CITY OF SAINT PAUL
HERITAGE PRESERVATION COMMISSION STAFF REPORT

FILE NAME: 445 Smith Avenue North
DATE OF APPLICATION: August 4, 2015 (additional materials 8-11, 8-17, 8-20)
APPLICANT: Thomas Schroeder
OWNER: Thomas and Ann Schroeder
DATE OF HEARING: August 27, 2015
HPC SITE/DISTRICT: *pending* Limestone Properties Thematic Nomination (P.O.S. 1850-1899)
CATEGORY: Contributing
CLASSIFICATION: Building Permit
STAFF INVESTIGATION AND REPORT: Amy Spong
DATE: August 19, 2015

A. SITE DESCRIPTION:

The Anthony Waldman House at 445 Smith Avenue North was constructed in phases and is classified as contributing to the Limestone Properties Thematic Nomination that is currently pending designation as a Saint Paul Heritage Preservation Site before the City Council (Ord. 15-42). While the property is recognized as significant as a group of uncommon limestone properties within the West Seventh/Fort Road neighborhood constructed during the Pioneer Era, the property is also within a four-block area that has been determined eligible for the National Register of Historic Places.

The Waldman House consists of the front stone portion which was constructed by the first owner Charles C. Fuchs circa 1857 and the mason attributed with the craftsmanship is Jacob Amos who moved to St. Paul in 1856. The stone portion is representative of the Federal style with a low sloping hipped roof and a front façade with three bays, sidehall entrance and divided light double hung windows. The sides have fewer openings. The front elevation has an ashlar limestone while the other three sides are of rubble masonry. The circa 1885 rear addition is a wood-frame, 1 ½ story gabled roof structure with wood lap siding and a limestone foundation. There is physical evidence that the first floor was constructed earlier and the upper ½ story was added to later. The Sanborn Insurance Maps updated through 1925 still show a one story addition with the same footprint as the existing structure. The applicant also provided a photo showing the gabled roof location along the stone wall for the one story structure and wood framing members that were added onto possibly for the new height and ½ story.

The parcel currently has two principle structures located on one lot, the Palmer House was constructed in the 1870s and according to the applicant was located behind the Waldman House but later moved to the side so that eventually all four dwelling units on the one lot were oriented at the public sidewalk.

B. PROPOSED CHANGES:

The applicant is proposing to rehabilitate the property in order to use the property as a brewery/tap room/restaurant. The applicant proposes to demolish the 1880s wood frame addition and construct a new addition using the same footprint, new sloping gable roof, wood lap siding and wood double-hung windows and two dormers. The applicant then proposes two additional additions to the rear including a vestibule and new two-story structure. An accessible ramp is proposed to the south of the stone portion with access in a new side entrance. A side porch is shown in the drawings but is not being proposed or reviewed at this time. The new 1 ¾ story addition that matches the existing footprint of the 1880's addition measures 23' by 18 ½', the one-story vestibule measures 7 ½' by 17' and the new two story building measures 26' by 48'. The historic stone portion will be the only remaining historic fabric on the large parcel and measures 24 ½' wide by 19' deep.

C. BACKGROUND:

The owner purchased the Category 2 Vacant Building from longtime resident and owner, Frances Dreyling

in 2008. The owner has been rehabilitating the structure since that time. City permits were issued for re-roofing the stone portion, removing the early stone infill on the main façade and constructing a new storefront, constructing a raised walkway in the public right-of-way, repointing and structural stabilization. Since the property is pending designation by the City Council as a Heritage Preservation Site, there has been no formal review of the work and this staff report only addresses the remaining work being proposed in order to obtain an historic use variance once the property is officially designated.

The Palmer House to the south of the Waldman House has been approved by zoning for moving onto 41 Douglas Street. If the Palmer House is still on the site when the Limestone Properties Thematic Nomination becomes formally adopted (30 days after City Council adoption), the HPC will need to review the removal as a demolition (moving off of a Heritage Preservation Site) per Sec. 74.09(m). This staff report does not address the moving of the Palmer House. Given the construction date, the Palmer House, is during the Period of Significance, the property is considered a contributing element at the site.

Historic Preservation have staff attended several meetings during the rehabilitation. The architect and staff met on August 20, 2015 to specifically discuss the needed materials for design review and the public hearing.

D. GUIDELINE CITATIONS:

Sec. 74.09. Limestone Properties preservation program.

(b) Outline of preservation program. The City's Legislative Code, Chapter 73 creates the Saint Paul Heritage Preservation Commission and grants powers and duties that include the review of city permits for work at designated sites and districts. Specifically, §73.04(4) states the commission shall protect the architectural character of heritage preservation sites through review and approval or denial of applications for city permits. The following guidelines for design review will serve as the basis for the Heritage Preservation Commission's design review decisions for properties designated under the Limestone Properties Thematic Nomination. The guidelines define the most important elements of the Site's unique physical appearance and state the best means of preserving and enhancing these elements in rehabilitation. Their purpose is to assure that design review will be based on clear standards rather than the tastes or opinions of individual commission members. When applying the guidelines, the Commission, in clearly defined cases of economic hardship, will also consider deprivation of the owner's reasonable use of property. Decisions of the Heritage Preservation Commission are subject to appeal to the City Council (§73.06(h)).

(1) General Intent. The city, a certified local government in the National Historic Preservation Program, has agreed to conduct its design review of locally designated heritage preservation sites and districts according to the Secretary of the Interior's Standards for Rehabilitation (2014) (The Standards). The Standards are applied to projects in a reasonable manner, taking into consideration economic and technical feasibility. The Standards provide general information to determine appropriate treatments for historic properties. They are intentionally broad in scope in order to apply to a wide range of circumstances. The Standards have been designed to enhance the understanding of basic preservation principals and may be applied to one historic resource or a variety of historic resource types such as Districts, Sites, Buildings, Structures, and Objects. The Standards identifies four primary treatments: **preservation, rehabilitation, restoration, and reconstruction**. Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity and material of an historic property. Improvements generally focus on the ongoing maintenance and repair of historic materials, rather than extensive replacement or new construction. Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations and additions while preserving those portions or features which convey its historical or cultural value. The Standards for Rehabilitation have been codified in 26 CFR 67. Restoration is defined as the act or process of accurately depicting the form, features and character of a property as it appeared at a particular time by the removal of features from other

periods in its history and reconstruction of missing features from the restoration period. Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features and detailing of non-surviving site features for the purpose of replicating its appearance at a specific period of time and in its historic location. Although there are components that may include restoration and preservation treatments, it is the Standards for Rehabilitation that is emphasized when reviewing proposals. The ten Standards for Rehabilitation are:

a. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
b. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
c. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
d. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
e. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
f. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
g. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
h. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
i. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
j. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

(2) Guidelines for Repair and Rehabilitation of Sites. Although the ways we use buildings have changed over the years, we can still appreciate the historical and visual values that historic buildings present. To insure that succeeding generations can also appreciate them, the goals of rehabilitation and repair of historic buildings are twofold. The first is to maintain the appearance of age (patina). The second is to maintain the authenticity of the historic building and its materials.

a. Limestone Masonry.

b. Siding and Shingles. Historic stone buildings may have areas of siding or shingles in gable ends, or there may be wood frame additions on the building that are historically significant. Historic wood materials are of equal importance as masonry, and should be treated accordingly.

Repair: Original wood and metal siding and shingles should be retained whenever possible without the application of any surface treatment. A similar material should be used to repair or replace, where necessary. New siding and shingles added to the structure or site should be compatible with the material, color, texture, size, design, and arrangement of the original materials.

Vinyl, Aluminum and Composite Materials:

Decorative Siding Treatments: Wooden shingles used for cladding material or decoration, such as in the gable ends, shall be conserved and retained. If replacement is necessary, shingles should replicate the original in material, width, pattern, thickness, profile, texture and weather (lap).Decorative siding treatments, such as paneled patterns used in the gable ends, on bays or around openings shall be retained and repaired. If replacement is necessary, the new shall match in material, size, pattern, profile and texture.

Painting: Wood shingles or siding may have been painted or whitewashed for practical and aesthetic reasons. Paint should not be indiscriminately removed from wooden surfaces as this may subject the building to damage and change its appearance. Exterior wooden surfaces shall be maintained with appropriate paint or stain. Color is a significant design element and exterior paint colors should be appropriate to the period and style of the historic building. Building permits are not required for painting, and although the Heritage Preservation Commission may review and comment on paint color, paint color is not subject to Heritage Preservation Commission approval.

Resources: The following National Park Service publications contain more detailed information about wood. Preservation Brief #9: The Repair of Historic Wood Windows. Preservation Brief #10: Exterior Paint and Problems on Historic Woodwork. Preservation Brief #17: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character. Preservation Brief #32: Making Historic Properties Accessible. Preservation Brief #37: Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing. Preservation Brief #39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings.

c. Roofs, Chimneys, Cornices and Parapets.

Roof Structure: The historic structure of a roof for masonry buildings must be maintained. Truss roofs must not be replaced with rafter roofs, and any horizontal roof members, including tension rods, must not be removed. Masonry walls are weak in tension, and the horizontal thrust of rafters can distort and collapse walls unless the walls are designed to counter the forces.

Roof Shape: The original roof type, slope, overhangs and architectural details shall be preserved. The size, shape and original roof features such as dormers, cupolas and parapets shall also be preserved. New roof features may be acceptable if compatible with the original design and not conspicuously located.

Materials: When the roof is visible from street level, the original material should be retained if possible, otherwise it should be replaced with new material that matches the old in composition, size, shape, color, and texture. When partially re-roofing, deteriorated roof coverings should be replaced with new materials that match the original in composition, profile, size, shape, color and texture. When entirely re-roofing, new materials which differ to such an extent from the original in composition, size, shape, color or texture that the appearance of the building is altered shall not be used. The predominant roof materials on the residential buildings in the Jacob Schmidt Brewery Historic District are asphalt shingles. When asphalt shingles began to be used in the 1890s and early twentieth century, the most common colors were solid, uniform, deep red and solid, uniform, dark green. Dark brown, dark gray and weathered-wood colors may also be acceptable for new asphalt shingles.

Alterations: The roof shape of buildings shall not be altered except to restore it to the original documented appearance. The additions of architecturally compatible elements like dormers may be considered by the HPC on a case-by-case basis. Documentation includes pictorial or physical evidence of the former appearance of the building, or, in the case of pattern book houses, those of similar period and style.

Skylights:

Chimneys, Stovepipes and Smokestacks: Chimneys and smokestacks should be preserved or restored to their original condition. In the absence of historical documentation on the original design, chimney design should be in keeping with the period and style of the building. New chimneys and stovepipes should not be installed on front roof planes.

Cornices, Parapets and Other Details: All architectural features that give the roof its essential character should be preserved or replaced in kind. Similar material should be used to repair/replace deteriorating or missing architectural elements such as cornices, brackets, railings and chimneys, whenever possible. The same massing, proportions, scale and design theme as the original should be retained.

Resources: The following National Park Service publications contain more detailed information about roofs. Preservation Brief #4: Roofing for Historic Buildings. Preservation Brief #19: The Repair and Replacement of Historic Wooden Shingle Roofs Preservation Brief #29: The Repair, Replacement, and Maintenance of Historic Slate Roofs. Preservation Brief #35: Understanding Old Buildings: The Process of Architectural Investigation.

d. Windows and Doors. Windows and doors are a character defining architectural feature of any building, and they establish the visual rhythm, balance and general character of the facades. Any alteration, including removal of moldings or changes in window and door size or type, can have a significant and often detrimental effect on the appearance of the building. It is important to note that in most cases, the historic windows can be affordably repaired and made to perform as well as modern windows. Historic windows that are easily repairable are often replaced at greater cost because homeowners only contact companies that replace windows.

Openings: Existing window and door openings should be retained. New window and door openings should not be introduced into principal or highly visible elevations. New openings may be acceptable on secondary or minimally visible elevations so long as they do not destroy or alter any architectural features and the size and placement is in keeping with the solid-to-void (wall-to-openings) ratio of the elevation. Enlarging or reducing window or door openings to fit stock window sash or new stock door sizes shall not be done.

Panes, Sashes and Hardware:
Trim:
Lintels, Arches and Sills:
Storms and Screens:
Shutters:
Security Measures:

e. Awnings and Canopies:
Resources:

f. Porches and Steps. Porches were a significant part of a house in the nineteenth century and reflected the social development of the US. Porches should be considered one of the most significant architectural features of a building and treated as such.

Preservation: Porches and steps which are historic or appropriate to the building and its development should be retained. Porches and additions reflecting later styles of architecture are often important to the building's historical evolution and should be retained. Infilling of porches should be avoided. The treatment of historic materials of porches should follow the guidelines for masonry or wood trim above.

Reconstruction: If porches and steps removed from the building are to be reconstructed, the new work must be based upon photographic documentation, physical evidence, and historical research. Simple designs should be used if evidence is lacking in order to avoid speculation. A professional can help create a design that is compatible in design and detail with the period and style of the building. In replacing porch railings, it is important to maintain the original spacing, section and profile of the balustrades.

Decorative Features:
Additions and Infill:
Resources:

g. Fencing, Enclosures and Retaining Walls. Many houses have small walls and other enclosures that are part of the historic fabric of the building site. Existing fencing and retaining walls that are identified as contributing elements to the Site or District should be appropriately maintained and preserved. Mortar should not be added to stone walls that were historically dry-laid (i.e. built without mortar). Otherwise, the elements of walls should be treated as elements of historic buildings.

h. Mechanical Systems. Historically, buildings from the frontier era had few amenities. Modern standards of comfort can require the installation of many systems that could disrupt the visual and material integrity of a building. The installation of climate control systems should be carefully considered and designed by professionals. Location and Siting: Mechanical related equipment should be sited in such a way that they do not block or disrupt principal elevations and prominent views, especially on roof tops. Mechanical related equipment that is sited on grade should be inconspicuously sited. In some cases, appropriate screening such as low hedges, may be necessary. Any equipment that must be attached to the exterior of a wall should be done in an unobtrusive location and into mortar joints only. If mechanical attachments, such as water or cooling line sets must cut through a historic masonry wall, the installation should damage as few stones or bricks as possible. It is preferable to extensively damage one stone than to moderately damage four stones. The installation of modern equipment should be carefully planned to avoid damage and removal of historic materials from the interior.

Grills, Exhaust Fans, etc.: Grills, vents, exhaust outlets for air conditioners, bath and kitchen exhaust fans should be incorporated into filler panels or exhausted through the roof, if possible. They may be painted the same color as the filler panel.

Resources: The following National Park Service publications contain more detailed information about mechanical systems. Preservation Brief #24: Heating, Ventilating, and Cooling Historic Buildings—Problems and Recommended Approaches.

i. Energy Efficiency.

j. Guidelines for Signage, Awnings and Accessories.

k. Guidelines for New Construction, Additions and Alterations. General. In general, historic properties should be used as their historic intended purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment. There are cases where small additions or detached new construction will not materially impair the historic or architectural character of the building or its site. New construction can be detached structures on the same property of the historic structure or an addition that is physically attached to the historic structure. Guidelines for new construction focus on general rather than specific design elements in order to allow for architectural innovation. Existing historic buildings and landscape features should be retained and rehabilitated. New construction should reinforce the historic architectural and visual character of the site. The subject of new additions is important because a new addition to a historic building has the potential to change its historic

character as well as to damage and destroy significant historic materials and features. A new addition also has the potential to confuse the public and to make it difficult or impossible to differentiate the old from the new or to recognize what part of the historic building is genuinely historic.

Location. Additions. New construction on the site should not detract from the primary historic building and should be subordinate in massing to the historic structure. Therefore, additions to the primary historic building should be on the rear of the building and visually set back from the side elevations. Proper placement of new detached buildings and even additions require an understanding of the development of the property over time and the surrounding area so that new construction is consistent with historic development patterns. For example, the modest limestone buildings were often built on narrow lots and had small wood-frame accessory structures at the rear or they were built on large lots with multiple dwellings spaced close together. The massing, volume, and height of any new construction should be subordinate to the massing, volume, and height of the existing historic structure on the site. Additions or new buildings on the site that "dwarf" the historic buildings will not comply with these guidelines.

Accessory Buildings. New garages and other accessory buildings should be compatible with the overall design and materials of the existing building on the lot. New garages should be located off rear alleys wherever possible. Garages should not be attached to the front of the building and should only be attached if not visible from the public way.

Parking. Residential parking areas should be confined to the rear of existing or new buildings. Parking spaces should be screened from view from the public street by landscaping such as hedges, grade changes or low fences.

Setback and siting. The setback of new buildings in most residential and commercial areas should be compatible with the setback of existing adjacent historic buildings.

Roofs and Cornices. New roof, and cornice designs should be compatible with the primary building on the site. It is more important for roof and roof edges to relate in size and proportion, than in detailing.

Materials and Details. The materials and details of new construction should relate to the materials and details of the primary building on the site, but should not be slavishly imitative. In other words, new masonry should be mortared to the exterior, but rubble stone construction is not required. Contemporary, cement-backed "dry stone" construction is not appropriate except for retaining walls. Later additions to early modest limestone houses were often wood frame and reflect the changes in materials, economic conditions and trends in architecture. New masonry additions to the limestone buildings are usually not appropriate.

Windows and Doors. Windows, doors, and openings should relate to those of the primary building on the site in the ratio of solid to void, distribution of window openings, and window setback from the exterior wall plane. The proportion, size, style, function and detailing of windows and doors in new construction should relate to that of existing adjacent buildings. Window and door frames should be wood, but imitative materials can be considered on a case-by-case basis.

Resources: The following National Park Service publications contain more detailed information about additions and new construction. Preservation Brief #14: New Exterior Additions to Historic Buildings: Preservation Concerns. Preservation Brief #17: Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character

l. Site Considerations. General. The traditional pattern of streets, curbs, boulevards and sidewalks in the area should be maintained. Distinctive features of spaces in the area such as fences, retaining walls

and steps that are important in defining the context should be preserved. The relationship of buildings to open space and setbacks of buildings is important to preserve. New street furniture and landscape improvements such as benches, bus shelters, kiosks, sign standards, trash containers, planters and fences should be compatible with the character of the Sites. The historic urban pattern of grid plan streets should be retained and enhanced in improvement projects.

Fences and Retaining Walls. Fences which are low and allow visual penetration of front yard space are preferable to complete enclosure. Fences of wrought iron or wood which enclose the front yard should be no higher than three and one-half (3 1/2) feet. Cyclone fences should not be used to enclose front yards or the front half of side yards. Stone, brick and split face concrete block are preferable to landscape timber for the construction of retaining walls.

Lighting. The location and style of exterior lights should be appropriate to the structure's age and original design intent.

Hardscaping and Landscaping. New landscaping should respect the historical and architectural character of the existing property.

m. Guidelines for Demolition and Moving Buildings. Proposals for demolishing structures, partial or whole, while reviewed with special care by the Heritage Preservation Commission, are not necessarily in conflict with the guidelines. When reviewing proposals for demolition of structures, the Heritage Preservation Commission will consider the following:

1. The architectural and historical merit of the building. This includes consideration of the integrity of the structure and whether it was constructed during the Period of Significance.
2. The effect of the demolition on surrounding buildings, the effect of any proposed new construction on the remainder of the building (in case of partial demolition) and on surrounding buildings.
3. The economic value or usefulness of the building as it now exists in comparison with the value or usefulness of rehabilitating the building or structure for a new use.
4. The physical condition of the structure and the feasibility of continued use with considerations of maintenance, safety, and compliance with codes.

E. FINDINGS:

1. The Anthony Waldman House at 445 Smith Avenue North is pending designation as a Saint Paul Heritage Preservation Site under City Council agenda item Ord 15-42 (Legislative Code pending Sec. 74.09). The City's Legislative Code states the HPC shall protect the architectural character of heritage preservation sites through review and approval or denial of applications for city permits for exterior work within designated heritage preservation sites §73.04.(4). The Period of Significance for the Limestone Properties Thematic Nomination is 1850 through 1899.

2. **74.09(1)(a,b,c,d,e,f,i,j) General Intent.** It should be made clear that the new addition onto the stone portion is not a *restoration* or a *reconstruction* as defined by the Secretary of the Interior's Standards for Rehabilitation. Those terms were used in the application, but staff and the HPC use the definitions provided in the SOI Standards and repeated in the Preservation Program. The rehabilitation standards and guidelines apply herein and often there are elements that are restored or reconstructed if missing, as part of a larger rehabilitation plan.

   There are several Standards that apply to this application that must be evaluated and applied with a general understanding of how the site and buildings have developed and evolved over a long period of time. Throughout this staff report, the rear addition is referred to the 1880's wood frame addition, however, there is indication that the first story may be a much earlier addition with a second floor being added sometime after 1891 (the 1891 Sanborn Insurance Map still shows a one story building in the same footprint). According to the applicant, there are earlier framing members along the rear stone

wall and there is an indication that a lower, one story roof was located here. It's possible the second story of the existing rear addition was installed outside the Period of Significance which goes to 1899. This is further supported by the later 3-over-1 double-hung window in the upper end gable and the shed roof dormer which the applicant believes was installed for the bathroom when plumbing was added.

The applicant is not proposing to restore/reconstruct the earlier one-story wood frame addition noted on the 1891 Sanborn Insurance Map and is also not proposing to reconstruct the existing 1880s addition. The applicant proposes a new addition that is the same footprint as existing (and likely matches an earlier footprint) with similar materials, such as wood double-hung windows, wood lap siding, stone veneer foundation and wood shingles. The new elements proposed are a taller knee wall (to accommodate more head room in the second story), two new gabled dormers, six awning windows on the second floor, four new 6-over-6 double-hung windows and a brick chimney. This does not generally meet Standard 6 or 74.09 (1)(f) which states, *Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence*. There is not enough evidence to reconstruct the one-story addition, but there is enough evidence to reconstruct the existing 1 ½-story addition. The significance and demolition of the rear addition is addressed under Finding 3.

3. **Sec. 74.09(m). Demolition.** The 1880s wood frame portion is being proposed for demolition. Prior to any demolition, partial or whole, the HPC must make findings for the following:

A. *The architectural and historical merit of the building. This includes consideration of the integrity of the structure and whether it was constructed during the Period of Significance.*

The wood frame addition is considered a *character-defining feature* as it represents the development of the building and site during the Period of Significance (1850 to 1899) and overall development patterns of more modest wood frame additions being added on to masonry buildings. The Standards state: *Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved* and *The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided*. However, the individual elements of the wood frame addition (windows, doors, dormer) are not necessarily *distinctive features, finishes, or examples of craftsmanship that characterize* the *historic property.* The more distinctive features are the shape, massing, simple detailing (solid-to-void ratio) and how it relates to the masonry portion being sited behind.

The building retains integrity of location as it remains in its original location and the footprint, massing and roof structure has not been altered (unless the one-story portion was expanded to add a second floor to increase rental dwelling space). Window openings appear in their original configuration but the windows have been replaced with varying muntin patterns. A shed roof dormer is present on the south elevation and its construction date in unknown. There is a limestone foundation, wood lap siding and asphalt shingles.

B. *The effect of the demolition on surrounding buildings,* or *the effect of any proposed new construction on the remainder of the building (in case of partial demolition) and on surrounding buildings, and*

The demolition of the 1880s wood frame portion of the building will have a negative effect on the building and on the surrounding neighborhood (CEF NRHP, 1999). The proposed new construction of the addition that will replace the 1880s addition is of a similar massing and form but seeks to mimic Greek Revival elements that are not part of the 1880s addition and will *create a false sense of historical development* which does not comply with SOI Standard under 74.09(1)(c). These elements

are mainly the 6-over-6 double hung windows, new awning windows and the lower sloping gable roof with less pitch. This will also cover up more of the stone elevation in the back.

C. *The economic value or usefulness of the building as it now exists in comparison with the value or usefulness of rehabilitating the building or structure for a new use.*

The application does not provide rehabilitation and adaptive reuse cost estimates for the project as proposed or for the work that has already been completed as there has already been investment in repairing the stone portion and moving the Palmer House off the site.

According to Ramsey County Tax and Property Look Up Information for PIN 01.28.23.41.0179, 445 Smith Avenue N., there was no posted sale history of the building. The estimated market values for tax purposes are: 2011=not available, 2012=not available, 2013=not available, 2014=$144,700 and for 2015=$146,800. The available numbers were based on a residential non-homesteaded use with no improvements and two residences on one parcel. According to city permit information, a new roof has been installed on the stone portion, a new storefront and a new stoop that extends the length of the façade have been constructed.

There were no cost estimates provided based on rehabbing the existing building for housing or rehabbing the existing building for a new use without the need for new additions or with the proposed additions, therefore, the economic value of the building if rehabbed for its current use or rehabbed for a new use is unknown. Given the property has been vacant for over one year, the legal non-conforming duplex status of the site would need additional zoning approvals.

D. The physical condition of the structure and the feasibility of continued use with considerations of maintenance, safety, and compliance with codes.

The applicant submitted a structural evaluation and report, and preservation consultant, Bob Frame, provided an additional response to the evaluation. In order to provide a viable use, either updated to residential codes or for a new commercial use, approximately 80% of the existing material would require replacement. The 20% of material that could be salvaged is not all original or early fabric. This report would justify demolition of this character defining feature with the HPC recommending mitigation for the loss of the historic structure. Mitigation could include both documentation and overall reconstruction with minor adjustments to accommodate the new use or a future residential use. For example, an accessible entrance is proposed on the south elevation of the replaced addition.

4. ***74.09(h)*** *Mechanical Systems.* Venting for a stove in the stone portion appears to be through the existing chimney and venting for the new addition also appears to be through a new chimney. There were no vents shown or proposed for the "barn" addition or condenser units on site. The venting through chimneys complies with the guidelines but there is additional information needed for possible other systems to determine full compliance.

5. **74.09(k).** *Guidelines for New Construction, Additions and Alterations. General.*

Location. Additions.

Accessible Ramp. An accessible ramp is proposed to the south of the stone portion where the Palmer House is currently sited, but elevations were not provided in order to determine impact to the site and building and appropriateness of access into a secondary entrance not near the main entrance. All options should be fully explored to determine what level of impact to the building and site is appropriate. At least two options to explore include access from the public sidewalk along the alley on the north elevation, and altering the grade to provide an accessible way on the southern lawn area rather than an elevated structure with railings attached to the front raised walkway (non-historic) and near the front stone elevation. Compliance with the guidelines cannot be determined without a grading plan and evaluation of all options to determine the least impact to the historic structure and the site.

Rear Elevation. The location of the rear addition is appropriate as it is at the rear of the stone portion

and is smaller and more modest than the stone portion.

Vestibule and Brewing Additions. The applicable guidelines and Secretary of the Interior's Standards for Rehabilitation are not met for the vestibule and brewing additions. The brewing addition is sited at the rear, however, because it is attached and much larger (footprint and volume/massing) than the stone portion the location does not meet Standard 9 or 74.09(1)(i) which states, *New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment*. The guidelines further state, *Proper placement of new detached buildings and even additions require an understanding of the development of the property over time and the surrounding area so that new construction is consistent with historic development patterns. The massing, volume, and height of any new construction should be subordinate to the massing, volume, and height of the existing historic structure on the site. Additions or new buildings on the site that "dwarf" the historic buildings will not comply with these guidelines.* The guidelines also recommend that new additions be at the rear and *visually set back from the side elevations.* The vestibule and brewing additions are at the rear but are not setback enough so that they appear as "detached" accessory structures. There is a reveal and the vestibule steps down before the height increases again, but the reveal and setback are not substantial enough to meet the intent of the guidelines. The height of the brewing addition is under the stone roof ridge height, however, additions to the rear of stone buildings become smaller and simpler in materials and design. The rear addition and vestibule are smaller and simpler but the brewing addition is increased in height, massing and footprint and is not *subordinate* to the historic stone portion.

Accessory Buildings. The brewing addition is not a detached accessory building but is designed in a way to make it appear detached and accessory to the main stone portion and new rear addition. The addition is distinguished from the stone portion and replaced rear addition by using board and batten vertical wood siding and by constructing an addition that looks like a barn structure. The guidelines state, *garages should not be attached to the front of the building and should only be attached if not visible from the public way.* The "accessory" additions are visible from the public way given there is a public alley along the side elevation to the north and a large open yard to the south allowing for greater visibility of the new additions. Early structures that were built to house animals during the Pioneer Era were much smaller, detached and located at the back of the lot. This particular lot is not deep but wide and there were four historic principle structures oriented along the main front sidewalk with a few outhouses and very small sheds at the rear of the property as indicated in the 1891 Sanborn Insurance Map. This development pattern represents the long time use of the property as residential, both owner occupancy and rental. There does not appear to have been any structures added for autos even after the Period of Significance as the lot depth and space between the structures limited larger accessory structures.

Parking. Parking for the new use is being provided on a separate parcel across the alley and is not proposed on the site.

Setback and sitting. Setback and siting is addressed above in Finding 5. The setback and siting for the new rear addition to the main stone portion complies with the guidelines and the footprint is being matched, but the new ADA ramp (missing elevations), vestibule and brewing additions warrant further siting and setback studies to determine the least impact to the historical and architectural character of the property and site.

Roofs and cornices. The new roof pitch of the addition replacing the 1880s addition is not appropriate given the existing addition is considered a contributing or character-defining feature and warrants replicating the existing roof pitch. If a shallower pitch is needed for increased headroom then removing or reducing the new awning windows may be appropriate but allowing for the new dormers (see solid-to-void ration statement under Windows and Doors).

Materials and Details. The materials and detailing of the replaced addition should relate to the existing wood frame addition and not to an earlier structure which there is no or little evidence to substantiate a partial reconstruction. The materials of the vestibule and the brewing addition do relate to the existing wood frame addition and the detailing is *differentiated from the old* which meets part of Standard 9 or 74.09 (1)(i) but is not *compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment*. Both differentiation and compatibility are needed to meet Standard 9.

Windows and Doors. The 6-over-6 double hung windows proposed for the replaced addition are not appropriate as they are conjectural and do not relate to the existing window details that have divided light patterns that are later than the Greek Revival and Federal style pattern of the stone portion. The solid-to-void ratio or adding several new window openings then what is currently present on the rear addition is also not compatible.

6. **74.09(l)** ***Site Considerations. General.***

Fences and Retaining Walls. The applicant may choose to install a fence along the back of the lot but that is not part of this application and must be submitted for review.

Lighting. Exterior lighting was not yet proposed and must be submitted for review.

Signage. Signage is being planned but is not proposed as part of this application.

Hardscaping and Landscaping. Aside from the handicap access ramp and concrete landings, no other hardscaping was proposed at this time.

E. The loss of the 1880s wood frame addition will have a negative impact as it is significant in showing the development of the property over time and represents the changing social, architectural and economic conditions during the Period of Significance; however, the structural condition demonstrates that about 80% of the structure would require rebuilding and new material. Mitigation (conditions) can reduce the impact and this can be documentation prior to demolition and reconstructing the overall structure using a similar footprint, roof shape and detailing with similar amounts of solid (siding) to void (windows) in the new addition. Provided appropriate conditions are adopted, the rear addition replacing the existing historic addition will not adversely affect the Program for Preservation and architectural control of the Limestone Properties Thematic Nomination provided the conditions are met (Leg. Code §73.06 (e)).

The ADA ramp, vestibule and brewing addition will adversely affect the Program for Preservation and architectural control of the Limestone Properties Thematic Nomination. There is also missing information in order to determine full compliance with the guidelines. The main concerns for all three are the siting, setback, massing (brewing addition only) and possibly detailing (ADA ramp only).

F. STAFF RECOMMENDATION: Based on the findings, staff recommends the HPC lay over a decision in order to convene a smaller design review committee to discuss alternatives to siting, massing, setback, detailing and materials regarding the ADA access, vestibule and brewing additions and appropriateness of replacing the 1880s addition with conjectural elements. A mitigation plan for removing the 1880s addition should also be discussed. Revisions that better meet the Preservation Program and character of the site will then be brought back to the HPC for final decision. The design review committee should include an architectural historian and an historic architect.

F. ATTACHMENTS:

1. HPC design review application and plans
2. Photos

Heritage Preservation
Department of Planning and Economic Development
1400 City Hall Annex
25 West Fourth Street
Saint Paul MN 55102-1634
651-266-9078

Office Use Only
File #: _____
Date Received: _____
Date Complete: _____
Tentative Hearing Date: _____

HISTORIC USE VARIANCE APPLICATION

Property Information

Address/Location: 445 Smith Avenue, Saint Paul MN 55102

Legal Description: E1/2 of L13 and L14, Bl 9, N. of the S. 60' of same, Leech's Add'n

Current Zoning: R4- One-Family

Proposed Use: T2- Traditional Neighborhood

Name of Owner: Thomas S. and Ann M.P. Schroeder
(if different from applicant)

Contact Person: Thomas S. Schroeder Phone: (612) 385-8838
(if different from applicant)

Applicant Information

Name: Thomas S. Schroeder

Email: Tom.Schroeder@FaegreBD.com Phone: (612) 385-8838

Address: 194 McBoal Street

City: Saint Paul State: MN Zip: 55102

The applicant must fill out the attached Historic Use Variance application checklist and attach any necessary documents.

NOTE: If the project will result in any exterior modifications or additions, a Heritage Preservation Design Review Application must be submitted and reviewed by the HPC prior to the Historic Use Variance Application submittal.

Heritage Preservation
Department of Planning and Economic Development
1400 City Hall Annex
25 West Fourth Street
Saint Paul MN 55102-1634
651-266-9078

HISTORIC USE VARIANCE APPLICATION

The applicant must fill out the Historic Use Variance application checklist by placing a check mark in the boxes under the 'Applicant' column and attaching the accompanying documents. The 'Staff' column is for staff to verify that your submittal requirements have been met. 15 physical sets of application materials must be provided with application. All application materials must also be provided electronically on a CD or USB drive to allow for web posting for public hearing.

Applicant	Staff	
☑	☐	1) Description of the proposed use and its consistency with the structure's historic use.
☑	☐	2) Description of any exterior modifications to the structure, property, and site including an assessment of the impact of these modifications on the historic integrity of the site.
☑	☐	3) Description of all interior architectural features unique to the historic period.
☑	☐	4) Site plan
☑	☐	5) Photos of existing conditions
☑	☐	6) 11" x 17" Architectural plans drawn to scale that include any proposed modifications.
☑	☐	7) Information supporting the following findings. (Do not simply rewrite the findings. You must discuss *why* you believe the findings below can be made for your request.)
☑	☐	a. The proposed use is reasonable and compatible with the historic use(s) of the site or that the new use is consistent with Legislative Code Chapter 73.04(5).
☑	☐	b. The proposed use complies with the adopted preservation program and the United States' Secretary of the Interior's Standards for Rehabilitation.
☑	☐	c. The historic use variance is necessary to alleviate practical difficulties unique to the heritage preservation site that prevents its use in a manner consistent with its historic use or that the new use is consistent with Legislative Code Chapter 73.04(5) and that these difficulties were not created by the applicant.
☑	☐	d. The proposed use is compatible with existing uses in the surrounding area and the underlying zoning classifications in the area.
☑	☐	e. The proposed use is consistent with the comprehensive plan.
☑	☐	8) 1 CD or USB drive of application materials
☑	☐	9) 15 physical sets of application materials

I certify that I have completed and have included all material checked above in the application submittal.

Applicant Signature: Thomas Schl Date: 7/23/15

Attachment to HUV Application Form

Project Background:

This project involves the historic restoration of both a building and a business.

The Anthony Waldman House, also referred to as the Stone Saloon, was built in the fall of 1857—six months before Minnesota became a state, nearly four years before the Civil War began, and at a time when fewer than 10,000 people lived in the City of Saint Paul. The building is the City's the oldest surviving commercial building. Its vernacular design, solid limestone masonry and early period of construction provide the basis for its pending historic designation by the City of Saint Paul. Most relevant for purposes of this application, the Stone Saloon is one of only a few surviving Civil War-era saloon buildings in the region—and it is a very special one at that. Waldman's was a "lager beer saloon."

German lager beer (as distinguished from darker, heavier Yankee ales of the period) took Minnesota Territory by storm in the 1850s. By the time the Stone Saloon was built, Saint Paul had 12 breweries, all but two of which manufactured lager beer. At first these breweries served almost exclusively the local market, where much of the consumption took place in Saint Paul's lager beer saloons. In 1860 the growth of lager breweries and proliferation of lager beer saloons received an unlikely boost from the enactment of Minnesota's Lager Beer Act, a blatantly protectionist and oddly pro-Temperance measure that exempted the manufacture and sale of lager beer (and lager beer alone) brewed or sold within the State from all forms of licensure, sales tax or bonding requirements. Even when the Act was repealed in 1863, City ordinances continued to grant favorable treatment to lager beer saloons by licensing them separately from all other saloons, affording the former much-reduced fees and an exemption from the normally stiff enforcement bonds.

In addition to German-Americans' growing political power (which was bolstered by the election in 1860 of President Lincoln and many Republicans in Minnesota), the special status bestowed upon lager beer saloons reflected the distinctive drinking culture brought by Germans to their adopted homeland. In contrast to most Yankee saloons, which primarily served hard liquor and offered little by the way of food, lager beer saloons served beer almost exclusively, a variety of foods, and often hosted musical events or other forms of entertainment. For these reasons, and because lager beer's lower alcohol content made it more socially acceptable to teetotalers in the age of Temperance, lager beer saloons gained the reputation of being more family-friendly and community-oriented. More than just places to drink, nineteenth-century German-Americans saw their lager beer saloons as a kind of social institution.

This project seeks to recreate the conditions and attributes of a mid-nineteenth-century German lager beer saloon, in a meticulously restored building that once housed just such an establishment. Importantly, the term "saloon" is used here only in a limited, historical sense. Analogous to Anthony Waldman and other lager beer saloon proprietors of the 1850s and 1860s, we do not seek a variance for a liquor license, but for a beer-only tap house/micro-brewery. Substantial and costly exterior restoration work has already been completed on the roof, front façade and exterior stone masonry of the building, re-exposing the historic commercial façade which was filled in with stone work after 1885. (See "Before and After" image, **Tab 1**). Through our continued research and attention to detail, we seek to give people the chance to experience first-hand this unique historic, architectural and cultural asset; to create a landmark

gathering place for the West 7th Street and surrounding communities; to fuel the interests, discussions and intellectual curiosity of architects, historians and preservationists everywhere; and to showcase the City's adeptness at leveraging its historic assets for redevelopment purposes.

This project and the proposed historic use variance has widespread public support, including the written support of Historic Saint Paul, Preservation Alliance of Minnesota, the Fort Road Federation/District 9 Council, and the Little Bohemia Neighborhood Association (see Letters of Support, **Tab 2**). The boards of each of these organizations have toured the site first-hand, and viewed the same materials submitted along with this application. As their support attests, and as has already been demonstrated by the enactment of the City's first historic use variance ordinance—prompted by this project—the Stone Saloon is small building with a potentially big footprint. We thank you for your consideration of the responses that follow.

1) Description of the proposed use and its consistency with the structure's historic use.

We propose to use the Stone Saloon as a licensed tap house/micro-brewery, producing and serving historically inspired German-American beers similar to those brewed in Saint Paul during the state's Territorial and Civil War periods. Non-alcoholic sodas such as birch and root beers will also be produced and served on premises, as well as coffee and teas. True to most historic lager beer saloons, we will offer a limited menu of assorted cheeses, charcuterie, pickled and soured vegetables, artisan breads, German pretzels and mustards, and deserts. We hope later to expand the menu to include grilled and boiled wursts, leberkase, German potato salad and soups/stews. Other than filling a limited quantity of 64-ounce growlers, there will be no packaging, distribution or off-site sale of beer or other beverages from the site. (This is different from Bad Weather Brewery, whose business model includes off-site sales/distribution.)

The interior furnishing of the Stone Saloon will be guided by descriptions and inventories of 1850-60s lager beer saloons found in a variety of primary sources, including courthouse, real estate, newspaper and other records. Our current collection includes period saloon/steamboat chairs, saloon tables, pewter lighting fixtures and numerous other artifacts of the era. Wherever possible, modern building code, accessibility, food safety, sanitation and licensing requirements will be satisfied by blending today's technology with character-defining historic treatments (for example, the nine-light window sashes in the commercial façade are comprised of code-compliant safety glass laminated to distorted hand-blown glass panes). Most importantly, impacts on the integrity of the interior of the historic structure will be minimized by locating most modern functions (brewery, kitchen, restrooms, utilities, storage, etc.) in a new separate structure to be built in the backlot and connected to the historic structure by a vestibule. This design ensures that the proposed use will be consistent with the building's historic use to the maximum degree possible.

2) Description of any exterior modifications to the structure, property, and site including an assessment of the impact of these modifications on the historic integrity of the site.

Stone portion: The 1857 stone portion at the front-lot will not be altered from its state at designation. A handicap accessible ramp will be installed at the sidewalk to the south, leading to an entrance at the south of the rear wood frame addition. A period-appropriate hand-painted sign complying with the Preservation Program developed by the City/HPC will be mounted at the

front commercial cornice. Bicycle racks will be installed where permitted by Public Works or on site if not permitted. The location and design of either option will be done in consultation with City/HPC staff.

Rear wood frame addition: With the approval of the City/HPC, the rear wood frame addition to the stone building will be reconstructed in accordance with the Secretary of Interior's Rehabilitation Standards and the Preservation Program for the site. (See rear addition plans and elevations, enclosed). Our decision to replace the rear addition "in-kind" has been informed by an extensive structural analysis by a qualified engineering firm. This analysis concluded that too much existing material—approximately 80 percent—would need to be replaced or strengthened with additional new material for repair to be feasible and prudent. (See **Tab 3** - Align Structural, Inc. report dated 8/19/14; Memo by Historian-Consultant Bob Frame to Amy Spong, Christine Boulware, HPC dated 8/19/14). Nevertheless, replacement of the rear addition "in-kind" will yield a reconstructed addition with the same footprint, floor levels, ceiling heights, roof peak, and interior stairway placement as the existing structure. As show in the enclosed plans and elevations, the exterior features of this addition have been designed in the Greek Revival style prevalent during the 1850s and 1860s and evidenced both at this site and others included within the Stone Saloon's thematic designation. Although the submitted plans alter the roof pitch of the circa-1885 addition now in place, the reconstructed roof pitch will match the pitch of the predecessor addition's historic, Greek Revival roof pitch (6"/12") which is clearly traced in the masonry along the rear façade of the stone building.

Newly constructed building: A newly building will be constructed at the backlot and connected to the historic structure by a vestibule. The new building will house the brewery equipment, kitchen, restrooms, storage, utilities and office. (See site plan and elevations, enclosed). The placement of these functions in a newly constructed building minimizes the impacts they might otherwise have on the integrity of the historic building. The new building and its connecting vestibule are designed to clearly differentiate themselves from the historic structure, while keeping with the character of the site and of other 19th accessory buildings in the area. The positioning of the new building at the backlot and the use of landscaping effects (including hop trellises along the south and east exterior walls of the new building) will keep the spotlight on the historic structure in front. Every design and engineering effort has been made to minimize the scale of the new addition, including employing stacked, horizontally mounted fermentation and lagering tanks, a ceiling trolley to maximize storage efficiency, and a highly compact kitchen preparation area. Finally, the new building will occupy nearly the identical footprint of an alley-house that once sat in the same location behind the Stone Saloon from 1874 to 1898. The positioning of the new building therefore relates to the historic context of the site during the final eleven years of the Waldmans' residency.

No other modifications are proposed to the site which would impact its historic integrity. Importantly, we have secured all off-street parking required by code at a location other than the historic site, further minimizing impacts on the site's integrity. This means that there will be no parking on the historic property at all. (See parking layout, enclosed.)

Moreover, the owners of the tap room/brewery Bad Weather Brewery immediately across the alley have agreed to work with us to consolidate supply purchases and deliveries, as well as to

share the use of their wood-screened waste disposal pad and trash hauling and recycling services. (See Letter of Joe Giambruno and Zac Carpenter, Bad Weather Brewing, **Tab 4**).

3) Description of all interior architectural features unique to the historic period.

The Pioneer Era Houses context study cited in the Stone Saloon's historic designation established the temporal parameters for the historic period included in the thematic designation as 1854-1880. The stone portion of the Stone Saloon retains the following architectural features and materials from this historic period:

- original tongue-in-groove pine flooring on both first and second levels;
- original staircase between first and second levels;
- two original two-panel doors, with some original hardware; and
- one original window casing and sill in second level, south window.

As described in the designation, the rear wood frame addition post-dates the Pioneer Era, and in any event no longer contains any historic architectural or character-defining interior features.

4) Site plan

See enclosed.

5) Photos of existing conditions

See **Tab 5**.

6) 11" x 17" Architectural plans drawn to scale that include any proposed modifications.

See enclosed.

7) Information supporting the following findings.

a. The proposed use is reasonable and compatible with the historic use(s) of the site or that the new use is consistent with Legislative Code Chapter 73.04(5).

As discussed above, the proposed tap house/micro-brewery use closely approximates the historic business use of the site as a neighborhood beer-only saloon (in the historic sense) offering limited food service. The addition of a sensitively designed structure in the backlot is a reasonable accommodation to modern restrooms, equipment and utilities.

b. The proposed use complies with the adopted preservation program and the United States' Secretary of the Interior's Standards for Rehabilitation.

Aside from modifications dictated by public safety and handicap accessibility (e.g., the handicap ramp to the south) the most material modification caused by the proposed use is the new construction on the backlot. In keeping with Secretary of

Interior's Rehabilitation Standards and the accompanying Rehabilitation Guidelines pertaining to new additions to historic structures, the new building and vestibule are designed in a manner that differentiates them from the historic structure, while being compatible with the massing, size, scale and features of the site and its surrounds. The roof peak of the new building is lower than the roof peak of the historic stone building, and the roof pitch matches that of the reconstructed rear wood frame addition as well as that of the historic stone building's hipped roof (both having a pitch of 6"/12"). The location of the new building at the backlot and future landscape treatments (including hop trellises along the south and east exterior walls of the addition) will keep the spotlight on the historic structure in front. (See Rehabilitation Standard 9; see also Secretary of Interior Rehabilitation Guidelines for New Additions). The north and west elevations of the new building will be visible only from the alley. Moreover, because Smith Avenue and the sidewalk in front of the Stone Saloon lie approximately 3' below the grade of the historic site, the lowered sightlines from the public right-of-way enhance the prominence of the historic stone structure at the front of the lot relative to the new construction to the rear.

Finally, the new structure allows for reversibility. In the event that the proposed use ever ceased, the new addition and its connecting vestibule could be removed without impairing the form or integrity of the original historic structures, or the historic site as a whole. (See Rehabilitation Standard 10)

c. The historic use variance is necessary to alleviate practical difficulties unique to the heritage preservation site that prevents its use in a manner consistent with its historic use or that the new use is consistent with Legislative Code Chapter 73.04(5) and that these difficulties were not created by the applicant.

The Stone Saloon was designed, built and originally used as a commercial property. As established in its designation, it was historically used as a lager beer saloon. The practical difficulty that prevents the Stone Saloon from being used in a manner consistent with this historic use is the parcel's residential zoning classification (R4). This difficulty was not created by the applicant.

A broader practical difficulty is the initial and continued expense of the historic preservation and rehabilitation of the Stone Saloon. A historic property cannot be preserved and maintained without a viable and ongoing means of support, regardless of its level of significance.

This project began with a registered Vacant Building that had several outstanding nuisance and abate orders, extensive structural issues, and no independent water or sewer line (both T-ed off the adjacent, separately owned parcel). The adjacent parcel had to be acquired in order to access these essential utilities and provide for their upgrading. While stonemasonry in general has excellent longevity, stonemasonry repair after nearly 160 years of weathering and inappropriate maintenance can be (and in this instance, has been) extremely costly. For the present applicant this project has thus far been both a "labor of love" and "leap of faith," but the complete restoration/rehabilitation of this historic site,

as well as its ongoing maintenance, must ultimately be sustained by a more rational economic calculus.

The proposed use as a beer-only tap house/micro-brewery is minimally tailored to leverage the unique history of this building for a sustainable, income-producing use. The proposed use not only respects the building's history, but allows the public to share in it. In comparison, use of the building as (for example) a private residence would not attract the level of investment required to rationally undertake the same level of rehabilitation, and would not yield the same "public good" of community access to this unique and historic lager beer saloon. The grant of a historic use variance in this instance would be in keeping with Policy 5.5 of the Historic Preservation Plan, part of the Saint Paul Comprehensive Plan, which establishes a goal to "develop land use and regulatory incentives to make it easier and more feasible to rehabilitate" historic resources by applying "an ordinance that allows historic variances in order to alleviate undue hardships created by the historic character of designated properties."

For these several reasons, a historic use variance for tap house/micro-brewery use is the minimum needed to enable this property to be used in a manner that will have the least impact on its historic character and the character of the surrounding area. (Leg. Code § 61.601(g).

d. The proposed use is compatible with existing uses in the surrounding area and the underlying zoning classifications in the area.

The use of the Stone Saloon as a tap house/micro-brewery is similar (although smaller in scale) to the current use of a much larger and partly contiguous TN2 site immediately across the 16'-wide alley to the northwest, newly operating as Bad Weather Brewery. Degidio's Restaurant and Bar operates with a full liquor license in B2 zoning approximately 330 feet to the northwest, across West 7th Street from Bad Weather Brewery. Garafolo's Automotive Repair operates from a T1 parcel approximately 180 feet down the alley from the Stone Saloon. A flat-roofed former factory building turned used clothing store turned artists' studio lies immediately across Smith Avenue (State Highway 13) to the north of the Stone Saloon. Bonfe's Auto Repair lies approximately 300 feet north and across Smith Avenue in T2 zoning. Within the immediate neighborhood and along West 7th Street, numerous T1-, T2-, B2- and B3-zoned parcels sit immediately adjacent to R4 and other residential zoning classifications.

The proposed use for the Stone Saloon is compatible with this mix of commercial and residential zoning classifications in the immediate and surrounding areas. The applicant is a 25-year resident of the neighborhood, living within approximately 250 feet of the Stone Saloon. He fully intends to address any concerns that may arise from the Stone Saloon's operations.

e. The proposed use is consistent with the comprehensive plan.

The site of the Stone Saloon is within an Established Neighborhood of Uppertown/West 7th proximate to the Mixed Use Corridor of West 7th Street. The

comprehensive plan defines Established Neighborhoods to include "scattered neighborhood-serving commercial, service and institutional uses at the juncture of arterial and collector streets." (LU-1) Mixed Use Corridors "include areas where two or more of the following uses are or could be located: residential, commercial, retail, office, small scale industry, institutional and open space uses." (LU-1) The District 9 Area Plan supports "'nodes' of retail businesses at the intersections of West 7th and Kellogg, Smith, St. Clair, Jefferson, Randolph, and Montreal/Lexington." (p.4) It further states that "when possible, storefronts that have been altered should be restored to, or close to, their original character. In some cases, the original building fabric may be found behind the alterations." (p.7) Although the proposed use is not permitted by the underlying zoning of its individual parcel, it is broadly consistent with these principles set forth in the city's comprehensive and area plans.

The Historic Preservation brochure for the Saint Paul Comprehensive Plan, cited in the preamble to the historic use variance ordinance being applied to this application, states that "the character and design features of historic properties make them desirable for new uses that recognize the community's special identity." Ironically, in this case it is an old use that recognizes the West 7th Street neighborhood's special identity.

For historic context, when the Stone Saloon was initially built it was positioned along the original overland route running along the Mississippi river bluff between Saint Paul and the Fort Snelling Ferry. This unimproved but frequently trafficked route was known as the Old Fort Road. West 7th Street did not yet exist. By the close of Minnesota's Territorial Period, a number of businesses lined the Old Fort Road, including a large limestone livery stable along Old Fort Road near the city limits, a major brewery, and several saloons. The latter included Henry Shearn's Head Quarters Saloon on Leech Street near Ramsey Street; William Schimmel's saloon on Wilkin Street near the Saint Paul College; Alexander Erb's saloon and grocery at the corner of Smith (now Forbes) and Forbes (now Smith); John Fetzer's one-story home and lager beer saloon on Forbes (now Smith) immediately across the alley from the Stone Saloon to the north; and the Cave House Saloon just past the city limits near Richmond and Old Fort Road. All of these establishments have long since vanished. While perhaps not relevant to modern land use planning, the Stone Saloon is one of the last remaining vestiges of the Old Fort Road. As such, its restoration and proposed (re)use helps define the West 7th Street neighborhood's special identity, because it points to what came before. We take our historic assets where we find them—and if understood and used wisely, they have even greater value there.

Anthony Waldman House/Stone Saloon (1857) 2011 and 2015

445 Smith Avenue North
(near bottom of High Bridge)

West 7th/Fort Road Federation
974 West 7th Street
Saint Paul, Minnesota 55102

651-298-5599
FortRoadFederation.org

July 16, 2015

Barbara A. Wencl, Chair
Saint Paul Planning Commission
City Hall Conference Center, Room 40
15 Kellogg Boulevard West
Saint Paul, MN 55102

Richard Dana, Chair
Heritage Preservation Commission
Planning and Economic Development
25 Fourth Street West, Suite 1400
Saint Paul MN 55102

Re: Anthony Waldman House a/k/a Stone Saloon, 445 Smith Ave N.

Dear Chairpersons Wencl and Dana:

At its July board meeting, the Board of Directors of the Fort Road Federation/District 9 Council listened to a detailed presentation of the proposed restoration and redevelopment of the historic Anthony Waldman House located at 445 Smith Avenue North, a/k/a the Stone Saloon.

As recently as 2008, this structure was a registered vacant building with several unaddressed nuisance and abatement orders. Nonetheless, the building is one of only a few surviving examples of vernacular-designed Pioneer Era limestone buildings in our neighborhood, and is perhaps the oldest-surviving commercial building in the city.

Fortunately, area resident Tom Schroeder purchased the building in mid-2008 and since then has invested considerable time, effort and money in researching, restoring and educating the public about this historic asset. Even in its partially-restored state, the building has attracted numerous media stories, tours and special events that have served to highlight the unique cultural and architectural history of our community, going back (as this building does) to the very origins of our statehood.

While the parcel on which the building sits is currently zoned residential, Tom has determined that the highest and best use of the building—and the use mostly likely to sustain the costly restoration and continued maintenance of the structure—is a return to its original historic use as a German-American "lager beer saloon." Under current licensing, the building would be used as a tap room, with brewery space, kitchen facilities, restrooms and utilities housed in a new addition to the rear of the historic structure. The positioning of the latter in new construction at the back

of the lot will help minimize any impacts on the integrity of the historic structures, without competing for their spotlight at the front of the lot.

We have reviewed the project site plan and proposed business use presented by Tom. The Board is unanimous in its support. Specifically:

- The Federation supports the local historic designation of the five, vernacular-designed limestone houses (including the Anthony Waldman House) now before the HPC and Planning Commission;

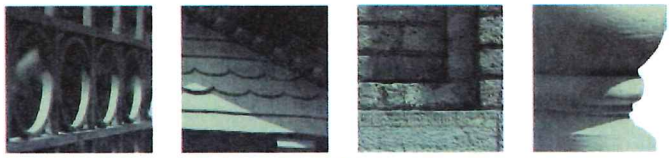
- The Federation supports the grant of a historic use variance to enable the Anthony Waldman House and surrounding site to be used as a tap room/brewery; and

- The Federation supports other zoning-related variances (such as set-back) enabling the construction of the brewery addition to the rear of the historic structures.

Thank you for your consideration of this important project.

Best Regards,

Shawn Devine
Chair, Fort Road Federation



HISTORIC SAINT PAUL

July 22, 2015

Barbara A. Wencl, Chair
Saint Paul Planning Commission
City Hall Conference Center, Room 40
15 Kellogg Boulevard West
Saint Paul, MN 55102

Richard Dana, Chair
Heritage Preservation Commission
Planning and Economic Development
25 Fourth Street West, Suite 1400
Saint Paul MN 55102

Re: Anthony Waldman House a/k/a Stone Saloon, 445 Smith Ave N.

Dear Chairpersons Wencl and Dana:

We write to express our support for the local designation of the Pioneer Era Limestone Buildings of Saint Paul, and the continued redevelopment of the historic Anthony Waldman House located at 445 Smith Avenue, also known as the Stone Saloon.

Built in 1857, the Waldman House/Stone Saloon is a rare surviving example of vernacular-designed Pioneer Era limestone construction in the West 7th Street neighborhood. Tom Schroeder is proposing to return the Waldman House/Stone Saloon to its original historic use as a Civil War-era German "lager beer saloon," i.e., in modern terms, as a tap room/micro-brewery.

Historic Saint Paul's mission is to preserve and promote the cultural heritage, character, and vitality of Saint Paul neighborhoods. Tom presented his plans for the project and proposed business use to our Board at its July meeting, and several of our members have had the opportunity to visit the site. The Board supports this project.

As you may know, the proposed redevelopment of the Waldman House/Stone Saloon was a precipitating factor in the city's recent adoption of an historic use variance (HUV) ordinance. Other cities have used HUV ordinances to promote the successful redevelopment of historically designated structures, and we anticipate that future projects in Saint Paul will benefit from the ordinance.

We urge the HPC and Planning Commission to grant local historic designation to the Waldman House/Stone Saloon (together with the four other limestone buildings now before the HPC), as well as an historic use variance.

Thank you for your consideration.

Sincerely,

Tom Brock
President of the Board

400 Landmark Center • 75 West 5th Street • Saint Paul, MN 55102 •651.222.3049 • fax: 651.222.7783
www.historicsaintpaul.org

Celebrate Heritage | Renew Neighborhoods | Strengthen Community

PRESERVATION ALLIANCE OF MINNESOTA

June 29, 2015

Heritage Preservation Commission
25 W. Fourth Street, Suite 1400
Saint Paul, MN

Dear Board Members of the Heritage Preservation Commission,

I am writing to express support of Tom Schroeder's application for a Historic Use Variance for the Stone Saloon. Mr. Schroeder's rehabilitation efforts will revive the original character and purpose of the Stone Saloon, the oldest extant commercial building in St. Paul.

The Preservation Alliance of Minnesota is committed to promoting community assets and neighborhood engagement. A variety of citizens and local groups have offered their support and assistance to the Stone Saloon. On behalf of the Preservation Alliance of Minnesota, I am proud to add my support to this project.

Thank you for your consideration.

Sincerely,

Doug Gasek
Preservation Alliance of Minnesota, Executive Director
dgasek@mnpreservation.org

Little Bohemia
Neighborhood Association

July 22, 2015

Dear St. Paul Heritage Preservation Commission, Planning Commission and City Council:

We are writing on behalf of the Little Bohemia Neighborhood Association (LBNA). The LBNA is a grassroots organization whose members are local residents, landlords, and business owners dedicated to developing a safe, clean, pedestrian-friendly, urban residential neighborhood.

We would like to support the grant of an 'historic use variance' so that the Stone Saloon can be (re)opened as a historic German lager beer saloon—i.e., a beer-only tap room and micro-brewery.

Through the LBNA's work with Invest Saint Paul / Neighborhood Stabilization Program and The Fort Road Federation we have worked to rehabilitate and resell some of the beautiful old homes in our neighborhood. Preserving and restoring old homes for their owners' enjoyment is great; preserving and restoring a historic, pre-Civil War German 'lager beer saloon' for the public to experience is fabulous!

As an organization we support local entrepreneurs who are willing to invest in the neighborhood, preserve and restore our old buildings, and contribute to a thriving West 7th community. The Stone Saloon will make a great gathering place for neighbors, friends, local organizations and history buffs.

The Little Bohemia Neighborhood Association supports the local designation of the Stone Saloon as a Heritage Preservation Site, so that it will be preserved for generations to come.

Best,
Lindsay Kimball and Mark Fangmeier
Co-Chairs, Little Bohemia Neighborhood Association

TO: Amy Spong, Christine Boulware, Saint Paul HPC
FROM: Bob Frame, Historian
DATE: August 21, 2014
RE: Structural engineer's evaluation of 445 Smith addition

I have read Richard (Rick) Johnson's structural evaluation of the wood-frame addition at 445 Smith on behalf of Tom Schroeder, with particular attention to the recommendations added in red. I also walked through the addition with Rick briefly, we discussed the findings he was preparing for the report, and he answered any questions I had. Listed below are the items that I find important in considering the possible repair, rehabilitation, and/or restoration of the structure. The report is limited to a structural evaluation by a registered engineer and does not attempt to be an architectural or historic evaluation. Nevertheless, as an engineer experienced with historic structures, he is aware of the fundamental requirement to preserve historic fabric and to repair rather than replace. From my perspective, this document provides a necessary baseline for determining the potential for repair or rehabilitation of the complete addition. Here are key points:

- Johnson concludes (section 8.B) that 20% of existing structural materials in the entire structure can be reused in their current structural configuration in any repair or rehabilitation effort. That percentage includes material of any age, some of which is not 50-year-old historic fabric.
- Most of the 20% is comprised of vertical wall studs, 70% of which can be reused in their existing structural configuration (7.E.1). This does not include the exterior wood board sheathing, which cannot be reused as structural material (7.E.2).
- Of the structural system for the two floors, only the second-floor joists can remain, but must be paired with new companion joists for adequate structural floor support (7.C.i, ii and appended sketch SK1). Like the exterior wood sheathing, the second-floor floorboards cannot be reused as structural material.
- No part of the main (first) floor system can be reused in a structural capacity, including the stone foundations, floor joists, and floorboards (7.D.i,ii,iii).
- The roof framing system cannot be reused, largely because of existing fire damage (7.A), but would not be structurally sufficient even if in sound condition.
- The interior stair cannot be reused structurally, or reconstructed in the same location without alterations to other parts of the structure (7.B).

This evaluation indicates that the addition, in its current structural condition, does not meet the State Building Code. At the same time, too much existing material—about 80%--must be replaced or be strengthened with additional new material for a repair to be feasible and prudent. Anything approximating a repair would essentially be new construction incorporating wall studs and some floor joists. Some existing material, or historic fabric, may be removed and salvaged, but its reuse would be in an aesthetic capacity and not necessarily in its original location or even in its original size and configuration.

If the structure cannot remain in its existing condition, and cannot feasibly be repaired using existing structural materials, the evaluation points to documentation and removal. The removal would be followed by new construction, if a replacement structure were desired. The approach to the design of a replacement structure would be a subsequent step, but consideration of an in-kind replacement to the extent possible would be the preferred approach to be in conformance with the Secretary of the Interior's Standards.

I'm happy to answer any questions (763-370-1803 or *rframe@alumni.ksg.harvard.edu*).

ALIGN Structural, Inc.

241 CLEVELAND AVENUE SOUTH
SAINT PAUL, MINNESOTA 55105-1255
t 651.698.0164 | f 651.698.0165

Yust Architectural Services
476 West 7th Street
Saint Paul, MN 55102
Attn: John Yust

August 19, 2014

Re: 445 Smith Avenue-Structural Investigation
Saint Paul, MN
Project #14246

Note: I have prepared this letter as a supplement to my original letter dated August 5, 2014. I have added recommendations for reinforcement or replacement of existing framing and foundation materials "in kind" to my original observations of the condition of the existing materials. These latest recommendations and comments are noted in red.

Background

At the request of Yust Architectural Services, I made a visit to the referenced building on August 4, 2014. The purpose of the visit was to perform limited visual observations of the existing framing and foundations of the structure. I have prepared this letter to report my observations and to provide opinions regarding the existing structural materials in light of the current development of the site by Tom Schroeder.

Observations and Opinions

1. **Roof**
   A. Roof rafters were 1.875"x4" spaced at 25" on center
      - Members would be 64% overstressed in bending under residential loads per the latest edition of the Minnesota State Building Code (MSBC)
      - Members would be 74% overstressed in bending under commercial loads per the MSBC
      - Live and total load deflections under residential and commercial loads would not comply with the deflection limits per the MSBC

   B. Rafters were damaged by fire throughout the building, with the heaviest damage near the center and west ends of the space (Photo 1). The fire appeared to have caused a significant loss of cross section of many of the rafters and roof sheathing materials.

   C. Roof sheathing was .875" thick wood decking that was placed in various widths. The sheathing had randomly spaced gaps between the boards (Photo 1). There were conditions where the gaps between the sheathing boards were practically tight and there were conditions where I measured 1.5" wide gaps.

   D. There were gaps between the rafters at the roof peak that appeared to indicate spreading of the roof (outwards movement of the exterior stud walls). The gaps were more open at the base relative to the typically tight condition between the rafters at the top. This type of movement was much more severe

at the rafters on the west end of the building. At this location the rafters and the exterior wall sheathing had completely separated exposing a gap that was approximately 1.75" wide (Photo 2).

E. There was a noticeable deflection of the rafters. The deflection could be observed from the interior and exterior of the building. I confirmed the deflection with measurements of the slope of the rafters.

F. The dormer along the south side of the roof did not appear to be original to the building. In addition, the following conditions at the dormer made it appear that there was little to no effort made to take care of the structural loads associated with this change to the original roof:
   - There was no lintel where the dormer was cut into the rafters
   - The full span rafters were not reinforced on either side of the dormer
   - There was no lintel above the window opening on the exterior wall at the dormer

G. There were signs of moisture infiltration on the rafters and studs in many locations throughout the upper level.

H. General structural condition of roof in light of proposed development of building:
   i. The roof rafters were too badly damaged by fire and moisture infiltration to reuse the members for any proposed development of the structure. In addition, the members would require significant reinforcement to support loads per the MSBC.
   ii. The current dormer condition would require significant structural reinforcement to support loads per the MSBC (for residential or commercial use of the building). There was almost a complete lack of any framing materials at this location and all structural elements to support the dormer would be new materials.

I. Recommendations for reinforcement or replacement of existing roof structure in kind
   i. The existing roof framing and sheathing materials would need to be removed due to the extent of the fire damage and cannot be reused.
   ii. Option 1 for replacing the existing roof framing: Provide new wood roof trusses at 24" on center with new 5/8" thick plywood sheathing. Due to the raised ceiling condition there would need to be special consideration for resisting the horizontal forces at the truss bearing conditions along the tops of the exterior stud walls.
   iii. Option 2 for replacing the existing roof framing:
      - Provide a new (3) 1.75"x18" LVL or W14x22 ridge beam- it should be noted that the span of the ridge beam would require relocation of the original chimney stack.
      - Provide new 2x8 rafters at 16" on center
   iv. The dormer along the south side of the roof would require all new framing- framing along the perimeter of the roof penetration at the dormer would be (2) 1.75"x7.25" LVL beams

2. Stairs

A. There was limited clearance at the top of the stairs

B. The treads of the stairs were plywood which would not have been an original material in the building

C. There did not appear to be a reasonable system of stair framing to properly transfer the stair loading to the main floor and foundation system below. Stair stringers were not evident and beams at the upper landing to support the stringer system were lacking.

D. General structural condition of stairs in light of proposed development of building:
   i. It does not appear that a workable stair configuration with proper clearances would be possible in the current stair location without a significant remodel of the existing roof structure above.
   ii. A completely new framing system would be required to support stair loads per the MSBC.

E. Recommendations for reinforcement or replacement of existing stair structure in kind

i. The existing stair framing would need to be removed due to the lack of a true structural system with a load path that transfers loads to the foundations. The existing framing members cannot be reused.

ii. The new stairs would require new stringers and treads/risers.

iii. The new stair would need to be relocated in the footprint of the building due to clearances at the head of the stair that are not code compliant, or the roof would need to be remodeled to provide proper clearances per the MSBC. If the roof is raised in this portion of the building, this would create snow drift conditions due to the new high/low roof framing planes.

3. Second Floor Framing

A. Floor joists were 1.875"x5.75" spaced at 16" on center

- Members would be 159% overstressed in bending under residential loads per the MSBC
- Members would be 417% overstressed in bending under commercial loads per the MSBC
- Members would be 94% overstressed in shear under commercial loads per the MSBC
- Live and total load deflections under residential and commercial loads would not comply with the deflection limits per the MSBC

B. General structural condition of the second floor in light of proposed development of building:

The existing second floor joist framing system was so heavily overstressed that any reinforcement of the current system to support loads per the MSBC would essentially be a completely new system- the existing floor joists would provide an insignificant contribution to any "reinforced" framing scheme.

C. Recommendations for reinforcement or replacement of existing second floor structure in kind

i. The existing 1.875"x5.75" floor joists at 16" on center would be reinforced with 1.75"x14" laminated veneer lumber (LVL) floor joists at 16" on center (or 1.75"x11.25" LVL joists at 16" on center for residential reuse of the building). Refer to Section 1/SK1 showing the new and existing joist relationship (Attached to this report).

ii. Installation of the new floor joists would interrupt the existing ledger system that is "let in" to the exterior wall studs to support the original second floor joists. Interrupting the existing ledger would necessitate adding fasteners from the existing floor joists into the existing wall stud.

iii. I would not recommend reusing the existing wood flooring at the second floor level. It would be difficult to estimate the capacity of the floor diaphragm to resist lateral loads on the building if the existing wood flooring was reused as the structural sheathing element at the second floor (the sheathing on the floor joists, roof rafters, and wall studs is the material that creates the diaphragm system to resist lateral loads on wood structures and carry forces through the building to the foundations).

4. Main Floor Framing and Foundations

A. There were signs of moisture damage throughout the first floor level of the building that extended into the foundation materials. These signs included the following:

- There were holes in walls where the structure had completely deteriorated (Photos 3 and 4).
- The 8"x6" sills had deteriorated along much of the first floor perimeter (Photos 3 and 4). At some locations the wood had rotted to the point that a screwdriver could be easily inserted into the material that remained (Photo 4).

- It appeared that the heaviest amount of deterioration had occurred along the bases of the stud walls and at foundation conditions where the snow had been in contact with the structure throughout the winter months (Photos 4 and 5). This was especially true along the north wall of the building where maintaining the alley along that side of the building probably exacerbated the problem.
- Where stone foundation wall materials were accessible I was able to move some of the stone with my hand due to the deteriorated joint conditions. In addition, there were locations where large sections of the stone were missing. For instance, there appeared to be a section where 4" of stone had fallen away along the inside face of the foundation wall in the crawl space (Photo 6).
- There were floor joists that were badly deteriorated where they were bearing along the exterior stone foundation wall (Photo 7). No original wood materials would have been treated to resist the effects of exposure to moisture.

B. John Yust (Architect) and Tom Schroeder (Owner) reported that they removed a great deal of silt from the crawl space below the main floor framing. I assumed that the stone foundation walls were porous enough to allow the silt to be brought in from the exterior.

C. The main floor sheathing was buckled in some areas along the perimeter of the room where it appeared that the stone foundation materials below had moved upwards and caused distress to the sheathing. This type of distress was more significant along the north wall of the building (along the alley). I would suggest that water infiltration into the stone foundation wall had resulted in expansion of the wall during freezing temperatures. This theory is supported by the greater movement along the alley side of the building where snow would be added along the wall of the building during snow clearing efforts. This would contribute additional moisture along this wall of the building which would result in greater expansion during freeze events over time.

D. The main floor joists were bearing on a 3.5"x3.5" wood beam that was supported by 3.5"x3.5" wood columns in the crawl space. The bases of the wood columns showed signs of exposure to moisture and it was not apparent what the posts were bearing on (Photo 8).

E. General structural condition of main floor framing and foundations in light of proposed development of building:

i. Any floor joists with the type of deterioration observed at the bearing along the exterior stone foundation wall shown in Photo 7 would need to be removed and replaced.

ii. If any floor joists still have sound material where they bear along the exterior stone foundation wall, the foundation wall condition would need to be remodeled to support the joists in a manner that the joists would not be in contact with the stone material. The existing joists would not have been treated to resist contact with moisture at bearing conditions and this condition would need to be corrected. Remodeling the existing stone foundation wall would be difficult due to the relatively large width of the stone foundation wall along the perimeter of the building (17"-18" wide).

iii. The existing sill along the perimeter of the building would need to be removed and replaced due to the lack of preservative treatment in the existing members to resist the exposure to the moisture in the stone foundation walls. In addition, the deteriorated state of the existing sill would require removing most of this material anyways. Most of the sill conditions observed had deteriorated to the point that loads per the MSBC would not be properly transferred to the foundation system.

iv. The deteriorated joints and loose materials in the stone foundation walls make it extremely risky to reuse the walls with any redevelopment of the building. It would be difficult to simply grout

open joints in the walls due to the relatively massive width of the walls- it would not be possible to confirm that all open voids within the wall system were filled during the re-grouting efforts. Any open voids would continue to be susceptible to moisture infiltration in the future which could lead to expansion of the materials during freeze events. This is especially true along the existing alley where snow would continue to pile up during maintenance efforts and due to the fact that there is no moisture barrier along the exterior face of the foundation walls.

F. Recommendations for reinforcement or replacement of existing main floor structure and foundations in kind

i. The columns supporting the center beam should be removed and cannot be reused. To provide a more efficient structural system, two new 4x4 wood posts would be used to support (2) 1.75"x9.5" LVL beams (currently there are four or five interior columns along the center beam line). These columns would bear on concrete footings that would be 2'-6"x2'-6"x12" thick with 4-#4 reinforcing bars each way at the bottom of the footing.

ii. The main floor joists would be replaced with 2x10 floor joists spaced at 16" on center. The existing floor joists were deteriorated and cannot be reused as part of the main floor structural system.

iii. The stone foundation walls would be removed and replaced with the following:

- 24"x12" thick continuous concrete footing with 2-#5 continuous reinforcing bars
- Footing to bear at least 3'-6" below the adjacent finish grade
- Provide a 12" foundation wall made up of concrete masonry units (CMU). CMU would be reinforced with #5 reinforcing bars placed at 48" on center. The top course of the CMU would be a bond beam with 2-#4 continuous reinforcing bars. A limestone veneer could be included where the foundation wall is exposed above grade.

I would recommend against using a full stone foundation wall system as the material would be susceptible to water infiltration and the unreinforced stone would not be appropriate to resist lateral loads from the adjacent backfill material (Also refer to Section 4.E.iv of this report for further discussion of this topic).

iv. The existing sill plate at the base of the stud walls would need to be replaced with a continuous treated sill plate. The existing sill plate cannot be reused.

v. I would not recommend reusing the existing wood flooring at the main floor level. Similar to the recommendations for the second floor level, reusing the existing wood flooring would not provide a reliable diaphragm to resist lateral loads on the structure (Refer to Item 3.C.iii of this report).

5. One Story Shed on West Side of Building

A. The one story shed on the west side of the building was not constructed along with the original structure.

B. The wood rafters and wall studs showed signs of moisture infiltration throughout the addition.

C. It was unclear if there was a foundation system along the exterior stud wall of the shed that extended to frost depth or to the bedrock below. The concrete below the stud wall was cracked and appeared to have undergone excessively differential movement along the length of the wall (Photo 9)

D. General structural condition of shed in light of proposed development of building:

i. The existing framing materials at the one story shed have been exposed to so much moisture over the years I would recommend against reuse of the materials for any development of the building.

ii. There were no signs of a true foundation system supporting the stud walls of the one story shed. A new foundation system would be required for any structure in this location.

6. Exterior Wall Studs

A. The existing wall studs showed signs of moisture infiltration at many locations throughout the building.

B. The existing studs had deteriorated due to moisture infiltration along the base of the walls (Photos 3 and 4).

C. Recommendations for reinforcement or replacement of existing wall studs in kind

i. Existing studs that had been damaged by moisture cannot be reused.

ii. The existing studs that had been sistered to the original studs along the east gable end of the building during the past remodeling of the original structure should be removed and replaced (Photo 10). This existing condition is not structurally acceptable.

7. Quantitative Analysis of Reuse of Existing Materials for Repair of the Building

A. Roof framing- 0% of the existing structural materials from the roof level can be reused for the proposed development of the building. The existing materials were damaged by fire and cannot be reused.

B. Stair framing- 0% of the existing structural materials at the stairs can be reused. The existing framing system does not provide a continuous load path to the foundations.

C. Second floor framing

i. 0% of the existing flooring can be reused for development of the building. The existing boards do not create a proper structural diaphragm to transfer lateral loads (wind loads) through the building to the foundations.

ii. All of the existing floor joists could potentially remain in place. However, the new floor framing materials required to reinforce the existing system to resist loads per the MSBC would carry a significant majority of the loads. The bending moment capacity of the new LVL joists is 10 times greater than the bending moment capacity of the existing joists. In other words, the existing floor joists would no longer function as such because they would have an insignificant contribution to the actual structural performance of the building.

D. Main floor framing and foundations

i. 0% of the existing foundations can be reused for the development of the building. The materials have deteriorated and the ungrouted condition will continue to allow water infiltration. Allowing water infiltration will leave the building vulnerable to future damage due to trapped moisture creating overstress conditions during freeze-thaw cycles.

ii. 0% of the main floor joists can be reused. The joists have been damaged due to moisture infiltration to the point that they would not perform structurally and they should not be in contact with the new framing materials.

iii. 0% of the existing wood flooring can be reused. Like the recommendations for the second floor level, the reuse of the existing flooring would not create a proper structural diaphragm to act as part of the lateral load resisting system.

E. Wall studs

i. I would estimate that 70% of the wall studs can be reused. The other 30% of the studs have been damaged by moisture and cannot be reused.

ii. 0% of the existing wood boards on the outside face of the studs can be reused. As with the existing wood boards on the floor framing, the existing boards will not provide a diaphragm to resist lateral loads on the building.

8. **Practical Concerns Regarding Construction of "In Kind" Structure**
   A. Based on my observations, the only structural materials that would be reused for the proposed development of the building would be the second level floor joists and any wall studs that have not been damaged by moisture. However, the existing second floor joists would not be a functioning part of the structural system (Refer to Item 7.C.ii of this report). To accomplish the preservation of the second floor joists and the sound wall studs, a temporary shoring system would need to be installed to suspend the building while the new footings, foundation walls, and framing are constructed. The supports for the shoring system would need to be located far enough outside the building footprint to allow excavation and construction of the new footings and foundation walls as they are built up to the underside of the existing studs that will be suspended in space.
   B. I estimate that 20% of the existing structural materials would be reused for the restoration of the building.

Additional Comments

1. The opinions and conclusions expressed in this report are based on the reviewed information, site observations, and observations of the artifacts as well as my training, education, and experience. These opinions and conclusions are held to a reasonable degree of certainty. As additional information becomes available, I reserve the right to update or supplement the report.
2. It shall be noted that our firm has not been engaged to provide structural design and/or detailing of shoring required to temporarily support any framing or foundation materials that have been overstressed and will need to be repaired or replaced.
3. This report shall not be considered a construction document for performing any remedial work on the structural systems mentioned herein. All remedial structural work shall be completed in accordance with the provisions of the Minnesota State Building Code.

Please contact our office with any questions or comments regarding the structural conditions for the project.

Respectfully Submitted,

Richard W. Johnson, PE, Senior Project Engineer
Minnesota Registration #23406

Photo 1- Fire damage at roof level

Photo 2- Gap between rafters and wall sheathing on west end of roof

Photo 3- Openings in exterior stud wall

Photo 4- Rotted wood and deteriorated stone materials at base of stud wall

Photo 5- Rotted wood and missing/deteriorated stone materials at base of stud wall

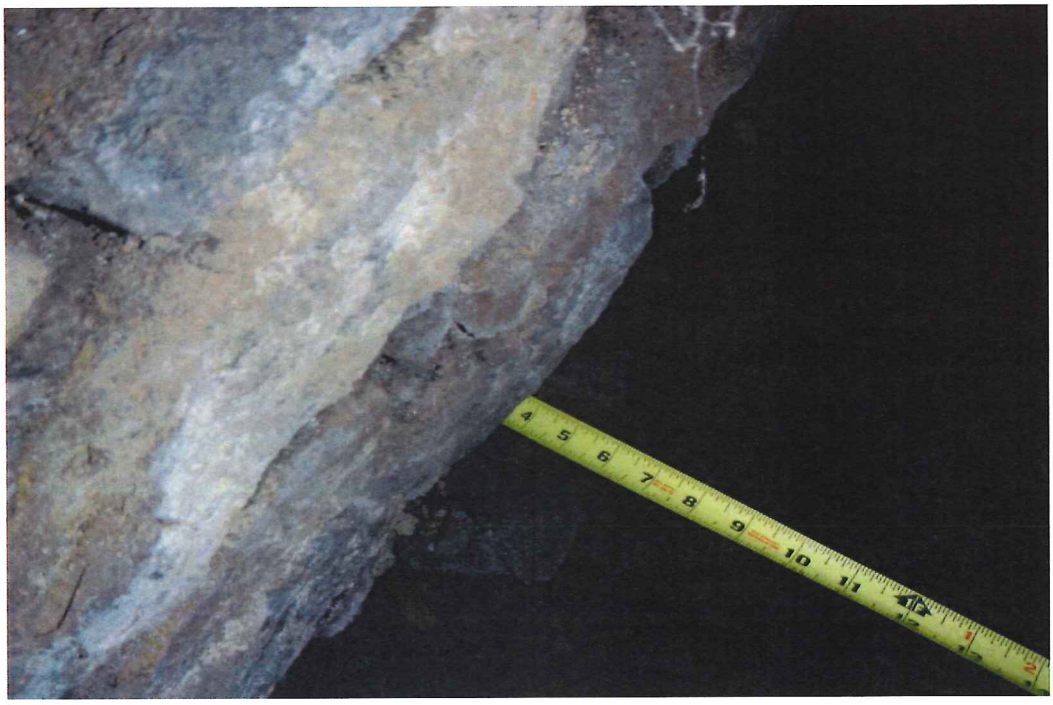


Photo 6- Looking downwards at a section of stone that had deteriorated along the foundation wall

Photo 7- Deteriorated joists and sill at bearing on stone foundation wall

Photo 8- Signs of moisture on columns in crawl space

Photo 9- Signs of movement in concrete supporting stud walls of one story shed on west side of building

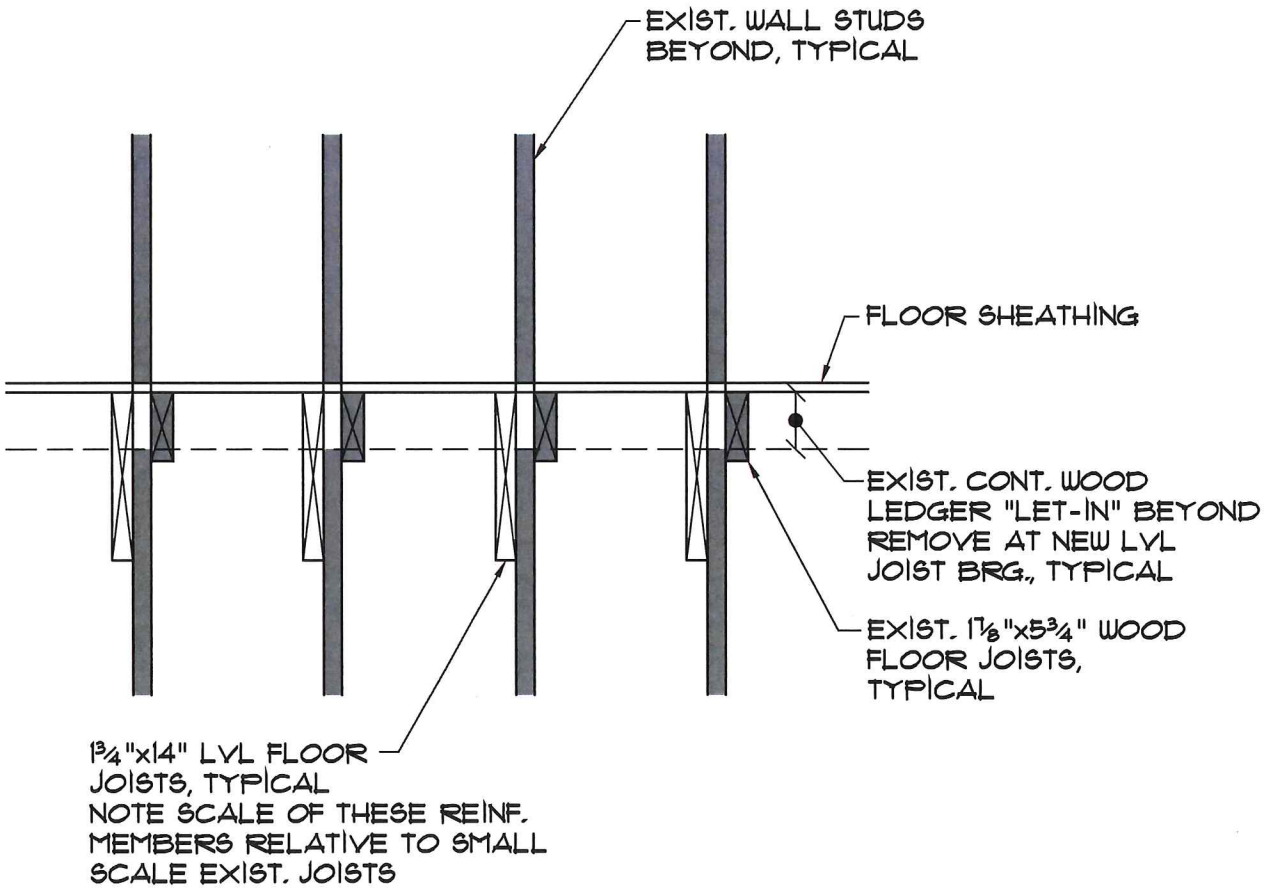
Photo 10- Sistered wall studs along east gable end at previous remodeling efforts

ALIGN Structural, Inc.

241 Cleveland Avenue South, Suite B7 Saint Paul, Minnesota 55105

PROJECT 445 SMITH AVENUE JOB NO. 14246 DATE 8-19-14

SUBJECT STRUCTURAL INVESTIGATION BY RWJ SHEET NO. SK1 OF 1



1/SK1 SECTION AT SECOND FLOOR JOIST REINFORCEMENT

SCALE ¾"=1'-0"

414 7th St. W.
St. Paul, MN 55102

To Whom It May Concern,

Bad Weather Brewing Company and the Stone Saloon share an alleyway with private residences. The nature of our businesses requires use of the alleyway for deliveries, pickups and waste services. We are lucky enough to have a large alleyway to easily accommodate both our business without a problem, however we want to do everything we can to be respectful to our neighbors utilizing the alleyway.

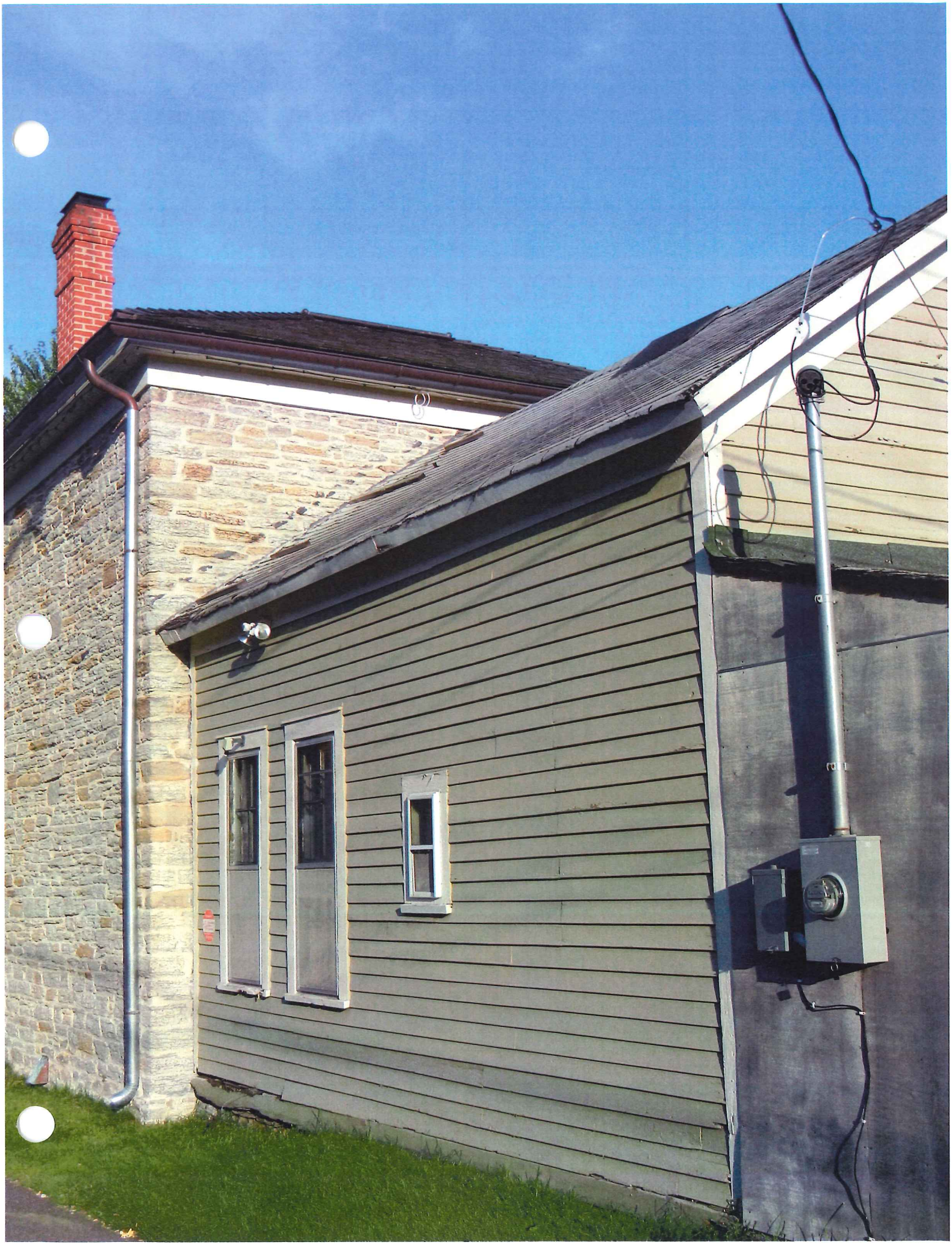
Our businesses have a large overlap with regard to supplies we will order. Bad Weather Brewing and the Stone Saloon plan to work together on ordering ingredients and supplies, meaning we can share deliveries and minimize truck traffic through the alleyway. We are also outlining a plan for shared waste disposal and recycling which will also minimize truck traffic.

Continuing to work with the Stone Saloon and our surrounding neighbors is extremely important to us, and helps foster a safe and happy community for all businesses and residents. Our intent with this letter is to show Bad Weather Brewing and Stone Saloon will be committed and respectful neighbors to everyone in our community.

Sincerely,

Zac Carpenter and Joe Giambruno
Founders - Bad Weather Brewing Company


Charles Palmer House, Built in 1874
445




Charles Palmer House, Built in 1874