to be an appropriate reuse alternative given the Sledge and Barkley Building's existing conditions, the structural engineering analysis, requirements for feasible improvements, as well as consistency with local building and zoning codes.

IV. PRELIMINARY ARCHITECTURAL REPORT

There are two buildings located on the 307 North Main Street site. For consistency, the main Sledge and Barkley Building that fronts North Main Street will be referred to as "S&B Building" and the associated warehouse behind it will be referred to as "S&B Warehouse." This Preliminary Architectural Report is organized into five sections.

Section A provides **historical photographs** of the S&B Building shown in chronological order. At the time of this report, no historic photographs of the S&B Warehouse were found.

Section B presents an **architectural analysis and existing conditions** description of the buildings including:

- Overview
- Site
- Plan
- S&B Building
 - Elevations
 - East Elevation (Façade facing North Main Street)
 - North and South Elevations
 - West Elevation (Rear facing the S&B Warehouse)
 - Roof
 - Interior Circulation
 - Interior Walls, Columns, and Trim
 - Floors and Ceilings
 - Systems (Electric, Plumbing, HVAC)
- Hyphen (attaching the S&B Building to the S&B Warehouse)
- S&B Warehouse
 - Building Elevations
 - Roof
 - Interior Materials

Section C presents preliminary findings based on the owner's goals for the building, the structural

analysis from the PER, and the historic preservation tax credit eligibility.

Section D presents general requirements for feasible improvements, including items that need to be addressed immediately to halt further deterioration of the building, an outline of future considerations regarding proper building code compliance and structural stabilization, and detailed steps that should be undertaken to ensure a successful historic rehabilitation tax credit project.

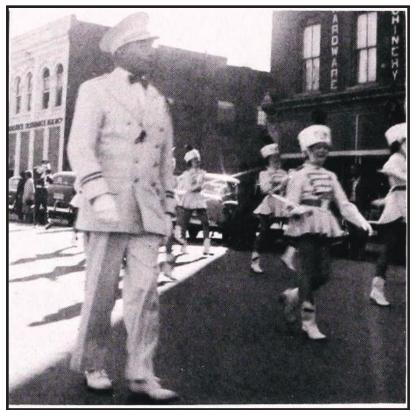
Section E presents proposed architectural blocking plans. These plans take into consideration all data collected and synthesize it into a preliminary plan for rehabilitation.

Throughout these sections, photographs are provided in the text to clarify orientation and provide visual comprehension.

IV.A. HISTORICAL PHOTOGRAPHS

"The Home of the Sledge & Barkley Co., Inc." Lawrence ille uished 1897 with 2000 sq.ft. of floor snar

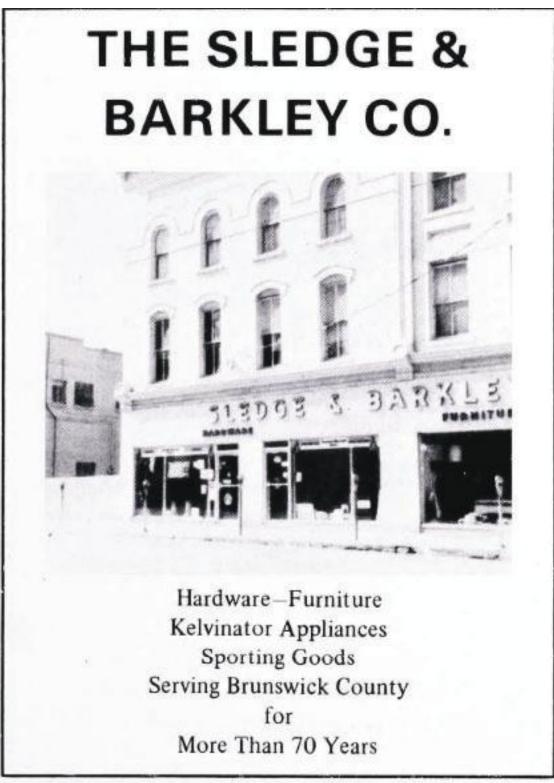
Postcard dated 1908



1956 Brunswick High School Yearbook -Marching band in front of Sledge and Barkley (top right)



1958 Brunswick High School Yearbook - Sponsor's advertisement page for Sledge and Barkley



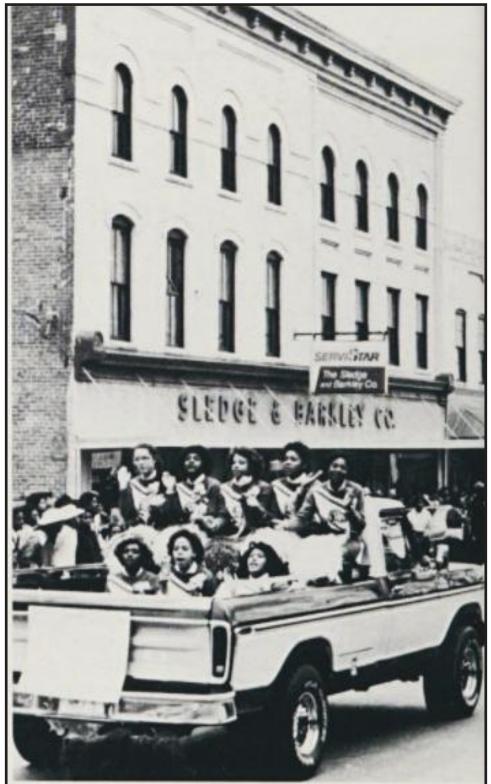
1970 Brunswick High School Yearbook - Sponsor's advertisement page for Sledge and Barkley



1979 photograph of Sledge and Barkley for the Historic District nomination



1980 Brunswick High School Yearbook - Sledge and Barkley in the background of parade float



1982 Brunswick High School Yearbook -Sledge and Barkley in the background of parade float

IV. B. ARCHITECTURAL ANALYSIS AND EXISTING CONDITIONS

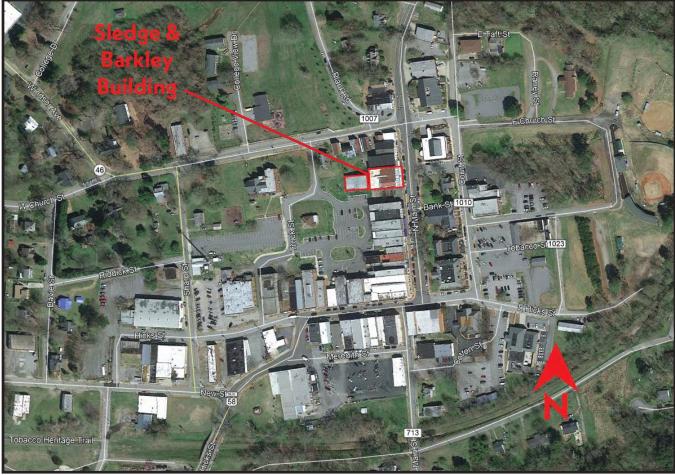


Fig. 1 - Google Earth map of Lawrenceville, Virginia with Sledge and Barkley Building outlined in red

Introduction

The Sledge and Barkley Building is located at 307 North Main Street in Lawrenceville, Virginia (Fig. 1). The approach to the analysis and existing conditions documentation looks broadly at both the S&B Building and S&B Warehouse in the context of their site located on Main Street, then at the buildings in relation to one another, and finally at their general interior plans and finishes. This approach provides readers with an initial understanding of the buildings before providing more detailed descriptions of their materials and condition. Throughout the descriptions, cardinal and ordinal directions are used. The building's façade (or front elevation) faces east and the rear elevation faces west. Side elevations face north and south. The building is divided into two sections: when looking at the façade (front) of the building, the northern half is on the right, and the southern half is on the left, as illustrated in the aerial and photo on the following page (Fig. 2). A north arrow is provided for reference.



Fig. 2 - Aerial (top) and photograph (bottom) showing geographic descriptors

General Description

The S&B Building is a three-story, eight-bay brick building with a basement. The S&B Warehouse is a two-story brick storage building that is connected to the main building by an elevated enclosed walkway above an at-grade alleyway. The S&B Building was originally comprised of the four southern bays and was two stories with a basement, constructed c. 1890. The 3rd story was added c. 1900 and the northern four-bays were constructed around the same time. The S&B Warehouse was constructed c. 1910 and the hyphen was added after 1938 according, to the last Sanborn map available (Fig. 3). While the addition of the 3rd story is seamless, the four-bay north addition to the right is noticeable by a decorative pier separating it from the original building, as well as subtle differences in the arrangement and façade materials.

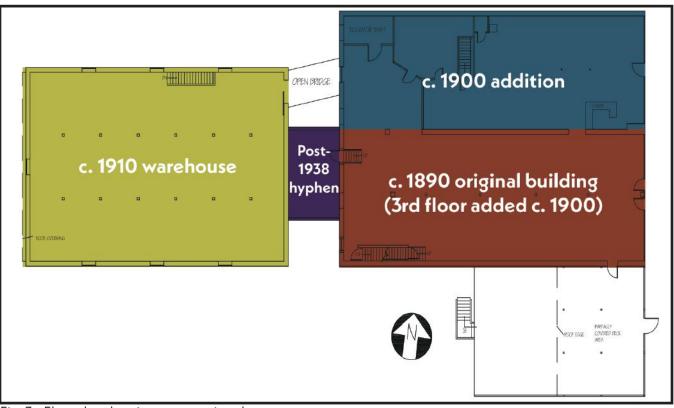


Fig. 3 - Floorplan showing construction dates Site

The S&B Building abuts the neighboring commercial building to the north (Fig. 4). To the south, there is a partially-covered wood deck that is affixed to the S&B Building and extends half way back on the south elevation. Behind the deck is a sloped dirt and gravel yard (Fig. 5). The building and its

assemblage are situated on a lot that is double the width and depth of most parcels along Main Street.

In keeping with the neighboring commercial buildings, the S&B Building has a zero-lot line setback from the sidewalk along Main Street. There is limited streetscaping: two trees are located along the sidewalk at the north



Fig. 4 - Neighboring buildings to the north



and south corners of the building and a brick planter box is located on the sidewalk in front of the wood deck. The sidewalk is brick-paved with concrete borders running along either side, in keeping with the town streetscape standard. To the south of the wood deck is a driveway leading from Main Street to a city parking lot located next to the S&B Warehouse and to the alleyway that runs under

Fig. 5 - Deck and driveway to the south

the elevated enclosed walkway between the two buildings. This alley connects the city parking lot to a gravel drive behind the commercial buildings north of the S&B Building ending at Church Street (Fig. 6). Surrounding the S&B Warehouse is a grass yard that abuts adjacent lots. Most of the site is overgrown and the driveway and alley need maintenance and regrading. There is an above-ground storage tank situated on the north side of the S&B Warehouse that requires removal (Fig. 7).

Plan

The S&B Building has one central brick structural wall that extends from the façade to the rear of the building on the basement, 1st, and 2nd floors, splitting the space into north and south sides. This wall has openings to connect the two sides: on the basement floor through 2nd floor, the wall ends threequarters of the way back from the front of the building; the 1st floor has a small passageway near the façade; the 2nd floor has a wide passageway near the back of the building. There are structural columns running from the façade to the rear in the center of the southern room of the basement, 1st and 2nd floors, while the north room is open. A large elevator shaft extends through all floors at the northwest corner of the building. Near the southwest corner of the 1st floor is a partially-enclosed staircase leading to the 2nd floor and basement. The stair from the 2nd to 3rd floor is located at the back of the building in the middle bay. The 3rd floor is open with the exception of structural columns



Fig. 6 - Alleyway from city parking lot (at bottom) to Church Street (at top)

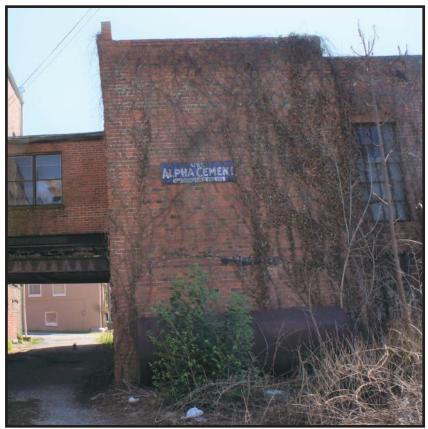


Fig. 7 - Above ground storage tank

running front-to-back, splitting the room into four bays. Other divisions of these spaces are made with temporary walls, most of which do not extend to the ceiling, except for a bathroom on the 1st floor. Adjacent to this bathroom is a stair leading to the basement surrounded by a framed wall. See the following photographs for general views of each floor for reference (Figs. 8-12). Existing conditions floor plans and engineering plans are located in Appendix A of this document



Fig. 8 - 1st floor south side (structural wall at right)



Fig. 9 - 1st floor north side (structural wall at left)



Fig. 10 - 2nd floor south side (structural wall at right)



Fig. 11 - 2nd floor north side (structural wall at left)



Fig. 12 - 3rd floor

Detailed Description - S&B Building

East Elevation (Façade)

The S&B Building is a typical turn-of-the-century Main Street Commercial style building with a 1st floor seven-bay storefront below an eight-bay upper facade comprised of painted brick (Fig.

13). Historically, it had three recessed entries; the storefront and entries were replaced between 1956 and 1958 and are now in the same plane as the rest of the façade. The first bay at the left has a pair of glass storefront windows with a thin metal frame and an approximately 6-inch concrete sill at the bottom. To the right of this are two metal-framed storefront doors with a transom above each, separated by a corrugated metal-covered pier. To the right of the doors is a similar pair of aluminum frame storefront windows. The north three bays at the right consist of storefront glass windows flanking a metal storefront door with transom. These are separated from the south (left) bays by a corrugated metal covered brick pier. The storefront windows and doors are in good condition with minor repairs and cleaning needed.

Originally, there was a transom above the storefront; this has been clad in corrugated metal. Large raised block-letters form a sign installed above the storefront spell out "SLEDGE & BARKLEY CO." on the



Fig. 13 - East elevation (façade)





Fig. 14 - Metal awning attached to historic cornice



Fig. 15 - 1980s photo showing façade without awning

corrugated metal. Photographs document that the sign dates to the 1950s. A modern flat-roof metal awning was installed between the metalcovered transom and storefront, producing a notable separation between the retail storefront and the upper portion of the building (Fig. 14). This visual separation creates a disjointed appearance which does not reflect the historic era. The awning has been attached to the building at the storefront cornice (and thus obscures a historic feature); it is supported with multiple ridged poles and is in good condition. Photo documentation establishes that the awning was installed after 1980, and therefore is non-historic and non-character defining (Fig. 15). The historic storefront cornice is simple with corbels at each corner and near the middle. The upper floor windows are two-over-two double-hung wood sash with stone sills. A deep cornice with small brackets spaced evenly across the building caps the façade.

The original southern half of the building is slightly wider than the northern half and has a seven-course common-bond brick composition, whereas the northern half has a running-bond composition (Fig. 16). The southern half of the upper façade is comprised of four windows on



Fig. 16 - Detail of façade showing common bond on south side (at left) and running bond on north side (at right) (Detail location in relation to rest of the façade shown at bottom left)

both the 2nd and 3rd floors which is in keeping with the north half. However, the 2nd floor windows on the south side are tall and narrow with arched-brick lintels that protrude slightly from the façade, whereas the north side windows are wider with narrower spacing between each and no decorative arch lintel. The 3rd floor windows on both halves are shorter than the 2nd floor, but are themselves arched with a brick stringcourse running along the façade in-line with the window sash. Above the 3rd floor windows is another stringcourse that is rounded over each window to match the arch. Between this stringcourse and the cornice are four recessed masonry panels (two on the south half and two on the north half). The northern and southern sides are separated on the upper floors by a pier which is duplicated on the north corner, framing the addition. Both piers have decorative insets in the brick running up and down the pier and a brick cap between the inset and cornice of the façade. The northern half also has four recessed masonry panels between the 2nd and 3rd floors.

While the brick of the façade appears to be in good condition, the rest of the façade materials are in fair to poor condition and the brick does warrant closer inspection. Much of the paint has faded and stained, and there is noticeable water damage in areas. The wood window frames show damage and deterioration including chipped paint and resulting wood rot that has advanced to the point of



Fig. 17 - Detail of cornice and windows showing the rusting cornice, paint deterioration, and windows with frame damage and missing panes

disintegration. Some of the sashes are sagging inward. It is noted that only a few windowpanes are entirely missing; those that are have been appropriately boarded up. Rusting at the cornice is evident, apparently from metal capping on the top (Fig. 17).

North and South Elevations

The north elevation is only slightly taller than the adjacent building, and therefore only a small portion of the wall is visible. The stepped parapet which conceals the sloping roof of the S&B Building is visible and appears to be in poor condition. A significant amount of mortar deterioration and cracking in the brick and mortar is evident. A close inspection of the wall is necessary to fully assess the damage and required repairs.

The south elevation is unpainted brick and has a modern glass and metal frame door that provides a direct side entrance from the elevated wooden deck into the building (Fig. 18). The topography slopes



downward to the rear west, which exposes the basement at-grade towards the rear of the building. A stepped parapet conceals views of the sloping shed roof. The infilled opening of a door at the 2nd floor near the middle of this elevation suggests that there might have been a connection point between the S&B Building and a nowdemolished adjacent structure. Sanborn maps indicate an adjacent building was present at least until 1938, but

Fig. 18 - South elevation with deck

as documented in a historic photograph, it had been demolished by 1958 (Fig. 19). The weathering/ coloring of the brick still outlines the footprint of this non-extant building. There are also eight anchor plates on this elevation: four near the 2nd floor and four near the 3rd floor. Two of these are at the corner where the brick veneer is. It is uncertain why these anchor plates are there and when they were installed, but it may have been around the time when the adjacent building was demolished as all the anchor plates are located within that building's footprint and also along the 2nd and 3rd floors.

Large areas of mortar disintegration are visible; there is also evidence of brick beginning to sag or disintegrate (Fig. 20). The sagging and disintegration are worse on either side of the infilled doorway, but it is unknown what has caused this level of deterioration at these two specific areas. Other areas of notable deterioration are along the

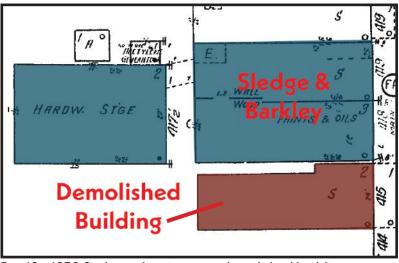


Fig. 19 - 1938 Sanborn showing now-demolished building



Fig. 20 - Detail of missing mortar and brick damage

roofline and also along the southwest corner. These areas have seen the most significant water infiltration which most likely has led to the deterioration. There have been numerous repointing campaigns, especially near the roofline. The composition of the replacement mortar is undocumented. Extensive areas of brick and mortar cracking are evident. At the corner of the east façade and south elevation, there is a visible line where the south elevation brick

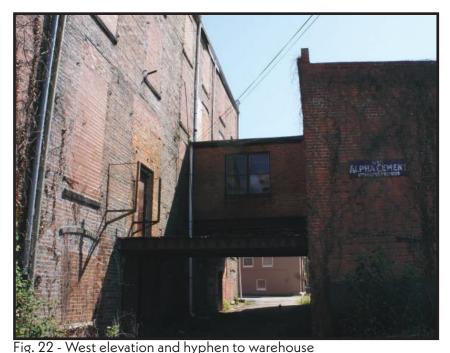
meets the façades' brick veneer. The line has had mortar infill in some areas where the veneer appears to be pulling away from the building. Other areas along have missing mortar, large chips out of the brick, and one location where missing brick has been replaced with what appears to be a putty mixture. The eight anchor plates along the 2nd and 3rd floor line are only slightly rusting.

There is a partially treated wood-plank deck where the adjacent structure was that has concrete block footers and a sloped roof partially covering the deck towards Main Street (Figs. 21). The covering is

supported by wood posts and has a corrugated metal and fiberglass roof. To enclose the deck, there is a welded wire fence attached to the wood posts. The deck is in poor condition. Most of the wood is rotted or weathered to the point of significant decay. The stained sections of decking have worn away to expose untreated wood in



Fig. 21 - South deck showing weathering



heavily trafficked areas. Some of the roofing material is missing and some of the wood posts are bowing. The welded wire fencing is rusted and sagging.

West Elevation

The west elevation is comprised of 5-course common bond masonry in a six-bay wide configuration with three floors and an above

grade basement (Fig. 22). The basement has two single doors (each one bay in from the corners) along with three windows that are currently bricked-in. Both doors are metal-clad pedestrian doors with set in wood frames, and the door to the north has some metal flashing attached to the frame. The 1st floor windows were originally taller than the rest of the windows on the elevation, but they were bricked-in; one has a smaller wood replacement window in a six-over-six, double-hung configuration supplemented with steel security bars (Fig. 23). Two of the windows (in the second and third bay from the southwest corner) were covered with the addition of the modern hyphen after 1938. The second

window from the northwest corner was widened at one point to support a loading door to the warehouse's 2nd floor. A wood plank bridge supported by steel I-beams connects the two buildings. The loading door was replaced with a wood-framed steel pedestrian door set in the middle of the of the previous door location with



Fig. 23 - Detail of window infill and replacement

a roll-down security door. Both the 2nd and 3rd floors retain six infilled windows. The windows and doors on each floor are aligned with the one above and below, creating a symmetrical elevation. The infilled windows' stone sills are still visible and few retain their decorative brick-arch lintel, along with hinges that held now-missing iron-clad shutters. On the interior, some windows and frames are still intact and retain two-over-two double-hung wood-sash. The roof slopes down toward this elevation and has a modern metal gutter attached to the top of the brick with PVC downspouts running down the building in four locations: two at either corner and two that run down to the top of the hyphen. Finally, there are several wires, pipes, and other abandoned utility components extant; most are rusting or deteriorated.

The western elevation is in generally poor condition. The brick is in a similar state of deterioration as the south elevation and there have been poor repointing campaigns with large areas of modern brick replacing the historic brick. Mortar repointing has been performed with a mixture of different mortars, noticeably concrete near the basement and 1st level (Fig. 24). Despite these repointing efforts, there is still a significant amount of brick and mortar erosion, especially near the southern downspout, around the hyphen, and along the basement level. All windows that have been infilled with brick were not toothed in (meaning there is a straight line still present from the original opening), making it feasible and desirable to reinstate missing windows (Fig. 25). The three steel pedestrian doors that are extant

(one on the 1st floor and two on the bottom) have significant rust and their wood frames have begun to split. The metal flashing attached to the wood frame on one basement door has started to separate from the frame. The modern metal gutter is warping and detached from the building. The PVC downspouts are yellowing and



Fig. 24 - Detail of numerous repointing campagins



Fig. 25 - Detail of window infill and gutter damage

appear to be improperly connected to the gutter. Staining from rain and biological growth is present on the brick behind and around the downspouts. The downspouts do not have appropriate extensions and therefore deposit water directly at the base of the building. Two of the downspouts direct water onto the hyphen roof where it pools and

stands. Vines are currently growing up the building and plantings are sprouting from multiple points on the walls and gutters.

Roof

The roof of the S&B Building was not accessible for close inspection at the time of this report. However, recent aerial views, inspection of the roof from the 3rd floor, as well as existing conditions of other materials and related building components inform the following assessment.

The roof is a low-sloped, shed-style, standing-seam metal roof supported by wood framing. This framing is exposed and visible within the 3rd floor. From aerial photos, it is apparent that multiple campaigns of repair and patches, including at least paint or sealant, have been performed to address deterioration (Fig. 26). Despite these efforts, the roof has fallen into disrepair. Large sections of metal are heavily rusted and have developed cracks. During Hurricane Matthew, the roof of the S&B Building (and S&B Warehouse) was damaged from wind and rain. Coupled with the normal degradation of the roof, this has led to significant damage both to its structure and, by extension, to the building as a whole. Water infiltration is present on every floor; this has degraded numerous materials and areas within the building. Daylight can be seen from below the roof where the rafters sit on the brick, which may be a construction design for ventilation (Fig. 27). However, it is unlikely that the ventilation would



Fig. 26 - Aerial of roof

have originally left this much exposure to the elements, indicating that some sort of covering or soffit may be missing. Also, given the magnitude of water infiltration, it is suspected that the modern gutter system, which is in poor condition, was also installed improperly (perhaps onto the brick instead of the roof, rafters, or missing wood trim at the rafter ends), thus creating a gap which allows water

infiltration. This assumption should be confirmed with a detailed inspection. There is biological growth prevalent on wood beams and joists at the roof structure and 3rd floor ceiling, indicating water infiltration. While this does not appear to be significant, further inspection is necessary to fully assess the damage and



Fig. 27 - 3rd floor interior detail of roof beams/joists with sunlight showing through at the roof/wall junction at the cetnral rear of building



Fig. 28 -1st floor north stair to basement

plan for remediation and repairs. The southwest corner of the building has the most significant amount of water infiltration; the roof and gutters appear to be the main entry point for water.

Interior Circulation

Beginning in the basement, there are two entries from the exterior to the interior located on the west elevation and described in a previous section.

Two stairs provide access from the basement to the 1st floor. The north-most stair is located near the center of the north wall (Fig. 28). This is a modern untreated wood plank stair with open risers that has been cut through the original flooring with a railing on one side attached to an exposed frame wall on the 1st floor and is not attached further below at basement level. During an initial inspection, an old

boarded-up opening in the middle of the north room floor was noted that cut through the main central beam of the building adjacent to the modern stair, indicating that some sort of circulation access was at one point located there between the basement and 1st floor (Fig. 29). The modern stair is in poor condition. The railing is unsecure and unsafe, and some treads are loose or brittle.



Fig. 29 - Basement infilled stairwell in basement



Fig. 30 - 1st floor southeast corner staircase

In the southwest corner of the building is another staircase (Fig. 30). This untreated wood plank stair begins in the basement with a landing on the 1st floor. At the first floor there are six painted steps, then the stair is enclosed to the 2nd floor. The enclosed run has a wood 9-panel door that has 9-lites in the upper half. The balustrade, which is exposed within the enclosure, continues to the 2nd floor where it wraps around the stair opening (Fig. 31). This section of the stair has wood plank risers and treads with metal stair nosing capping each step. These stairs are in fair to very poor condition; the paint has worn in places, and the untreated portions need sanding and refinishing. The balustrade and railing at the 2nd floor are in good condition with some deteriorated paint. The landing at the 2nd floor



Fig. 31 - 2nd floor southwest corner staircase



Fig. 32 - 1st floor stair leading to the hyphen room



Fig. 33 - 2nd floor stair leading to the 3rd floor

and subsequent first step down are in very poor condition due to water infiltration. It is unsafe to walk on a majority of the landing where the wood has become soft from rot. The riser supporting the top tread? has been replaced with a fresh plank of wood that is also starting to deteriorate. Significant repair and restoration are needed in this area, and are related to deterioration noted in the ceiling above (discussed separately in the "Floors and Ceilings" section.)

There is a small modern stair near the center of the west wall on the 1st floor that leads up to the hyphen addition at the rear of the building (Fig. 32). It is an 8-step stair that is comprised of wood risers and treads with a solid wood turned balustrade. Vinyl rubber stair treads cover the wood treads between the railings. The stairs are in fair condition with little damage beyond small scratches and minor chips in the wood.

The stairs to the 3rd floor are located at the center of the west wall on the 2nd floor (Fig. 33). They are also untreated wood plank stairs that are exposed underneath and open on both sides. The stairs go up two steps parallel



with the wall until a landing creates a 90-degree turn and the rest of the stairs face east towards the front of the building. There is a simple 2x4 untreated wood railing on the lefthand side of the stairs beginning at the landing. These stairs are in fair to poor condition. Water infiltration along the west wall has compromised the integrity of the wood near the landing and first two steps, but the rest of the steps facing east are sturdy and stable albeit unfinished.

Fig. 34 - 1st floor elevator shaft access (rope pulley system still intact

Cutting through all floors at the northwest corner of the building (near the rear wall) is a large freight elevator shaft (Figs. 34-35). This elevator is a pulley system original to this section of the building (c. 1900 northern addition). The pulley system is still intact with ropes running through the floors near

the shaft for manual operation. A woodplank open elevator car has two pulleys on either side of the elevator at the third floor and connect to the car by metal cable. The rear pulleys are connected to one another on a gear shaft that is connected to a large governor wheel. All pulleys, gears, and wheels are still extant and in good condition. The elevator car appears to be in poor condition, but was not inspected thoroughly on initial site visits for safety concerns.



Fig. 35 - 3rd floor elevator mechanical equipment



Fig. 36 - 1st floor half-finished walls on northern side

Interior Walls, Columns, and Trim

As mentioned in the "Plan" section, the 1st floor is divided into northern and southern sections by a structural wall covered in painted plaster. As such, they will be referred to as "northern side" or "southern side" in the following description. An arched opening is cut into this wall to allow access between the two areas, and the wall terminates roughly three-fourths of the way into the building. The interior sides of the exterior walls are all covered in a thick layer of painted plaster. The painted plaster is peeling at varying rates, but there is little cracking and chipping overall on the 1st floor. In general, modern partition walls on the 1st floor are clad in faux wood paneling on one side and exposed framing on the other or they are made of plywood (Fig. 36). There is a partial wall enclosure surrounding the stairs that extend from the basement to the 2nd floor (described previously). The 2nd floor walls are in poor condition, with missing plaster in some areas and failure is evident near the bottom of the walls. Deterioration is the worst on the rear west wall and especially in the southwest corner where the majority of water infiltration in the building is present. The 3rd floor walls are exposed brick with some mortar deterioration and water infiltration (Fig. 37). There are two temporary plywood rooms along the west wall.



Fig. 37 - Exposed brick walls of 3rd floor north wall

Column designs vary from floor to floor. The 1st floor columns are decorative cast-iron circular columns with a cast-iron capital (presently, the capitals are concealed above a dropped ceiling). The 1st floor columns are in fair to poor condition, with some rusting from water infiltration. Because of the dropped ceiling, a full assessment of the capitals could not be performed at

this time (Fig. 38). Two square wood post are evident on the 1st floor near the rear; these are also in fair condition. It is uncertain if they replaced missing cast iron columns. One is in-line with the rest of the columns while the other is in-line with the middle brick wall. They are not spaced apart equally like the rest of the columns, indicating a later addition for stability. A more definitive conclusion could be found once the drop-ceiling is removed and the posts' connection with the ceiling can be evaluated. The 2nd floor columns are a mixture of painted square, rectangular, and circular columns. They are

square and rectangular wood with thin cap on the corners. There is one cast-iron Corinthian column in line with the wood columns. Because it rests on a rectangular base-plate and cuts into the ceiling beam, it is likely that this is a replacement or additional beam inserted at a later date (Fig. 39). Some of the columns are directly attached to wood joists, while



Fig. 38 - 1st floor columns on northern side



Fig. 39 - 2nd floor mixture of column sizes and shapes

others have a functional rectangular capital between the column and the joist. These 2nd floor columns all appear to be in fair condition. The 3rd floor columns are a mixture of square and rectangular unpainted solid-wood columns supporting the exposed joist ceiling. The central rectangular columns have a rectangular capital similar to those present on the 2nd floor between the column and joists. The columns are in fair condition with some natural splitting evident. The structural report in the PER discusses the columns' conditions and further detail can be found there.

The 1st floor has little trim except for limited areas with baseboard. The 2nd and 3rd floor also have limited woodwork which includes window frames but no baseboards or crown molding. Window trim is missing or in poor condition resulting from the fact that almost all windows suffer from wood deterioration or water infiltration.



Fig. 40 - Basement concrete floor with pavers underneath



Fig. 41 -Basement ceiling joists showing termite damage

Floors and Ceilings

The basement has an unfinished concrete floor and an exposed wood frame ceiling. The floor has worn away in some places to reveal a brick-paved floor on the south side of the building (Fig. 40). It is unknown if this floor runs throughout the basement under the concrete. The northfront half of the building is two

steps lower than the rest of the basement. Large beams cross diagonally under the floor joists near the rear of the building for what appears to be addition support in this back area. In the structural report, it is noted that heavy insect infestation (termites) is present and damage is extensive in the basement (Fig. 41). There is also water infiltration and damage to the floor joists of the ceiling.

The flooring on the 1st floor is vinyl asbestos tile (VAT). It is in poor condition with many areas of

chipped or missing tile, staining and general wear. In the southwest corner, water infiltration has completely detached the tiles from the floor and the wood plank subfloor is exposed (Fig. 42). The entire 1st floor has approximately 11 tall ceilings with pressed metal tiles that are concealed by a dropped ceiling. In the north side of the building in the front room, a plywood painted ceiling is constructed abutting to the drop ceiling



Fig. 42 - 1st floor southwest corner floor damage



Fig. 43 - 2nd floor southern room showing ramp and ceiling batten strips

but approximately two feet lower. Due to the dropped ceiling, the tin tiles could not be fully evaluated, but they appear to vary in condition. A significant amount of the tile that is visible is rusted and damaged to the point of disintegration, while other areas appear to be in relatively good condition. The 2nd floor retains historic dark stained wood plank floors. There is a sloped area of the floor in the south room; its wood plank flooring running perpendicular to the majority of the wood floors (Fig. 43). The 2nd floor ceiling is finished with modern painted plywood with a grid of 2x1 wood batten strips running across the ceiling. In general, the floor is in stable condition with the exception of the deteriorated area in the southwest corner of the building. The small room in the rear of the northside has an untreated wood plank floor that is in varying condition. The plywood ceiling is in fair to

poor condition showing signs of deterioration throughout. There is also significant water damage near the southwest corner of the building (Fig. 44). There are portions of the ceiling which are completely missing, revealing the floor joists supporting the 3rd floor.



Fig. 44 - 2nd floor ceiling damage at southwest corner



Fig. 45 - 3rd floor showing hardwood and exposed ceilings

The 3rd floor has stained wood plank flooring that runs throughout the space (Fig. 45). The ceiling is open to the roof with untreated joists and rafters exposed. The floor is in fair condition with some areas of rotted material wood and also areas where the wood has been gouged out significantly. Like the rest of the floors, the southwest corner is the worst area in the 3rd floor as well. Rotted floors have made the corner room unsafe to walk over, but the rest of the floors are stable and sturdy. There is

significant weather damage happening along the west wall where the rafters meet the brick at the ceiling. Because the area is exposed to the exterior, it is experiencing more water infiltration and weathering. Mold is present on the rafters and joists and there are water stains also.

Systems

There is minimal plumbing in the building and is centralized to the north wall. There is a restroom on both the basement and 1st floor with a sink and toilet fixture in each (Fig. 46). The toilet in the basement is missing, but the drain pipe is still



Fig. 46 - 1st floor restroom along north wall



Fig. 47 - 2nd floor lighting fixtures

located in the floor. At the time of of this report, initial inspection of the plumbing system noted that there were issues with the septic and water lines that will need to be addressed during any rehabilitation efforts.

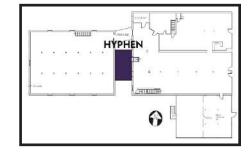
Lighting in the building is also minimal. There are limited surface-mounted light fixtures in the basement. The 1st floor has fluorescent tube lights worked into the dropped ceiling grid. "Schoolhouse" light fixtures hang in two rows in each room of the 2nd floor and surface-mounted light fixtures are attached to the ceiling joists and rafters in the 3rd

floor (Fig. 47). The electricity was not turned on during initial inspections, and further examination by a qualified electrician is necessary to assess the electrical wiring and circuits.

There is one interior A/C unit; it is located along the central wall to the rear of the 1st floor with the return in front of the bathroom near the center of the north wall. The ductwork runs to the north room of the 1st floor only and feeds between the tin and dropped ceilings. There are multiple registers in the dropped ceiling and the painted plywood ceiling. The rest of the building is not conditioned.

Hyphen

Situated half-way between the 1st and 2nd floor of the main building is a modern 6-course common bond brick hyphen with steel I-beam floor support connecting the main building to the S&B Warehouse. There is exposed insulation on the underside of the floor structure, between the I-beams (Fig. 48). It is secured to



the hyphen by chicken wire. The hyphen has paired one-over-one double hung wood sash windows



Fig. 48 - Exterior exposed insulation under floor structure



Fig. 49 - Hyphen interior southeast corner

on both the north and south sides. On the interior, the hyphen is accessible from the main S&B Building by a set of stairs leading down to the 1st floor. However, the hyphen does not provide interior access to the rear storage building and there is no discernable evidence that it ever did. The interior walls of the hyphen are wood paneled, the floor is covered in commercial-grade carpet, and the ceiling is painted plywood with a fluorescent light in the center (Fig. 49). The hyphen is in fair to poor condition. The insulation underneath the floor structure is starting to deteriorate and the chicken wire holding it has failed in places. The I-beams appear to be structurally sound and in good condition, although there is rust evident which must be abated to prevent further damage. The brick exhibits the same type of deterioration as that documented at the S&B Building, including limited areas of missing mortar. Some of the window panes have been broken, but the sills appear to be in fair condition. The interior finishes have some water damage and general wear and tear.

S&B Warehouse

Elevations – East, North and South, West

The S&B Warehouse is a rectangular 5-course common bond brick building accessible on the 1st floor at the southern corner of the east elevation by a sliding metal loading door (Figs. 50-51). The floor level is below the exterior grade, so a temporary wood ramp

is in place for safety. Original openings which have been infilled with concrete blocks are still visible under the hyphen to the north of the sliding door. These openings indicate there were previously larger doors for vehicular entry. The 2nd floor also has a sliding metal loading door near the northern corner (on the east elevation); it provides access to the wood plank bridge creating an exterior connection between the 2nd floor of the S&B Warehouse and the 1st floor of the S&B Building.

Both the north and south elevations of the S&B Warehouse have six metal-frame windows (three on the 1st floor and three directly above them on the 2nd floor) with a 4-wide by 5-high pane configuration (Fig. 52). The windows are currently boarded up to help protect against vandalism (Fig. 50). The center windows panes (2x3) are on a pivot and can swing open, with the surrounding panes remaining stationary. Inside, all window openings have been infilled three-quarters of the way up with cement blocks. Along the 2nd floor line and near the roof, star-shaped anchor plates dot both



Fig. 50 - S&B Warehouse south elevation - windows currently boarded for protection





Fig. 51 - S&B Warehouse north and west elevation

elevations. The west rear wall has an infilled former loading door as the east elevation with a metal lintel; there is a window centered on the wall, directly above the infilled loading opening that matches the north and south elevations' windows.

The entirety of the building has significant masonry deterioration. Mortar has eroded in some areas, and is missing completely in certain courses of brick. Graffiti is present on every exterior wall. There are also water stains and efflorescence, especially near the bottom of the walls and where the hyphen



Fig. 52 - S&B Warehouse window details and star anchor plates



and bridge connect to the building. Biological and vegetative growth is also present, most drastically along the north elevation. Rust stains are evident below each anchor plate. A small portion of the bottom west wall has completely failed and the bricks are laying in a pile on the ground, creating a hole in the elevation (Fig. 53). Above this hole is the most significant mortar deterioration of the building. From

Fig. 53 - S&B Warehouse west elevation brick deterioration

the hole to the roof, most of the mortar is gone with only some areas having been repointed.

Roof

The roofline consists of a decorative brick parapet at the east elevation, which joins a stepped brick parapet on each of the north and south elevations that follows the sloped roof toward the rear west of the building. The shed roof slopes down to this side of the building and has exposed rafters that appear at one time to have been concealed within a soffit. This soffit is now falling off or missing completely. It appears to be made of metal with a modern coating over it. The roof appears to be in fair to poor condition. There are some holes visible, but it appears that it has recently been recoated. From the inside. Leaking is evident on the inside, especially in the northwest corner where rot is excessive.

Interior Floors, Posts, and Ceilings

The 1st floor is an open floorplan with exposed exterior brick walls and a post and beam structural system comprised of two rows of wooden posts running the length of the building and dividing the interior into three bays (Fig. 54). The floor is concrete and walls are exposed brick. Along the north wall is an open wood plank staircase leading to the 2nd floor. This is also an open room with exposed



Fig. 54 - S&B Warehouse 1st floor looking east

exterior brick walls and a structural post and beam system comprised of two rows of wooden posts running the length of the building. The 1st floor is in fair condition. There is some mortar and brick deterioration. Along the south wall, some bricks have lost their top layer and have begun to crumble. There is efflorescence and biological growth along the bottom, but it is minimal; otherwise, the brick is sound. Vegetative growth is extant through the broken window panes, but it does not appear to be damaging the brick yet. There is little deterioration to the post and beam structure, but there is a temporary structural shoring that indicates some extent of structural failure. This is explained further in the Preliminary Engineering Report (PER) in Appendix A. The 2nd floor exterior brick walls are



Fig. 55 - S&B Warehouse 2nd floor looking southeast



Fig. 56 - S&B Warehouse 2nd floor missing floorboards

in good condition with little mortar and brick deterioration (Fig. 55). There is some water-damaged flooring in certain areas while in other areas, floorboards are missing completely (Fig. 56). The majority of floorboards are not tightly joined so that the 1st floor is visible through the floorboards on the 2nd floor. The structural wood posts are mostly in good condition with some nail holes and pieces of wood seemingly arbitrarily attached to the posts. There is deterioration of some floor and ceiling joists due to water infiltration and biological growth. As the PER details, the northwest corner of the building has the worst water infiltration issues and structural damage.

Asbestos was located in the building in the form of two bags of asbestos cement (Fig. 57). The report can be found in Appendix B of this report.



Fig. 57 - One of the asbestos bags found in the S&B Warehouse

IV. C. PRELIMINARY FINDINGS

The proposed reuse of the S&B Building and S&B Warehouse as mixed use is appropriate for the space. A key finding, however, is that the original structure and subsequent alterations are insufficient to meet the current building code requirements for mixed use. This section addresses the course of action recommended to achieve the adaptive reuse goals. The recommendations incorporate both architectural and structural needs.

Structural Feasibility

The Preliminary Engineering Report (PER) contained in Appendix A provides the current allowable live load per floor that is associated with potential uses. This information has been summarized below.

Current Live Loads and Possible Prescribed Uses (Per Floor)		
Location	Current Allowable Live Load	Possible Prescribed Live Loads Uses (As the property is)
1st Floor, Main Building	70psf	Residential - Predominantly Sleeping Areas (30psf) Office Space (50psf), Office Space - Partition Allowance (20psf) Classrooms (40psf) Garage (40psf)
2nd and 3rd Floor, North Side, Main Building	96psf/floor	Retail Upper Floor (75psf) Residential - Predominantly Sleeping Areas (30psf) Office Space (50psf), Office Space - Partition Allowance (20psf) Classrooms (40psf) Bowling Alley (75psf)
2nd and 3rd Floor, South Side, Main Building	40psf/floor	Residential - Predominantly Sleeping Areas (30psf) Office Space (50psf), Office Space - Partition Allowance (20psf) Classrooms (40psf)
Warehouse Upper Floor	88psf	Retail Upper Floor (75psf) Residential - Predominantly Sleeping Areas (30psf) Office Space (50psf), Office Space - Partition Allowance (20psf) Classrooms (40psf) Bowling Alley (75psf)
Warehouse Lower Floor	N/A (Ground Level)	Dining room/restaurant (100psf) Stores First Floor (100psf) Residential - Predominantly Sleeping Areas (30psf) Office Space (50psf), Office Space - Partition Allowance (20psf) Classrooms (40psf) Bowling Alley (75psf) Garage (40psf) Manufacturing heavy (250psf), light (125psf)

Note these only take into consideration feasible live load uses (i.e. a garage could not be on a 2nd floor without a lift so it was not included as a possible use). While this table does not factor in zoning, previous studies, or community feedback, the overall findings in this report do incorporate those constraints.

The basement, being a concrete slab at-grade, was not included in the recommendations in the PER live load allowances. Any of the property owner's goals for the use of the building would work within the basement from a structural standpoint. As the engineering load chart shows, there is currently a limited number of allowable uses for the 1st floor of the S&B Building due in large part to the current condition of the building as well as alterations that have taken place over time. Continuing to use the building for commercial retail is not feasible given its current condition. The 2nd and 3rd floor can accommodate the property owner's goals of providing a space for rental residential units and/or communal office space.

Therefore, it is our recommendation that the noted deterioration be repaired and additional structural reinforcement incorporated to enable code compliant commercial use of the 1st floor space; specifically, for retail and restaurant use. Although positioning the building to support restaurant and retail will require supplementary structural work, the required retrofits are not detrimental to the building, they are feasible within a reasonable budget, and the ultimate outcome would support the project goals.

Regarding the S&B Warehouse, the lower floor is sufficient for any of the functions that were recommended in "Section III - Proposed Adaptive Reuse Concepts" of this report. The upper floor is less stable and may require structural reinforcement depending on the final proposed use. Because of the current condition of the building, it is recommended that structural reinforcement be undertaken since there is extensive deterioration of the exterior wall. During the rehabilitation work, further inspection of the structure could be performed and specific reinforcement solutions could be developed. This could change the possible prescribed uses and allow for additional commercial space at the upper level.

53

In Section III of this report, one of the initial proposed ideas was to utilize the S&B Warehouse as a frozen food processing plant for small-batch production to position local produce for market. Although an open-plan building, the potential use analysis demonstrated that its small footprint is insufficient to hold the equipment needed for such an operation. Also, given its proximity to attractive public amenities, a commercial/entertainment use for S&B Warehouse would be more appropriate than a manufacturing facility. Separately, the engineering report concluded that a significant amount of structural reinforcement would be necessary to support the proposed frozen food processing plant, and the magnitude of impact would be detrimental to the historic character of the building. The analysis has confirmed that the S&B Warehouse is not an appropriate location for the frozen food processing plant. The planning team has identified another building in Lawrenceville which is being evaluated for this operation.

Historic Rehabilitation Tax Credits

The S&B Building and S&B Warehouse are eligible for historic rehabilitation tax credits because the building is certified as a contributing resource to the Lawrenceville Historic District, which is listed in the National Register of Historic Places and the Virginia Landmarks Register. The Historic Rehabilitation Tax Credits are dollar-for-dollar reductions in income tax liability for taxpayers who rehabilitate historic buildings following the Secretary of the Interiors Standards for Rehabilitation (SOIS-R). Credits are available from both the federal government and the Commonwealth of Virginia. The amount of the credit is based on total rehabilitation costs. The federal credit is 20% of eligible rehabilitation expenses. The state credit is 25% of eligible rehabilitation expenses. In some cases, taxpayers can qualify under both programs, allowing them to claim credits of 45% of their eligible rehabilitation expenses.

The rehabilitation work for the entire project must meet The Secretary of the Interior's Standards for Rehabilitation. If the project does not meet the Standards, no part of the credit may be claimed. If the work is certified as meeting the Standards, the credit is based on all eligible expenses. Eligible expenses include any work that is properly chargeable to a building's capital account in connection with a certified rehabilitation. Essentially, all capital improvements (i.e., work to structural components of the building) will be eligible, as well as certain soft costs such as architectural and engineering fees, construction period interest and taxes, construction management costs, and reasonable developer fees. Expenses related to new heating, plumbing and electrical systems are eligible, as well as expenses related to updating kitchens and bathrooms, compliance with ADA, and fire suppression systems and fire escapes. Acquisition costs, however, and any expenses attributable to additions or enlargements of the building, are not eligible. Under the federal program, site work and landscaping elements are not eligible expenses. Under the state program, certain site work may be eligible.

Under the federal program, the project must be a "substantial rehabilitation" to qualify the investor for the credit. The Internal Revenue Service defines "substantial" as exceeding the owner's adjusted basis in the building, or \$5000, whichever is greater. The adjusted basis is generally defined as the purchase price, minus the value of the land, minus any depreciation already claimed, plus the value of any earlier capital improvements.

The threshold requirements for the state program are different from the federal requirements. In order to qualify for the state credit, the rehabilitation expenses must be:

- For owner-occupied structures, at least 25% of the assessed value of the buildings for local real estate tax purposes for the year before the rehabilitation work began.
- For all other eligible structures, at least 50% of the assessed value of the buildings for local real estate tax purposes for the year before the rehabilitation work began.

The credit is claimed in the year the rehabilitation is completed. If you cannot use up the full amount of the credit in the first year, it can be carried forward. The federal credit may be carried forward for up to twenty years, and back for one year. The state credit may be carried forward for up to ten years. There is no carryback for the state credit.

Under the federal program, if the building is disposed of, or if it loses its income-producing status, within five years after the rehabilitation is completed, the taxpayer will face recapture of the credit. The amount of recapture is reduced by 20% in each succeeding year after the year the rehabilitation is

completed – in other words, if the building is sold after one year, there will be recapture of 80% of the credit, if it is sold after two years, there will be recapture of 60% of the credit, and so forth. In addition, the National Park Service reserves the right to inspect a rehabilitated property any time during the five-year period, and to revoke certification if work was not undertaken as presented in the application, or if further unapproved alterations have been made.

Under the state program, there is no continuing ownership requirement following completion of the rehabilitation. Credits may be syndicated through the use of limited partnerships, but they may not be directly sold. Syndication is a common tool for bringing investors into a rehabilitation project, but must be carefully thought out at the beginning of the project. Federal credits must be allocated according to percentage of ownership. The state credit, however, may be allocated by agreement among partners.

Historic Rehabilitation Tax Credit Application Timeline

The Historic Rehabilitation Tax Credit application process consisted of three parts which are described in the following section. In order to complete Part 1 the Tax Credit application, existing conditions drawings are required, as is access to the building for photographs. A brief initial description of the building is also written up and the owner's signature is required for submission to the Virginia Department of Historic Resources (VDHR) and the National Park Service (NPS). This part of the process is already in development and will be submitted along with the beginning of the Part 2 in early 2021.

The Virginia Department of Historic Resources will take approximately 30 days to review and approve Part 1, and the National Park Service will take an additional 30 days to review this part of the application. Approval of Part 1 means that the building has been found eligible for the credits. This part should be approved prior to beginning work on the building, and can be submitted prior to ownership transfer, provided the current owner is willing to sign the documents. At no point in the process is the owner bound to follow through with the application, so if an existing owner signs and the deal falls through, the existing owner is not required to pursue the credits. In order to complete Part 2 of the application, it is important for the architect and preservation consultant to work together in development of preliminary concept drawings. The Part 2 can be prepared when final concept drawings are complete (with complete floor plans and elevations, but not necessarily a permit set). Specifications for new elements (elevator, stairs, railings, etc.) and a finish schedule are also necessary. Because some stabilization and other work to preserve the building needs to begin as soon as possible, the Part 2 application is in development through a phased working plan. The first phase of the Part 2 application will be submitted along with the Part 1 in early 2021. This initial work will be captured and once final architectural drawings are produced, the next phase of the project will be submitted to the Virginia Department of Historic Resources as an amendment. This is a normal procedure when preliminary work needs to begin but final concepts have yet to be determined.

The Virginia Department of Historic Resources will take approximately 30 days to review and either approve Part 2, or provide conditions for approval, and the National Park Service will take an additional 30 days to review this part of the application. Approval of Part 2 means that the proposed project, as presented, meets the program requirements. This part should be approved before work begins on the building. In conjunction with submittal of Part 2, the applicant can elect to phase the project. In this case, the applicant has the option of receiving and syndicating state credits as each phase is completed. This is an excellent way to bring equity into the project as construction progresses.

After completion of rehabilitation work, or a phase of work, this part of the application is filed to Request Certification of Completed Work; it is the final approval for receipt of tax credits. In order to file for Part 3 approval, the owner must provide a copy of the cost certification from an accountant, and access to the building for final photographs. The Virginia Department of Historic Resources will take approximately 60 days to review and approve Part 3 for each phase. Typically, an applicant claims federal credits only at the end of the project; at that time, the National Park Service will take an additional 30 days to review the federal Part 3 the application.

57

Tax credits can be claimed in phases as soon as a phase is complete. If federal credits are involved, the federal credits can begin to be claimed when a phase is complete and the property owner has incurred costs that exceed the adjusted basis in the buildings (excluding land). State and federal credits can be claimed separately (i.e. state credits claimed in individual phases and federal credits claimed at the end of project). Phase claims receive preliminary approval and credits are issued on an advisory basis. Approval of final Part 3 means that the project is a certified tax credit project, and the approval letter states the value of your tax credits.

Building Codes and Other General Requirements

For purposes of this report, we assume that the 2015 Virginia Existing Building Code (USBC, Part II) adopted with amendments: International Existing Building Code, 2015 (IEBC 2015) will be utilized in construction plan development and permit review. Chapter 9 (Historic Buildings) will be critical to facilitate redevelopment of this historic building. Chapter 9 recognizes that it is necessary to allow special exceptions for a historic building that is being preserved due to constraints imposed by existing conditions (including direction on means of egress, fire safety, repairs, change of occupancy, and alterations). Classifications proposed for the building that would need to be followed within the codes include Assembly Group A-2 (or A-3), Business Group B, Mercantile Group M, Residential Group R-2, and Storage Group S-2. The Brunswick County Building Inspector's contact information can be found at https://www.brunswickco.com/government/departments/building_inspection.

To adequately support any commercial or restaurant space on the 1st floor, it will be necessary to reinforce the structure in the basement. The reinforcement can be introduced by inserting supplementary beams along the midspan of the 1st floor joists, thus reducing the span for the existing joists and the load on existing girders and columns. This would probably include adding 4 beam lines going east-west with 6 bays and 7 new columns per beam line. This initial concept assumes that the columns would be 4" diameter pipe columns and beams would be 10"x22". New footings would be 3'-6" square by 12" deep. Although this is a likely approach, it will be confirmed and the detailed engineering design developed during the process of preparing construction documents for permitting.

Also, necessary improvements will include incorporating code compliant means of egress, fire suppression, and life-safety in order to bring the building up to code. For the mixed-use reuse proposed, different factors will have to be considered and designed for in the final architectural plans including fire-rated stairwells, emergency exit lighting, code-compliant hallways meeting egress requirements, and more that are detailed in the USBC, Part II. It will be necessary to upgrade electrical and plumbing and introduce HVAC and a modern elevator system. These improvements will include adding two fire-rated stair wells on either side of the building that will cut-through the floors and require doors to be inserted or reactivated at the lower levels for egress needs. We propose utilizing the same elevator shaft during the renovation for a modern elevator system which will cut down on the floor cut-throughs. Re-wiring the entire building for modern electrical code compliance is also required, as well as adding plumbing and HVAC to the 2nd and 3rd floor since there are currently no restrooms, plumbing fixtures, or HVAC units above the 1st floor. At the time of this report, it was found that there are pre-existing septic and water line issues that will need to be addressed in any rehabilitation effort. This additional plumbing will need to adequately tie into the county sewer system and the HVAC system will require conduit and systems running from floor to floor.

The S&B Warehouse has electricity, but no plumbing or HVAC systems. The insertion of plumbing for possible kitchen and restroom spaces would need to be considered to connect to the county sewer system, along with the addition of an HVAC system, depending on the final proposed use of the building.

Hazardous materials testing has been performed by Commonwealth Environmental Solutions, LLC. Asbestos was identified in the mastic and tiles of the 1st floor. In the SB Warehouse, asbestos was detected as well as a bag of asbestos cement found in the second floor. This material must be properly abated per the recommendations provided by the environmental consultant (see enclosed letters and documentation in Appendix B). A licensed architect or contractor will be able to fully detail these requirements during the course of design development and preparation of construction documents for the building.

Historic Preservation – Tax Credit Rehabilitation Requirements

This report is being prepared with the assumption that any work done on the S&B Building and S&B Warehouse would be part of a historic rehabilitation tax credit application. As such, the following requirements and recommendations would need to be met in regards to preserving the historic material. In compliance with preservation methods and procedures specified in the *Secretary of*

Interior's Standards for the Treatment of Historic Properties, 2017, specifically the Rehabilitation

Standards (SOIS-R), this report is guided by this initial site visit combined with best practices detailed in the Preservation Briefs provided by the National Park Service (NPS). The Preservation Briefs will be referenced in the text, but are also listed below:

- Preservation Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings (https://www.nps.gov/tps/how-to-preserve/briefs/1-cleaning-water-repellent.htm)
- Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings (https://www.nps. gov/tps/how-to-preserve/briefs/2-repoint-mortar-joints.htm)
- Preservation Brief 4: Roofing for Historic Buildings (https://www.nps.gov/tps/how-to-preserve/ briefs/2-repoint-mortar-joints.htm)
- Preservation Brief 9: The Repair of Historic Wood Windows (https://www.nps.gov/tps/how-topreserve/briefs/9-wooden-windows.htm)
- Preservation Brief 11: Rehabilitating Historic Storefronts (https://www.nps.gov/tps/how-topreserve/briefs/11-storefronts.htm)
- Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows (S&B Warehouse) (https://www.nps.gov/tps/how-to-preserve/briefs/13-steel-windows.htm)
- Preservation Brief 21: Repairing Historic Flat Plaster Walls and Ceilings (https://www.nps.gov/ tps/how-to-preserve/briefs/21-flat-plaster.htm)
- Preservation Brief 27: The Maintenance and Repair of Architectural Cast Iron (https://www.nps. gov/tps/how-to-preserve/briefs/27-cast-iron.htm)

Masonry

Cleaning is a recommended step when working any repointing job. The *NPS Preservation Brief 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings* should be followed when undertaking any historic masonry cleaning, inside or out.¹ Inappropriate cleaning and waterrepellent treatments used on an historic building can cause significant damage to the masonry. Care should be taken when cleaning and repointing near any other building material or feature so as not to damage the historic material and a small test area should be selected in an inconspicuous area to determine if the selected treatment will be effective or if another kind is necessary. Preservation Brief 1 states that:

"Although it may seem contrary to common sense, masonry cleaning projects should be carried

¹ This can be found on the NPS website at: https://www.nps.gov/tps/how-to-preserve/briefs/1-cleaning-water-repellent.htm

out starting at the bottom and proceeding to the top of the building always keeping surfaces wet below the area being clean. The rationale for this approach is based on the principle that dirty water or cleaning effluent dripping from cleaning in project above will leave streaks on a dirty surface but will not streak a clean surface as long as it is kept wet and rinsed frequently."

There are three ways of cleaning masonry: water, chemical, and abrasive. Water cleaning methods consist of soaking, pressure water washing, water washing with non-ionic detergent, and using steam. Water washing, also known as pressure washing, is the most common and best practice to use for this project. Start out at a very low pressure (100 psi or lower) and progress incrementally to higher pressures only if absolutely necessary and never higher than 300-400 psi. In areas where the brick is especially dirty, use of a natural or synthetic bristle brush is allowable. Never use a metal bristle brush. If the dirt and biological growth will not come off with this level of washing, a water washing with non-ionic detergent may prove better. This follows the same guidelines as above but with a synthetic organic compound added to the water. Examples of such a compound are given in Preservation Brief 1 and include Igepal by GAF, Tergitol by Union Carbide, and Triton by Rohm & Haas. Both processes should be followed with a final low-pressure water rinse.

Any cleaning method with water should never be done in cold weather when frost or freezing is a potential hazard. This could lead to spalling or cracking. Since it could take up to a week to dry, weather forecasts should be carefully monitored during work. Other key factors to monitor are the distance of the nozzle from the masonry, the type of nozzle, and gallons per minute used. Bringing the nozzle closer to the masonry to "speed up" the process may apply more pressure to a smaller area and damage that brick. The water used should be free of sand and other harmful abrasives. Any water with high concentrates of iron and copper, without adding a chelating or complexing agent, could discolor the masonry.

Only if these gentler means are insufficient for the masonry cleaning should a chemical cleaner be considered. Acidic cleaners may be used in conjunction with water on unglazed brick, cast stone, and

concrete. Acid cleaners must be applied to pre-wet masonry and should be kept wet while the acid is allowed to work. The masonry will be wet first and then the chemical cleaner will be sprayed on at a very low pressure or brushed onto the surface. The cleaner will be left to "dwell" on the masonry for a recommended amount of time (periodic testing is recommended but do not go longer than the manufacturer's time limit), and then rinsed off with a low- or moderate-pressure water wash. Again, testing a small area of brick prior to full chemical cleaning should take place to ensure no harmful reactions will occur. It may take more than one application to fully clean the masonry.

Poulticing – Efflorescence and Graffiti

Efflorescence is not found in large amounts on or in the S&B Building and Warehouse, but there is graffiti present in the back. Per Preservation Brief 1, "A poultice consists of an absorbent material or clay powder (such as kaolin or fuller's earth, or even shredded paper or paper towels), mixed with a liquid (a solvent or other remover) to form a paste which is applied to the efflorescence areas." This is also the prescribed procedure to remove graffiti. The poultice is kept moist and left on the affected area as long as necessary for it to draw the stains out of the masonry. As it dries, the paste absorbs the salts and staining material so that it is not redeposited on the masonry surface. While this does take some time, it is the best way to remove the greatest amount of salts and staining from the brick. This will provide a "clean slate" for the historic masonry that, with the additional measures being taken to direct water away from the building, should preserve and extend the life of the masonry walls.

Recommendations Regarding the Repointing of Damaged Masonry

From a preservation standpoint, only the areas where the mortar has deteriorated or failed completely should be considered for repointing. The *NPS Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings* states,

It is preferable to repoint only those areas that require work rather than an entire wall, as is often specified. But, if 25 to 50 percent or more of a wall needs to be repointed, repointing the entire wall may be more cost effective than spot repointing. (pg. 7) As mentioned in the existing conditions analysis, there are many areas that have been repointed with other forms of mortar that may include concrete or epoxy. If these are stable and not producing any noticeable damage or deterioration to the rest of the building's structure, they should be left in place. Attempting to remove such hard material from softer historic brick at this time will likely damage the brick and cause undo harm to the building. The mortar should be checked along each wall to determine a rough percentage of damage per wall.

Original mortar should be removed from the wall and sent for tests, per the Preservation Brief, in order to match the historic mortar in color, texture, and tooling. New mortar should contain sand that matches the historic mortar and have a greater vapor permeability and be softer than the masonry units. It should be as vapor permeable and as soft or softer than the historic mortar. A test panel should be produced and approved before proceeding with work. This panel will set the basis of quality control and process for a project.

Likewise, any brick that is damaged beyond repair should be sent away for testing. New bricks should match the historic bricks in size, shape, composition, density, and strength. This will ensure that no further inequalities are introduced into the wall that may strain or weaken the structural stability. Bricks requiring replacement should be addressed while repointing takes place; damaged bricks should be carefully removed and new bricks set into the new mortar in line with the rest of the bricks.

Joint preparation is a multi-step process that must happen before new mortar is applied. New mortar requires a clean, solid surface to properly adhere and deep enough to accept a new mortar application. Mortar removal should take place without damaging the surrounding brick. Because of this, extreme precision and expert masons should be tasked with mortar removal during wall prep. Mortar should be cleaned out to a uniform depth of $\frac{3}{4}$ - 1-inch deep and any loose or disintegrated mortar beyond the stated minimum should also be removed. The back of the cut should be uniform and square and not concave. The preferred tools of mortar extraction are a hand chisel and hammer. Because of the delicacy of the work and the need to ensure no damage happens to the surrounding brick, hand

64

chiseling provides the most control. However, with time and budget constraints, it is understood that in some instances this is not a viable option for all areas. Therefore, Preservation Brief 2 recommends a small pneumatically powered chisel or a thin-diamond plated grinder to be allowable for use on horizontal joints only. Never use power saws or grinders on vertical joints. These power masonry saws should only cut a middle horizontal line in the mortar and then after the line is formed a hand chisel and hammer should be used to remove the mortar nearer to the brick.

After the old mortar has been removed, the area needs to be thoroughly cleaned of any debris. Rinse out the joints with a soft jet of water. As part of prepping the walls, joints should be damp (with no standing water) when application commences. It is recommended that a continual misting of the area happens a few hours before repointing begins. Mixing the new compound should happen in small batches as each area is worked on. Typically, new mortar should be mixed to work within a 30-minute timeframe. Follow manufacturers recommended mixing procedures, but a good consistency is key. A drier mortar is cleaner to work with and it can be compacted tightly into the joints. Drier mortar also contains smaller amounts of excess water to evaporate, thus the mortar can cure without shrinkage cracks appearing afterward.

Repointing should take place in layers, never piped or forced into the joint all at once. Piping or forcing the mortar in all at once can lead to air pockets as well as inadequate dry and cure time. Layering will provide a consistent and well-packed mortar that has time to dry slightly between each layer and thus avoid large shrinkage cracks. Any areas where disintegrated or loose mortar had to be removed deeper than 1" should be filled first so that consistent drying can happen. The back of the entire joint should be filled successively with ¼ - inch of mortar at a time. Make sure to pack well into the corners for adequate adherence. Wait for each layer to reach "thumb-print" hardness before adding another ¼-inch of mortar. Repeat the process until the mortar is flush with the brick face and then finally tool to match the historic depth joint and design. Tooling is key, as leaving the mortar flush with the brick will dramatically change the look and make the repointing more obvious. 1-2 hours after tooling (after

the mortar is dry, but before the initial set), use a stiff natural brush over the repointing. This should remove any left-over mortar on the brick surface.

The final step in the repointing process involves curing the joints. Over the next few days after the tooling has been performed, periodic wetting of the newly repointed area should take place. This will reduce chalking, poor adhesion, and durability issues. Mist the walls for a day or two keeping in mind that the number of times you mist per day will depend on the weather during that time and also the type of mortar used. For example, curing during a rainy or extremely humid period of weather might call for less amounts of misting due to the moisture already in the air. This will be an on-site decision as the work progresses. Place burlap over the repointing site, especially when outside. This gives the mortar consistent shade so the mortar does not dry out too quickly and create large shrinkage cracks. It also keeps the moisture in and the drying time at a safe pace. If further cleaning is necessary after this, use a wooden paddle or plain water with a natural bristle brush. If still further cleaning is necessary, wait at least 30 days and then test on a panel before more intensive cleaning is performed.

These methods are detailed in the NPS Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings which can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/2repoint-mortar-joints.htm. Limeworks US also has a resource website with videos, installation guidelines, and frequently asked questions at https://limworks.us/#.

Roofing

Working with a reputable roofing contractor, architect, or craftsman the first step for roof repair is to ascertain the location of the problem and extent of damage that is already caused. Appraisal of materials and existing condition will set the groundwork for proposed rehabilitation. When considering repair or replacing, all materials that can be preserved should be salvaged and reutilized in the new roof. It is recommended to try and establish a history of the roofing materials, documenting any historical features and materials that are left as well as how they intersect with newer patches and replacements. Photographing the roof in detail before work starts is key to capturing these details will help when construction begins and any unexpected material is found. New materials that must replace old should match in-kind unless municipal building codes or fire-life safety dictates otherwise and a variance cannot be obtained. Only if there is a valid reason for replacing the material with something other than an in-kind original should another material be recommended.

Before work is performed on repair, detailed drawings should be provided including plans, sections, and elevations showing information that includes preserving the roof slope and truss structure underneath, replacement material, and special requirements that will be necessary. A mock-up of the proposed repairs should be submitted for approval. Hiring a contractor or architect that is knowledgeable in historic preservation construction and can preserve the historic details is pivotal for project success. Upon completion, a cyclical maintenance plan should be put into place to monitor and promptly care for any situations that could negatively impact the newly preserved roof.

Per the Preservation Brief 4, key points to consider for roof repair are:

- Understanding the historic character of the building and being sympathetic to it.
- Careful examination and recording of the existing roof and any evidence of earlier roofs.
- Supervision of the roofers or maintenance personnel to assure preservation of historic fabric and proper understand of the scope and detailing of the project.
- Consideration of alternative materials where the original cannot be used. Cyclical maintenance
 program to assure that the staff/owner understand how to take care of the roof and of the
 particular trouble spots to safeguard.²

These methods are detailed in the *NPS Preservation Brief 4: Roofing for Historic Buildings* which can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/4-roofing.htm.

Wood Windows (S&B Building)

Windows should be treated on an individual basis. Because of the architectural significance to the windows, especially on the front of the building, they should be preserved and repaired as much as possible. Restoring the windows in the rear of the building is also highly recommended and will be

necessary if the proposed reutilization into residential units takes place.

² Sweetser, Sarah M. "Preservation Brief 4: Roofing for Historic Buildings." National Park Service Technical Preservation Services, https://www.nps.gov/tps/how-to-preserve/briefs/4-roofing.htm.

Each window should be inspected and evaluated to determine its current condition noting in particular location, condition of paint, condition of frame and sill, condition of the sash (rails, stiles, and muntins), areas of glazing issues, hardware, and the overall condition of the window defined as either excellent, fair, poor, or unrepairable. Look for points of water infiltration, vegetative or insect infestation, or other factors of deterioration that should be addressed. Drawing a sketch of each window and locating these issues on that drawing may be helpful, as well as detailed photographic documentation. The operational soundness of each window, beginning with the lower portions, should be tested. Since rainwater and condensations flows downward, the sills and joints are typical points of deterioration. If it appears that water damage has occurred and the surface looks wet, probing the area to check for softness or at angle to check for decayed wood splinters is appropriate.

Restoring a window has three broad categories to follow: routine maintenance procedures, structural stabilization, and parts replacement. Before beginning, all water infiltration and damage should be identified and eliminated. If fungi are growing, this must be arrested before proceeding so that further growth is halted. Briefly explained, the categories stipulate:

- If a window is in good condition, simple maintenance may include paint removal, removal and repair of the sash, repair of the frame, weather-stripping and reinstallation of the sash, and repainting.
- If a window shows signs of minor damage or partially decayed wood, stabilization may be necessary and includes drying the wood, treating the decayed areas with fungicide, waterproofing with two or three applications of boiled linseed oil, filling any cracks and holes with putty, and finally repainting.
- If a window's frame or sash are badly damaged and cannot be stabilized, replacing the deteriorated parts with new matching pieces or splicing new wood into existing members will be necessary.

After these steps, another consideration is the addition of weather-stripping to be as energy efficient as possible. Contemporary weatherstripping is appropriate and some solutions, like sash locks on a

meeting rail, will provide added security to the window's lifespan even if it is not historically accurate. Storm windows are another option, but must be done to match the window's frame color size and not visually impact the overall look of the elevation.

Only after these considerations and steps are taken and prove insufficient to preserve the window are replacements viewed as an acceptable alternative. Replacements should retain as much of the character of the historic window as possible including the pattern of the openings and their sizes, proportions of the frame and sash, configuration of the window panes, muntin profiles, type of wood, paint color, characteristic of the glass, and any details or decorative elements that make the window unique to the building. Energy efficiency should also be a factor, but not a dominate one.

These methods are detailed in the NPS Preservation Brief 9: The Repair of Historic Wooden Windows which can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/9-wooden-windows. htm.

Steel Windows (S&B Warehouse)

All of the windows in the S&B Warehouse match in size, shape, pane configuration, and operation. As these are the only existing opening other than the two rolling doors and have a unique operation configuration (a pivot window located centrally with casement panes surrounding), they are a highly significant feature to the building and need to be preserved. While unfortunately they are in an advance state of disrepair, it appears that they are salvageable but a detailed evaluation of each window will confirm this initial assessment. One obvious step to take is to remove the cinder block that is covering ¾ of the interior of the window.

Work should begin with a physical evaluation of all windows and each should be assessed separately from the other. Evaluation should include:

- presence and degree of corrosion (measured in light, medium, or heavy corrosion)
- condition of paint
- deterioration of the metal sections, including bowing, misalignment of the sash, or bent sections

- condition of the glass and glazing compound
- presence and condition of all hardware, screws, bolts, and hinges
- condition of the masonry surround

Once the evaluations are complete but before any work begins, ensure safety measures are taken in case lead paint is present on the steel window frames and follow and local codes for removal. If it is determined that the windows are in sound condition, the following steps should take place:

- removal of light rust, flaking, and excessive pain
- priming of exposed metal with a rust-inhibiting primer
- replacement of cracked of broken glass and glazing compound
- replacement of missing screws or fasteners
- cleaning and lubrication of hinges
- repainted of all steel sections with two coats of finish paint compatible with the primer
- caulking the masonry surrounds with a high-quality elastomeric caulk

The window replacement will be a significant part of the work as most windows have at least one broken pane if not more. The window panes have chicken wire embedded into them and it is recommended to replace in-kind, but alternative material may be allowed depending on other considerations and requests of the project. Depending on the condition of the window, replacement and repair of the panes and the window can be performed without removing it completely. Pliers and chisels can be used to remove the old glass after which the existing putty or sealant will need to be scraped out and any clips or beads should be saved and reused. Replacement glass should then be placed in the opening and only a glazing compound formulated for metal windows should be used to seal the new panes in place. A full chart is provided in Preservation Brief 13 that details methods regarding cleaning, removing rust, aligning bent or bowed pieces, and preparing for repainting. The masonry surrounding the windows are in varying states of deterioration, with significant damage apparent on the lower windows where mortar erosion is high and vegetative infiltration is present. Because of repointing measures recommended in the above section, careful consideration should be taken when caulking around the windows. These methods are detailed in the NPS Preservation Brief 13: The Repair and Thermal Upgrading of Historic Steel Windows which can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/13-steel-windows.htm.

Storefronts

The storefront on the east façade of the S&B Building was, as previously noted, installed some time between 1956 and 1958 and is in good condition. Because it has been extant for so long, the storefront has become a historical part of the building (considered a 2nd generation storefront) and should be retained rather than trying to bring it back to an earlier design period. The only portion of the storefront that may be removed is the metal awning, which was added after the 1970s and is not considered historic or part of the original 2nd generation storefront. Exploratory demolition should inconspicuously take place under the corrugated metal sheeting to make sure the brick underneath is not damaged to the point of endangering the structure. This should be performed in a few spots where the metal is lifting already or where it will be easy to place the metal back after inspecting the brick.

The first step in restoring the storefront is to accurately identify all metals used (the corrugated metal as well as the metal frame of the windows and doors). Because these are not painted over, determining composition should be easier and preliminary assumptions are that it is aluminum but this should be confirmed before trying to repair or restore any metal pieces. Inspect the metal and note areas of deterioration. These areas, instead of the whole storefront, should be patched in order to mend, cover, or fill a deteriorated area. If replacing an area is necessary instead of patching, splicing should be performed only when structurally appropriate and if proper bracing is put in place prior to work. If any portion is beyond repair and in need of complete replacement, this should be done with care not to damage intact areas and should be replaced in-kind. After any repairing or replacement takes place, the storefront should be cleaned keeping in mind that materials nearby (brick, glass, etc.) needs to be protected against any cleaning agent used on the metal.

71

These methods are detailed in the *NPS Preservation Brief* 11: *Rehabilitating Historic Storefronts* which can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/11-storefronts.htm.

Interior Plaster

<u>Cracks</u>

Hairline cracks that are present but are not the result of underlying issues should be filled with patching material. Patching material includes ready-mix base-coat plaster of gypsum and aggregate in proper proportions for larger holes or "high gauge" lime putty with a 50% lime/50% gauging plaster mix for small holes or cracks. For larger cracks, plaster should be removed 6 inches on either side of the crack down to the lath/brick. The debris should be cleaned out, metal lath applied to the area, and three layers of new plaster should be applied. Two layers are basecoats and one finish coat.

<u>Holes</u>

For small holes (less than 4 inches in diameter), the repair should include a layer of basecoat applied and scraped back below the level of existing plaster. When this layer is set (but not dry), a finish layer of plaster is applied to create a smooth, level surface. This is only recommended for small holes as this can lead to concave surfaces that will show up with repainting. For larger holes where all coats of plaster are damaged or missing, the first step should be to remove all loose plaster and clean out the hole. If there is lath, it should be inspected and re-nailed as necessary. Next, a water mist or bonding agent is applied to the old lath to help ensure good adhesion and keep the lath from twisting when new, wet plaster is applied to it. A metal lath (diamond mesh) should be installed over the original lath with tie wires or lath nails to create a strong patch. Plaster is then applied in three layers: a brown coat, a scratch coat (both basecoats), and finally a finish layer of lime putty and gauging plaster. Each new layer should lap over the old plaster so that the old and new are evenly joined.

Replacing historic plaster

During new construction where a majority of the plaster and wall needs to be removed for systems integration, it is recommended in these instances to plaster over either a new metal lath or new rock

lath. Metal lath will require the tradition three layers of plaster while rock lath only requires two. It is essential that adequate drying time happens between the finish layer and painting. The lime putty finish coat should be perfectly dry before paint is applied or paint may peel. This will take two to three weeks depending on atmospheric conditions. After it is completely dry, an alkaline-resistant primer, formulated specifically for new plaster, should be used before a latex or oil-based paint be applied.

Further detail can be found in the NPS' Preservation Brief 21: Repairing Historic Flat Plaster – Walls and Ceilings that can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/21-flat-plaster. htm.

Cast Iron (Various S&B Building Columns)

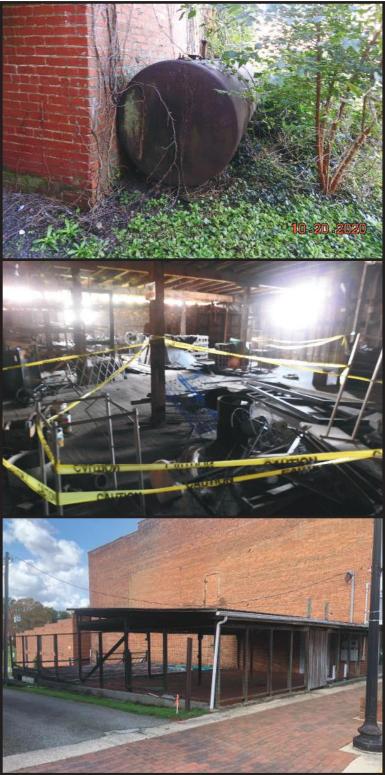
There are only a few cast iron columns located in the building on the 1st floor and one on the 2nd floor. These all have a decorative Corinthian capital and slim shaft. As they are incorporated into the metal tile ceiling, they should be preserved and restored along with the ceiling tile. All columns seem to be in good condition with little needed for maintenance, but this should be confirmed in a detailed inspection.

After assessing the extent of damage, the iron should be tested and a test panel should be selected where all proposed work be done in a small specific area before performing it on the rest of the columns. This test panel process may reveal other defects or corrosion occurring and the method and techniques can be adjusted before trying it on all areas. The following are suggested possible techniques but will need further inspection to decide the correct course of action: hand scraping, low-pressure grit blasting, chipping and wire brushing, wet sandblasting, flame cleaning, chemical rust removal, or chemical paint removal. After the appropriate method of cleaning and paint removal is selected and performed, the iron should be painted immediately with a corrosion-inhibiting primer before new rust can form. If the primer is delayed and new rust begins to develop, it should be removed with a wire brush just before priming as any rust will hamper a strong bond between the iron and primer and could lead to eventual chipping and further rusting.

73

To prepare the iron for final painting/coating, any loose, flaking, and deteriorated paint must be removes and any dirt, oil, grease, or other contaminant must be removed. Any paint that is securely adhered to the iron may be left on if compatible with new coatings and is encouraged to leave on as a document of previous coatings used as well as to lessen the amount of possible lead-based paint removed. Always consult manufacturer's technical specifications and recommendations before applying new coatings. Painting should occur only when temperatures will be consistently above 50 degrees Fahrenheit or when relatively humidity is about 80%. Painting outside of the conditions may cause adhesion failure. Coatings should fall within regulatory guidelines for the use of products containing toxic substances. The use of alkyd finish coats is recommended where the use of latex or other waterbased paints are not due to their oxidation reactions. If used, it must be done over a layer of rust-inhibitive primers and even then, it is not guaranteed to cause oxidation since the primer coat may be improperly applied. Best practices suggest a system of a zinc-rich primer followed by an epoxy base coat, and finished with two urethane finish coats. Applying the coatings with a brush or a brush in conjunction with a spray gun instead of using only a spray gun or roller is recommended for an adequate and uniform coat.

While highly unlikely, if replacement of the cast iron columns is found to be necessary after proper documentation, the Preservation Brief 27 should be consulted directly for further instructions. Further detail can be found in the *NPS' Preservation Brief 27: The Maintenance and Repair of Architectural Cast Iron* that can be found online at https://www.nps.gov/tps/how-to-preserve/briefs/27-cast-iron.htm.



Brownfield remediation concerns (from top to bottom): one of the oil tanks near the rear of the property that need to be removed; an area of the S&B Warehouse that has a bag of asbestos cement present; the exterior deck at the south elevation has pressure treated lumber that must be removed for safety conerns.

Brownfield Remediation

There are numerous hazardous materials currently on the Sledge & Barkley property (See photos at left). These are considered brownfield concerns and include:

- 2 oil tanks
- Asbestos Concrete and finish
 materials
- Pressure treated lumber (with creosote)

The soil is also expected to be contaminated as oil, pesticides, and antifreeze were stored and used. A Phase 1 Environmental Site Assessment (ESA) will be needed to identify the extent of contamination at the site and determine if a Phase 2 ESA will be needed. Any rehabilitation project will have to include removal and remediation of these items. There are brownfield remediation grants available to help offset the cost of removal, such as the Virginia Brownfields Program. Seeking out such grants is encouraged for the Sledge & Barkley Building, and this report can be utilized to further such applications.

IV.E. DETAILED RECOMMENDATIONS AND GENERAL APPROACH TO BLOCKING PLANS

The owner's goals to have an assortment of uses within the S&B Building and the S&B Warehouse have been a driving factor in space allocation and blocking planning. Because the space is relatively open, sectioning off areas for various uses is easy. Given the current uncertainty about future public venues in the context of COVID-19, we recommend temporarily creating vanilla shell spaces in part of the basement and 1st floor levels as well as both levels of the S&B Warehouse. A vanilla shell requires that the ceiling is finished, walls are repaired and prepped for painting, and all electrical and mechanical systems are concealed (even if the systems are concealed temporarily until the actual tenant buildout). The initial focus of restoration efforts should include performing exterior repairs/restoration and addressing upper floor spaces. Detailed descriptions of recommended work are outlined below, by floor, for ease of use.

Basement

It is logical to keep the basement as a storage site for the 1st floor commercial uses. However, to activate the alleyway and entice more commercial use in conjunction with the S&B Warehouse, it is recommended that the western-most section of the basement near the rear of the S&B Building be used as a main entry to the 2nd and 3rd floor apartments and office space with a small retail swing space at the southwest corner for local start-up businesses to sell their products (See Drawing 1). Because the elevator shaft is located in the northwest corner, it would be logical to place the entry to the upper floors here, creating a more private entry which not on the Main Street corridor. The current zoning ordinance also requires that residential entries be located off Main Street. Since there are already window and door openings located along this façade, reinstating them for residential and commercial access would be appropriate and in keeping with historic preservation rehabilitation best practices. The proposed blocking plan suggests a build-out of these rear spaces. Also, due to fire-life safety and means of egress, two new fire-rated staircases are proposed at the north and south walls of the building. These staircases are within the building's shell. While this does cut into the square footage of the building, it will allow the costs of adding these necessary fire-rated staircases to be part of the

historic preservation tax credit rehabilitation certified costs. These staircases extend from the basement to the 3rd floor and will be shown in each of the proposed building blocking plans.

Future Programming for 1st Floor - Vanilla Shell

The 1st floor enjoys a logical separation created by the central structural brick wall; utilizing this separation by offering two separate commercial spaces is recommended resulting in one smaller space in the northern side of the building towards Main Street and another space in the southern side of the building that extends to the north in the rear of the building so there is access to the elevator. These commercial spaces could be outfitted for retail or restaurant businesses. The southern interior space also contains direct access to the deck at the south elevation. These could be used separately or together depending on the occupant's needs. For example, a restaurant with kitchen space and indoor dining could also use the deck for outdoor dining and live events. If used by two separate entities, the interior could be a small restaurant or coffee shop and the outdoor deck could be used as an open market. The deck is also adjacent to the open yard near the back of the building that could be utilized for events between the front and rear of the building. Structural reinforcement will be necessary in order for the 1st floor to be code compliant for commercial and restaurant uses (both requiring 100psf at minimum).

Because of the various plans that could be implemented and, as mentioned, the uncertainty surrounding future public spaces in the context of COVID-19, it is proposed to rehabilitate the 1st floor as a vanilla shell. For the S&B Building, this would mean taking down the temporary interior walls, abating the asbestos tiled floors, repairing the structural damage, ceiling tiles, and other interior materials, cleaning the space, and prepping the walls to be ready for a future tenant. Details of the rehabilitation recommendations can be found in the historic preservation tax credit section of this report. The proposed blocking plan incorporates the vanilla shell recommendation with the renovation of an updated elevator system and exit stairs (See Drawing 2).

77

Upper floors

The 2nd and 3rd floors are also fairly open, allowing for ease of construction within the building envelope. Taking into consideration the current live loads, it is recommended to use part of the 2nd floor (north side) as a shared open office space with the rest of the 2nd floor and all 3rd floor as residential units. With correct access separating the two uses and placement appropriate for the current live load restrictions, a combination of private apartments with some public office space and/ or classrooms is viable. On the 2nd and 3rd floors of the southern side of the building, any egress corridors would need 80psf distributed live load and thus require reinforcement as well. To achieve the desired mixed-use, the upper floors could be dedicated to office and residential units which require the least amount of structural reinforcement to meet live load requirements. While Section 6-1-32 in the zoning ordinance allows downtown living, it limits residential uses to the 2nd and 3rd floors of the building.

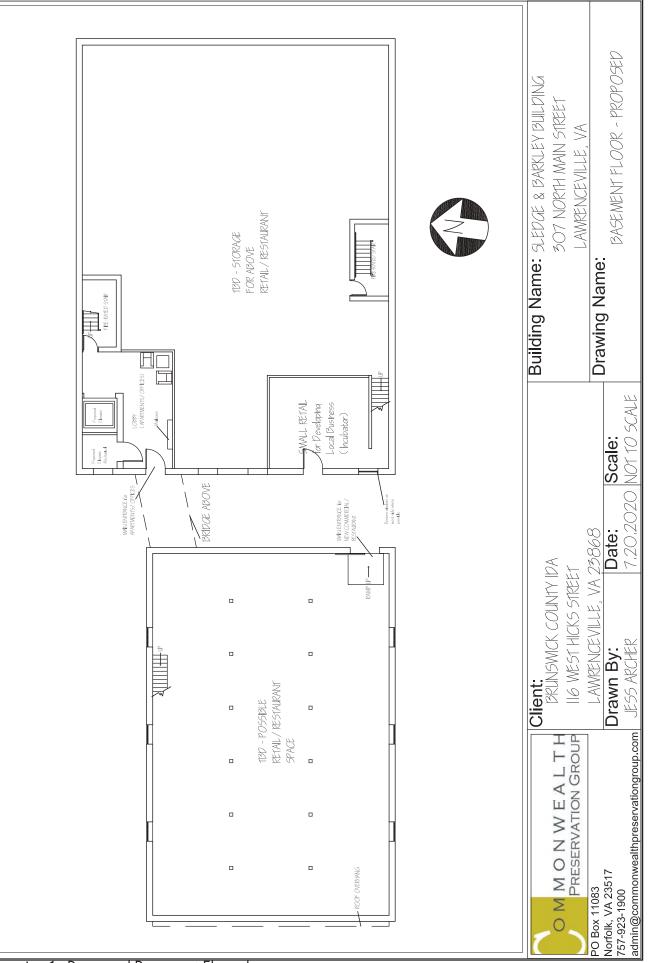
Residential units and office space have been inserted into the 2nd and 3rd floor layouts. These units take into account the property owner's goals of providing at least 10 residential units and a shared office space for small business use. The residential units are a mixture of studio and 1-bedroom apartments with a central corridor that provides access to both fire-rated staircases and the elevator. The shared office space would be separated from the residential units by doors with some form of key or electronic access point for security. There is one ADA-unit proposed for each floor that is accessible with elevator access to the basement entry. Options for a two-story loft or two one-story units are given, where the 2nd floor could be used as a private office (See Drawings 3-6).

Future Programming for the S&B Warehouse – Vanilla Shell

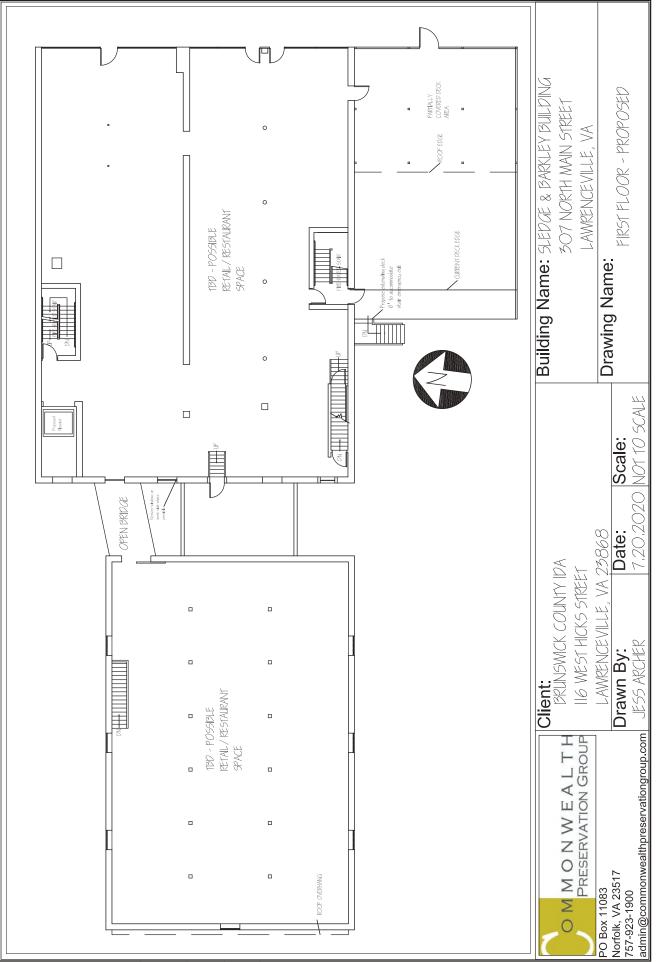
The S&B Warehouse area is also open floorplan and easily sectioned into various uses. Because it is situated behind the Main Street buildings and has frontage on the municipal parking lot, it has the potential to serve as a unique location for commercial or restaurant ventures. Since the warehouse is located so close to the city parking area and no other business along Main Street have this type of amenity behind their buildings, this would make the Sledge and Barkley property a vital part of not

only the Main Street streetscape, but also where major community events take place to the rear of the building. The entry to the residential and office units of the S&B Building could, in turn, add to the circulation use of the alley space between the S&B Building and S&B Warehouse.

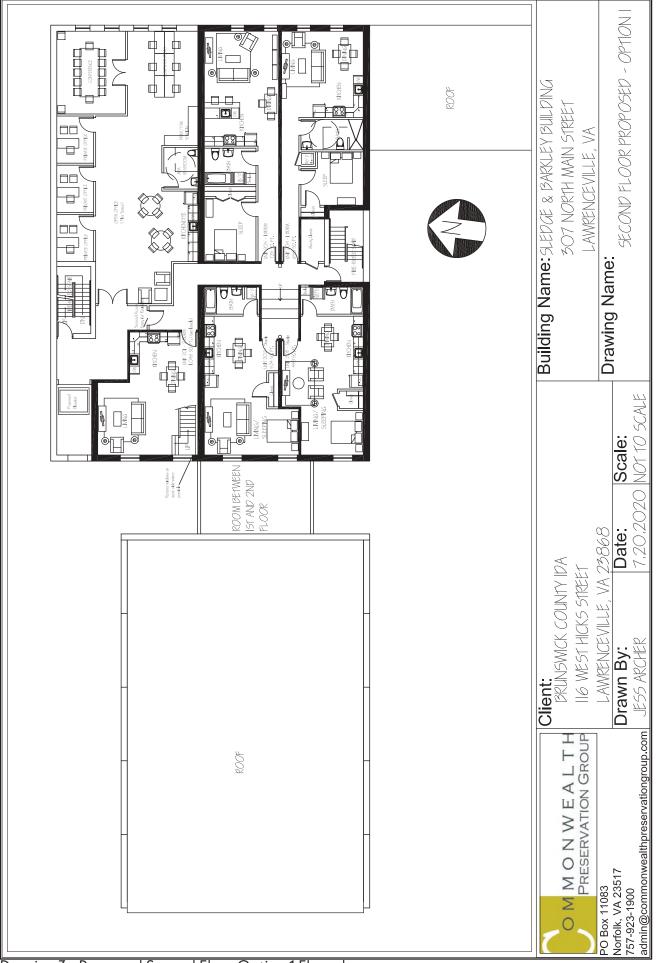
Because of the various plans that could be implemented and the uncertainty surrounding future public spaces in the context of COVID-19, rehabilitating the S&B Warehouse as a vanilla shell for the time being is also recommended (See Drawings 1-2). For the S&B Warehouse, this would mean repointing the exterior and interior of the brick walls, confirming the posts along the interior are structurally sound, reinforcing the upper floor, cleaning the space, repairing the windows and removing the cinder blocks from their openings to be ready for a tenant. Details of the restoration can be found in the historic preservation tax credit section of this report. The proposed blocking plan visualizes this vanilla shell solution.



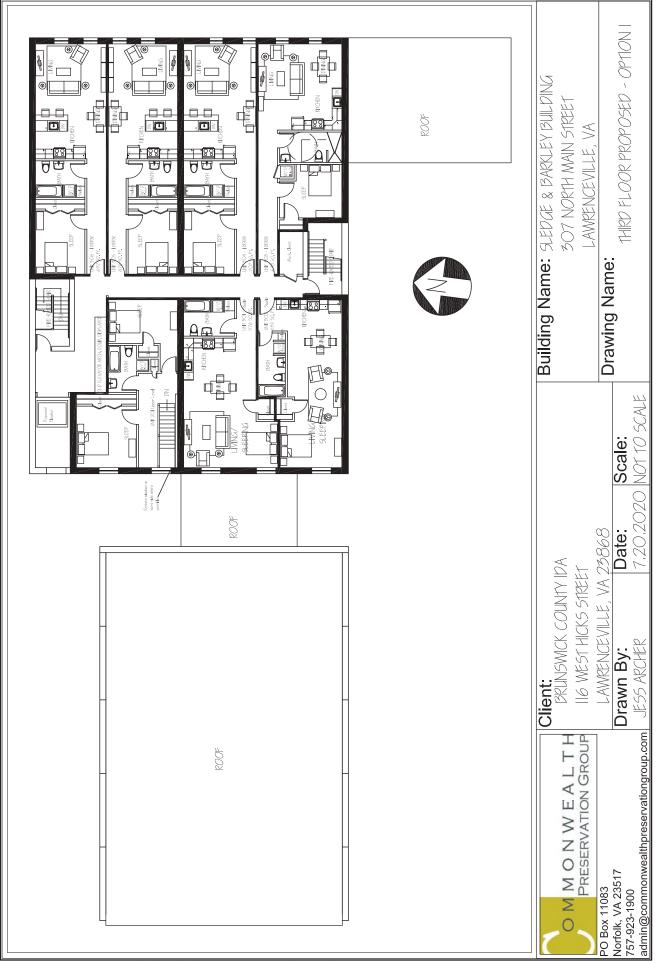
Drawing 1 - Proposed Basement Floorplan



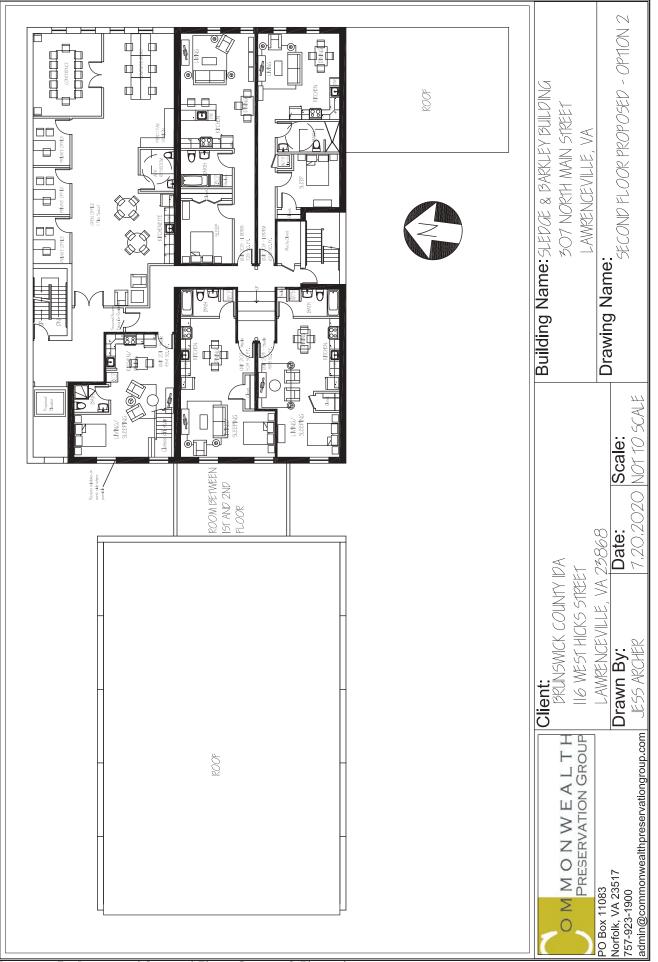
Drawing 2 - Proposed First Floor Floorplan



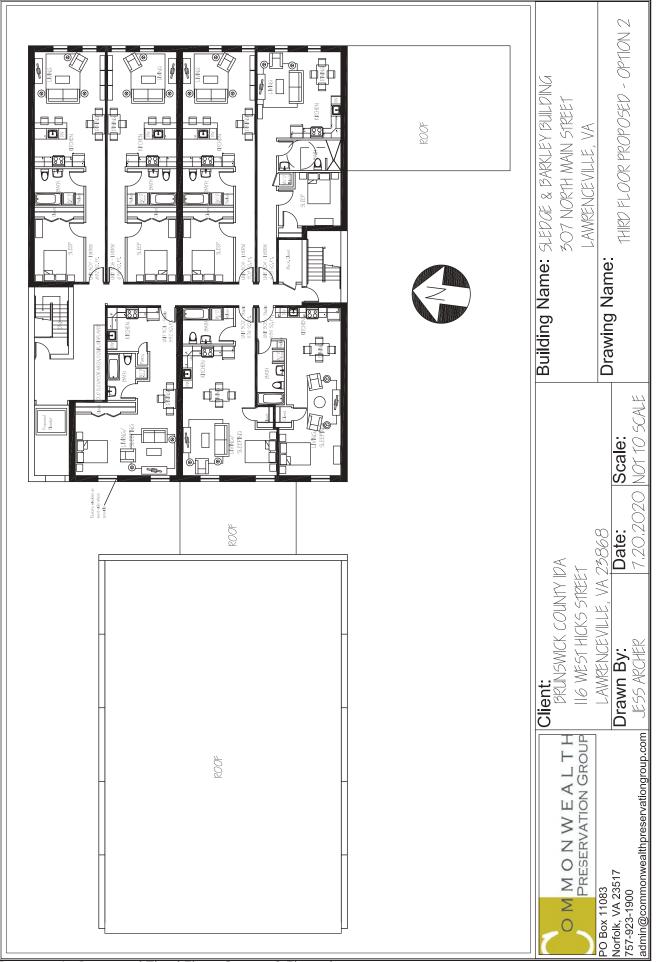
Drawing 3 - Proposed Second Floor Option 1 Floorplan



Drawing 4 - Proposed Thrid Floor Option 1 Floorplan



Drawing 5 - Proposed Second Floor Option 2 Floorplan



Drawing 6 - Proposed Third Floor Option 2 Floorplan

V. CONSISTENCY WITH PRIOR PLANS, STUDIES AND ZONING REGULATIONS

The purpose of this analysis was to review all prior plans and studies provided to Commonwealth Preservation Group by the BCIDA in Summer 2020 to determine if they are supportive of the proposed adaptive reuse plan recommendations for the Sledge & Barkley Building and Warehouse. In addition, pertinent zoning ordinances were also reviewed because they prescribe what uses are permitted within certain zoning districts. The zoning districts in which this building is located are: B-G, General Business and Historic Overlay District.

The following documents were provided by the BCIDA and reviewed for this analysis:

- Comprehensive Economic Development Strategy (CEDS). Southside Planning District, 2005 (completed June 2004).
- Response to Request for Proposal Small Business Incubator Feasibility Study, March 26, 2007.
 Prepared for Ms. Joan Moore, Executive Director, IDA, Lawrenceville, VA by Basile Baumann
 Prost & Associates, Inc.
- An Economic Development Blueprint for Brunswick County. Prepared for Brunswick County IDA by K. W. Poore & Associates, Inc. October 2007.
- Town of Lawrenceville Downtown Revitalization Plan. March 27, 2008
- *Refocusing the Brunswick-Lawrenceville Enterprise Zone Final Report to Brunswick County Government, Brunswick County IDA & Town of Lawrenceville*. Prepared by John Accordino, PhD, AICP, et als, Virginia Commonwealth University, September 2008.
- An Analysis of the Impact of the Merchants' Capital Tax on Wholesale & Transportation/ Warehousing Employment. Prepared for the Brunswick County IDA & Brunswick County Government by Community Planning Partners, Inc., February 2011.
- Tobacco Region Revitalization Commission Southside Economic Development Sledge and Barkley Redevelopment Project, Brunswick County IDA. July 24, 2019.

The following updated version of one of these plans, the Comprehensive Economic Development Study, prepared and provided by the Southside PDC, was also reviewed because it is the most current and relevant version of this continuously-updated study:

• A Regional Strategic Plan for Southern Virginia - Comprehensive Economic Development Strategy (CEDS). Southside Planning District Commission, 2019 (updates 2015 CEDS).

The following articles of the Town of Lawrenceville's Zoning Ordinance were reviewed:

- Article 6. B-G Business, General District, Section 6-1-32 re: Mixed Use Development (Article 6, Municipal Code)
- Historic Overlay District Ordinance (Article 23, Municipal Code)

Comprehensive Economic Development Strategy (CEDS). Southside Planning District, 2005 (completed June 2004). Prepared by the Southside Planning District Commission (Carol B. Corker). Analysis: This strategy has been subsequently updated by the Southside PDC; more recently, the 2015 version of it was updated in 2019 (see – *A Regional Strategic Plan for Southern Virginia – 2015, 2019 Update. Comprehensive Economic Development Strategy (CEDS).* Prepared by the Southside Planning District Commission). Therefore, while we conducted a review of this strategy for consistency with the proposed reuse plan for the Sledge & Barkley Building, we have not included a summary and findings of it here; rather, a review and analysis of the updated study is provided below.

A Regional Strategic Plan for Southern Virginia - Comprehensive Economic Development Strategy (CEDS). Southside Planning District Commission, 2019 (updates 2015).

Analysis: This plan was adopted for use by the Southside PDC and is currently being implemented. Although there is nothing in the plan that specifically addresses the Town of Lawrenceville with regard to this building site, the proposed reuse plan for the Sledge & Barkley Building is generally consistent with the vision, goals and implementation strategies of the 2019 CEDS.

Response to Request for Proposal – Small Business Incubator Feasibility Study, March 26, 2007.

Prepared for Ms. Joan Moore, Executive Director, IDA, Lawrenceville, VA by Basile Baumann Prost & Associates, Inc.

Analysis: This is a private sector company's response to a Request for Proposal (RFP) and is not relevant to this analysis. The actual Small Business Incubator Feasibility Study, if available, would be appropriate to review for this analysis.

An Economic Development Blueprint for Brunswick County. Prepared for Brunswick County IDA by K. W. Poore & Associates, Inc. October 2007.

Analysis: This does not appear to be the final version of the document. The Executive Summary is missing and states "it will be written after any alterations in the main body of the text.

Town of Lawrenceville Downtown Revitalization Plan. March 27, 2008. Prepared by Land Planning and Design Associates, Inc.

Analysis: The Southside PDC and the IDA have advised that this plan was never adopted by the Town of Lawrenceville. This plan focuses on physical improvement recommendations, limited to gateway and signage improvements to improve wayfinding into Downtown, parking improvements, and incorporating parks amenities into Downtown; therefore, it does not lend itself much to the project analysis. The market study is supportive of the proposed adaptive reuse plan for the S&B Building, but is outdated. A new market study is necessary; however, many of the same conclusions may still be reached as there has been limited change in the context since then. The proposed adaptive reuse project will bring people Downtown, which is a stated goal in the plan; therefore, it is consistent with that goal. The plan's recommendations are silent on market potential for individual buildings in Downtown; however, the "Analysis & Programming Map" on p. 6 does denote the Sledge & Barkley Building as "orange", which in the legend means "Vacant Properties"—a fact that remains valid today. Otherwise, no finding could be made with regard to this plan.

Refocusing the Brunswick-Lawrenceville Enterprise Zone – Final Report to Brunswick County Government, Brunswick County IDA & Town of Lawrenceville. Prepared by John Accordino, PHD, AICP, et als, Virginia Commonwealth University, September 2008.

Analysis: Although this report is dated, its recommendations remain valid with regard to creating tools to enable a more robust Enterprise Zone program. It is unknown if the recommendations were implemented. If they were, then they should serve as a magnet for businesses and mixed-use businesses of the type being proposed within the S&B Building, particularly the seasonal agribusiness activity. Such uses are in alignment with the report's recommendations.

An Analysis of the Impact of the Merchants' Capital Tax on Wholesale & Transportation/ Warehousing Employment. Prepared for the Brunswick County IDA & Brunswick County Government by Community Planning Partners, Inc., February 2011.

Analysis: This study is dated. We do not have benefit of knowing whether or not the Brunswick County government implemented any of the recommendations contained in the study. Separate research is necessary to review the County's and the Town's tax structures for businesses, which is outside the scope of the requested analysis. In so far as attracting businesses to Downtown Lawrenceville, if the double-taxation scenario continued/continues, consideration of the impact of any remaining business taxes levied by the Town is necessarily a part of any new businesses' or developer's due diligence market analysis prior to making an investment decision. Again, this is outside the scope of our work with regard to analysis of prior plans and studies affecting the Sledge & Barkley proposed adaptive reuse plan.

Tobacco Region Revitalization Commission – Southside Economic Development – Sledge and Barkley Redevelopment Project, Brunswick County IDA, July 24, 2019.

Analysis: This is a proposal prepared in response to a Request for Proposal (RFP). The IDA was awarded this grant and it has commenced. CPG has been retained to provide professional services to the IDA under this grant project scope of work.

Section 6-1-32, Article 6, Municipal Code pertaining to mixed use development in the B-G Business, General District

Residential uses are permitted within space which satisfies all of the following criteria:

- There is a least one floor of finished space below the floor utilized for residential purposes;
- All residential uses are subject to requirements within the Rental Inspection District [see Sec. 18-78], which will aid in the assurances that life safety issues are addressed in the Historic Overlay District in buildings that were commercial and now may be retrofitted for residential usage [see Section 18-75];
- All residential parking shall be located behind buildings with entrances from the side or rear [see Sec 25-51]. Residential uses are subject to the provisions of the Virginia State Building Code and Fire Code.

Analysis: The base zoning district in which the Sledge & Barkley Building is situated, the B-G Business, General District, was recently amended on June 9, 2020 by the Town Council. More specifically, Section 6-1-32 pertaining to mixed uses within the district was recently amended to remove the limitation that residential uses can only be in a building being utilized for business purposes and that such residential uses must be occupied by an owner of the building, or manager/operator of the business being conducted. The amendment also removed the restriction that no rents can be charged for the residential uses. The proposed mix of uses for the Sledge & Barkley Building are consistent with this ordinance. However, in preparing a mixed-use plan and marketing strategy for the building, the use plan must show that there is at least one floor of finished space below the floor utilized for residential purposes.

Town of Lawrenceville Historic District Ordinance (Article 23, Municipal Code)

Analysis: The Historic District Ordinance establishes an overlay district, which sits atop the underlying base zoning district(s). The proposed adaptive reuse proposal for the Sledge & Barkley Building as a mixed-use building is consistent with this ordinance, since food preparation and above-ground floor office and residential uses are proposed.

Final Analysis

Several economic downturn cycles have occurred since the first document was completed, which may have influenced, either temporarily or more-permanently, the economic market conditions of the Sledge & Barkley Building context. Short of having updated market studies, this remains largely unknown and limits our ability to draw conclusions. Nonetheless, it can be plausibly concluded that the proposed mixed-use adaptive reuse plan for the Sledge & Barkley Building is largely consistent with the vision and recommendations contained in these documents at the time they were prepared. It is also consistent with the intent of and permitted uses in the B-G Business, General District, as recently amended, and the Historic District.

VI. CONCLUSION

Multiple studies regarding economic development and revitalization of the Town of Lawrenceville, which have been performed over the last 20 years, repeatedly identify the Sledge and Barkley building as a key property for redevelopment of the community. Experts agree that the building that has the size, presence, and location to jump start private investment in Lawrenceville. Understanding its role in community revitalization, the BCIDA acquired the Sledge & Barkley Building with a goal of repositioning it for successful rehabilitation and reuse.

Its significant presence on N. Main Street as a 3-story building with basement and large storefront windows and its strategic location across from the Courthouse and government offices creates an inviting opportunity for the Sledge & Barkley Building to feature commercial and office spaces that will attract downtown visitors and prospective residents. This report concludes that a mixed-use adaptive reuse plan for the building, including 13,254 square feet of commercial space, preferably restaurant/ retail on the basement and first floors (including the S&B Building and S&B Warehouse), 2,207 square feet of flex office space on the 2nd floor and 7,750 residential apartments on the 2nd and 3rd floors, with the potential for seasonal outdoor sales featuring local products, is a preferred and feasible scenario. These uses are consistent with the current zoning of the property, B-G Business, General District and Historic District; both districts encourage mixed uses. In addition, the proposed mixed-use plan would activate the building on all sides. It would reactivate the established storefront along Main Street, provide more seasonal outdoor event space for the community along the south side of the building, and create a more intimate but dynamic social area in the rear of the building.

The BCIDA has faced significant challenges in terms of attracting preservation minded developers and investment due to the advanced deterioration and high renovation costs. By following the incremental steps outlined in this report to undertake critical repairs first in order to stabilize the building and avoid further deterioration and then creating vanilla shell spaces as per the architectural blocking plan, the building can be better positioned for marketing. Having a thorough existing conditions report, architectural and structural analyses, and a blocking plan that imagines the proposed-reuse plan for

91

commercial (restaurant/retail), flex office spaces and residential apartment spaces, along with offering an attractive economic development incentive package that includes the use of historic rehabilitation tax credits, should enable potential investors to envision how the building can be feasibly transitioned and repurposed, both physically and financially.

Pursuing an adaptive reuse plan for the Sledge & Barkley Building that brings 24-7 uses into the Downtown can serve as a catalyst, encouraging additional investment in other historic buildings through rehabilitation and reuse projects on Main Street and throughout Downtown Lawrenceville.

A.1. ENGINEERING STUDY - Existing Conditions and Structural Problems MCPHERSON DESIGN, PLLC Structural Engineers

Wood Treating Industry Consultants

July 6, 2020

Mrs. Paige Pollard Commonwealth Preservation Group 536 W 25th Street Norfolk, Virginia 23508

RE: Sledge & Barkley Building – Structural Report 307 North Main Street Lawrenceville, Virginia

Dear Paige:

McPherson Design, PLLC is pleased to provide this Structural Report for the Sledge & Barkley Building. This Report is based on my visual inspection completed on May 18, 2020.

This "Project" includes the Sledge & Barkley Building, which has a basement and three (3) stories, plus an additional two (2) story building slightly connected. It is my understanding that the four (4) Story building was built circa 1895. According to the DHR Report dated May 12, 2000, the Sledge & Barkley Building was the second brick building in town (other than the Courthouse and Clerk's Office); with the first being the Bostick Building being built in 1880. The oldest building in Lawrenceville that retained its original name and site is the Sledge & Barkley Building. The original building was a two (2) story above the basement; however, due to success of the business, a third floor was added, and a brick warehouse was added to the rear.

For purposes of this Report, we will call the four (4) story main building the Sledge & Barkley Building ("S&B Building") and the two (2) story warehouse to the rear, the Sledge & Barkley Warehouse ("S&B Warehouse"). Apparently, the S&B Building was used as a Hardware Store selling building materials, hardware, garden supplies, and mobile homes and parts.

SLEDGE & BARKLEY BUILDING (S&B BUILDING):

The S&B Building is constructed with a full basement and three (3) stories above, although I understand that the third floor was added at a later date to the original two (2) story structure (not including the basement). The front of the building can be seen in Photographs #1, #2, and #3. The west side of the building can be seen in Photographs #5 and #6, and the north side (portion that can be seen) in Photograph #7. Please note the following from my inspection of the exterior building:

West Side: This side of the building faces the two (2) story S&B Warehouse. There is a bridge connecting the two (2) buildings at the north end of the S&B Warehouse and an office space that can only be accessed from the four (4) story building, although it connects to the S&B Warehouse. The bridge is constructed of two (2) 10" deep steel beams on the outer edges that are in relatively good condition. Spanning parallel to the steel beams are 2x6 wood floor joists spaced at 16" on center and supported by 4x4 wood beams that span between the 10" deep steel beam bottom flanges. There are four (4) 4x4s, meaning the 2x6 joists only span about 5' since the



93

bridge is about 15' long. The steel beams need to be cleaned and painted, and two (2) of the steel beam bearing points need repairs. The bridge can be seen in Photograph #8, and the failing beam bearing points can be seen in Photographs #9 and #10. I estimate that 10% of the west elevation needs repointing.

There is a small office attached to the main building on the west side at the second-floor level. This office structure attaches to both buildings but can only be accessed from the main building. You must go up seven (7) or eight (8) steps from the main building second-floor to get access to this office space. The only part of this office structure that could be seen was a couple of steel beams spanning between the two (2) buildings on the exterior of the office and they are in good condition but need to be cleaned and painted. This office structure can be seen in Photographs #11 and #12.

South Side: This side of the building is to the left when facing the front of the building. There is a large wooden deck on this side of the building at street level. Part of this deck is covered with a roof (about half) and part is open to the outside. The structure for the deck consists of 2x6 wood decking over 2x10 joists at 24" on center spanning approximately 10' to three (3) 2x10 beams that span approximately 7' in the north-south direction. The beams are supported by 12"x16" cmu piers that are about 3' tall to 5' tall. The deck can be seen in Photographs #13, #14, and #15. Two of the 12"x16" cmu piers need to be rebuilt and the 2x6 decking needs to be replaced in its entirety. The rest of the deck structure looks fine. I estimate that 20% of the south elevation needs repointing.

<u>East Side</u>: This side of the building faces North Main Street and is, therefore, the front of the building. I could not access the structure above the storefront or the entry canopy. I estimate that 5% of the east elevation needs repointing. The east side can be seen in Photograph #1.

North Side: This side of the building adjoins an adjacent building on the right when looking at the front of the building. Only the top floor of the S&B Building is partially visible from the street, as can be seen in Photograph #7. From what little I could see, I estimate 20% of the north elevation needs repointing.

<u>Rooftop</u>: I was unable to access the roof; however, from what I could see from inside holes in the roof and glimpses, I would assume the parapet needs a lot of work and a new roof will need to be flashed into the parapet or over the parapet.

Basement: The basement of the main building exposes the first-floor structure which I discuss below. The basement floor is concrete and houses the bottom of the freight elevator shaft. There are two (2) stairs that provide access: one (1) on the north side and one (1) on the south side. Something interesting was discovered in the basement. Part of the foundations are exposed indicating a stepped brick foundation may have been used. This can be seen in Photograph #16. Although the stepped foundation is only seen on the wall separating the north half of the building from the south half, it is probably indicative for all of the walls. There are several 8" outside diameter steel columns that are an integral part of the building structure above and have excessive pitting and rust at their base. I believe that the columns still have enough structural integrity to carry the load they were designed to support; however, it may be prudent to engage a firm that does ultrasonic testing to confirm the column thickness and material loss. Please let me know if you would like for me to contact a Testing Firm to handle this. At the very least, the columns need to be cleaned and painted. A base of one of the columns can be seen in Photograph #17.

First Floor: The first-floor of the main building consists of wood decking over 2x10 wood floor joists spaced at 16" on center. The floor joists span in the north-south direction with spans approximately 14' on the north side of the building and 17' on the south side of the building. On the north half of the building (which is approximately 28' wide), the 2x10 floor joists span from exterior brick bearing wall to a middle row of girders to an interior brick bearing wall. The exterior walls are four (4) wythes of brick or about 17" thick. The interior brick bearing wall

appears to be three (3) wythes plus plaster for a thickness of 15". The middle girder line consists of a wood 8" wide x 12" high girder spanning approximately 11' in the east-west direction to 8" diameter steel columns.

There is a section of 8" x 12" wood girder that originally spanned between the 8" steel columns that was removed due to termite infestation. This removed portion can be seen in Photographs #18, #19, #20, and #21. A new replacement girder will need to be installed and connected to the existing steel columns or new columns and footings installed.

At the west end of the 8"x12" wood girder line, an 8" x8" wood column will need to be checked and possibly replaced with a steel column. At the center brick bearing wall, a 17' long section was built without brick. In its place, an 8"x12" girder was installed that is supported by a double 6"x6" wood column and an 8"x8" wood column. Calculations need to be completed during the next phase to see if the structure is adequate and if footings were installed. The double 6"x6" columns and the 8"x8" columns can be seen in Photograph #22.

The first floor of the south half of the main building consists of 2x10 first floor joists at 16" on center spanning in the north-south direction from center of the building brick bearing wall to an 8"x12" wood girder to the north exterior brick bearing wall. The 8"X12" wood girder spans from the front brick wall to 16"x44" brick piers spaced at approximately 15' on center. Wood 6"x6" columns have been added between the brick piers, most likely added due to excessive termite damage. A 6"x6" wood column has been added at the east end of the girder line where the wood girder originally was bearing in the brick wall. This became badly deteriorated, so the 6"x6" column was added. Unfortunately, this 6"x6" column is probably overstressed, and it bears directly on the slab instead of a properly sized footing. The added 6"x6" column is shown in Photograph #23. The badly deteriorated 8"x12" wood girder end can be seen in Photographs #24 and #25. Photograph #29 shows lots of termite trails along this girder which has contributed to the questionable areas. The 6"x6" column needs to be replaced with a properly sized wood or steel column supported by a properly sized new footing.

At the east end of the girder line, there is an 8"x8" wood column that can be seen in Photograph #26. Temporary shoring consisting of a 4"x8" wood beam and two 4"x4" wood columns have been added towards the rear of the building that can be seen in Photograph #27. A typical 8" steel column bearing on brick condition can be seen in Photograph #28. Again, the heavily infested 8"x12" wood beam can be seen in Photograph #29. Termite infestation and brick nogging can be seen in Photograph #30.

Since there is a fair amount of termite damage in the basement and the first-floor framing has been modified greatly, I think it would be prudent if a full review of the first-floor framing be completed, including full calculations. The amount of changes and repairs combined with the temporary shoring and obvious deficiencies, such as lack of some footings at repairs and missing girder, makes me a bit uncomfortable with the first-floor framing.

Elevator: The main building has a large antiquated open elevator in the southeast corner that is operated by ropes. There is a large wheel on the top floor that is used as a guide for the rope; and on either side of the wheel, there are guide holes in the floor for the rope to travel through. Also on the top floor, there are other wheels and pulleys with rope tied to the elevator corners to maintain a level elevator floor. The elevator shaft has large wood beams at each floor for the attachment of the vertical guide rails. All of the elevator equipment and mechanisms appear to be in good condition, although the elevator does not come close to meeting the Building Code and cannot be put back in use as it is currently built. The elevator floor, lifting and lowering guides in the floor and the rope wheel can be seen in Photographs #31, #32, #33, #34, #35, and #36.

Second Floor and Third Floor: Most of the second and third floor framing was not accessible due to finishes. Our inspection of the second-floor framing was completed while standing on the first floor. Ceiling tiles and a stamped metal original ceiling covered the majority of the framing; however, I did note some issues. First of all, the left half of the building (south half) consists of 3"x12" wood second floor joists spaced at 24" on center spanning in the north south direction from center brick bearing wall to a girder line slightly off center to the north

exterior brick bearing wall. The girders appear to be three (3) 3"x12" spanning approximately 15' in the east-west direction to 8" diameter steel columns. The 8" diameter steel columns can be seen in Photograph #37. The stamped ceiling can be seen in Photograph #38. The 3"x12" joists on the south half of the building can be seen in Photographs #39 and #40. These Photographs show heavy steel joist hangars at each joist to girder connection.

The north half of the building (right side when standing at the front of the building) consists of 3"x15" deep large wood joists spaced at 16" on center that span the entire 28' from the exterior bearing wall on the north side from the middle brick bearing wall. The second floor on the north half of the building can be seen in Photograph #41. These deep, very unusual wood joists can be seen in Photographs #42 and #43.

The second floor is generally in good condition based on the small areas I could see, except for the following:

- 1. There is an area in the southwest corner that has excessive damage due to water infiltration. The area is about 17' x 8' and includes four (4) rotted 3"x12" joists and decking above. This deteriorated corner can be seen in Photograph #44.
- 2. Two (2) of the six (6) headers over windows and doors are badly deteriorated on the rear of the building.

The third-floor structural framing is the same as the second floor, except for the following deficiencies found on third-floor framing:

- 1. The deteriorated area in the southeast corner that is located above the same deteriorated area on the second floor is a little smaller on the third floor. Two (2) of the joists in this area are rotted and the rotted deck is about 10'x8'.
- 2. One (1) of the six (6) headers over windows on the rear of the S&B Building are badly deteriorated.

Roof: The roof structure consists of heavy timber roof trusses spanning in the north-south direction spaced at approximately 15' on center. They span from exterior walls to the middle 8"x15" wood columns that occur over columns below. In most cases, there are also some additional 6"x6" columns at midspan of the trusses. The ceiling joists at the roof are 2"x6" spaced at 24" on center spanning east-west between trusses. The roof rafters are also 2"x6" spaced at 24" on center spanning east-west. The 8"x8" main columns and 6"x6" columns along with typical ceiling framing can be seen in Photograph #45. The roof trusses and column capitals can be seen in Photograph #46. Some of the deficiencies we found in the roof structure include:

- 1. Several ceiling joists and rafters are rotted badly, as well as the roof deck in the southwest corner over deteriorated areas below. This deterioration can be seen Photograph #47.
- 2. Two (2) of the headers over windows at the rear of the building are badly deteriorated. One of the headers can be seen in Photograph #48.
- 3. The bottom chord at one (1) of the main roof trusses is deteriorated and needs repair. This is the first truss at the front of the building and the deteriorated bottom chord can be seen in Photograph #49.
- 4. A dozen of the ceiling joists are rotted at the ends at the front of the building.

SLEDGE & BARKLEY WAREHOUSE (S&B WAREHOUSE):

This building is constructed with a full basement and one (1) story above and is a brick and wood structure. The exterior of the S&B Warehouse can be seen in Photographs #50, #51, and #52. Although I could not access the roof of the S&B Warehouse, I could see the roof from a distance (Photograph #51). From this Photograph, I can see the roof is in poor condition. Since the roofing wraps over the parapet, it is difficult to determine the condition of the parapets; however, there are plenty of breeches in the roof where it turns up the parapet walls. I would guess from this that the parapets will need some repairs when the roofing is replaced. Another area of concern that applies to the roof is where the rear wall of the S&B Warehouse meets the roof. The top of the rear brick wall and the roof structure has no closure as can be seen in Photograph #53. The brick will need to be repaired and a frieze board will need to be installed correctly. Some other exterior deficiencies are as follows:

- 1. Some of the steel lintels over the windows need to be replaced and cracked brick repaired. An example can be seen in Photograph #54.
- 2. Damaged wall area at the rear of the S&B Warehouse and deteriorated brick above. This area can be seen in Photograph #55.
- 3. I estimate 5% of the north elevation needs repointing; the west elevation about 20%; the south elevation about 10%, and the east elevation about 5%.

Basement and First Floor Framing: The basement floor is a slab on grade. The first-floor framing can be seen in Photograph #56. The first-floor structure consists of 3"x11" wood joists spaced at 16" on center and spanning 14'-6" to 17'-3" in the north-south direction. Girders that are spanning approximately 11' in the east-west direction are 8"x12" wood and there are two rows of girders. The columns are 8"x8" and about 7' tall to the bottom of the column capitals. The column capitals can be seen in Photograph #56. The base of one of the columns is badly deteriorated and needs repair. This can be seen in Photograph #57. The brick base under several of the columns is breaking apart and needs repair, as can be seen in Photograph #58. Some of the first-floor problems at the S&B Warehouse is as follows:

- 1. The east end of the 8"x12" girders at the two girder lines are badly deteriorated. One is no longer bearing on the exterior wall as originally built, as seen in Photograph #59. The other has crushed and dropped about 6", as can be seen in Photograph #60. Temporary shoring has been installed to avoid collapse of the girders. The temporary shoring needs to be more substantial.
- 2. About fourteen (14) first-floor joists in the northwest corner are rotted badly, including the deck in an area of about 15'x20'. Some of the damage can be seen in Photographs #61 and #62.
- 3. The first-floor joist on the west side is rotted badly.

Roof Framing: The roof framing for the S&B Warehouse consists of 2"x6" actual size rafters spaced at 24" on center and spanning east-west to girder lines that are spaced at approximately 11"-0" on center. The girders are 6"x10" and are spanning from 14'-6" to 17'-3" in the north-south direction. The girders are supported by 6"x6" wood columns. Problems found in the roof include a rotted area of roof deck in the northwest corner that is about 8'x20' and the first three (3) or four (4) joists in the corner are rotted. The first girder at the northwest corner is rotted at the north end where it bears on the brick exterior wall.

S&B BUILDING AND S&B WAREHOUSE - LIVE LOAD CAPACITY:

In trying to determine the allowable live load for the S&B Building and S&B Warehouse, there are a number of assumptions that had to be made because most of the structure was not accessible. After running the calculations, it became obvious that a few areas may have to be opened up in order to possibly gain some capacity. The following are the allowable live loads based on limited information and based on just running calculations on typical members. In order to determine the allowable live loads, I had to check joists, girders, and columns and check bending stress, deflection, shear stress, and compression.

• S&B Building - Allowable Live Load for First Floor (both the Joists and Girders Control) 70psf

•	S&B Building - Allowable Live Load for Second & Third Floor on North Side of the	
	Building (Joists Control)	96psf

- S&B Building Allowable Live Load for Second & Third Floor on South Side of the Building (Girders Control)
 40psf
- S&B Warehouse Allowable Live Load for First Floor (Girders Control)
 88psf

Please note that I do not have a way to check the foundations to see if they are sized properly due to inaccessibility. I also have not checked atypical conditions. The south side second and third floors of the S&B Building appears to be the live load I am most concerned with. If more of the ceiling could be opened up and if I

could verify the girder sizes and whether there are column capitals in place, I may be able to increase this allowable live load. Some of the stamped ceiling would need to be removed.

Code prescribed live loads for various options are as follows:

•	Residential First Floor	40psf
•	Residential – Predominantly Sleeping Areas	30psf
•	Office Space	50psf
•	Office Space – Partition Allowance	20psf
•	Assembly	100psf

S&B BUILDING - SUMMARY OF STRUCTURAL PROBLEMS:

In summary, I have listed the main structural problems of the S&B Building below:

- 1. Two (2) steel bridge beams for the bridge connecting the two (2) buildings have two (2) bearing points that need repair.
- 2. The two (2) steel bridge beams need to be cleaned and painted.
- 3. Approximately 10% of the west elevation needs repointing.
- 4. The two (2) steel beams supporting the office space between buildings need to be cleaned and painted.
- 5. The wood 2x6 decking over the open deck to the left of the S&B Building needs to be replaced.
- 6. Two of the 12"x16" cmu piers at the open outside deck needs repair or replacement.
- 7. Approximately 20% of the south elevation needs repointing.
- 8. Approximately 5% of the east elevation needs repointing.
- 9. Approximately 20% of the north elevation needs repointing.
- 10. Replace roofing.
- 11. Repair parapets.
- 12. All of the steel columns in the basement need to be cleaned and painted. Several (assume 4) of the 8" diameter steel columns in the basement need to be inspected again after being cleaned, as some may need repair.
- 13. The end of the 8"x12" girder at the east side is badly deteriorated and needs to be replaced.
- 14. There is an 8"x12" girder section in the east end of the first-floor framing that is missing and needs to be replaced.
- 15. The 8"x12" girder line on the north side of the first floor has a lot of termite damage and sections need to be further investigated and maybe replaced.
- 16. Temporary shoring was added at a girder line that is in the middle of the building at the west end. The reason for the added temporary shoring needs to be investigated further.
- 17. The full first floor framing needs to be fully analyzed due to added framing and a large amount of termite damage.
- 18. The freight elevator needs to be taken out of use or an elevator company needs to recommend modifications to make the elevator Code compliant.
- 19. The southwest corner has a large area where the deck and joists are badly deteriorated for both the second and third floors. These areas need framing replaced.
- 20. There are two (2) lintels on the west side that needs to be replaced on the second floor.
- 21. There is one (1) lintel on the west side that needs to be replaced on the third floor.
- 22. Several ceiling joists and rafters are rotted at the roof and they need to be replaced.
- 23. Two (2) lintels over the windows at the roof need to be replaced.
- 24. The bottom chord of one (1) of the roof trusses is badly deteriorated and needs repair.
- 25. A dozen (12) of the ceiling joists at the front of the S&B Building at the roof needs to be replaced.

S&B WAREHOUSE - SUMMARY OF STRUCTURAL PROBLEMS:

In summary, I have listed the main structural problems of the S&B Warehouse below:

- 1. The roofing needs to be replaced.
- 2. The parapets need repair.
- 3. The top of the rear brick wall at the roof needs closure.
- 4. Several steel lintels over windows need to be replaced and cracked brick at the lintels need to be repaired.
- 5. There is a large area of badly damaged exterior brick wall at the rear that needs to be repaired.
- 6. Approximately 5% of the north elevation needs the brick repointed.
- 7. Approximately 20% of the west elevation needs the brick repointed.
- 8. Approximately 10% of the south elevation needs the brick repointed.
- 9. Approximately 5% of the east elevation needs the brick repointed.
- 10. One of the wood columns in the basement is badly deteriorated and needs repair.
- 11. All of the column bases below the base plates are falling apart and need repair. The failing brick should be replaced with non-shrink grout.
- 12. The east end of the 8"x12" girder lines, where they bear in the exterior brick wall, are badly deteriorated and need repair or replacement.
- 13. Approximately fourteen (14) first floor joists in the northwest corner are rotted badly and needs to be replaced along with the decking.
- 14. One first floor joist on the west side needs to be replaced.
- 15. There is a large area in the northwest corner of the roof that is rotted badly and needs to be replaced.

Lastly, it should be noted that at the time of my inspection, most of the finishes were still in place, which only allowed me to see less than 5% of the second and third floor structural elements. Access to the roof was not available, so I could not see any rooftop elements, such as parapets. I also could not access the structure over the storefront that fronts Main Street and could not get up close to elements that were difficult to reach, such as the elevator shaft and the upper portion of the roof structure. With this being said, I feel comfortable that I was able to find the majority of the structural problems; however, I would suggest that you include a 20% contingency for any "hidden" structural problems.

PROPOSED USE OF BUILDING:

It is my understanding that there have been several uses discussed by the Owners and the Preservation Team for the S&B Building and S&B Warehouse. The current anticipated occupancy/use of space and my comments about the feasibility of these uses include the following:

Basement at Main Building: Anticipated Occupancy: Swing Space for Retail Space Above. Once the repairs that are delineated in this Report have been completed, this occupancy will be acceptable.

First Floor at Main Building: Anticipated Occupancy: Commercial or Retail. Since the live load limit of the current first floor structure is 70psf, the first floor would be limited to office space or residential, and that is after repairs have been completed. Commercial and retail, including restaurants, require a live load capacity of 100psf minimum, with some higher than that, although 100psf covers most commercial/retail occupancies. In order to obtain the higher live load capacity, the first-floor joists and girders would need to be reinforced and/or columns be added in the basement to reduce spans. I would suggest adding columns and beam lines in the basement to reduce spans and cut down on loads applied to existing members. My "guesstimate" to increase the first-floor capacity (not including repairs delineated in my Report) would cost \$20,000.00 to \$30,000.00.

Second Floor at Main Building: Anticipated Occupancy: Part Office Space and Part Residential (Apartments). The allowable live load for the south side of the second floor is 40psf, which meets the requirements for residential, but not office space. I would, therefore, recommend that the residential for the second floor be located on the South Side. The allowable live load for the North Side of the second floor is 96psf. Either office or

residential could therefore be located on the North Side. In either case, the repairs delineated in this Report must first be completed.

Third Floor of Main Building: Anticipated Occupancy: Residential (Apartments). The allowable live load for the existing third floor, after all repairs have been completed, is 40psf on the South Side and 96psf on the North Side. Since the maximum required live load capacity for residential is 40psf, the third floor can support apartments once repairs have been completed without any additional reinforcing.

<u>Second Floor of Warehouse</u>: Anticipated Occupancy: Storage. Once the repairs delineated in this Report have been completed, the second floor of the Warehouse can support a live load of 88psf. Code prescribed live loads for light storage is 125psf; therefore, the second floor of the Warehouse would have to be strategically loaded so as to not overload the structure. Lighter loads, such as furniture and light equipment, could be stored, but not stacked. Heavier loads would have to be spaced out and could not be stacked. Very heavy loads would have to be analyzed on a case-by-case basis and, most likely, reinforcement added. I would, therefore, suggest that very heavy loads be placed on the ground floor of the Warehouse.

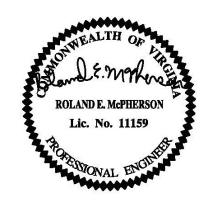
CONCLUSION:

The S&B Building and S&B Warehouse are generally in good condition from a structural standpoint. The repairs that are listed under "Summary of Structural Problems" on Pages 7 and 8 above need to be resolved before further restoration efforts proceed. As mentioned previously, other structural repairs will probably be needed as areas are exposed for inspection. While these repairs are being completed, the reinforcement that is required to obtain the desired occupancy should also be completed. At a minimum, the First Floor of the S&B Building needs reinforcement since the commercial/retail occupancy is a given. Other floors will have to be analyzed to see if the occupancy can be located to match the capacity. For instance, the second and third floors can support a "residential" occupancy on the entire floor area; however, the "office space" occupancy can only be located on the North Side of the second and third floors without first reinforcing the floor structure. If this restricts the occupancy use, reinforcement of other floors/areas can be considered and/or may be required.

I have enjoyed working with you thus far on this Project. If you have any questions and/or comments, please do not hesitate to advise.

Sincerely,

McPherson Design, PLLC With March Roland E. McPherson, P.E. REM/dlw cc: Jess Archer, Architectural Historian Attachment: Photographs (62)



A.2. ENGINEERING PHOTOS

PHOTOGRAPH #1 FRONT OF BUILDING (EAST SIDE)



PHOTOGRAPH #2 FRONT OF BUILDING (DATE UNKNOWN-FROM DHR REPORT)



Brunswick County State Bank, 132 W. Hicks St. (251-5001-0056)



Sledge & Barkley, 307 N. Main St. (251-5001-0122)

21

ner punctuated by small display windows. Although the glass and display ed in a recent remodeling, the general moderne effect remains. The three building, built 1885, at <u>207 North Main Street (EI</u>GURE 16) is one of the

PHOTOGRAPH #3 FRONT OF BUILDING (DATE UNKNOWN-FROM DHR REPORT)

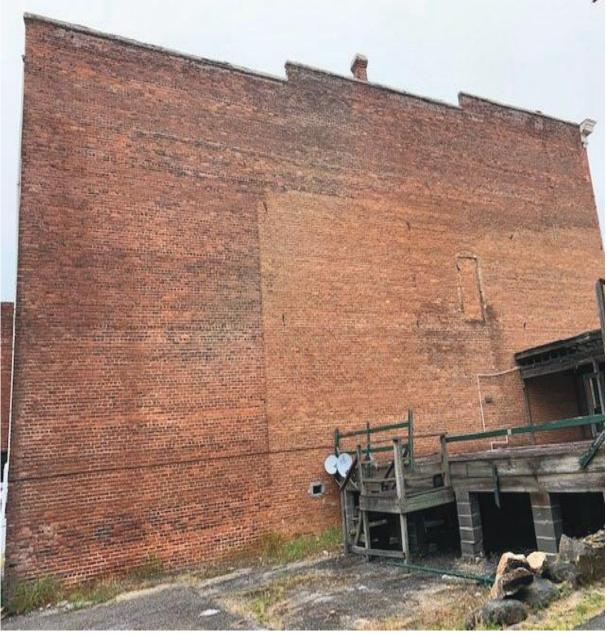




PHOTOGRAPH #4 WEST SIDE OF S&B BUILDING



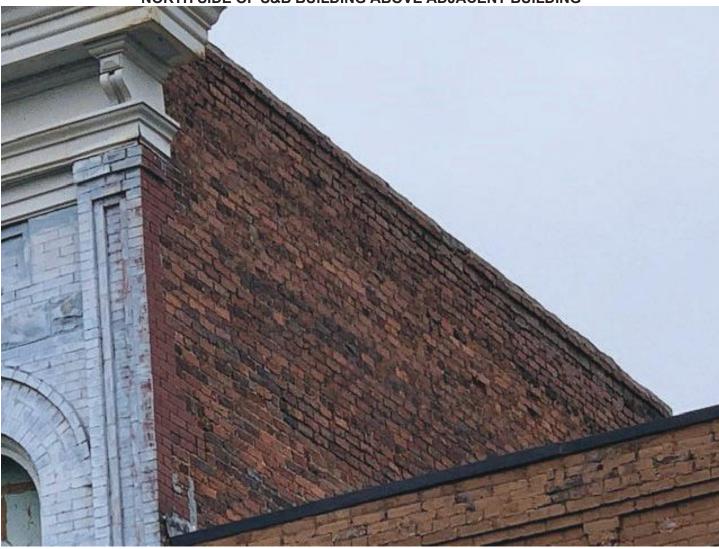
PHOTOGRAPH #5 SOUTH SIDE OF S&B BUILDING WITH DECK ON LOWER RIGHT



PHOTOGRAPH #6 SOUTH SIDE OF S&B BUILDING



PHOTOGRAPH #7 NORTH SIDE OF S&B BUILDING ABOVE ADJACENT BUILDING



PHOTOGRAPH #8 BRIDGE CONNECTION S&B BUILDING AND S&B WAREHOUSE



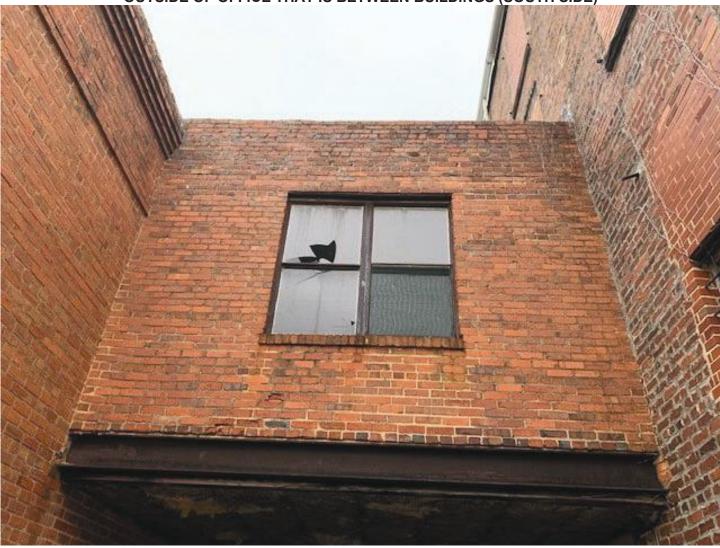
PHOTOGRAPH #9 BRIDGE STEEL BEAM BEARING POINT



PHOTOGRAPH #10 BRIDGE STEEL BEAM BEARING POINT



PHOTOGRAPH #11 OUTSIDE OF OFFICE THAT IS BETWEEN BUILDINGS (SOUTH SIDE)



PHOTOGRAPH #12 OUTSIDE OF OFFICE THAT IS BETWEEN BUILDINGS (NORTH SIDE)



PHOTOGRAPH #13 DECK ON SOUTH SIDE OF S&B BUILDING



PHOTOGRAPH #14 DECK ON SOUTH SIDE OF S&B BUILDING



PHOTOGRAPH #15 DECK ON SOUTH SIDE OF S&B BUILDING

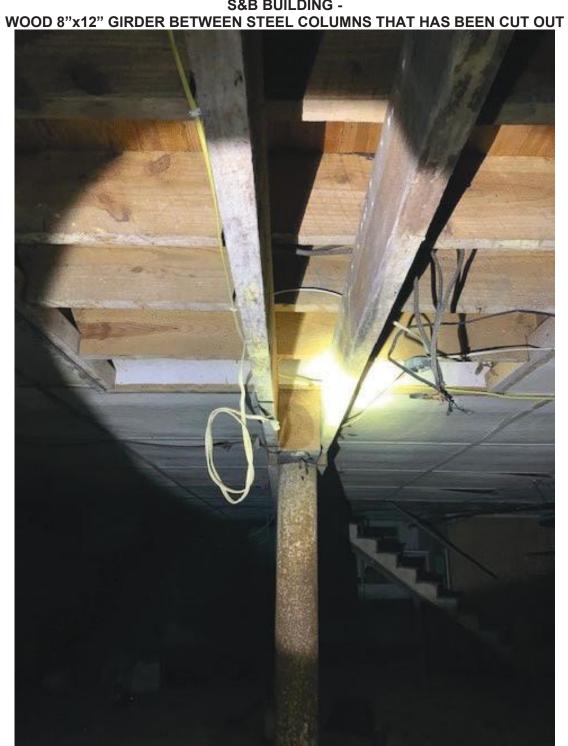


PHOTOGRAPH #16 STEPPED BRICK FOUNDATION WALL RUNNING DOWN CENTER OF S&B BUILDING



PHOTOGRAPH #17 S&B BUILDING -RUSTED AND PITTED BASE OF STEEL COLUMN IN THE BASEMENT





PHOTOGRAPH #18 S&B BUILDING -

PHOTOGRAPH #19 S&B BUILDING – ONE END OF WOOD GIRDER THAT WAS CUT











PHOTOGRAPH #22 S&B BUILDING -DOUBLE 6"x6" COLUMNS IN MIDDLE WITH 8"x8" TO THE LEFT



PHOTOGRAPH #23 S&B BUILDING -ADDED 6" x 6" WOOD COLUMN



PHOTOGRAPH #24 S&B BUILDING -ADDED 6"x6" WOOD COLUMN – BADLY DAMAGED END OF GIRDER



PHOTOGRAPH #25 S&B BUILDING -GIRDER LINE WITH LOTS OF TERMITE TRAILS IN THE LAST 20FT







PHOTOGRAPH #27 S&B BUILDING -TEMPORARY SHORING



PHOTOGRAPH #28 S&B BUILDING -TYPICAL STEEL COLUMN TO BRICK PIER CONNECTION



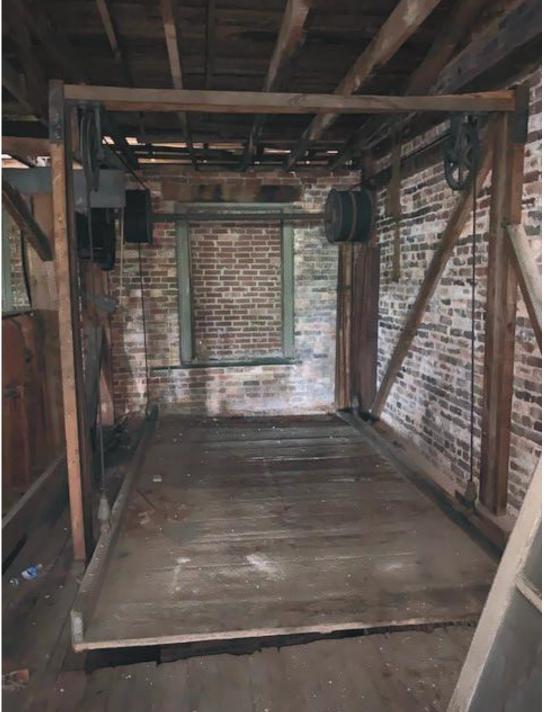
PHOTOGRAPH #29 S&B BUILDING -HEAVILY TERMITE INFESTED GIRDER



PHOTOGRAPH #30 S&B BUILDING -GIRDER WITH TERMITE TRAILS AND BRICK NOGGING











PHOTOGRAPH #33 S&B BUILDING -ELEVATOR SHAFT



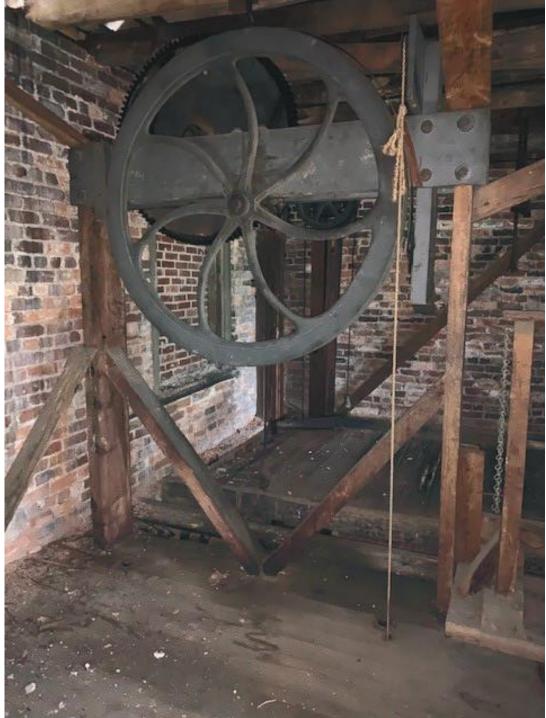
PHOTOGRAPH #34 S&B BUILDING -BOTTOM OF ELEVATOR SHAFT



PHOTOGRAPH #35 S&B BUILDING -ELEVATOR ROPE GUIDES –ROPE GOING THROUGH SMALLER HOLE IS A MANUAL BRAKE



PHOTOGRAPH #36 S&B BUILDING -ELEVATOR WHEEL FOR LIFTING ROPES



PHOTOGRAPH #37 S&B BUILDING -STEEL COLUMNS AT SECOND FLOOR



S&B BUILDING -**STAMPED CEILING** and the second second

PHOTOGRAPH #38



PHOTOGRAPH #39 S&B BUILDING -

PHOTOGRAPH #40 S&B BUILDING -JOIST TO GIRDER CONNECTION SHOWING HEAVY JOIST HANGARS

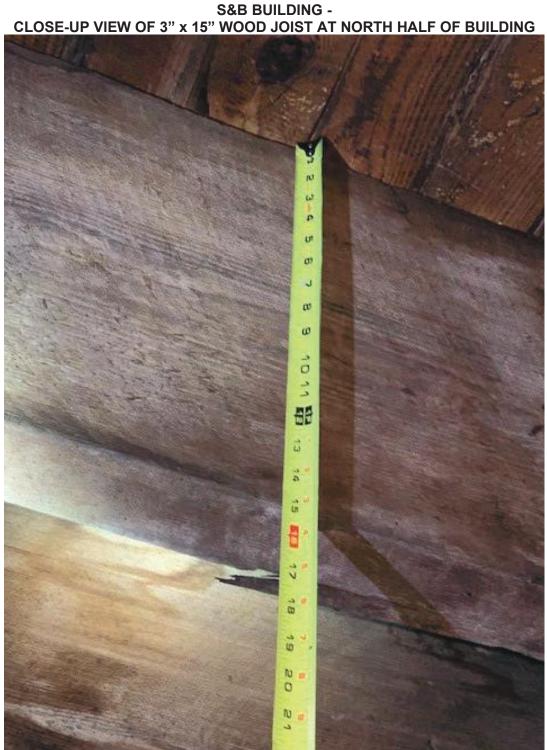


PHOTOGRAPH #41 S&B BUILDING -NORTH HALF OF SECOND FLOOR WHERE JOISTS SPAN 28FT



PHOTOGRAPH #42 S&B BUILDING -<u>3" WIDE x 15" DEEP WOOD JOISTS AT SECOND FLOOR</u>





PHOTOGRAPH #43

PHOTOGRAPH #44 S&B BUILDING -DETERIORATED FLOOR AREA



PHOTOGRAPH #45 S&B BUILDING -THIRD FLOOR COLUMNS AND ROOF STRUCTURE



PHOTOGRAPH #46 S&B BUILDING -ROOF STRUCTURE



PHOTOGRAPH #47 S&B BUILDING -DETERIORATED ROOF IN SOUTHWEST CORNER

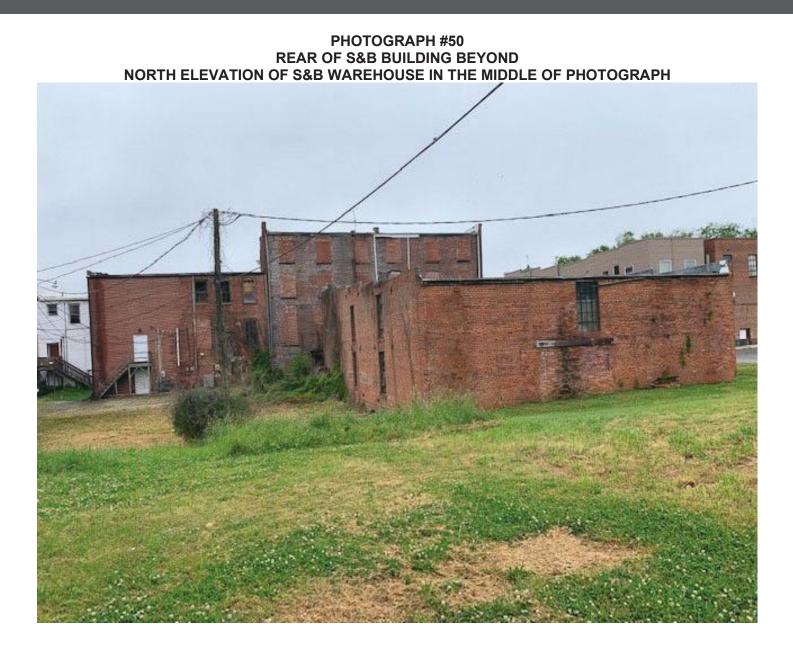


PHOTOGRAPH #48 S&B BUILDING -DETERIORATED HEADER AT ROOF



PHOTOGRAPH #49 S&B BUILDING -BOTTOM CHORD OF FIRST MAIN TRUSS AT FRONT OF BUILDING





PHOTOGRAPH #51 REAR OF S&B WAREHOUSE (WEST ELEVATION)



PHOTOGRAPH #52 SOUTH SIDE OF S&B WAREHOUSE ON RIGHT



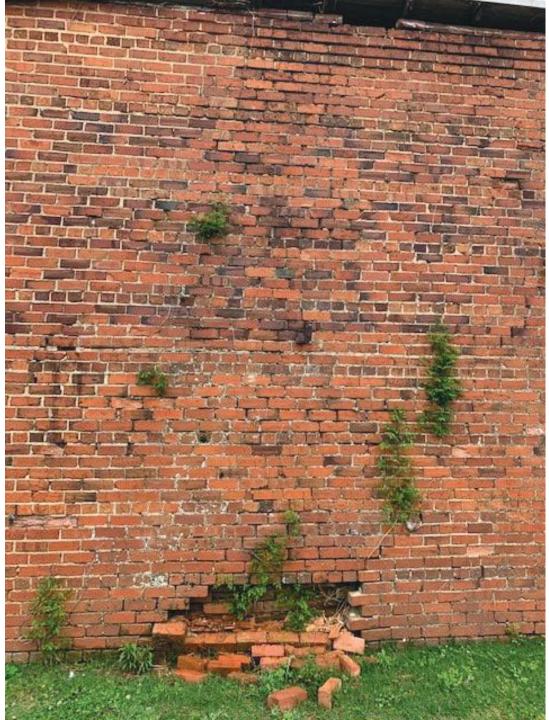
PHOTOGRAPH #53 REAR OF S&B WAREHOUSE AT WALL TO ROOF JUNCTURE



PHOTOGRAPH #54 S&B WAREHOUSE -DETERIORATED LINTEL AND BRICK OVER WINDOW



PHOTOGRAPH #55 S&B WAREHOUSE -REAR WALL WITH DETERIORATED BRICK



PHOTOGRAPH #56 S&B WAREHOUSE -VIEW OF FIRST FLOOR FRAMING



PHOTOGRAPH #57 S&B WAREHOUSE -DETERIORATED BASE OF COLUMN



PHOTOGRAPH #58 S&B WAREHOUSE -BREAKING APART BRICK BASE UNDER COLUMN



PHOTOGRAPH #59 S&B WAREHOUSE -BADLY DETERIORATED GIRDER AT FIRST FLOOR



PHOTOGRAPH #60 S&B WAREHOUSE – BADLY DETERIORATED FIRST FLOOR GIRDER



PHOTOGRAPH #61 S&B WAREHOUSE – DETERIORATED FRAMING IN NORTHWEST CORNER OF ROOF



PHOTOGRAPH #62 S&B WAREHOUSE -JOISTS IN THE NORTHWEST CORNER OF FIRST FLOOR



B. ASBESTOS REPORT Asbestos report for S&B Building

Keith Buchanan 8313 Rolando Drive Henrico, Virginia 23229

RE: Asbestos Investigation

DATE: September 9, 2020

Dear Mr. Buchanan,



ENVIRONMENTAL SOLUTIONS, LLC

Commonwealth Environmental Solutions visited **307 Main** to perform an asbestos inspection. The inspection consisted of a visual inspection inside the space, collecting samples of items that had the potential to contain asbestos. CESRVA collected the samples and hand delivered them to an accredited lab for analysis.

The samples were collected from the green floor tiles and the mastic for the green tile as well as the tile flooring and mastic from the main area of the space. The green tile tested positive for containing asbestos as well as the mastic for the main tile floor throughout.

Asbestos containing materials should be removed by an asbestos abatement contractor and the materials removed should be disposed of following all of the appropriate local, state, and federal laws.

Please find attached a copy of the indoor air quality sample results for your review. Please contact CESRVA with any questions pertaining to this letter or the attached sample results, or anything found within this letter. Thank you for allowing CESRVA to assist you with your indoor air quality concern.

Sincerely,

Lee A. McNutt

Lee A. McNutt, CIE, Owner CESRVA, LLC Commonwealth Environmental Solutions 10221 Krause Road P.O. Box 1688 Chesterfield, Virginia 23832 804-247-2151- Cell, 804-744-1123- Office

Asbestos report for S&B Warehouse

Keith Buchanan, Owner 804 Builders 8313 Rolando Drive Henrico, Virginia 23229

RE: Indoor Air Quality Investigation

DATE: September 28, 2020

Dear Mr. Buchanan,

Commonwealth Environmental Solutions visited the building behind the old Sledge and Barkley building to perform an asbestos inspection. The inspection consisted of a visual inspection inside the space upstairs and down, collecting samples of items that had the potential to contain asbestos. CESRVA collected the samples and hand delivered them to an accredited lab for analysis.

All of the samples collected for the Sledge and Barkley building are labeled LWVA-1 through LWVA-6. There were two samples that contained asbestos. One sample was collected out of an opened bag labeled "asbestos cement" located on the second floor. The second positive sample was collected from a container that was labeled "wheat" something (it was illegible, see photos). But the material inside the container came back exactly like the material labeled "asbestos cement".

Please find attached a copy of the indoor air quality sample results for your review. Please contact CESRVA with any questions pertaining to this letter or the attached sample results, or anything found within this letter. Thank you for allowing CESRVA to assist you with your indoor air quality concern.

Sincerely,



Lee A. McNutt, CIE, Owner CESRVA, LLC Commonwealth Environmental Solutions 10221 Krause Road P.O. Box 1688 Chesterfield, Virginia 23832 804-247-2151- Cell, 804-744-1123- Office









