KNOXVILLE HISTORIC ZONING COMMISSION
STAFF REPORT - CERTIFICATE OF APPROPRIATENESS APPLICATION

PROPERTY LOCATION: 2110 Chapman Hwy / Parcel ID 109 A K 014

FILE NO.: 6-Q-19-HZ

DISTRICT: Kern's Bakery H-1 Individual District

MEETING DATE: 6/20/2019

APPLICANT: Joseph Staats (Architect)

LEVEL OF WORK: Level II. Construction of addition or outbuilding

PROPERTY DESCRIPTION: Art Deco (c.1931)

Art Deco in design, the Kerns Bakery building is a red, wire-cut brick building. The building contains a central pavilion of three bays that is two stories in height, with flanking one-story wings. Three central entries mark the first floor of the central pavilion; they are recessed and flanked by square brick pilasters. Each of the three doors contains a full light in a wood frame, with a segmental arched transom of eighteen small panes; the doors and transoms are flanked by small paned transoms. The entries are topped by sixteen-light metal windows with metal awnings, each of which has a decorative wrought iron grill. The entries and windows form units that are set into a smooth cut stone surround. Between the doors and second-story windows is a paneled cut stone section containing three recessed panels. These surrounds mimic the segmental arch of the transoms on the first floor. Flanking the central entry bay are bays that contain three windows on the first and second story; with windows also of metal, composed of twelve lights with a central six-light movable section. These windows are marked by soldier courses at the top of the window and below the stone sills. Connecting the windows is an applied detail that creates the appearance of recessed brick. The entry doors are reached by a set of poured concrete steps that are flanked by oversize buttresses. Simple painted metal pipe rails traverse the center of these stairs. Applied oversize letters spell the name “Kerns Bakery” and are located in the cornice above the second-story windows.

Flanking the central portion of the building are one story wings on a raised basement, also constructed of brick and matching the materials of the central pavilion. The soldier courses, sills, and brick detail are also present in the wings. The windows on the first floor of the wings are tall and narrow twenty light windows, with a four-light pivoting central section. Windows in the raised basement are shorter but also contain the pivoting central section. A stone coping tops all three sections of the building, with a metal coping above it. A small hip-roofed penthouse with metal siding is located on the northernmost wing.

One of the most distinctive features of the building has always been the neon sign that is located on the roof of the building. Although it has been modified in recent years, it was a painted metal form in the shape of a loaf of bread, painted to resemble the Kerns Bread packaging, and outlined in neon. As the moving neon sign display changed, it revealed slices of bread that were falling out of the package into a horizontal stack.

DESCRIPTION OF WORK:

An adaptive reuse of the existing Kerns bakery building into a multi-tenant building containing offices, restaurants, retail, and food market. The proposed plan maintains the use of the existing historic façade facing Chapman Highway, while updating the other elevations with new materials that compliment the building's past industrial use. The existing metal structure located at the southeast corner, a Quonset Hut, has been evaluated and deemed structurally unsuitable for reuse. The proposed plans include demolition of the existing Quonset Hut and replaced wit ha new 2,500 sq. ft. addition. The scope also includes a second floor addition on top of the northeast corner of the existing building.

PROPERTY LOCATION: 2110 Chapman Hwy / Parcel ID 109 A K 014

FILE NO.: 6-Q-19-HZ

DISTRICT: Kern's Bakery H-1 Individual District

APPLICABLE DESIGN GUIDELINES:

Secretary of the Interior's Standards for Rehabilitating Historic Buildings.

The Secretary of Interior's Standards for Rehabilitating Historic Buildings shall govern the issuance of Certificates of Appropriateness for alterations to the exterior of the Kern's Bakery. The Standards are listed below.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will 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 elements from other historic properties will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will 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.

11. If cleaning or rehabilitating the historic bread sign on the roof of the building, the recommendations in Preservation Brief #25 :"The Preservation of Historic Signs" must be followed.

COMMENTS:

None

STAFF FINDINGS:

- The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property are being avoided.
- Changes proposed to a property that have acquired historic significance in their own right are being retained and preserved.
- New additions, exterior alterations, or related new construction proposed will not destroy historic materials, features, and spatial relationships that characterize the property. The new work is differentiated from the old and is compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- The rotation of the landmark sign to maintain it's view is permitted as long as the relocation adhere's to Article 8, Section 8.5e. (Landmark and historic sign regulations).
- Demolition of the non-contributing Quonset Hut structure is acceptable based on the structural accessment provided by the applicant. It is considered a non-contributing strucuture.

STAFF RECOMMENDATION:

Staff recommends approval of the adaptive reuse of the existing Kerns Bakery building as proposed in plans submitted on 6/3/2019.

Certificate (File) No: 6-Q-19-HZ

APPLICATION FOR CERTIFICATE OF APPROPRIATENESS
KNOXVILLE/KNOX COUNTY HISTORIC ZONING COMMISSION

Please print all information:

1. NAME OF APPLICANT: Joseph Staats

Address: 2240 Sutherland Ave. Suite 105

Telephone: 865-671-9060 E-mail address: jstaats@jainc.com

Relationship to Owner: Architect

2. NAME OF OWNER: Alex Dominguez

Address: 4274 Woodland Brook Dr. S.E.

Telephone: 404-803-0411 E-mail address: alex@r1com.com

3. LOCATION OF PROPERTY:

Address: 2110 Chapman Highway Tax ID/Lot/Parcel No: 109AK014

4. LEVEL OF WORK (circle Level)

Level I Routine repair, replacement of non-original materials in-kind; removal of artificial siding or late additions; installation of gutters, storm windows/doors, screen doors, satellite dishes, or signage; demolition of a noncontributing structure; renewal of COA

Level II Major replacement of materials or architectural elements; construction of addition or outbuilding

Level III Construction of a new primary building; subdivision of individually designated property

Level IV Demolition or relocation of a contributing structure

5. DESCRIPTION OF WORK: (See Part 2 of this application for additional information that is required for submittal with the application. (A copy of all information which is submitted with an application must be retained by the Knoxville/Knox County Historic Zoning Commission.)

An adaptive reuse of the existing Kerns Bakery building into a multi-tenant building containing offices, restaurants, retail, and food market. The proposed plan maintains the existing historic facade facing Chapman Highway while updating the other elevations with new materials that compliment the industrial past of the building. The existing metal structure located at the southeast corner "Quonset Hut" has been evaluated and deemed structurally unsuitable for reuse. The proposed plans include demolition of the existing Quonset Hut and replaced with a new 2,500 sqft addition. The scope also includes a second floor addition on top of the northeast corner of the existing building.

6. SIGNATURE OF APPLICANT: Joseph Staats Date: 6/3/19

Return application to: MPC, Knoxville/Knox County Historic Zoning Commission, Suite 403, City/County Building, 400 Main Street, Knoxville, Tennessee 37902 or **Fax:** 865-215-2068. **Incomplete applications will not be accepted.**

FOR STAFF USE ONLY			
Date Received _____	Approved _____	Disapproved _____	Approved As Modified _____
Date Acted On _____			

INFORMATION REQUIRED TO BE SUBMITTED BEFORE CERTIFICATE OF APPROPRIATENESS (COA) APPLICATION CAN BE ACCEPTED

Incomplete applications will not be accepted. All required information must be submitted before the COA application and fee will be accepted for the next available Historic Zoning Commission (HZC) agenda. Checks mailed with an incomplete application will be returned and the application will not be placed on the HZC agenda.

A. EXTERIOR ALTERATION OR REPAIR:

- Circle each work item for which approval is requested:

Accessory structure	Masonry (including painting)	Satellite dish
Architectural feature	Material changes	Shutters
Awning or canopy	Mechanical system unit	Siding
Deck	New construction	Signs
Door	Parking lot (entrance drives, paving, fencing)	Skylights or solar collectors
Fencing and walls	Porch (including any porch elements)	Storm windows or doors
Guttering	Roofing	Windows

- Describe the proposed work in detail and include the following information: Refer to provided Drawings
  a. Sketches, photographs, manufacturer's specifications, illustrations, and detailed drawings are required for major changes in architectural features and materials
  b. Samples, description, and specifications for proposed materials
  c. Site plan for fence / retaining wall applications

B. NEW CONSTRUCTION:

- Describe the proposed project in detail and include the following information: Refer to provided Drawings
  a. Dimensioned site plan showing building footprint
  b. Dimensioned elevation drawings that clearly show the exterior appearance of the building
  c. Samples, description, and specifications for proposed materials and architectural features
  d. Description and drawings or photos of site improvements such as fences, walls, and paving

C. RELOCATION OF STRUCTURE: N/A

a. Description of structure and its condition and reason for relocation
b. Photographs of the structure at existing location
c. Site plan for, and photos of, proposed location
d. Description of any site features that will be disturbed such as topography, retaining walls, fences

D. DEMOLITION OF CONTRIBUTING STRUCTURE: Demo of non-contributing structure "Quonset Hut"

a. Description of the structure and its condition of the structure and reason for proposed demolition
b. Photos of overall structure and its details Refer to structural evaluation provided

ASSOCIATED DESIGN GROUP, INC.
Consulting Engineers & Design Specialists

August 2, 2017
ADG Project No. 17899

Emailed: cmiller@ftetitle.com

FundaTerra Title & Escrow
Attn: Mr. Chip Miller
PO Box 18830
Asheville, NC 28814

Reference: **Kern's Bakery**
2110 Chapman Hwy, Knoxville, TN 37920

Subject: **Limited Visual Structural Assessment**

Dear Mr. Miller:

Pursuant to your request, Associated Design Group, Inc. (ADG) performed a visual non-destructive structural investigation of the above referenced building on Wednesday, July 26, 2017. Our investigation was limited to visual examination of structural components only as viewed from accessible floor levels. The purpose of this report is to provide an overview of items of major structural concern found during our investigation. This report is not intended to be an exhaustive list of each item in the building requiring repair. ADG was not able to observe the roof from above due to safety concerns. No measurements or analysis of structural members were performed.

The following is our findings and recommendations:

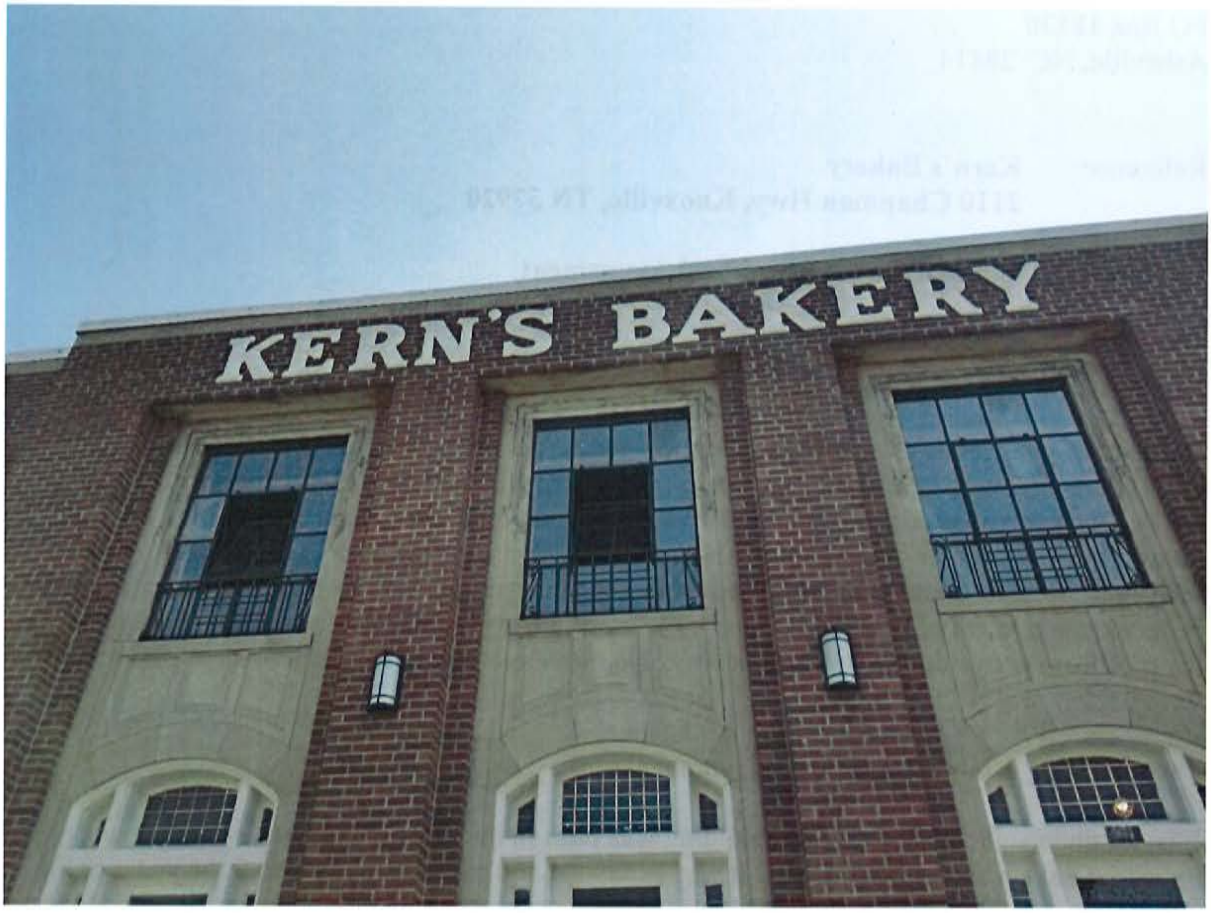
It is our understanding the original building was built in the early 1900's and served as an industrial bakery throughout its life. It was expanded and modified throughout the years as the needs changed. The original building's structural system utilized brick masonry bearing walls and wooden joists. Later additions used various combinations of concrete, wood and steel framing with masonry walls. We will refer to each section of the building according to the naming convention in the "Kern's Bakery" diagram furnished to us by the owner and attached to this report.

Associated Design Group, Inc.
135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Office

The Office consists of three (3) stories and a crawlspace. It is constructed with brick masonry exterior bearing walls, wooden joists, and wooden plank decking. The exterior brick facing Chapman highway appears in very good condition with the mortar joints appearing to have been recently repaired. The crawlspace was not accessible to us during our investigation.

The backside ground floor brick wall separating the "office" from the "original factory" is supported by hot rolled steel framing members. It is unclear whether this area was originally constructed like this or the first story of brick masonry bearing wall was removed at some point to open the area into the Original Factory. There is one (1) steel column on this wall line that appears to have been moved from its original location at some point.



Exterior brick facade facing Chapman Hwy appears to have been recently restored and appears to be in good condition. Brick lintels appear to be rusting and in need of maintenance.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

One (1) column supporting the brick bearing wall above appear to have been relocated to the right. While this looks a little odd, there is no signs of structural stress or movement. ADG recommends that this condition be analyzed by a licensed engineer after future loading plans are determined.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

The roof and second floor joists have been significantly notched for the installation of sprinkler piping. Joists seats are shimmed at bearing walls. These joists should be modified and/or replaced to provide correct structural load paths.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

The 3rd floor is visibly wet from roof leaks. ADG recommends complete investigation into the condition of the floor joists and roof decking during renovation.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Fungus and decayed wood are visible on underside of the roof deck. ADG recommends mold and fungus firm be engaged to treat the fungus so that deck can be evaluated during renovation for repairs and/or replacement, if required.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Original Factory

The original factory consists of a main floor and basement level. The floor is constructed from mostly hot rolled steel framing, reinforced concrete slab and wooden roof framing/decking. A small portion of the main factory floor is wood framed. A portion of the roof framing and decking had been sand blasted prior to our inspection. Water intrusion has caused damage throughout the original factory and has adversely affected both roof and floor framing at some locations.

Roof decking and joists have failed in several locations. This is an example of one of the worse conditions found. This area is subject to collapse. Owner should hire a licensed contractor to completely shore this damaged section of roof and repair roof leaks so as to prevent further damage to the wooden members. Areas Like this should be roped off so as to prevent people from getting under the damaged roof areas until repairs are performed.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Example of a wood beam where the end of the member was in contact with the masonry and has sustained decay. A tempory steel pipe column has been installed near the end of the member to shore the beam. This should be considered temporary shoring and replaced during building renovations.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

This is an example of the worse heavily damaged wood roof decking and roof joists. ADG recommends when the roof is repaired and/or replaced that all decayed members be replaced at that time. Areas like this with significant damage should be roped off to prevent injury. This is an example of why ADG did not walk on the roof as this condition cannot be observed from on top of the single ply roof membrane.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Some areas of the Original Factory have been sandblasted. The removal of old paint and surface materials is very useful in helping to identify decayed roof decking and joists. Some locations like this where the wood has changed to a darker color represents moisture damage has begun. These areas will need to be investigated when the roof is repaired to determine how much of the materials will need replacement.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

There are some holes cut into steel members that will require patching during renovation. Apparent repair to a wood girder (shown beyond) should be evaluated by a licensed engineer during renovations.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Some reinforced slab locations in the Original Factory area has corrosion to the reinforcement steel. These areas will need to be removed and/or patched as needed for future design loading conditions that may be applied.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Columns have some rust and abuse over the years. The steel will need to be cleaned, primed and painted during renovation activities. Bent columns will need to be repaired. This type of repair is common in manufacturing industry.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

There are pockets of decayed wooden floor joists and rusted steel plates left over from old manufacturing processes that should be removed and/or repaired to meet future building renovation plans.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Bowstring Garage

The "Bowstring Garage" is constructed from brick masonry bearing walls, large bowstring girder trusses, wood timber purlins, and timber decking. Some of the bowstring trusses and timber decking had been sandblasted prior to our inspection.

The bottom cord and web members of the trusses appear to be solid sawn timber. The top cords of the trusses appear to be a glued laminated timber. The glulam top cords appear to be has some delimitation. This is likely due to the age of the trusses and moisture cycling in an unconditioned environment. ADG recommends all timber purlins and decking inspected during reroofing operations and replaced as needed.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Leaks in Bowstring Garage's roof need to be repaired to avoid further impacting the wooden roof system. The bowstring trusses should be protected from further moisture damage.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Purlin is visibly bowed and should be replaced. When the roof is repaired the edges of the roof should be inspected for decay.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Factory Additions

There are four factory additions labeled on the "Kern's Bakery" diagram. All are steel framed structure (columns and beams) with steel bar joists supporting a wooden roof deck. Most of the steel in these areas appear to be in good condition as originally designed. There are some areas where the steel was modified for manufacturing process that will require further investigation during the renovation design phase. An example of a modification is shown below in the following picture. Some steel columns have been added to and/or moved. Their bearing conditions to a the foundation system will need to be confirmed during renovation design efforts.

This section of bar joists has been removed and beams added to accommodate the tank installation. The bar joists have been cut and supported by newer girder members. In places some web members have been cut/removed for piping. Bar joists like these will need to be repaired during renovation.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Example of decking that has been replaced and bar joists where web members have been cut. The roof will need to be inspected for moisture decay during re-roofing operations and the cut web members replaced.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Paint on the bar joists are pealing. The bar joists need to be sand blasted and inspected for the need of repairs, if any. The bar joists should be painted to protect them from further exposure to moisture.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Quonset Hut

The Quonset Hut addition is constructed from a cold formed galvanized steel frame with corrugated galvanized steel decking. The structure sits on a concrete block knee walls. The decking has diffuse severe rusting. The ends of the cold formed steel semicircular support ribs are severely rusted and experiencing section loss and bearing loss in places. The base channel atop the masonry knee wall is completely rusted through in places. ADG recommends the Quonset Hut be demolished.

Exterior decking of Quonset Hut is severely rusted. ADG recommends complete demolition and removal of the Quonset Hut.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Base channel is completely rusted through and disintegrating. End of structural rib is severely rusted.

Tower

The Tower addition is constructed from concrete masonry units (block) walls. The concrete masonry appears to be in good condition. The structure is very tall and there is a large silo inside the tower so a complete inspection of the interior was not possible. No significant visible defects were observed in the tower building addition.

The addition immediately behind the tower was not accessible at the time of our inspection.

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

Conclusion

This building(s) is experiencing active moisture intrusion and will be subject to continuing decay until the sources of moisture ingress are stopped. The condition of the building documented in this letter can change rapidly due to the ongoing moisture decay. There are several areas where the roof decay represents a danger and should be shored and repaired immediately. Stopping the moisture intrusion is critical to preserving components of this building.

Several small and large portions of the timber decking and wooden girders throughout the building have moisture damage. Currently, the decking and its supporting wooden members can be repaired and/or replaced when a new roof is installed. It will be up to the architect and engineer of record during the renovation design phase to determine how much of the wooden roof system will need to be replaced due to future loading condition the structure may experience and in order to comply with the then current building code requirements.

It is our engineering opinion the Quonset Hut is past its useable life and should be demolished. The exterior decking is rusted and the ends of a large number of structural ribs are rusted severely and in our opinion cannot be repaired.

As ADG does not know what your client's exact desires are for the use of this building in the different areas within the structure, this letter was written from the perspective of whether or not something should be repaired due to its current condition and original construction. Looking to the future, your client's desired changes of occupancy of the building will likely trigger newer building code requirements which may require the building's structure to be analyzed for required improvements. Your architect and/or engineer of record should be consulted for building modification requirements.

ADG's scope was limited to floor level visual non-destructive observations of the structure. ADG was not contracted to perform any testing or engineering analysis related to present or future framing, foundations, connections, etc. needs. This report is not intended to be an exhaustive list of items requiring repair. It has been prepared to provide the buyer with information about the general structural condition of this building.

Additional engineering efforts may be needed to determine the extent and methods of repairs needed for future use. A comprehensive structural renovation plan should be prepared by a licensed engineer that accommodates your client's visions for the renovation of this building(s).

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com

If you have any questions or require any additional information, please contact me at (865) 951-2031

Sincerely,

Keith Johnson, P.E.
Vice President

Jimmy H. Taylor, P.E.
President

Attachments: Photos

135 S. David Lane, Knoxville, Tennessee 37922-3483 Business: 865-951-2031 Fax: 865-951-1975
www.adgtn.com