## CITY OF GAINESVILLE

## OLD FIRE STATION 1 ASSESSMENT











SUBMITTED TO: CITY OF GAINESVILLE

August 31, 2021

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427 South Main Street
Gainesville, FL 32601



The City of Gainesville and the University of Florida are contemplating the adaptive reuse of the old Fire Station One building. The adaptive reuse would be as an Arts Center. This constitutes a change of occupancy as defined by the Existing Building Code, which would require significant renovations to the existing building. A code analysis was prepared to identify these major renovation requirements. We believe most of the required elements are anticipated, described, and analyzed in this report.

## Required renovations would include:

- 1) Upgrades to the building structure to support the increased structural loads resulting from the new occupancy.
- 2) Replacement of all mechanical, lighting, power, and plumbing systems, which are near the end of their service life.
- 3) Addition of a fire sprinkler system to the building.
- 4) Accessibility upgrades to the building as required by the *Florida Building Code Accessibility*. Primarily these include replacing the restroom facilities, and providing vertical accessibility.
- 5) Demolition and replacement of all interior partitions, finishes, doors and equipment.
- 6) Replacement of exterior doors and windows.

It is our opinion that the proposed new use is feasible. It is also our belief that in the current construction market, renovating the existing building as proposed by UF would represent a lower overall cost than building a comparable new structure on the same site. Some of that savings would come from careful reuse of the existing building walls and structure, and additional savings could be realized from lower site developments costs compared to a new development. The budget analysis below projects an estimated cost of \$4.4M for renovation of all three buildings on the site, which includes the minimum required site work.



On June 24<sup>th</sup>, 2021 our team visited the old Fire Station #1 building at the above address to review and evaluate the building and site conditions. The review included design professionals performing Architectural, Mechanical, Electrical, and Structural reviews, an asbestos and lead paint survey, and Civil Engineering review of site conditions including parking, utilities, and topography. A report for each separate engineering discipline is included in the appendices, and summaries of those are included below in this section. It is recommended that all appendices be reviewed for a complete understanding of the building condition.

The purpose of this report is to:

- 1) Identify any maintenance items or deficiencies.
- 2) Evaluate the overall functionality, safety, and suitability of the facility for continued use.
- 3) Review the property for basic code compliance from the viewpoint of the proposed use as an **Arts Center**. We are using the proposal provided by the University of Florida as the basis for this evaluation, and some of the plan elements are recreated in this report.
- 4) Provide an "order of magnitude" level budget analysis for any maintenance or repair items that require prompt attention.

This report is not intended to propose new or alternative design solutions to meet the requirements of the proposed occupancy. We have focused on evaluating the suitability of the main building for the proposed change of occupancy.

Dimensioned drawings of the existing building were not available. We have interpolated and recreated plan documents and areas based on physically scaling un-dimensioned drawings, and some field measurements. The scope of this report did not include preparation of extensive as-built documents, so dimensions and areas are approximate.

## 1.1 REFERENCED CODES

The codes referenced in this report include:

- 1) Florida Building Code- Accessibility, Seventh Edition (2020)
- 2) Florida Building Code-Building, Seventh Edition (2020)
- 3) Florida Building Code- Plumbing, Seventh Edition (2020)
- 4) Florida Building Code- Existing Building, Seventh Edition (2020)
- 5) Florida Fire Prevention Code 7th Edition (2020)

In this report, "Florida Building Code" is abbreviated "FBC" to refer to the overall code collection. When specific codes are referenced, the abbreviation is supplemented with the specific code, as in "FBC-Accessibility".

#### **1.2** STRUCTURAL

This is a summary of the Structural Report in Appendix 1 below.

The structural item of primary concern is the suitability of the building structure for the new occupancy. No documents were available to show the original building structural design, so our assessment was made based solely on visual examination of the work in place. The building structural systems were reviewed by structural engineering consultant McVeigh & Mangum. No destructive investigation was performed, however visible structural elements were reviewed including above acoustic tile ceilings, and in storage areas where structure was visible. Generally, the structural systems in place are suitable and adequate for the current building usage, however the change of use/occupancy will require modifications to and replacement of some structural systems.

The roof framing of the original building was reviewed and assessed. The second floor is a partial second floor, with roof over part of the first floor, and sleeping quarters over the remaining area. The live loads associated with the original usage of these areas (roof, and sleeping) is considerably less than live loads required for design of the proposed usage (including office/business, and an occupied roof deck.) The increase in the design loads will require that the existing lower roof, and second floor structure be reinforced or replaced. The structure of the upper roof over the sleeping quarters is adequate and can remain in place. Structural recommendation is that the existing roof structure supporting the proposed roof deck be replaced with new structure, and the framing under the second floor would need to be reinforced.

In the cost analysis presented below, we have used a rough estimate of the cost of fabricated steel structural members of \$5,500/ton, which includes raw material, fabrication, and erection. A reasonable amount of new steel required in both of the above floor / deck conditions is about 8 pounds per square foot. The total roof/floor area is approximately 7,300 sf, therefore:

8 psf X 7,300 sf = 58,400 pounds / 2,000 = 29.2 Tons 29.2 Tons X \$5,500/ton = \$160,600

These calculations are used in the budget analysis below in Part 6. Note that there is currently significant volatility in the steel market, and as of the date of this report, steel costs are significantly higher than the figure used here. However, we feel it is reasonable to expect near term market correction back to the historical inflation rate.

## **1.3** MEP SUMMARY

This is a brief summary of the MEP systems report in Appendix 2 below. The construction values provided in Appendix 2 are also included in the Budget Analysis in section 6.0.

Generally, the Mechanical, Electrical, and Plumbing systems currently in place are operational, however most systems are nearing the end of their expected service life. If the building were to remain in operation, most HVAC systems would soon need to be replaced or extensively serviced. Most fixtures and controls are installed without ADA compliant clearances. Electrical service would be adequate for nearly any future new use of a building this size, considering that HVAC, Lighting, and Power systems would be upgraded with current technology, which would reduce overall energy loads. The current mechanical and electrical systems are not compliant with the FBC - Energy Conservation.

There is a standby generator on site that is not permitted to supply power to emergency or life safety systems, due to having only a single Automatic Transfer Switch (ATS). It is not clear if the new occupancy would require a standby generator, so the generator is optional and could potentially be removed if not needed.

There are no obvious deficiencies in the existing fire alarm system, as it appears to be relatively new to the building. However, the new occupancy configuration would require re-working of horn/strobe devices, conduit, etc.

Lighting systems are original to the building, and controls are not compliant with current energy code requirements.

All Power, Lighting, HVAC, Plumbing, and Data/Telecommunications systems in this building would be replaced in any future occupancy change for this building. A plan for adaptive reuse would be required to address ADA compliance, energy code requirements, life safety requirements. As discussed below, this building will also be required to be protected by an automatic sprinkler system, which it currently does not have. Essentially, our recommendation would be for all existing HVAC, Plumbing, Lighting, systems to be replaced in their entirety. The existing electrical service is adequate, but power systems would need to be replaced to serve any new occupancy. An automatic fire sprinkler system would need to be added, and the fire alarm system would need to be modified.

## 1.4 SITE / CIVIL SUMMARY

The attached Civil Engineering Report (Appendix 3) Lists planning and zoning requirements for this site. These requirements generally pertain to new development, and not generally to rehabilitation of existing buildings, so requirements such as setbacks and frontage zones are not generally applicable, unless significant new construction is introduced.

Use as an Arts Center is permitting under the existing zoning for this property. The Civil analysis shows several options for the project development, but the baseline we are assuming is the rehabilitation of the existing structure on the site, and no new additions to the building footprint(s). Budgeted items for site costs in section 6.0 include re-striping parking, rehabilitation of landscaping, and other minor items.

## **1.5** HAZARDOUS MATERIALS (ACM AND LEAD PAINT)

Appendices 4 and 5 below identify Asbestos Containing Materials and Lead Paint in the building. Recommendations for abatement outlined in those reports should be followed prior to any renovation activity, or included as part of the future renovations.



While there are three buildings on the property, the two outbuildings on the west side of the property were not included in the scope of our review, and this report focuses entirely on the original Fire Station building. The station was constructed in 1963, and it was decommissioned as an operable station in 2017 after the new Fire Station 1 was constructed a block to the south.

The Fire Station building is two stories, with the apparatus bays, storage, kitchen and common areas on the first floor. The second-floor interior houses sleeping quarters, restrooms, showers, and storage. The building enclosure and envelope is a combination of concrete frame and masonry infill on the exterior walls, with interior steel columns and beams, steel joists. The roof deck is a metal deck covered with approximately 4" of concrete. The roof system is a Built-Up Roof (BUR) consisting of an unknown number of layers of felt, with either coal tar pitch or asphalt, and gravel ballast. The roof is essentially flat, and is internally drained, however standing water on the roof surface indicates that there is insufficient slope to drain.

The building plan initially appears to have been intended to have an option for two pull-through bays on the first level; however, observations revealed no evidence of fasteners on the northeast facing bay that would indicate that a door was ever installed there. Therefore, we believe that the south bay has always been a pull-through bay, and the north bay has always been a shorter, back-in bay suitable for an ambulance. The remaining northeast quadrant of the ground floor includes a kitchen, and an

area that appears to have been variously used as a day room, or as a training room. Observations above the ceiling found a system of supports that supported folding or moveable partitions. This indicates that the area was originally configurable for a number of different activities. The moveable partitions have been removed, and the ceiling / wall interface indicated that permanent partitions were installed at an unknown date in their current configuration.

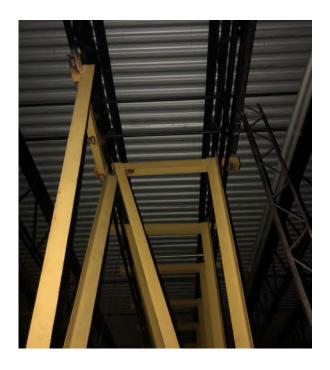
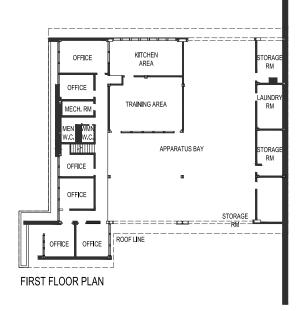
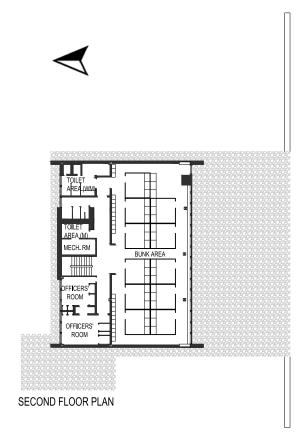


Figure: The folding partition structural supports for a folding partition above the day/training

Figure: Building plan for the first and second floor of the existing fire station.





Also on the ground floor, the row of spaces on the south side of the apparatus bays are primarily storage, and the rooms grouped on the north side are all offices, restrooms, and mechanical/electrical spaces.



Figure: Second floor bunk area, showing sleeping cubicles on the right and wood siding (previously-open south-facing aluminum storefront) on the left.

The second floor is reached by a stair on the north side of the building. There is no elevator. The north side of the second floor is occupied by mechanical, electrical, restrooms/ showers, and officers' quarters. The remainder of the interior appears to have originally been an open bunk room that was subsequently divided into eleven semi-private sleeping rooms. This second-floor bunk room was originally open to the south, the original aluminum storefront system is still in place, but has been covered with wood siding on the exterior, and opaque spandrel panels on the interior. A door in this system that leads to the roof appears to be original.

All glazed openings in the building have been covered with a protective screen system that appears to have been intended as protection from wind-borne debris. The southfacing glass on the second floor has mostly been replaced with opaque panels from the interior, and wood siding has been installed over the entire storefront system on the exterior.

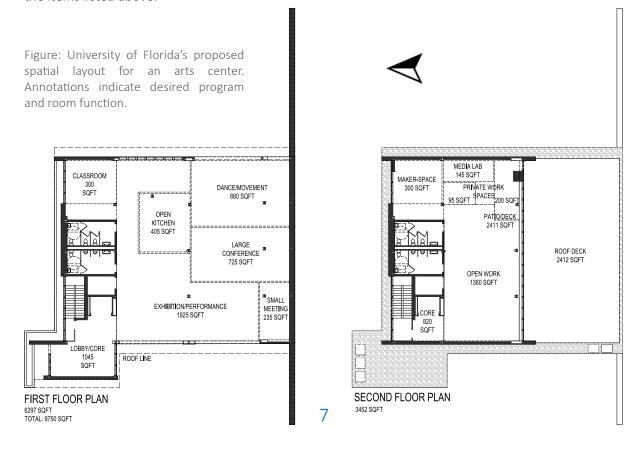


The proposed adaptive reuse of this building is described in the *Proposal for SPARC352* dated April 14, 2020, and prepared by the University of Florida. The proposed use has dance studios, conference/meeting rooms, a classroom, and exhibition space on the ground floor. On the second level, they propose work spaces for hands-on making, and computer lab spaces inside. They also propose the existing open roof area be converted to an occupiable roof deck. The proposal correctly acknowledges the need for vertical accessibility and ADA compliant restroom facilities, although we believe the number of fixtures proposed is in excess of what would actually be required. The UF proposal also designates the two outbuildings for use as Artist's Studios and an "Entrepreneur Incubator". Cursory observations of the existing mechanical and electrical systems in these two buildings are consistent with those in the main building, so those would likely need to be replaced or upgraded in the near future. Interiors of these buildings were not observed. Costs associated with their renovation are not reflected in the Budget analysis below.

In any adaptive reuse, the main elements that should be assessed include:

- 1) Code Requirements A overview of the major requirements of the Florida Building Code and Florida Fire Prevention Code that would affect the change of occupancy. Because this is a change of occupancy, renovations required to meet certain requirements of the code that is currently in effect at the time the use is changed.
- 2) A review of the existing Mechanical, Electrical, and Plumbing Systems, including maintenance and replacement of systems.
- 3) A review of the existing Structural Systems, and how the building structure would be affected by the change of use.
- 4) A report on the presence of Asbestos Containing Materials (ACM) and lead paint.
- 5) Budget Analysis.

The remainder of this report, including the Appendices, includes detailed observations and review of the items listed above.





## 4.1 HISTORY

The original building was constructed in the early 1960's, and served as a Fire Station until it was replaced in 2017 by the new Fire Station 1, located a block south on Main Street. Since 2017, this building has been used only for storage.

## 4.2 BUILDING AREA

Areas below are approximate, and calculated from a combination of selected field measurements, plans provided by Public Works, and direct observations. Creation of as-built drawings is not included as part of this report.

## **GROUND FLOOR**

Apparatus Bays 2,900 sf Training/work areas 560 sf Kitchen 350 sf

Storage Areas 650 sf (including laundry)

Bathrooms 100 sf Offices 950 sf

Mech

SECOND FLOOR

Bunk Area 2,000 sf Officers' quarters 350 sf Bathrooms 450 sf

**OTHER** 

Walls/Unspecified 2,590 sf

## Total gross area (approximate) 10,900 sf

## 4.3 BUILDING CODE- GENERAL

- 1) Occupancy Classification The current occupancy of the building is a nonseparated *Mixed Occupancy*, including Residential Group R-2 and Storage Group S-2. If the property is taken over for use as an Arts Center, the building would undergo a Change in Occupancy to either:
  - a. A nonseparated Mixed Occupancy of Business Group B, Assembly Group A-3, or
  - **b.** Assembly Group A-3, with ancillary business spaces.

In either of the above cases, renovations will be required to bring the building into compliance with the building code to accommodate the new occupancy.

2) <u>Construction Type</u> - The existing building shell elements that would remain in the new occupancy are noncombustible. However, because fire rated assemblies cannot be determined with any accuracy, the construction type is assumed to be Type II-B, in which key building elements are noncombustible, but unrated.

- 3) <u>Building Height and Area</u> Based on the proposed change in occupancy, the height and area limitations are:
  - a. Height (feet) Per *FBC Building*, Table 504.3a, Group A and Group B occupancies, Construction Type II-B, Unsprinklered, height limitation is 55' above grade. The actual building height is less than 55', so is compliant.
  - b. Height (stories) Per *FBC Building*, Table 504.4, Group A-3, Construction Type II-B, Unsprinklered, height is limited to two stories above grade. Group B is limited to three stories above grade. (The more restrictive requirement would apply.) The existing building is two stories, so is compliant.
  - c. Building Area Per *FBC Building*, Table 506.2, Occupancy Group A-3, Construction Type II-B, Unsprinklered, is limited to 9,500 sf. Occupancy Group B is limited to 23,000 sf. In nonseparated mixed occupancies, the more restrictive requirement applies to the whole building. We calculate the building area to be 10,900 sf total. The FBC allows an increase in area for the frontage separation distance. Based on the building configuration on the site, we calculate this increase to be 24.8%, for a total allowable of 11,858 sf (see calculation below) so the Building Area is compliant for the proposed new occupancy.

FRONTAGE AREA INCREASE CALCULATION		
Actual Area of the Building		10,900 sf
Allowable Area (Table Value)		9,500 sf
Area Increase	$ _f$	24.8%
Allowable Area w/Frontage increase		11,858 sf
Building Perimeter	Р	336 LF
Wall Length #1 (North)	$L_1$	74.0 LF
Width #1	$W_1$	10.0 LF
Wall Length #2 (West)	L <sub>2</sub>	94.0 LF
Width #2	$W_2$	30.0 LF
Wall Length #3 (South)	L <sub>3</sub>	74.0 LF
Width #3	Wз	0.0 LF
Wall Length #4 (East)	L <sub>4</sub>	32.0 LF
Width #4	W <sub>4</sub>	0.0 LF
Wall Length #5 (East)	L <sub>5</sub>	62.0 LF
Width #5	<b>W</b> 5	30.0 LF
Wall Length #6	L <sub>6</sub>	0.0 LF
Width #6	W <sub>6</sub>	0.0 LF
Perimeter that Fronts a Public Way >20	F	156.0 LF
Weighted Width of Public Way	W	34.7 LF
FORMULAS:		
$I_f = [F/P - 0.25]W/30$		ļ
$W = (L_1 \times w_1 + L_2 \times w_2 + L_3 \times w_3)/F$		

Figure: Table of building area and frontage increases (more information in next page).

- 4) <u>Mixed Use and Occupancy</u> If the new use is considered a "Mixed Occupancy" that the uses will be nonseparated.
- 5) Fire Protection Systems
  - a. Per section 1012.1.1 of the Existing Building Code, a building (or portion thereof) that undergoes a Change of Occupancy is required to comply with Chapter 9 of the *Florida Building Code*.
  - **b.** Per FBC- Building, Section 903 Assembly Group A-3 Occupancy will be required to be protected by an automatic sprinkler system.
  - **c.** Addition of a sprinkler system additionally increases the allowable area in Table 506.2 to 28,500 sf.
- 6) Means of Egress The building has ample opportunities for egress on the ground floor, on the East and West sides. Based on the proposed plan, the occupant load can be tentatively calculated as follows (areas are approximate):

GROU	JND FLOOR			
a.	Exhibition	1,925 sf @ 30sf/occupant	=	65
b.	Dance	880 sf @ 50 sf/occupant	=	18
c.	Conference	725 sf @ 15 sf/occupant	=	49
d.	Meeting	235 sf @ 15 sf/occupant	=	16
e.	Classroom	300 sf @ 20 sf/occupant	=	15
f.	Lobby	443 sf @ 5 sf/occupant	=	89
		Total Ground Floor	=	252
SECO	ND FLOOR			
g.	Open Work Area			
	(Office, conc.)	1,360 sf @ 50 sf/occupant	=	28
h.	Maker Space			
	(Shop/Vocational)	300 sf @ 50 sf/occupant	=	6
i.	Private Offices	300 sf	=	3
j.	Roof Patio / Deck			
	(TBD by Building Official) 1	360 sf (Allowance)	=	100
		Total Second Floor	=	137
		Building Total Occupant Load	=	389

Based on the above calculations, both floors will require a minimum of two exits.

In addition, because the building occupant load is greater than 300, and Assembly is the primary occupancy, the building would be a Risk Category III structure (per FBC- Building Tables 1604.5). This has implications for structural systems, including both gravity and wind load design.

7) Threshold Building - The building will not be a threshold building. (Less than three stories, fewer than 500 occupants.)

- 8) <u>Structural</u> Design structural loads for the second floor will be higher for the new use than they are for the current/previous use. As currently designed, the second floor is roof and sleeping areas. If they are re-purposed for use as office, meeting, and work space, gravity loading will increase dramatically, which will require substantial upgrading of the building structure. *This is described in more detail in the structural report appendix*.
- 9) Plumbing Based on a total building occupant load of 389 (as calculated above) the total required plumbing fixtures as required by FBC- Building, Table 2902.1 is calculated as follows:

a. Total Occupants 389b. Total Male (50%) 195

c. Male Fixtures required 1 per 125 = 2

**d.** Total Female (50%) 195

e. Female Fixtures Required 1 per 65 = 3

The proposed renovation plan indicates planned restrooms on both floors with three fixtures each for Male and Female facilities. Therefore, the minimum required fixtures count is met with the new plan with a considerable margin (5 required/12 provided).

Other plumbing elements such as drinking fountains, service sinks and lavatories would need to be provided in the quantities required by the FBC - Plumbing.

## 4.4 ACCESSIBILITY

- 1) The existing building was constructed prior to building accessibility standards being established in the code. Any future change of use or occupancy in this building will need to address vertical and horizontal accessibility by providing an accessible route throughout the building, and provide accessible restrooms. These would be the minimum requirements from a space planning perspective; additional accessibility requirements may be required specific to the new occupancy.
- 2) Stairway The existing stairway is completely non-compliant, with tread depth and riser height dimensions that do not meet the basic building code requirements even for able bodied individuals. The stairway also lacks guards at the upper landing. The UF proposal indicates that the existing stair would be demolished and a new stair elevator core is planned, so this is recognized and would be addressed in that renovation plan.

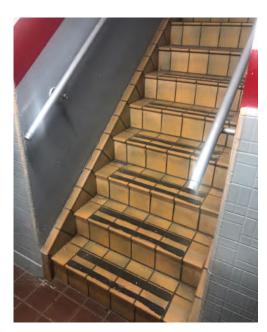


Figure: Stair leading up to the second floor. Built at 39" wall-to-wall with 2" wide handrails.

- 3) <u>Vertical Accessibility</u> For the proposed new use, vertical accessibility for disabled is required, so an elevator will need to be added. The plan provided in the proposal from UF indicates that an elevator is planned for the renovated building, so this would address the vertical accessibility issue.
- 4) <u>Accessible Restrooms</u> There are no compliant restrooms in the existing building. The plan proposed by UF indicates new restrooms that appear to have the required floor clearances and turning spaces. The proposed renovation would address both floors by introducing a stair/elevator/restroom core that provides toilet facilities for both floors.
- 5) <u>Site</u> The new plan will be required to provide the required number of accessible parking spaces with an accessible route to a main entry. The FBC-Accessibility bases the required number of parking spaces on the total number of spaces provided. Since parking on the site is limited, our understanding is that only one accessible space would be required, unless local zoning or other factors determine otherwise.
- 6) This assessment only addresses space planning elements. Requirements such as accessible drinking fountains, door hardware (with lever-type knobs), kitchen elements (if provided), casework, etc. will need to be addressed specifically in the facility plan.

## **4.5** MAINTENANCE

- 1) There are few maintenance issues on this building that would not be addressed in a renovation.
- 2) HVAC, electrical, and plumbing systems are generally at the end of their serviceable lifespans, and would be replaced in their entirety in the proposed renovation. These are discussed in more detail in the attached report provided by Campbell Spellicy Engineering.
- 3) The existing roof system shows evidence of previous and/or current leaks, and the roof is not properly draining. The existing system is near the end of its serviceable lifespan and also needs to be replaced. This is discussed below in more depth, with recommendations for replacement systems.

## 4.6 BUILDING ENVELOPE

## 4.6.1 WALLS, DOORS, WINDOWS

- 1) Wall Systems In general, the exterior building envelope is masonry, and does not show signs of cracking or other deterioration. So, in terms of weather resistance, the building envelope is in satisfactory condition. Under the new use, insulation could potentially be added to the exterior walls on the interior face.
- 2) Storefront Systems The existing storefront glazing has been covered over with a hurricane screening system intended to protect the glass from wind borne debris. This also cuts visibility through the glass, and detracts from the building aesthetic. In the attached budget analysis, it is assumed that all the existing glass would be replaced, in order to match the new storefront system that would be installed in the bay doors.



Figure: Removed ceiling panel reveals the masonry wall system with steel structural members.

3) <u>Doors and Windows</u> - It is assumed that the existing bay doors will be removed, and replaced with a storefront glazing system. It is further assumed that any existing doors would be replaced. If this is not the case, then any original doors to remain would require the hardware to be replaced with ADA compliant lever-type hardware.

## 4.6.2 ROOF

1) Roof System - There are two roof sections; one over the south apparatus bay, and the second over the second-floor crew quarters, which is a half story (only partially occupying the second level.) The existing roof system is a built-up roof (BUR) with internal roof drains. Given the age of the building, this roof is beyond the end of its expected service life. The roof condition is poor, and evidence of leaking was observed on the second floor, at the mechanical unit curb flashing. BUR systems have become less commonly installed on new buildings due to the high cost of installation, performance under high wind conditions, and health hazards to installers from kettle fumes. The recommended solution to replacing this type of roof would be to tear off the existing system down to the deck, and replacing with a two-ply modified bitumen system over tapered insulation to achieve positive slope to the roof drains. This replacement system would be less expensive to install, should provide a 20-year warranty, and would reduce the dead load (weight) supported by the roof structure.





Figures: Built-up-roof (BUR) and standing water. Despite the drain located in the lower left corner of the left photo, there is insufficient slope for draining excess water.



Figure: Damaged eave flashing as seen from the second floor roof.

- 2) Flashing Several sections of the eave flashing have come away from the roof edge, and there is evidence of flashing failure at the HVAC unit on the second-floor roof. A new roofing system will include new flashing in all areas.
- 3) <u>Slope/Drainage</u> The roof deck appears to have deformed, so water is not being directed to the drains, resulting in about 1.5" of ponding water on the roof surface, as it had rained heavily the day before.

## **4.7** INTERIOR ENVIRONMENT

It is assumed that all interior systems would be removed in a future renovation.

- 1) <u>Casework</u> The existing casework is in poor condition. The casework observed is past its useful life, and replacement would be recommended if it were to remain in the current configuration.
- 2) Finishes Finishes are generally consistent with a garage/storage facility, and are adequate for that purpose. The building does not appear to have been consistently maintained since the Station was relocated. Currently one fire engine is stored there, pallets of water. The rest of the space is unused.
- 3) Thermal/Moisture While no odors were encountered that would suggest persistent moisture or humidity problems, the existing garage bays are unconditioned, and so humidity levels have certainly fluctuated leading to condensation over the years. During regular usage with the bay doors frequently opened, passive ventilation would have flushed the air regularly. In the current storage usage, however, the doors are not regularly opened, so interior air quality has likely suffered. The proposed renovation would certainly introduce mechanical

Figure: Kitchen casework.





Figure: Stained and damaged ceiling tile in the second floor bunk area.

ventilation into this area, which would improve the air quality. Visible indications of roof leaking (staining) were observed on the second-floor ceiling. The second-floor ceiling system also has 4" thick fiberglass batt insulation laid on top of the ceiling, which is not the preferred method of providing insulation in horizontal assemblies. This insulation should be removed. The roof system recommended above would provide code compliant roof insulation above the structural deck.

- 4) Please see the attached Asbestos Survey and Report for location and identification of Asbestos Containing Materials (ACM) in the building, as well as recommendations for abatement.
- 5) Please see the attached Lead Paint Survey and Report for the location and identification of Lead Based Paint in the building, as well as recommendations for abatement.



The existing building will require extensive renovations to comply with current building code requirements. Chief among these are accessibility requirements, including restrooms and vertical accessibility. We would recommend providing fixtures closer to the minimum required number. Vertical accessibility in the form of an elevator or lift will need to be provided for any future use of this building. On the existing stairs, tread depth, riser height, handrails, and guards are all noncompliant. These items would need to be addressed to allow continued future use of the building. Any adaptive reuse project would require most or all of the items mentioned in this report to be corrected.

All Mechanical, Electrical, and Plumbing, systems will need to be replaced both because they are near the end of their useful service life, and because a new occupancy will require their reconfiguration.

The building will require a sprinkler system to function as an assembly occupancy. (There may potentially be an alternative usage of the building that would not require sprinkler protection.)

Structurally, the building shell is in good condition, especially considering its age. The floor / roof loads in the new use will require replacement and upgrading of the structure described in the appendix and summarized in section 1.0 above.

Site plan requirements are minimal if the building is to be renovated for reuse, with no additions to the footprint. If a new building were to be constructed on this site, the site plan, planning and zoning requirements would be more extensive.

Our budget analysis (below) indicates a preliminary construction estimate for renovation of the main building of approximately \$297.77/sf, and \$285.46/sf when the two accessory buildings are included. This is 15% to 19% below the cost of a comparison building constructed for the same purpose (not including site costs.) So, there is evidence to suggest that there would be savings in the adaptive re-use of this building compared to new construction. This would be due to the reuse of the existing building shell (exterior walls and partial roof). In addition, the lower costs associated with site development in the adaptive re-use, would also represent lower costs, since many planning, zoning, and water management district requirements would be avoided.



The cost analysis below is presented only to provide "order of magnitude" pricing reflecting systems that would be replaced or added, based on the proposed new use. The line-item pricing is based on historical published data and design experience, and does not attempt to project future market fluctuations. The data is organized generally by system. Design fees for the building are projected, based on the calculated renovation budget. However, site design fees, permits, and other soft costs such as furnishings are not included in our calculation.

For comparison purposes, a case study analysis of a **Theater and Studio Arts** building in Clinton NY, obtained from *Design and Construction Resources* (published in 2021) indicates a cost/sf for a new arts center building of \$390.58/sf. Using RS Means Construction Cost, we have adjusted for location and building size, obtaining a figure of \$354.13/sf, (not including site development costs.)

It should be noted that costs associated with site development for a new building on this site would minimally include stormwater retention, which could significantly affect the buildable area. Demolition of the existing building would also add cost. Finally, the design of a new building would also be governed by planning requirements, which include maximum setbacks, street edge zone development and landscaping, and parking requirements. So, the combined costs of site development for a new project would almost certainly exceed the site costs associated with an adaptive reuse project, which is what we are projecting in this budget.

A second project comparison is the recently completed (March of 2020) **Santa Fe College E Building Auditorium renovation**, which was constructed for a budget of \$2.7M, and included 7,560 sf of building area. Specialty systems in that project, such as lighting and sound systems, were valued at approximately \$300,000. Since these systems would not be required in this project, we can adjust the cost for comparison down to \$2.4M, or \$317.46/sf. This figure also does not include any site development costs.

No budget can predict the actual costs of construction. Actual costs can only be determined after a design is completed and contractors' bids reflecting current market conditions are obtained. Costs can vary up or down, depending on the final determined scope and quality of the design. However, we feel that the budget presented below would be adequate to establish a design scope, and to begin the design process.

	UNIT COST	QUANTITY	SUBTOTAL	OH+P	CONT	BUDGET
ARCHITECTURAL / STRUCTUR	RAL					
Structural Steel Material	8psf	6,300 sf	50,400 lbs			
	·	,	25.2 Tons			
Structural Steel						
Material / Fabrication	\$5,500/ton	25.2 Tons	\$138,600	20%	10%	\$180,180
ADA Accessible Restrooms	\$200/sf	500 sf	\$100,000	20%	10%	\$130,000
Provide New Stairs	\$150/sf	250 sf	\$37,500	20%	10%	\$48,750
Elevator	\$35,000/ea	1 LS	\$35,000	20%	10%	\$45,500
Roof	\$22/sf	6,300 sf	\$138,600	20%	10%	\$180,180
Interior Renovations	<b>↑</b> 44 <b>.</b>	10.150 (	64.467.200	200/	4.00/	Ć4 547 400
(Partitions/Finishes)	\$115/sf	10,150 sf	\$1,167,300	20%	10%	\$1,517,490
Roof Deck Surfacing	\$40/sf	2,850 sf	\$114,000	20%	10%	\$148,200
New Exterior Stair	\$10,000.00	1 LS	\$10,000	20%	10%	\$13,000
New Exterior Storefront	\$25/sf	1,858 sf	\$46,500	20%	10%	\$60,450
New Doors (excluding storefront)	\$1,200/door	16 doors	\$19,200	20%	10%	\$24,960
MECH / ELECT / PLUMB / FIR	E PROTECTION	(values belov	w are taken fro	m MEP	report in A	Appendix 2)
Provide Sprinkler System throughout	\$4.12/sf	10,900 sf	\$45,000	20%	10%	\$58,500
Replace HVAC & Exhaust Systems	\$240,000/ea	1 LS	\$240,000	20%	10%	\$312,000
Plumbing Systems	\$75,000/ea	1 LS	\$75,000	20%	10%	\$97,500
Electrical System Upgrades	\$150,000/ea	1 LS	\$150,000	20%	10%	\$195,000
Lighting, Fire Alarm, Data	\$180,000/ea	1 LS	\$180,000	20%	10%	\$234,000
RENOVATION BUDGET FOR A	CCESSORY					
BUILDINGS						
Artists' Studio	\$180/sf	1,900 LS	\$342,000	20%	10%	\$444,600
Research Hub / Incubator (Offices)	\$200/sf	1,430 LS	\$286,000	20%	10%	\$371,800
CONSTRUCTION TOTAL (BUIL	DING ONLY)					\$4,062,110
Design Fees					8.25%	\$335,124
Cost/sf (building)				1	.4,230 sf	\$285.46/st
SITE / PARKING / RETENTION	l					
Restripe Parking	\$100/ea	25 LS	\$2,500	20%	10%	\$3,250
Landscaping	\$6,000/ea	1 LS	\$6,000	20%	10%	\$7,800
Concrete Repairs	\$3,000/ea	1 LS	\$3,000	20%	10%	\$3,900
CITE DEVELOPMENT TOTAL						644.054
SITE DEVELOPMENT TOTAL						\$14,950

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# 7.1 APPENDIX 1 STRUCTURAL REPORT



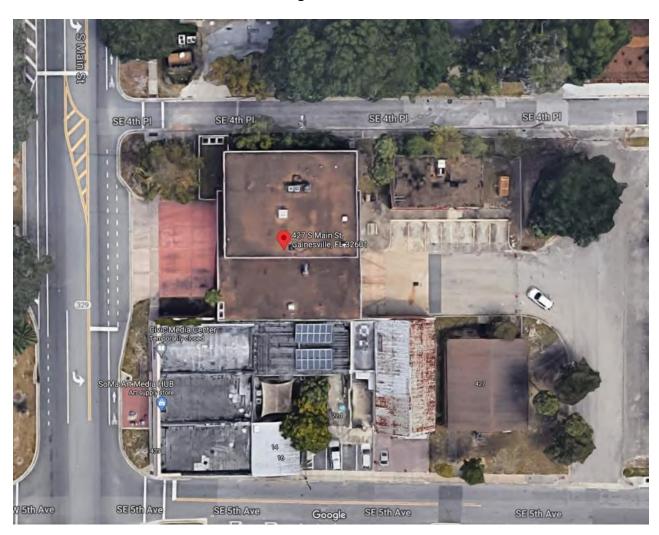


## Old Fire Station 1 427 South Main Street Gainesville, FL 32601

# Observation Report of Existing Building MME# 211096

Prepared for: **Brame Heck Architects, Inc.** 

August 20, 2021



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## I. EXECUTIVE SUMMARY

McVeigh & Mangum was tasked with performing a site observation of an existing building located at 427 South Main Street in Gainesville, FL. The existing fire station is being presented as part of an adaptive reuse as described in the Proposal for SPARC352, dated April 14, 2020, and prepared by the University of Florida. McVeigh and Mangum was asked to document our findings and to help determine if any repair work/additional reinforcing is required in order to meet the proposed occupancy change.

## A. Intent

This report is intended to document our observations of the existing building and provide our professional opinion and our recommendations on repairs, if necessary, as well as recommendations for reinforcing the existing structure to satisfy the proposed occupancy change. Our findings are documented in this report.

# Professional Structural Engineering Opinion

 Existing structural steel system will require modifications (remove and replace and/or reinforcement) to meet the proposed occupancy change per SPARC352 proposal.

## B. Summary

There are three buildings located on this property. The two outbuildings on the west side of the property were not subject to an observation by McVeigh and Mangum and are therefore not included within this report.

Within the main building, the structural elements were in good condition. There were no noticeable signs of structural damage or water intrusion; however, there were large puddles of standing water on both the low roof and the high roof, indicating deflection due to ponding or improper slope/drainage.

## C. Recommendations

Based on our visual observations, our professional recommendations are provided in the following report.

Please feel free to contact our office if you have any questions regarding this report.

Sincerely,

No 86369

\*
No 86369

\*
STATE OF

FLORIDA

FLORI

Cody Frazier, P.E.
Structural Engineer
McVeigh & Mangum Engineering, Inc.

Old Fire Station 1 Observation Report of Existing Building MME# 211096 August 20th, 2021 Page 4 of 20

## II. INTENT

This report is intended to document our observations of the existing fire station building which is the proposed future site for the SPARC352 proposal. The purpose of this report is to identify potential structural concerns within the building as well as any recommendations required for repair or to satisfy the proposed occupancy change (see images 1 and 2). Visual observations were made where access could be provided without demolition. No material testing or destructive testing was performed.

## III. SITE VISIT

The site visit was performed by one of our structural engineers, Cody Frazier, P.E on June 24<sup>th</sup>, 2021. This site visit was in conjunction with representatives from Brame Heck Architects as well as the City of Gainesville, among others.

The existing building's original occupancy was for a two story fire station in which the second floor does not cover the entirety of the first floor. The first floor consisted of an apparatus bay, storage, kitchen and common areas. The second floor consisted of sleeping quarters, restrooms/showers, and office area. There were no existing drawings available on site, however; Brame Architects were able to procure existing drawings and provided MME with general plan layout. No structural information was provided within these drawings.

The structure of the building consists of load bearing 8" and 12" exterior masonry walls which have various depths of concrete tie beams/headers around the perimeter (see image 3). The interior support system consists of approx. 8"x6" steel wide flange columns (see images 4 and 5). These columns are consistent through the height of the building. The roof and floor framing for the respective sections of the building are noted below.

The roof framing over the second floor area consists of a gravel ballast on approx. a 1" deep metal deck supported by 12" and 16" deep steel joists with top chord extensions at the perimeter. These joists are spaced at 4'-0" on center and are supported by a single run of 10" deep steel girders, which are located off center of the room, and 22" deep concrete beams at the perimeter. The wide flange girders frame over the top of wide flange columns (see image 7) noted above while the concrete beams are supported by the wide flange columns and load bearing CMU.

The second floor framing consists of an approx. 3 ½" concrete slab on a ½" metal deck (4" total thickness) supported by 16" deep steel joists spaced at 2'-0" oc. The joists are supported by 12" deep wide flange girders at the interior and load bearing CMU at the exterior. The steel girders are supported by wide flange columns and load bearing CMU.

The roof framing over the apparatus bay consists of a gravel ballast on an approx. 1" metal deck supported by 14" deep steel joists spaced at 4'-0" oc (see image 6). The joists are supported by 12" deep wide flange girders which are supported by the wide flange columns.

The roof framing over the existing storage rooms and laundry rooms which are next to the apparatus bay consists of a gravel ballast on approx. a 1" metal deck supported by 8" deep steel joists spaced at 4'-0" oc. The steel joists are supported by exterior load-bearing CMU walls and an interior line of 12" deep steel girders. The steel girders are supported by the wide flange columns.

## A. Observations

- There was visible ponding occurring on the low roof area over the apparatus bay and storage rooms, see image 8.
- There was visible ponding occurring on the high roof over the two-story area, see image 9.

## IV. RECOMMENDATIONS

McVeigh & Mangum Engineering, Inc. was tasked with providing our recommendations for repair (Part 1) and if any reinforcing is required in order to satisfy the proposed occupancy change (Part 2). The proposed plan update and occupancy changes from SPARC352 are noted below:

- The second floor occupancy is currently under residential occupancy. The proposed repurposing is to become office occupancy. This is an increase in live load from 40psf to 50psf + 15psf for partition loading.
- The stair well is proposed to be rotated from its current orientation and shifted towards the existing 2<sup>nd</sup> floor officer's room and 1<sup>st</sup> floor office space.
- There is a proposed elevator next to the stair well.
- The roof over the apparatus bay and storage/laundry rooms is currently under roof occupancy. The proposed repurposing is to become a balcony/patio deck. This is an increase in live load from 20psf to 100 psf.

## A. PART 1 - REPAIRS

- a. Ponding at High Roof (over 2<sup>nd</sup> floor area)
  - There were no signs of structural damage due to the standing puddles of water, however; the standing water indicates poor drainage or insufficient slope. It is recommended that the drainage and roof slope be modified.

## B. PART 2 - REINFORCEMENT

- a. High Roof (over 2<sup>nd</sup> floor area)
  - After our preliminary analysis of the existing roof structure, it was determined that the roof structure is adequate for the given loading provided the current roof drain (or new roof drain) system has a maximum static head of 4" and a maximum tributary area of 1800 sq ft.

## b. Low Roof (Over Apparatus Bay and Storage/Laundry Room)

- After a preliminary analysis of the existing roof structure, it is our professional opinion
  that the existing roof framing is satisfactory for the current loading but will need to be
  removed and replaced for the proposed occupancy change as described in SPARC352.
  These are described in more detail below:
  - o Remove and Replace with Non-Composite Deck Option 1
    - Remove and replace existing deck with new 3 ½" concrete slab over ½" non-composite metal deck (4" total thickness).
    - Existing 14" deep steel joists to be removed and replaced with new 24" deep steel joists spaced at 2'-0" oc.
    - Existing 8" deep steel joists to be removed and replaced with new 10" deep steel joists spaced at 2'-0" oc.

- Steel girder can either be removed and replaced with new 16" deep steel wide flange or can be heavily reinforced by way of adding steel plates, steel WT beams, etc.
- The steel column can either be removed and replaced with an 8"x8" wide flange steel column or reinforced by way of adding steel plates, steel channels, etc. or by providing a moment connection at the foundation.
- o Remove and Replace with Composite Deck Option 2
  - Remove and replace the existing roof and joists with new 4 ½" concrete slab over 2" composite metal deck (6 ½" total thickness)
  - Existing 8" and 14" deep steel joists to be removed and replaced with new 12" deep steel beams spaced at 8'-0" oc.
  - Steel girder can either be removed and replaced with new 18" deep steel wide flange or can be heavily reinforced by way of adding steel plates, steel WT beams, etc.
    - The existing steel column reinforcement is as noted in Option 1.
- The square footage for the proposed renovation is approximately 6300 square feet. The estimated added steel weight (regardless of Option 1 vs Option 2) is approximately 8psf. The estimated total steel tonnage weight is 25 tons with a 5-ton variance.

## c. 2<sup>nd</sup> Floor Framing

- After a preliminary analysis of the existing floor structure, it is our professional opinion
  that the existing floor framing is satisfactory for the current residential loading but will
  need to be reinforced for the proposed occupancy change to office space as described
  in SPARC352.
  - The existing steel joists will need to be reinforced by way of steel plates and/or rods, etc.
    - The existing steel girders will need to be reinforced by way of steel plates, or steel WT beams, etc.
  - o The existing steel column reinforcement is as noted previously in section b, Option 1.

## d. Stair Well/Relocation of Stairs

- The SPARC352 proposal is recommending a relocation of the existing stairs. Therefore, the existing stair well will need to be infilled with either a non-composite deck and joist system, similar to Option 1 in section b, or with a composite deck and beam system, similar to Option 2 in section b.
- To create a new stair well, the existing floor system will need to be modified by way
  of reinforcing existing member (or remove and replace) and addition of new steel
  beams or joists.

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## e. Addition of New Elevator

- The SPARC352 proposal is recommending a new elevator be installed next to the newly relocated stair well. The floor system will need to be modified by way of section d Stair Well/Relocation of Stairs.
- The new elevator will require a new concrete foundation with concrete stem walls creating the elevator pit.
- There may be a new elevator overrun required above the 2<sup>nd</sup> floor roof. The height of the overrun is dependent on the elevator manufacturer and may require modifications to the roof framing system.
- The new elevator will require a new 8" deep steel wide flange hoist beam. This hoist beam can be supported from the roof system above.

## V. <u>APPENDIX A – IMAGES</u>



IMAGE 1: SPARC352 PROPOSED GROUND FLOOR LAYOUT



IMAGE 2: SPARC352 PROPOSED SECOND FLOOR LAYOUT

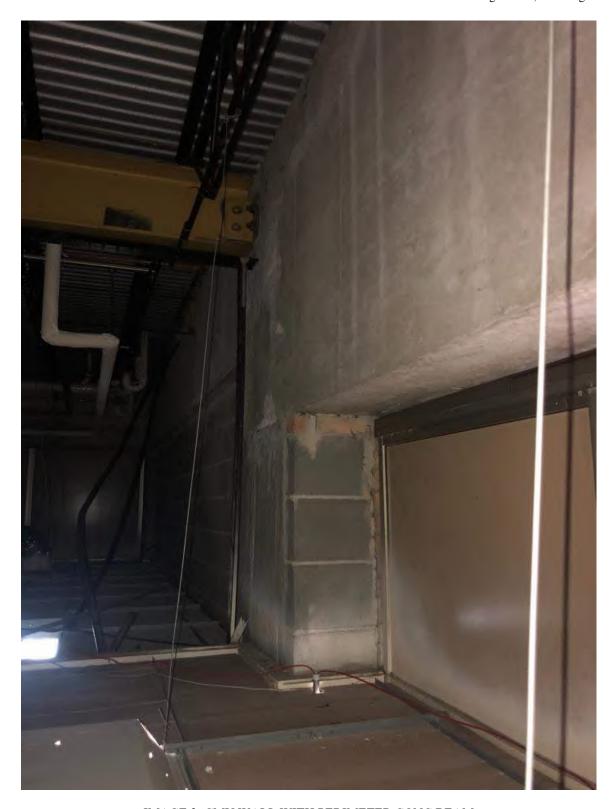


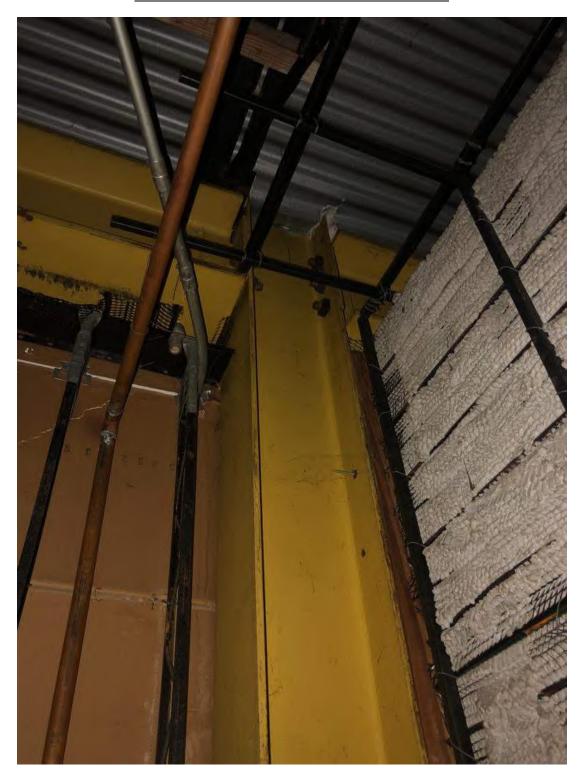
IMAGE 3: CMU WALL WITH PERIMETER CONC BEAM

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot CHARLOTTE, NC$ 



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## IMAGE 4: INTERIOR COLUMN IN APPARATUS BAY



 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot CHARLOTTE, NC$ 

## **IMAGE 5: STEEL BEAM TO COLUMN CONNECTION**

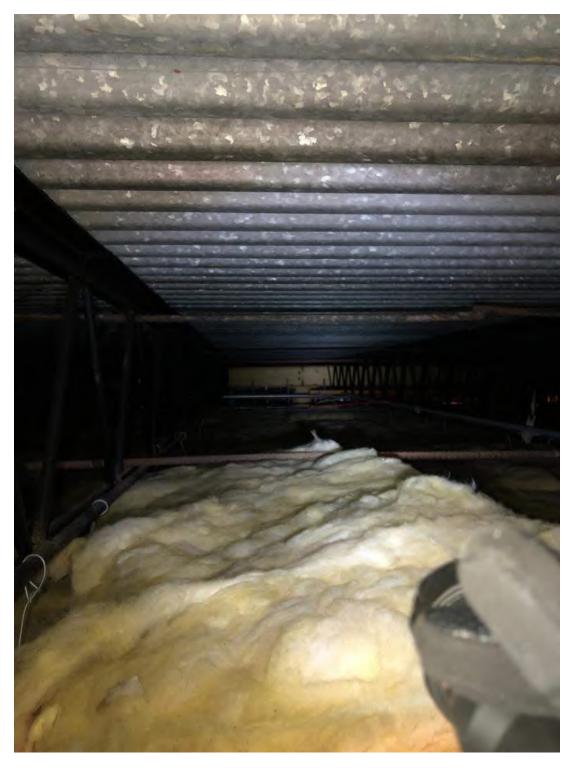


IMAGE 6: ROOF AND JOISTS OVER APPARTUS BAY

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot CHARLOTTE, NC$ 

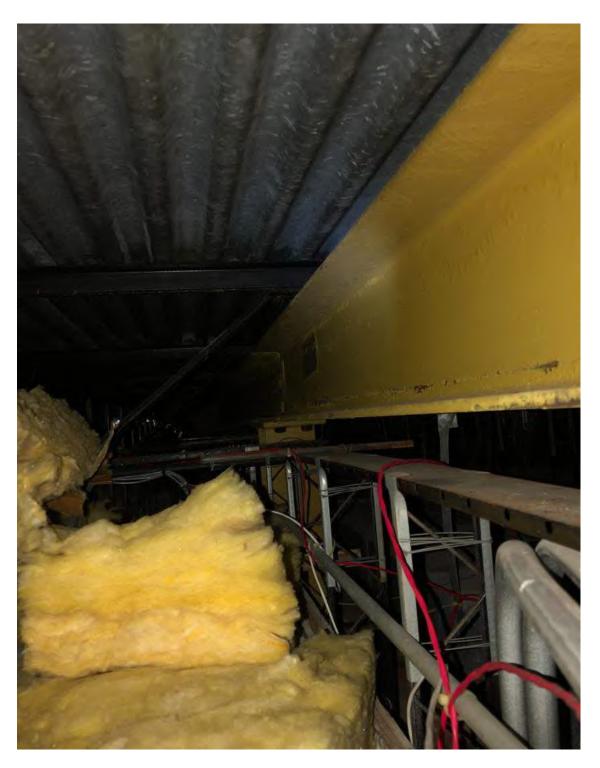


IMAGE 7: ROOF STEEL BEAM OVER STEEL COLUMN



IMAGE 8: STANDING WATER ON ROOF OVER APPARATUS BAY

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ CA \cdot CHARLOTTE, \ NC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ CA \cdot CHARLOTTE, \ CA$ 



IMAGE 9: STANDING WATER ON ROOF OVER TWO-STORY SPACE

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ TC \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ TC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ TC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA & \ TC \cdot WWW$ 

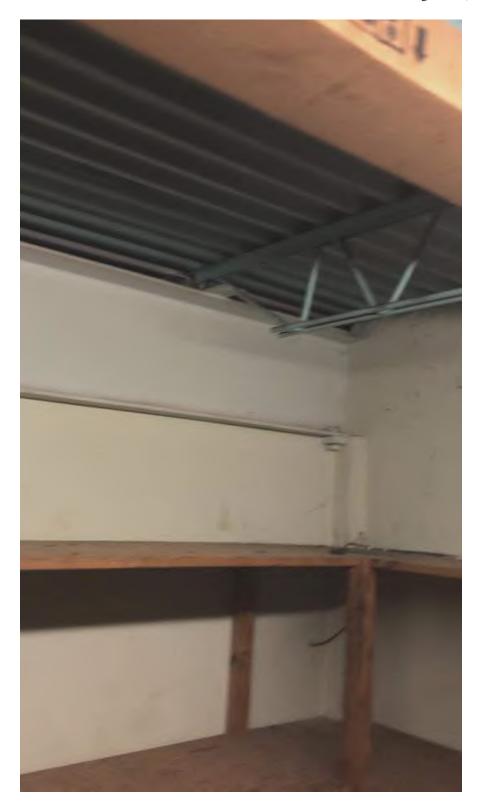


IMAGE 10: STEEL JOIST ON STEEL GIRDER BETWEEN APPARATUS BAY AND STORAGE ROOM

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot JACKSONVILLE, \ FL \cdot RALEIGH, \ NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ NC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ GA \cdot CHARLOTTE, \ MC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA, \ MC \cdot MWW.MCVEIGHMANGUM.COM \\ ATLANTA MWW.MCVEIGHMANGUM.COM \\ ATLANTA$ 

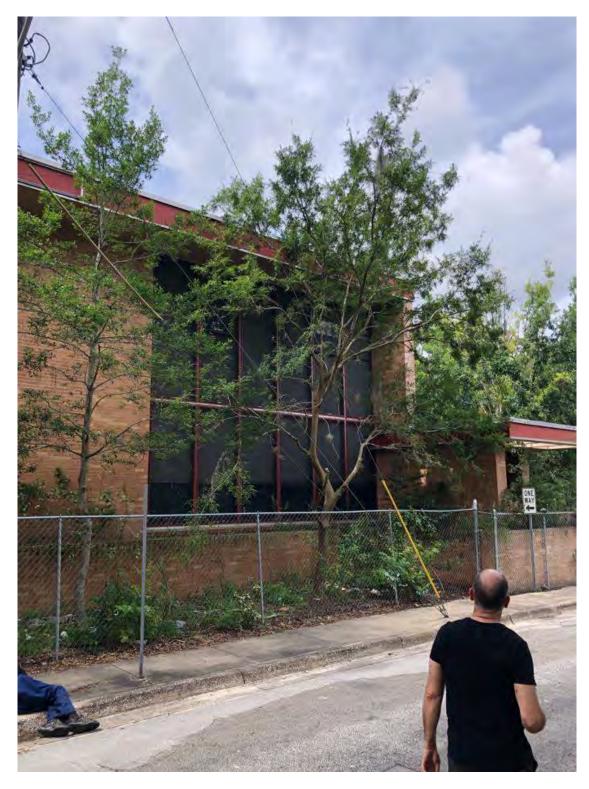


**IMAGE 11: EAST EXTERIOR FACE OF BUILDING** 

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing \\ Fire \ Protection \ | \ BIM \ (BIM-FM) \ | \ Technology \ | \ Commissioning \ | \ LEED \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot JACKSONVILLE, FL \cdot RALEIGH, NC \cdot WWW.MCVEIGHMANGUM.COM \\ ATLANTA, GA \cdot CHARLOTTE, NC \cdot CHARLOTTE, NC$ 



IMAGE 12: WEST EXTERIOR FACE OF BUILDING



**IMAGE 13: NORTH EXTERIOR FACE OF BUILDING** 

 $\label{lem:structural} Structural \ | \ Mechanical \ | \ Electrical \ | \ Plumbing$   $Fire\ Protection\ |\ BIM\ (BIM-FM)\ |\ Technology\ |\ Commissioning\ |\ LEED$   $ATLANTA, GA\cdot CHARLOTTE, NC\cdot JACKSONVILLE, FL\cdot RALEIGH, NC\cdot WWW.MCVEIGHMANGUM.COM$ 

# 7.2 APPENDIX 2



MECHANICAL, ELECTRICAL, AND PLUMBING REPORT

Phone: (352) 372-6967 Fax: (352) 372-7232 Certificate of Authorization: 00008813 www.campbellspellicy.com

August 18, 2021

Mr. Mick Richmond
Brame Heck Architects
m.richmond@brameheck.com

RE: City of Gainesville - Old Fire Station #1 Due Diligence Study

CSEI Project No: 21030

Dear Mr. Richmond:

Campbell Spellicy Engineering, Inc. (CSEI) has been contracted to provide a due diligence investigation, survey, and report for the existing (old) FS#1 located at 503 S. Main St, Gainesville, FL 32601. The purpose of this survey and report is to identify the current condition of the buildings on site and any existing issues or deficiencies with the mechanical, electrical, plumbing and fire protection systems so that the City of Gainesville can have the necessary information to identify potential future uses of this building, including but not limited to as a Community Center per UF Proposal SPARC352. Jose, Alzate, Diego De La Hoz and I visited the site on June 24, 2021 and documented the current configuration and condition of all MEP systems. We were able to access all spaces in all buildings during this visit and documented the observed issues and areas of concern including photographs of all existing conditions.

#### **EXISTING CONDITIONS**

The building consists of a 2-story conditioned space that houses bunk rooms, offices, day rooms, and a kitchen/dining room as well a single-story section that served as the vehicle bay and includes adjacent support spaces for storage, laundry, and supplies. This supply area also includes a small attic/mezzanine for additional storage that is accessed by a pull-down attic ladder. The total area of the building is estimated at approximately 10,100 sf. There is an additional single-story block building on the property, but that building was not included in the scope of our surveying nor this report.



#### MECHANICAL/HVAC:

The 2-story portion of the building is served by a total of three (3) split system DX HVAC systems that provide heating, cooling, and ventilation to the First-Floor kitchen, dining area, day room, offices as well as the entirety of the Second-Floor bunk areas and offices. Each system has an air handling unit located in one of the two mechanical rooms that is connected to a roof-mounted condensing unit. All units utilize electric strip heaters for all heating. At present, all three systems appeared to be functioning, but all were showing clear signs of age and it is highly likely that they are underperforming from their original capacities and efficiencies due to degradation. All existing systems are provided with touchscreen programmable thermostats, but most appeared to be turned off or in setback for energy savings as the building is currently unoccupied. The existing duct systems were observed as well and are generally original to the building, internally insulated sheet metal duct systems. In some areas, new externally insulated portions have been added including some flexible duct runouts, but the majority of

the system is original ductwork that is quite old. Some portions were observed to have joints that are separating, and it is expected from our experience, although not directly observed, that the interior of the duct is built up with debris collecting on the interior insulation.









Page 2 of 10

In addition to the heating and cooling systems, the kitchen is provided with a gas-fired range and a small commercial range hood that is connected to a grease exhaust fan at the roof and provided with unconditioned makeup air via a roof supply fan. While the hood and filters were dirty and showing some corrosion due to age, the grease ductwork appears to be in good condition and both fans were observed to be functioning well, controlled by the hood fan switch. The supply air ductwork includes an approximately 10' section of flexible ductwork, which while not a Code violation, is just noted for completeness as this is not standard for hood supply duct. All restroom exhaust fan systems appeared to be working during the visit, but as with the HVAC systems they are generally very old and are likely not providing Code levels of ventilation.









The vehicle bay areas are currently non-conditioned but do have several exhaust systems present. Each vehicle bay is equipped with a fairly new vehicle exhaust system (on sliding rails with snorkel flex ducts) that are all connected back to a central exhaust fan system. This system includes by a packaged fan controller mounted on the wall. The existing storage rooms have various existing and abandoned exhaust system, with the system in the laundry area controlled by a wall thermostat for heat removal and temperature control. There appears to have originally been a large intake opening at the center of the garage to make up the vehicle bay exhaust systems, but it appears to be capped at this time and abandoned in place at the roof level and in the ceiling. All systems appeared to be in working order at the time of the visit.







#### PLUMBING/FIRE PROTECTION:

The existing plumbing system consists of domestic cold water entering from the SE 4<sup>th</sup> Street side of the building and City sanitary sewer connecting to the main at Main Street. There are three electric, tank-type domestic water heaters serving the building. One serves the 1<sup>st</sup> floor kitchen and restrooms, a second serves the vehicle bay laundry area and a service sink, and the final serves the 2<sup>nd</sup> floor restrooms. None of these systems include a recirculation/hot water return system at present. All hot and cold-water systems appear to be run as copper piping throughout, with insulation provided at exposed piping in the unconditioned vehicle bay and storage areas. The sanitary piping appears to be run as DWV PVC, cast iron in places, but it is unclear the extent to which there may be cast iron piping used either under slab or within walls that were not visible.





The existing plumbing fixtures were quite aged visibly, but all were observed to be functional. In general the systems appeared consistent with a building that had been unoccupied for some time, including some minor corrosion and staining. There is an existing water cooler at the first floor that is functional, but does not appear to comply with ADA requirements and has a recessed cooling unit that is built into the existing wall that would need to be modified to provide an updated, ADA-compliant fixture.







The existing building is not protected with a fire protection system, but the existing kitchen cooking hood does have a packaged Ansul fire protection system installed. No other fire protection systems are present.





#### **ELECTRICAL:**

The electrical power system for the building consists of a 120/240V, single phase, 400A service supplying a Square D main distribution panel (MDP). This MDP supplies several of the building's larger loads (such as HVAC, washer/dryer, water heaters) as well as other branch distribution that are located throughout the building. All existing panels appear to be original to the building and it is unclear whether the current panel directories are accurate or if the existing breakers are in working order without providing a tracing of the existing circuits and testing by an Electrician. Currently, most panels were seemingly full (no spares and only a few spaces were observed) with spare capacity not known without obtaining existing metering data. The 400A MDP at 120/240V is capable of supplying a total of approximately 76.8 kVa, which appears sufficient for all current loads and would likely be a sufficient size for most usages of a building this size, especially if HVAC and lighting systems were updated to more modern technologies.











In addition to the utility system, there is an existing natural gas generator system including an automatic transfer switch (ATS) at the building north exterior. The generator is a Cat/Ring Power G75T3S, which is a 75kW generator consistent with the building service size. This generator appears to supply the entire building service in parallel as a whole-building optional standby system per NEC Article 702. With only one ATS, this optional standby power system is prohibited from supplying emergency or life safety loads such as the fire alarm system or egress lighting. Some of these loads appear to be supplied with normal power by the building power currently, which would not be permitted unless these systems also have integral battery backup systems such that they would operate under a malfunction of the optional standby system. It appears that the fire alarm system does have such battery backup, but the existing emergency egress lighting does not appear to.







The building is provided with a recently installed addressable fire alarm system that includes initiation and notification devices throughout the building. This system appears to have been installed in the past few years and no indications were observed that would suggest there are any deficiencies. Because this system was added after the original construction, the devices are generally installed surface-mounted with exposed conduit and boxes.







Without a full life-safety plan analysis, it cannot be confirmed that the current system is fully compliant, but there were no obvious deficiencies based on our walkthrough and the current budling layout/usage.

The building is served throughout with recessed and surface-mounted fluorescent lighting fixtures. In most finished/conditioned areas, 2'x4' recessed fixtures are provided with standard on/off wall switches. In the unconditioned areas and the vehicle bay, surface-mounted fixtures are used, also with standard of/off control. No occupancy sensing controls or other means for automatic control of lighting were observed during our visit. Aside from a few lamps that were not functioning, most fixtures and controls appeared to be functional.







The existing telecom/data system appears to have been upgraded from an older analog system to a more modern fiber and CAT-5 data/IT server system located in the main electrical room. The existing



analog systems are still present but appear to be abandoned at this time. The data infrastructure within the building is very limited and mostly present in the office areas where most new devices are surface mounted and significant exposed cabling is present to allow connection back to the few ports installed. Much of this cabling is "free-wired" with very little installed in conduit as these systems appear to have been added at a later date.







#### **ANALYSIS AND RECOMMENDATIONS:**

#### Mechanical/HVAC

Based on the general age of all HVAC and exhaust systems currently serving the building, any future occupancy and especially any change in usage or reconfiguration of the spaces should include a full-building HVAC system replacement. Any revised usage of the space will necessitate compliance with updated Codes including ventilation and the FBC- Energy Conservation, which will not be achievable by the current systems. Even based on the current usage, the age and condition of the systems would cause us to recommend a complete system upgrade alongside any meaningful renovation of the building for a new tenant. The one exception to this may be the existing hood supply and exhaust systems, which appear to be working well and could be retained if the existing kitchen was to be reused for essentially the same function that it is currently providing.

#### Plumbing/Fire Protection

The existing piping systems are likely in sufficient condition for reuse with any future occupancy type and usage, but the majority of fixtures would be recommended for replacement to ensure compliance with current energy/water efficiency Codes and ADA. Pending the required architectural reconfiguration of the spaces and restrooms for a new tenant occupancy and/or ADA upgrades, many fixtures could be replaced in relatively the same location to minimize the necessity of under slab or in-wall piping replacements, but any new fixtures would need new piping to be provided. Prior to any renovation or new occupancy, it would also be recommended that the existing under slab sanitary sewer piping be investigated with a camera to confirm its status and ensure there is proper drainage slope, the piping is not damaged, clogged, or leaking, and that the existing material (if cast iron as suspected) has not corroded to a point that system performance would be affected.

Based on the proposed usage of the building in the future, it is likely that this building will be required to have an automatic fire sprinkler system added to protect all areas per NFPA-13. This will ultimately be determined by the final occupancy classification and occupant loading, but it is highly



likely to be Code-required based on current assumptions. To provide this system, the existing water service will need to be increased/supplemented and space would need to be found for the fire sprinkler riser. Given the location of the building, it is expected that flow and pressure will not be a concern for the building, so we do not anticipate a storage tank or fire pump to be required.

#### **Electrical**

While the existing service size is likely sufficient for the future usage of this building, the actual gear (MDP, panels, breakers) are very old and should be replaced with new concurrent any significant renovation of this building. At that time, the existing feeder conductors should be investigated for size and condition as well as the existing service conductor conduits. If suitable for reuse, the new service infrastructure should be sized to maximize the existing conduit size and/or conductor capacity. All existing downstream electrical panels/branch circuits would then be required to be replaced as well and refed from new branch panels (a minimum of one per floor, but final quantity as needed based on number of circuits and loading). In addition to the age/condition of the existing gear necessitating these upgrades, finding replacement or new breakers for these existing gear enclosures can be very challenging or impossible and, when possible, are more expensive than new breakers would be. With this proposed upgrade, the existing generator and ATS would be investigated for their functionality and need with the new usage. It would then be determined if they should be removed, replaced, or upgraded. Pending the final use of the building, it may be useful/cost effective to add a life safety/emergency branch of power from this generator to eliminate the need for battery backup at the lighting and other life safety loads.

The existing lighting systems are suitable for reuse for some usages of the building, but for any significant renovation/remodel of the space, it would be recommended to replace all building lighting with new LED lighting that would comply with the requirements of FBC-Energy Conservation and allow the controllability that this Code would require for a new occupancy or change of use to the building.

The existing fire alarm panel and devices are relatively new and would be suitable for reuse for most future applications. The exact quantity and locations of required devices would depend on the final layout of the building and usage of all spaces, but the panel itself should be suitable for use with relocation/reuse of existing devices and supplementing with new devices as required for coverage per NFPA 72.

As with the lighting systems, the data/telecom system is currently functional but would likely be recommended to be upgraded for any holistic renovation of the building. Specifically, if walls are moved or added, it would be best to install new conduit pathways, cable tray, etc. and new recessed data boxes in all areas to provide better protection of the cabling, a cleaner installation, and a more reliable system. This would not be a Code required upgrade but would likely be a functional necessity for most any future usage of this building.

#### SUMMARY/CONCLUSIONS

As outlined above, the existing mechanical, electrical, and plumbing systems for this building are generally functional but are largely past their economic life and should be replaced completely upon any significant renovation of this building for a new tenant or change of occupancy/use. Much of these upgrades will be required by Code for such a renovation, while others will be required simply to ensure functionality and reliability of these systems in the coming years.

Without a confirmed future layout or usage of the building at this time, we have provided rough, order-of-magnitude construction cost estimates for these recommended system upgrades/replacements based on an assumed usage of the building as a Community Center per the



UF Proposal SPARC352 and representative of current market conditions and price per square foot estimations. The values listed below are indicative of the "cost of work" only and do not include soft costs such as design fees, general conditions, staffing, contingency, etc.

•	New HVAC Systems & General Exhaust for all Areas:	\$240,000
•	Remodel of all restrooms fixtures in-kind and 5-6 new fixtures:	\$75,000
•	New Fire Protection System:	\$45,000
•	Electrical Power System Upgrade:	\$150,000
•	New LED Lighting, Fire Alarm Modifications, and Data:	\$180,000

#### o Total MEP Estimated Cost of Work:

\$690,000

The above outlines all findings of our survey/investigation, the issues and areas of concern that were observed, and our recommendations for this building. Please let us know if there are any further questions that we can answer or any additional clarifications that we can provide. Thank you for the opportunity to assist on this project and we look forward to helping further however we can.

Sincerely,

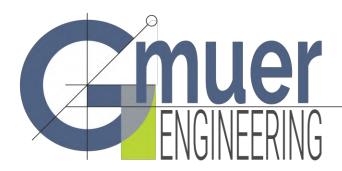
Kevin M. Spellicy, PE, LEED AP

President

# 7.3 APPENDIX 3



CIVIL ENGINEERING REPORT



2603 NW 13th St, Box 314 Gainesville, FL 32609 Ph. (352) 281-4928

gmuereng.com

#### Memorandum

To: Brame Heck Architects Inc. - Mick Richmond, President

From: Christopher Gmuer, Gmuer Engineering

Date: August 19, 2021

Re: GFR Fire Station 1 Redevelopment Study - Site

This memo is provided as an evaluation of the site redevelopment potential of the former GFR Fire Station 1 located at 427 S Main ST, TP#12866-001-000.

# **Zoning and Uses**

The property has a Downtown (DT) zoning designation and is bordered along the north, east, and south by the same zoning district. To the west the property faces Main Street and a public park. The park is zoned Public Services (PS) and to the northwest and southwest of the site the properties are zoned Urban 6 (U6). Within the DT zoning district, a wide mixture of uses are allowed by right as listed in Section 30-4.12 Table V-1 of the City of Gainesville Land Development Code. Uses such as Offices, General and Personal Services, Museums and Art Galleries, Public Buildings and Facilities, Retail Sales, Restaurants, Health Services, Schools, etc. Also allowed are Hotels / Bed&Breakfasts and residential uses such as Multi-Family Apartments and Single Family Homes. The full table of uses are included below.

Adult day care home
---------------------

Attached dwelling (up to 6)

Multi-family dwelling Single-family dwelling

Single room occupancy residence

Alcoholic beverage establishment

Assisted living facility

Bed and breakfast establishment

**Business services** 

Civic, social, or fraternal org.

Day care center

Drive-through facility

Emergency shelter

Eqp rental and leasing, light

Exercise studio Farmers market

Food dist. center for the needy

Food truck

Food truck park

Funeral home or crematory

Health services Hotel or motel

Laboratory, medical or dental

Library

Light assembly, fab. and process.

Medical marijuana dispensary

Microbrewery, microwinery, or

microdistillery

Museum or art gallery

Office

Office, medical (health-related) Parking, surface (principal use)

Parking, structured (principal use)

Passenger transit station

Personal services

Place of religious assembly

Professional school

Public administration building

Public park

Recreation, indoor

Recreation, outdoor

Research dev. or testing facility

Residence for destitute people

Restaurant Retail sales

School (elementary, middle, or

high - public or private) Social service facility Skilled nursing facility Vehicle sales or rental (no

outdoor display) Veterinary services

Vocational or trade school

# **Dimensional and Density**

The DT zoning district following the concept of form based design where the buildings are brought close to the street scape in the downtown areas of a city. The dimensional standards of CoG LDC Sec. 30-4.13. show the dimensional standards applicable to the property. These standards are summarized as follows.

Mixture of Uses Allowed, non-residential and residential uses can be mixed in same development

**Development Intensity** Max Property Coverage: 100%

Max Residential Density: 150 Units / Acre

**Building Frontage** Min Frontage Along Primary Street (Main St): 80%

Min Frontage Along Secondary Street (SE 4<sup>th</sup> PI): 60%

**Urban Zone Street Type**Main St: Storefront Street

SE 4<sup>th</sup> Pl: Local Street SE 5<sup>th</sup> Ave: Local Street

**Building Placement** Within the form based code, building setbacks are measured from the curb line

(Setbacks) Main St (Storefront Street): 20' min to 25' max

SE 4<sup>th</sup> PI (Local Street) & SE 5<sup>th</sup> Ave (Local Street): 15' min to 20' max

Interior Property Lines: 0 feet

Street Frontage Zones Between the curb and the building, there are three zones to be installed

Landscape Zone (for street trees, benches, street lighting, bike racks, trash, etc.)

Sidewalk Zone (wide sidewalk for travel by the public)

Building Frontage Zone (Building Landscaping, Stoops, Arcades, etc)

**Building Height** Max: 12 Stories / 172 ft

**Height of 1st Floor** Non-Residential 1st Floor Use: 15 ft min

Residential 1st Floor Use: 12 ft min

Glazing Non-Residential 1st Floor Use: 65% min

Residential 1st Floor Use: 30% min

Upper floors (nonresidential and multi-family): 15% min

## **Form Based Design**

Additional form based requirements consist of several design guidelines for the character of buildings. They generally consist of the following major components.

- Building massing. Design large building volumes to appear as smaller volumes grouped together. Methods
  may include projections, recesses, varying heights, varying roof lines, etc. Building facades shall not exceed
  60 feet along a street frontage without providing a substantial volume break
- Facade articulation. Along streets the building shall integrate the following architectural elements:
  - Max 20 horizontal feet shall provide a window, awning, canopy or marquee, offset, column, reveal, void, projecting rib, band, cornice, or similar element with a minimum depth of six inches, Arcade, gallery or stoop, Complementary changes in façade materials or texture.

- Expression line shall be provided between the first and second stories and continued around the sides of the building visible from a street.
- o Building elevations shall use similar materials and appearance as the front/street façade

# **Parking**

Surface parking lots shall be located to the rear or side of buildings. Ground floor parking under the building footprint must provide a min 25 ft wide band of active ground floor commercial, residential, or office uses along the Storefront street (Main St). Parking shall be accessed from the local street frontages. Vehicular access from the other street types shall only be allowed in the absence of these options. Quantity and dimensional requirements are below.

Vehicle Spaces (Car Parking) No Minimum Required

Bicycle Spaces Nonresidential Use: 1 Bike Space per 2,000 sq. ft. of Building GFA

Residential Use: 1 Bike Space per 3 bedrooms

Provide 10% min in Building Frontage Zones (along streets)

Scooter Spaces 1 per 6 bedrooms

### **Buffers**

Within the DT district, any surface parking adjacent to a public street shall be screened from street view by a masonry garden wall with a height between three and five feet. All other property lines must buffer surface parking areas must include decorative screening walls, perimeter parking landscaping per Article VII, or a combination thereof to shield ground floor parking areas.

### **Stormwater Treatment**

Development projects are required to provide quality and quantity requirements for all stormwater runoff generated from design storm events. For existing sites, the level of treatment and attenuation are graduated based on the level of redevelopment. The graduated levels are summarized below. In most cases, existing impervious areas can be credited toward most of the stormwater calculations that determine the size and configuration of any proposed / required stormwater management facilities. Stormwater Management Facilities (SMF) can be provided in the form of a typical surface pond or as underground chambers. Underground chambers are often used in urban redevelopment where parking or other site elements can be constructed above the chambers thus increasing the usable area of the site.

The efficiency / size of any SMF is highly dependent on the drainage characteristics of the underlying soils. As shown in the attached exhibit, the area soils are highly disturbed from the historical development within the downtown area of the City. In our experience, groundwater levels can vary tremendously from site to site with drainage / infiltration being moderate to low. The elevation of the groundwater is a large determining factor in the viability of any underground chamber design – high groundwater may eliminate chambers as a design option.

Design Requirement	Redevelopment New / Expanded Developme	
Exempt from stormwater requirements	Less than 4,000 SF	Less than 1,000 SF
Meet stormwater quality requirements		Between 1,000 SF and 1,999 SF
Meet quality and quantity requirements	4,000 SF or More	2,000 SF or More

# **Utility Infrastructure**

For redevelopment of any project, the surrounding utility infrastructure can be a limiting factor depending on the ability of the existing infrastructure to supply the needed demand of the facility or the relative ability for sufficient infrastructure to be extended to the proposed development. The longer the extension, the more expensive the associated costs due to the need to repair roads or modify other conflicting infrastructure. Each major utility is listed below with a summary of the availability to the site. Exhibits for each major Utility is attached.

Potable Water Large water mains exist within Main St, SE 5<sup>th</sup> Ave, and SE 1<sup>st</sup> St. The water main within SE 4<sup>th</sup>

Ave appear to be older and likely unable to supply needed fire flows. The main in Main St would require substantial road work to make a connection. The main in SE 5<sup>th</sup> Ave appears to be a large transmission line which GRU typically prefers to limit connections. The SE 1<sup>st</sup> St main is 8

inch and appears to be the likely connection point for Potable and Fire Service to the site.

**Sewer (Wastewater)** Large wastewater mains exist within Main St, SE 4<sup>th</sup> PI Ave, and SE 5<sup>th</sup> Ave. The main in Main St

would require substantial road work to make a connection. The SE 4<sup>th</sup> PI Ave and SE 5<sup>th</sup> Ave

mains appears to be the likely connection points for Wastewater Service.

**Reclaimed Water** Reclaimed water <u>is not available</u> to the site.

Electric Electric is available within SE 5<sup>th</sup> Ave, SE 1<sup>st</sup> St, and SE 4<sup>th</sup> PL.

**Natural Gas** The main is located within SE 1<sup>st</sup> St with a service pipe extended from this main west to the

existing site along SE 4<sup>th</sup> Pl. Service can be provided from either SE 1<sup>st</sup> St or SE 4<sup>th</sup> Pl.

GRUCom An underground main exists within Main St but is likely a trunk line without any points of

connection. There are pole mounted services in SE 1st St, and SE 4th PL and the current building

is serviced from SE 4<sup>th</sup> Pl and either road are available for connection.

Street Storm Pipes The stormwater pipes within Main St are upstream / uphill of the property and the storm pipes

located at the southeast corner of the site are the likely discharge / connection point for any

proposed stormwater management facility.

**Topography** The site is relatively flat along the northern half of the site. The southeastern corner slopes

approximately 4-6 feet lower than the upper portion of the site. This would make the southeastern corner the likely location for any stormwater management facility.

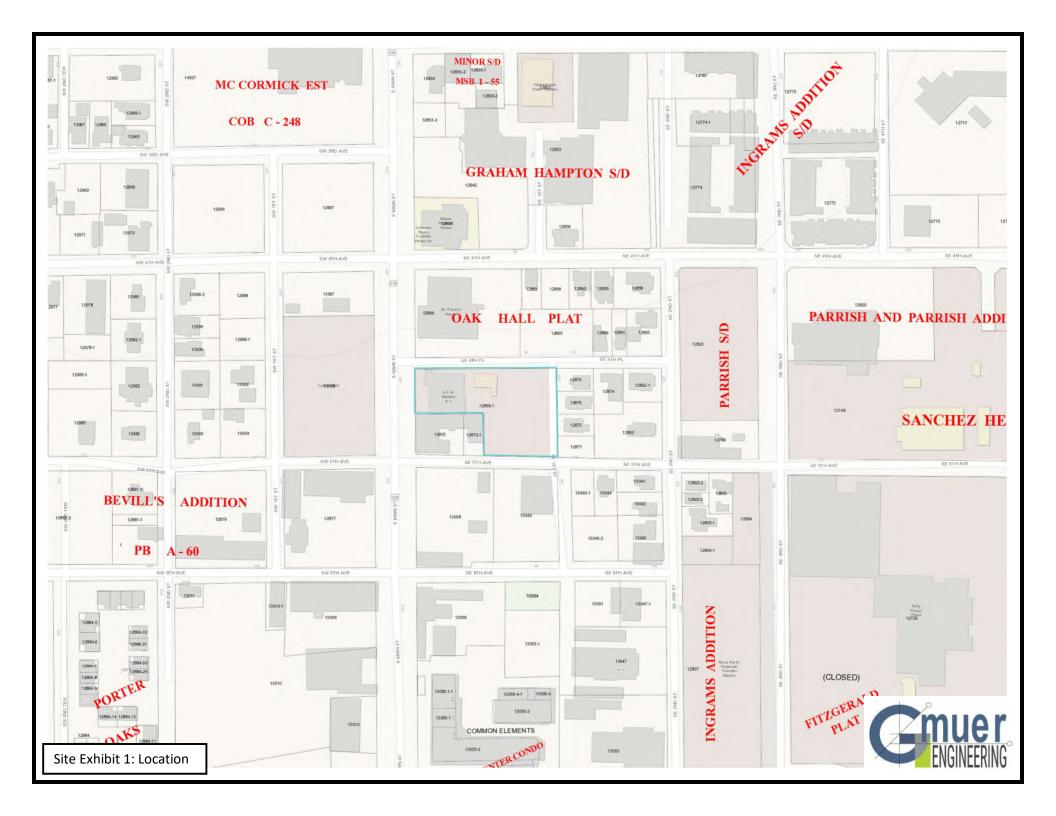
### **Site Redevelopment Options**

The following are three options show general conceptual layouts for site redevelopment shown in the attached exhibits. They are intended to convey the range of options / levels available for a reconfigured site.

- 1. Restriping and ADA (minor site improvements to increase and improve access to the building)
- 2. Building Addition (minor site improvements to support an addition)
- 3. Site Optimization (minimal improvements with greatest achieved density)
- 4. Full Redevelopment

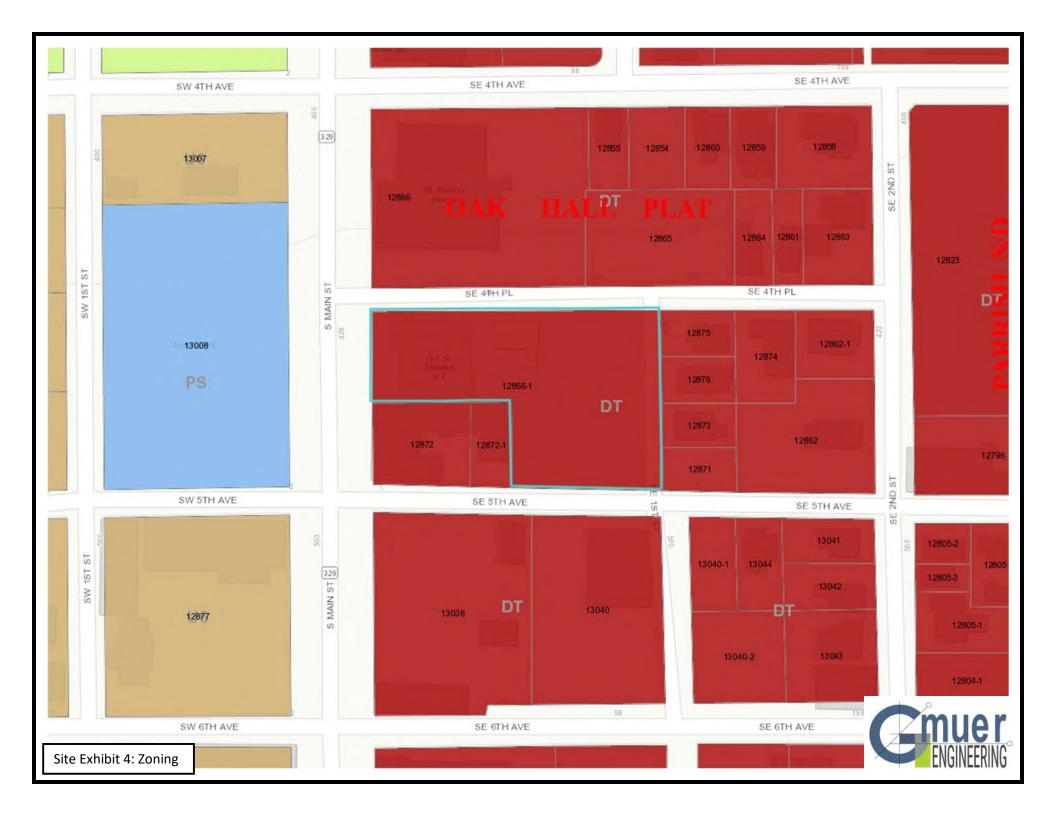
### **Conclusions**

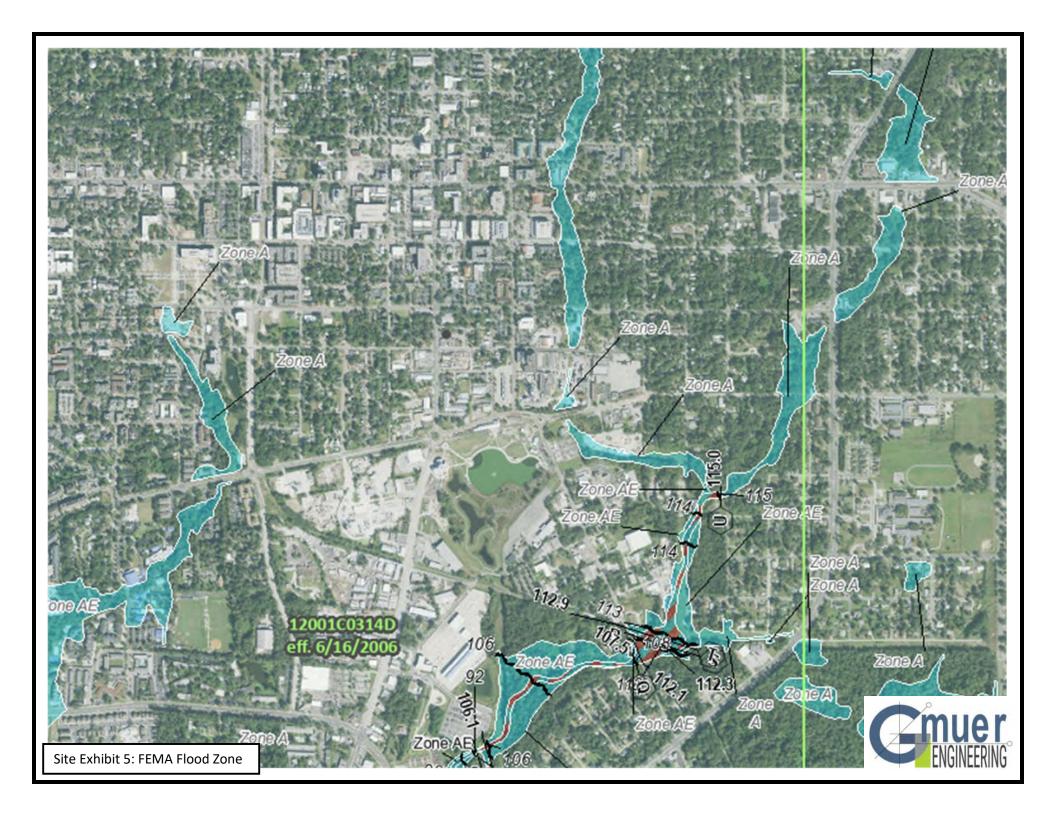
The site has the needed surrounding infrastructure to support a wide range of uses allowed by the DT zoning district with allowances for minor site adjustments, significant building footprints, and a full site reconstruction.

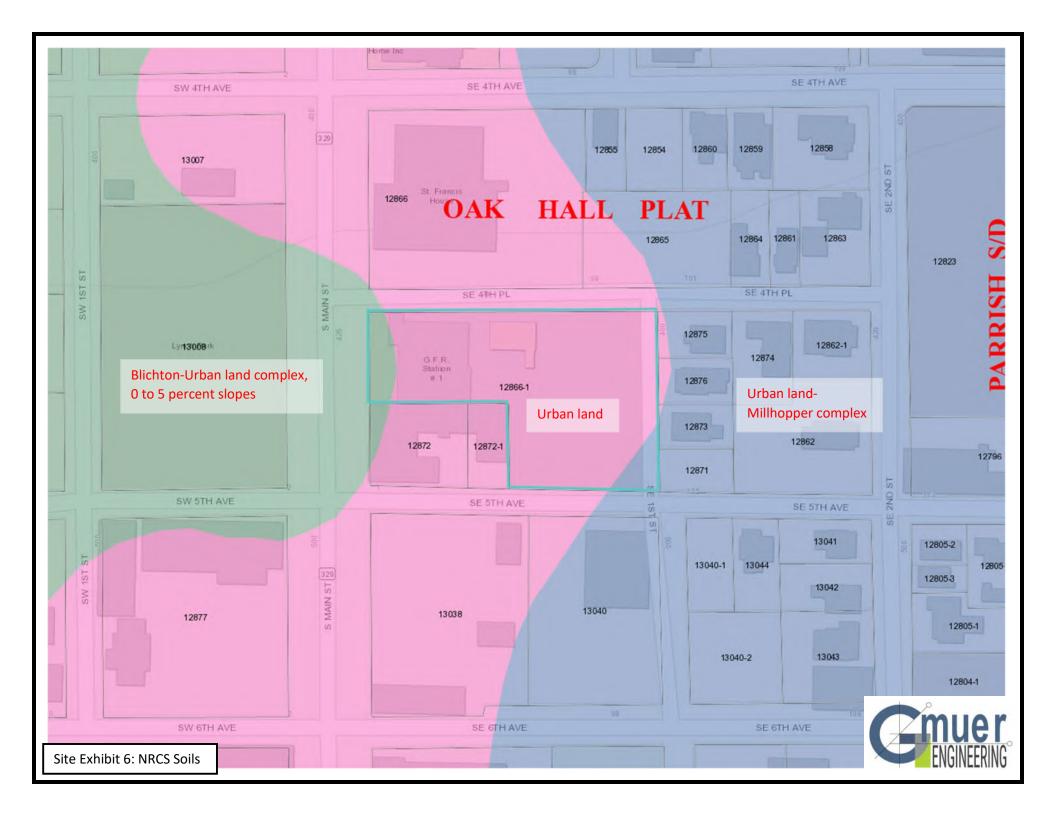


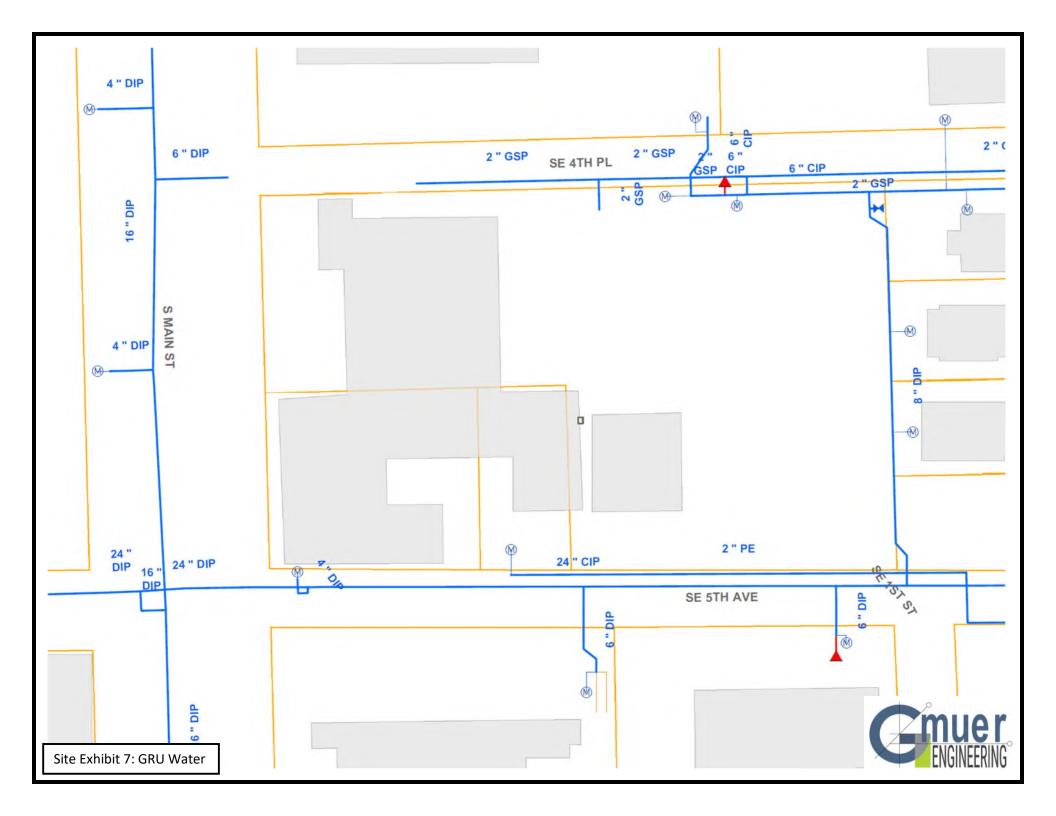


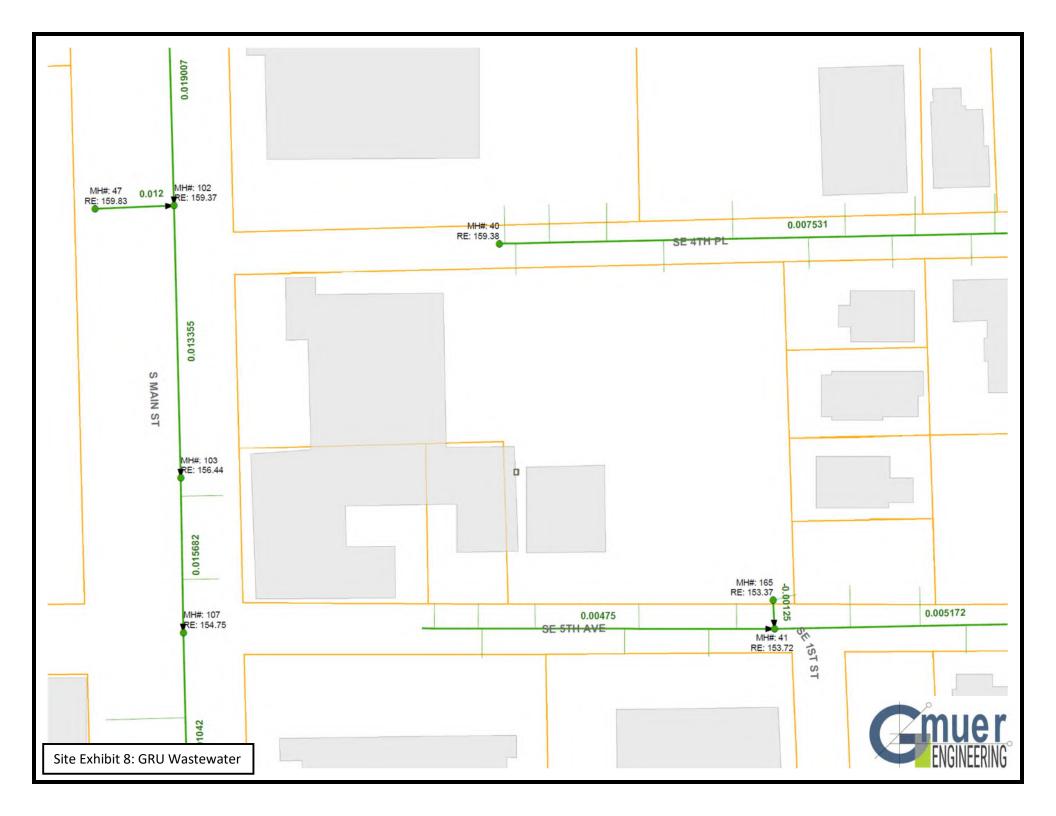


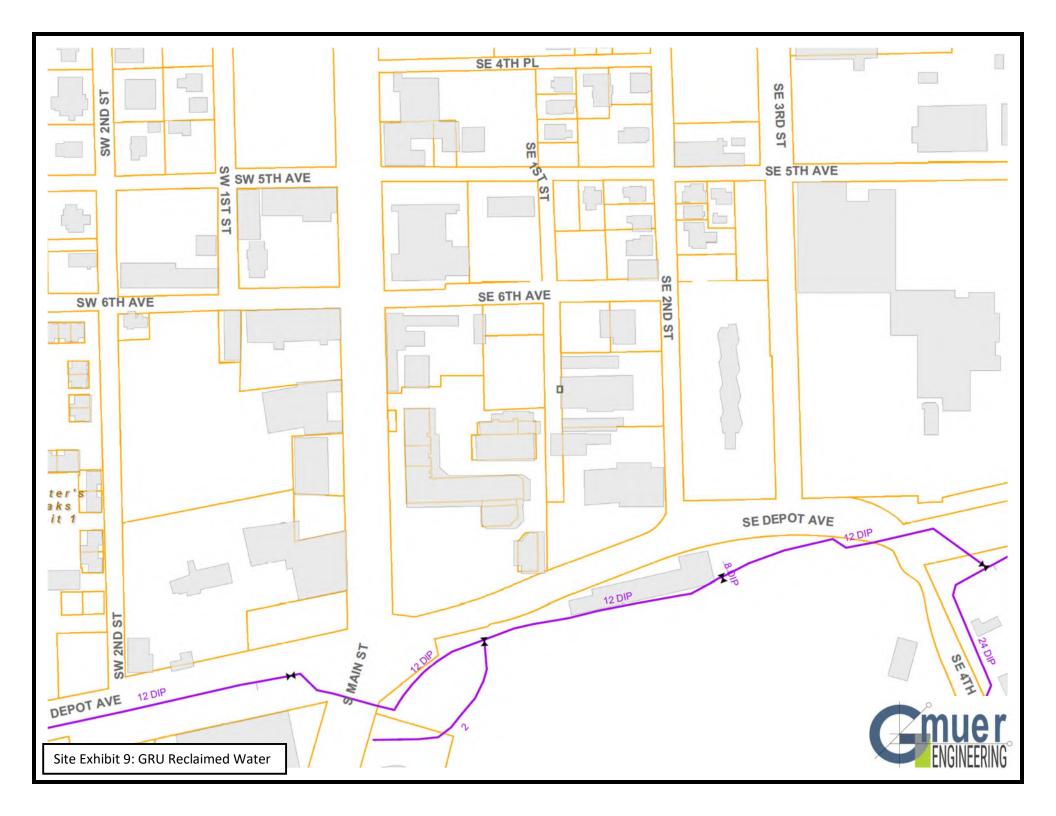


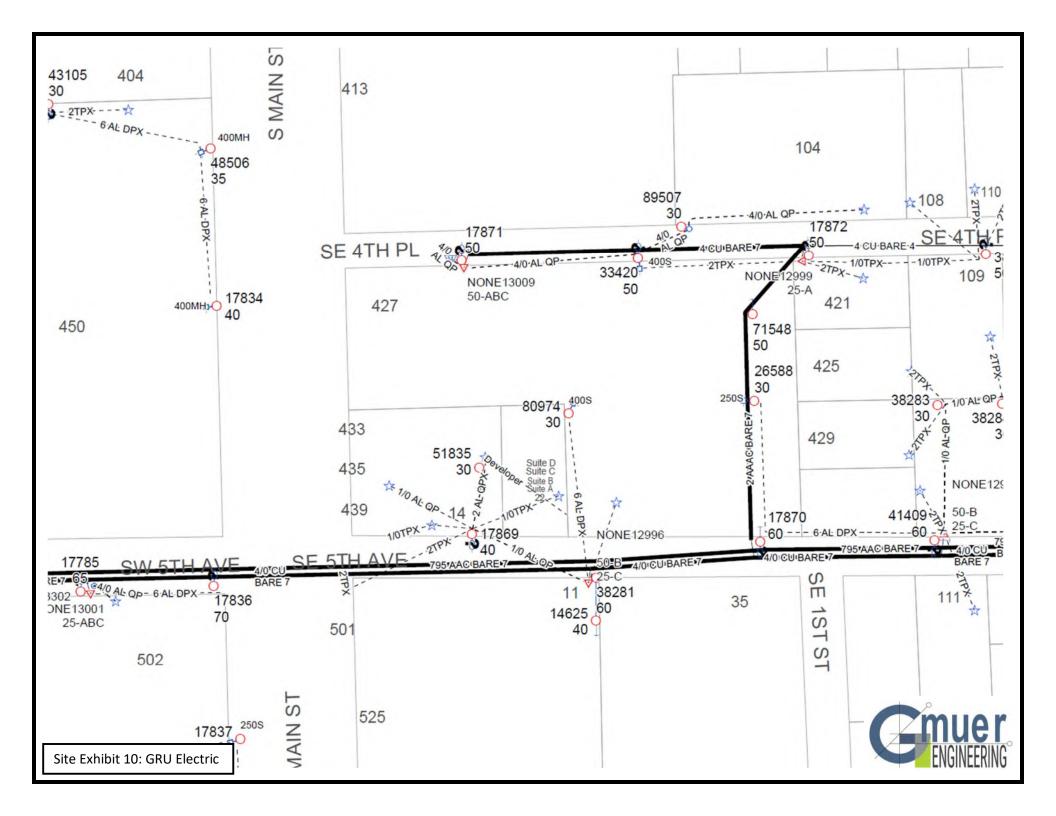


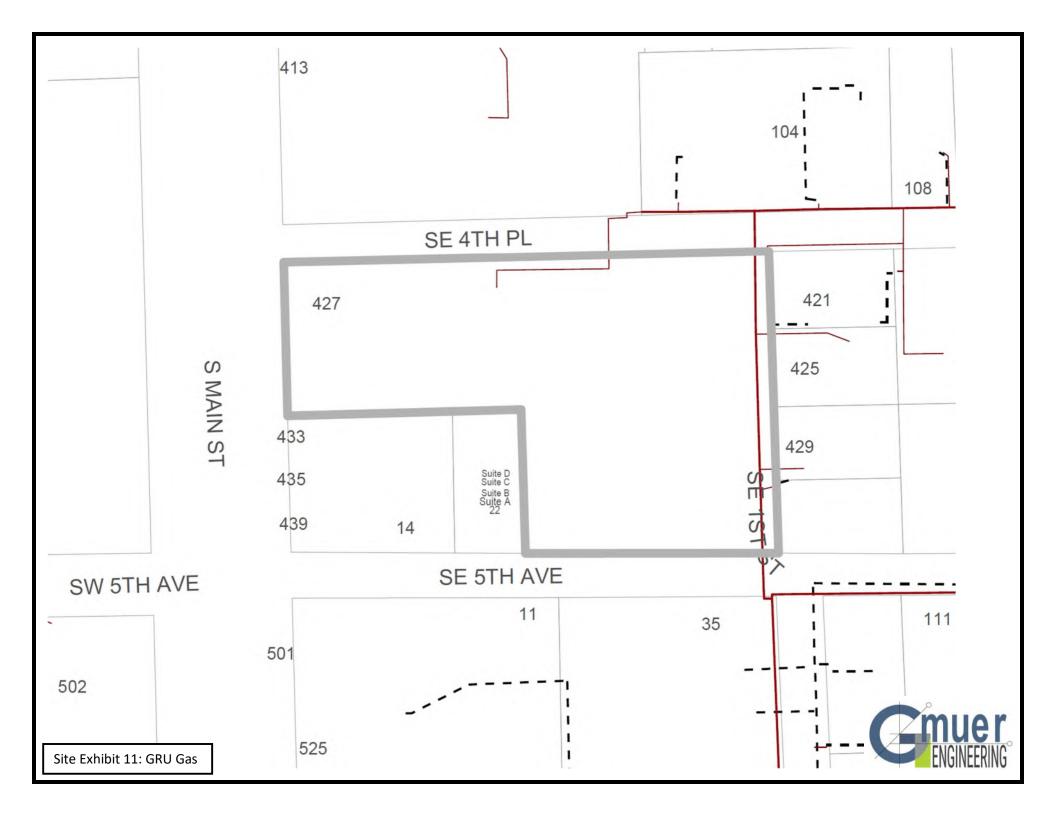






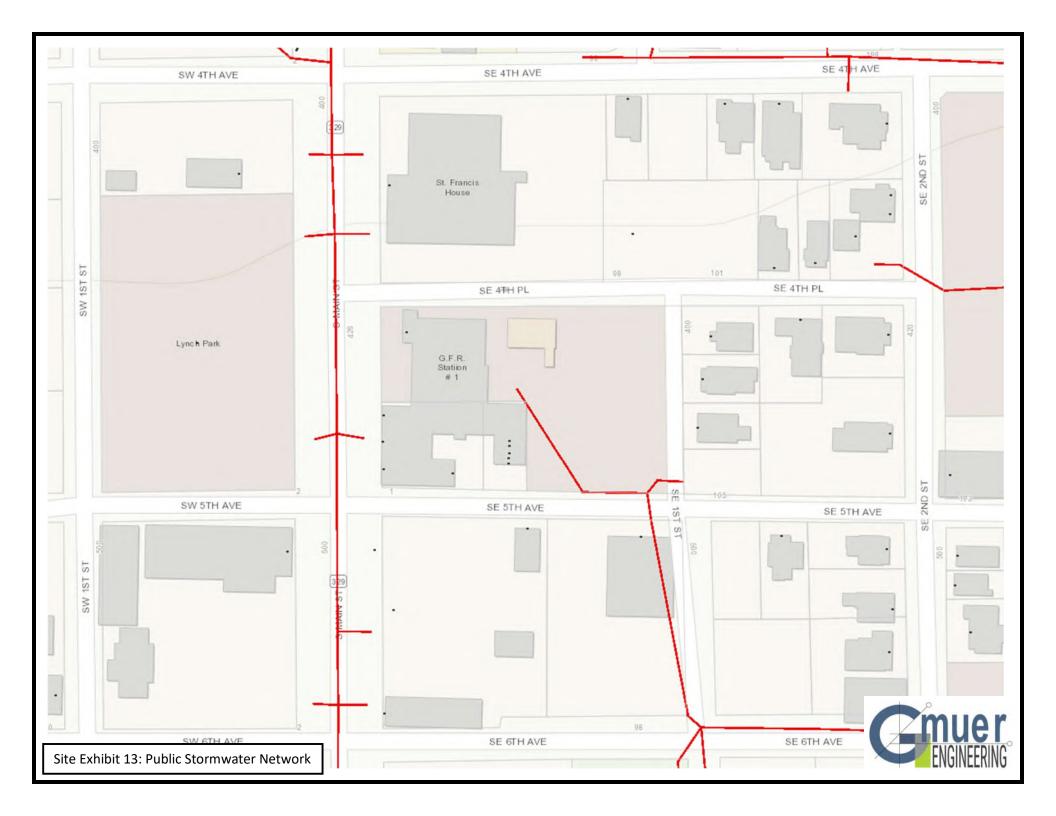


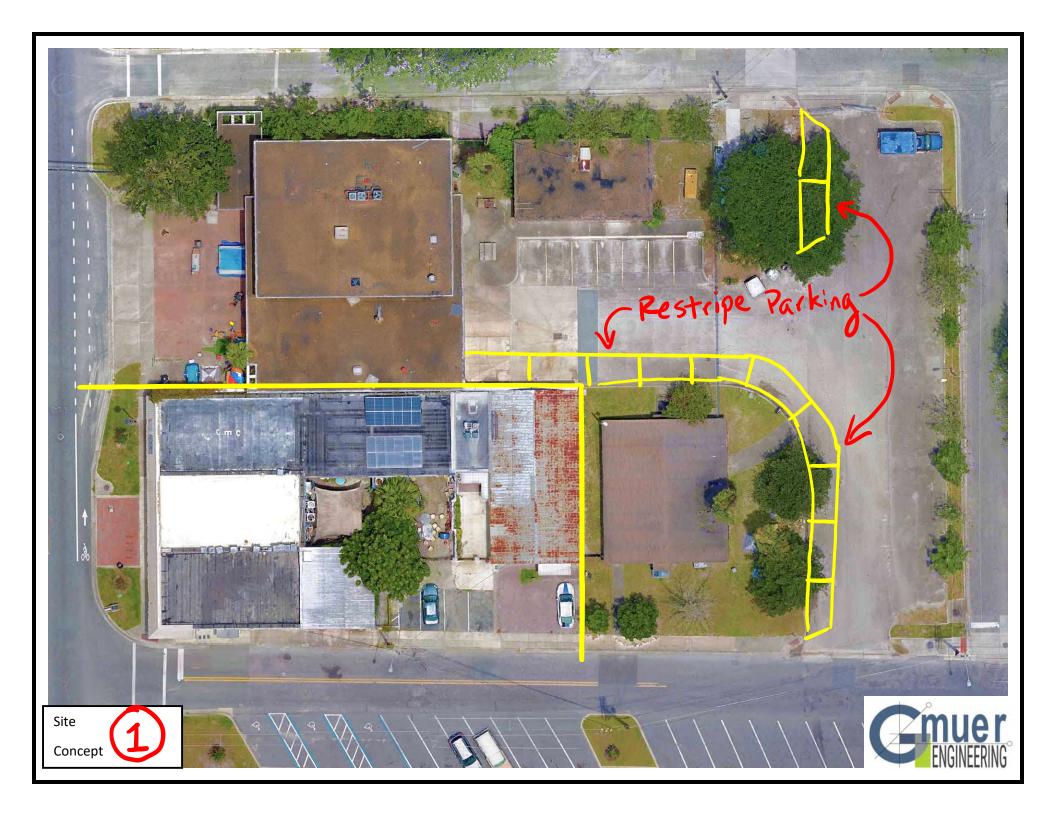


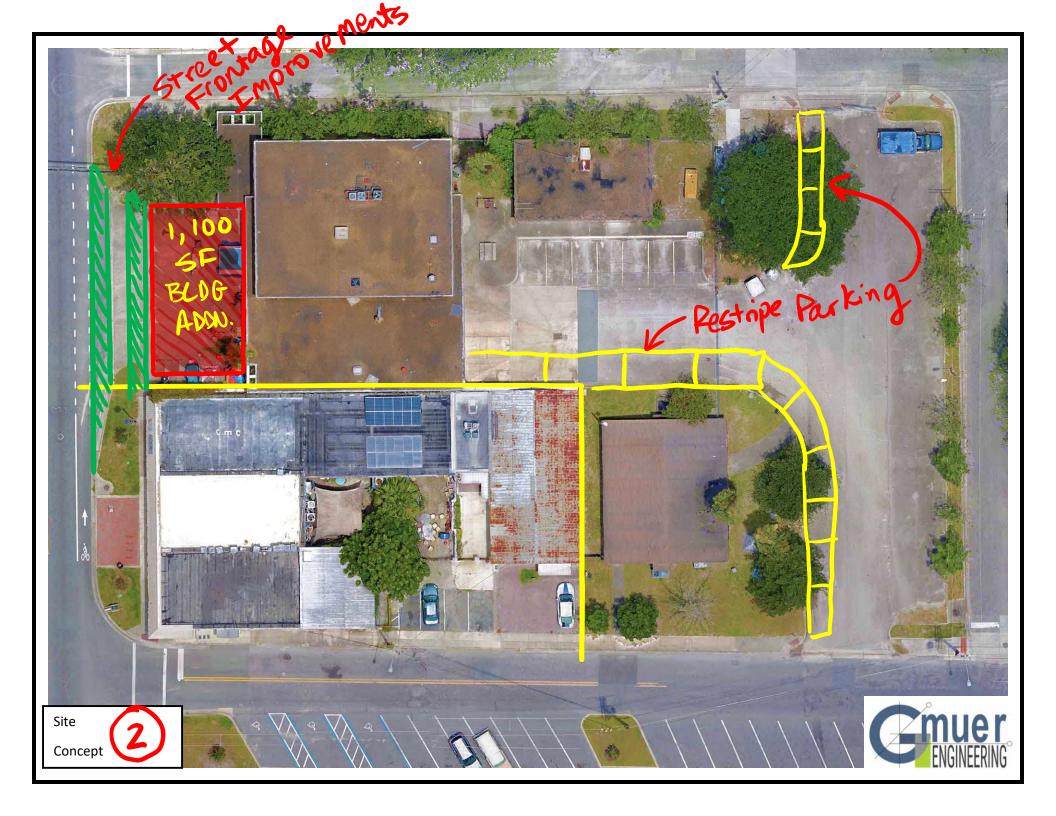




















ASBESTOS CONTAINING MATERIALS (ACM) REPORT

#### RENOVATION ASBESTOS SURVEY REPORT

City of Gainesville Old Fire Station No. 1 Gainesville, Florida 32601

**GLE Project No.: 21000-24166** 

Prepared for:

Mr. Michael Richmond, AIA NCARB LEED AP
President
Brame Heck Architects Inc.
606 NE 1st Street
Gainesville, Florida 32601

**July 2021** 

Prepared by:



2228 NW 40<sup>th</sup> Terrace, Suite C Gainesville, Florida 32605 352-335-6648 • Fax 352-335-6187



July 12, 2021

Mr. Michael Richmond, AIA NCARB LEED AP President Brame Heck Architects Inc. 606 NE 1st Street Gainesville, Florida 32601

via e-mail: m.richmond@brameheck.com

RE: **Renovation Asbestos Survey Report** 

City of Gainesville Old Fire Station No. 1 Gainesville, Florida 32601

GLE Project No.: 21000-24166

Dear Mr. Richmond:

GLE Associates, Inc. (GLE) performed a renovation survey for asbestos-containing materials (ACM) on June 24, 2021, at the Old Fire Station No. 1, located in Gainesville, Florida. The survey was performed by Mr. Michael D. Harrell and Mr. Artiom Chacon with GLE. This report outlines the sampling and testing procedures, and presents the results along with our conclusions and recommendations.

GLE appreciates the opportunity to serve as your consultant on this project. If you should have any questions, or if we can be of further service, please do not hesitate to call.

Sincerely,

GLE Associates, Inc.

Michael D. Harrell

Senior Project Manager

Robert B. Greene, PE, PG, CIH, LEED AP

President

Florida LAC# EA 0000009

MDH/RBG/lr

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GLE Associates, Inc.

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#### 1.0 INTRODUCTION

#### 1.1 INTRODUCTION

The purpose of this renovation survey was to identify accessible asbestos-containing materials (ACMs) and their general locations within the Old Fire Station No. 1, located at 427 South Main Street in Gainesville, Florida. The scope of the survey was limited to the main Fire Station building. The survey was conducted pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR 61) requirements, associated with the scheduled renovation plans. The survey was performed on June 24, 2021, by Mr. Michael D. Harrell and Mr. Artiom Chacon, Environmental Protection Agency/Asbestos Hazard Emergency Response Act (EPA/AHERA) accredited inspectors. The scope of this survey did not include demolition of any building components, evaluation of architectural plans, or removal cost estimating.

#### 1.2 FACILITY DESCRIPTION

A summary of the facility investigated is outlined in the table below.

Facility Type:	Commercial		
Construction Date:	1960s		
Number of Floors:	Two		
Exterior			
Floor Support:	Concrete Slab on Grade		
Wall Support:	Concrete Block (CMU)		
Exterior Finish:	Brick, Paint, Stucco, Wood Panel		
Roof System Type:	Built Up (Modified Bitumen)		
Interior			
Wall Substrate:	Drywall and Joint Compound, Plaster, CMU		
Wall Finishes:	Paint, Cove Base		
Floor Finishes:	Vinyl Floor Tile, Ceramic Tile, Carpet		
Cailing System:	Drywall and Joint Compound, Attached Spline Ceiling,		
Ceiling System:	Suspended Ceiling System		
Ceiling Finishes:	Paint, Texture, Spline Ceiling Tiles, Suspended Ceiling Tiles		

#### 2.0 RESULTS

#### 2.1 ASBESTOS SURVEY PROCEDURES

The survey was performed by visually observing accessible areas within the scope of work. EPA/AHERA accredited inspectors performed the visual observations (refer to Appendix B for personnel qualifications).

After the overall visual survey was completed, representative sampling areas were determined. The surveyors delineated homogeneous areas of suspect materials and samples of each material were obtained, in general accordance with regulations as established by the Occupational Safety and Health Administration (OSHA) and NESHAP. The field surveyors determined sample locations based on previous experience. Both friable and non-friable materials were sampled. A friable material is one that can be crushed when dry by normal hand pressure. This survey did not include the demolition of building components to access suspect material.

After completion of the fieldwork, the samples were delivered to GLE's National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory for analysis. The samples were analyzed by Polarized Light Microscopy (PLM) coupled with dispersion staining, in general accordance with EPA-600/R-93/116. Utilizing this procedure, the various asbestos minerals (chrysotile, amosite, crocidolite, actinolite, tremolite, and anthophyllite) can be determined. The percentages of asbestos minerals in the samples were visually determined by the microscopist. Please note that the EPA designates all materials containing greater than one percent asbestos as an "asbestos-containing material" (ACM).

Regulated Asbestos-Containing Material (RACM) is defined as (a) Friable asbestos materials, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

Category I and Category II non-friable ACM, as defined by the EPA:

- Category I non-friable ACM means asbestos-containing packings, gaskets, resilient floor covering, asphalt roofing products, and pliable sealants and mastics that are in good condition and not friable, containing more than one percent asbestos, as determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, PLM.
- Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than one percent asbestos as determined using the methods specified in Appendix E, Subpart E, 40 CFR Part 763 Section 1, PLM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

#### 2.2 IDENTIFIED SUSPECT ASBESTOS-CONTAINING MATERIALS

A total of 57 samples of suspect building materials were collected from the facility during the survey, representing 19 different identified homogeneous areas. The results of the laboratory analyses are included in Appendix A.

A summary of the homogenous sampling areas of suspect ACM determined to be present is outlined in the following table.

#### TABLE 2.2-1: SUMMARY OF HOMOGENEOUS SAMPLING AREAS CITY OF GAINESVILLE OLD FIRE STATION NO. 1 - CAINESVILLE FLORIDA

	OLD FIRE STATION NO. 1 – GAINESVILLE, FLORIDA						
HA #	HOMOGENEOUS MATERIAL DESCRIPTION	HOMOGENEOUS MATERIAL LOCATION	FRIABILITY (F/NF)	% Asbestos*	# OF SAMPLES COLLECTED	APPROXIMATE QUANTITY	ACM CATEGORY
CT-01	2' x 4' White Fissured Ceiling Tile	Throughout	F	ND	3	NIS	NA
CT-02	12" x 12" Spline White Fissured Ceiling Tile	EMS Store Room Closet, Northwest Office, Wood Closet Storage Room, and Women's 2 <sup>nd</sup> Floor Restroom	F	ND	3	NIS	NA
CT-03	2' x 4' White Drywall Ceiling Tile	Women's 2 <sup>nd</sup> Floor Restroom	NF	ND	3	NIS	NA
DW-01	Drywall with Joint Compound	Kitchen and Room West of Kitchen, 2 <sup>nd</sup> Floor Chase (South by Roof Exit)	NF	ND	3	NIS	NA
FT-01	12" x 12" Gray Floor Tile with Tan Mastic	2 <sup>nd</sup> Floor	NF	ND	3	NIS	NA
M-01	White Ceramic Tile Grout	Ground Floor Walls and Restrooms Throughout	NF	ND	3	NIS	NA
M-02	Black Vibration Damper	Mechanical Rooms AHUs	NF	ND	3	NIS	NA
M-03	Tan Ceramic Tile Grout	Northwest Ground Floor Offices, and Women's 2nd Floor Restroom	NF	ND	3	NIS	NA
M-04	Gray Interior Caulk	Windows	NF	ND	3	NIS	NA
M-05	Gray Exterior Caulk	Windows	NF	ND	3	NIS	NA
MAS-01	White Mastic on Ducts	Mechanical Rooms AHUs	NF	ND	3	NIS	NA
MAS-02	Black Wall Mastic	Wood Panel Walls in Northwest Offices	NF	5% C	3	370 SF	CAT I
PL-01	White over Gray Plaster	Throughout	NF	ND	3	NIS	NA
RBU-01	Built-Up Roof	Roof	NF	ND	3	NIS	NA
RF-01	Silver/Black Flashing	Perimeter of Roof and Equipment	NF	5% C	3	660 SF	CAT I
S-01	Trowel Applied Texture	Ground Floor Restrooms and Stairwell Ceilings	NF	ND	3	NIS	NA

ASBESTOS CONTENT Expressed as percent	* = The facility owner has the option of point-counting by Polarized Light Microscopy (PLM) those RACM whose asbestos content is less than 10% in order to more accurately determine the asbestos content therein.							
FRIABILITY	F = Friable Material	riable Material NF = Non-Friable Material						
ACM CATEGORY	RACM = Regulated ACM	CAT I = Category I non-friable ACM						
	PC = Results based on Point-Co	= Results based on Point-Count analysis TEM NOB = Transmission Electron Microscopy of Non-Friable Organically Bound Ma			ganically Bound Material			
ABBREVIATIONS:	NA = Not Applicable	ND = None Detected NIS = Not in		n Scope	C = Chrysotile		A = Amosite	
	HA = Homogeneous Area	SF = Square Feet			LF = Linear Feet		$CF = C\iota$	ıbic Feet

TABLE 2.2-1: SUMMARY OF HOMOGENEOUS SAMPLING AREAS CITY OF GAINESVILLE OLD FIRE STATION NO. 1 – GAINESVILLE, FLORIDA							
HA #	HOMOGENEOUS MATERIAL DESCRIPTION HOMOGENEOUS MATERIAL LOCATION FRIABILITY (F/NF) % ASBESTOS* # OF SAMPLES COLLECTED QUANTITY C					ACM CATEGORY	
S-02	Stucco	Soffit and Fascia	NF	ND	3	NIS	NA
VB-01	4" Black Cove Base with Tan Mastic	EMS Stock Room and 2 <sup>nd</sup> Floor Cubicles	NF	ND	3	NIS	NA
VB-02	6" Black Cove Base with Tan Mastic	2 <sup>nd</sup> Floor Perimeter of Rooms	NF	ND	3	NIS	NA

ASBESTOS CONTENT Expressed as percent		* = The facility owner has the option of point-counting by Polarized Light Microscopy (PLM) those RACM whose asbestos content is less than 10% in order to more accurately determine the asbestos content therein.						
FRIABILITY	F = Friable Material	NF = Non-Friable Material						
ACM CATEGORY	RACM = Regulated ACM	CAT I = Category I non-friable ACM						
PC = Results based on Point-Count analysis TEM NOB = Transmiss		NOB = Transmission Electron Microscopy of Non-Friable Organically Bound Ma			ganically Bound Material			
ABBREVIATIONS:	NA = Not Applicable	ND = None Detec	ted	NIS = Not is	n Scope	C = Chrysotile A		A = Amosite
	HA = Homogeneous Area	SF = Square Feet			LF = Linear Feet		$CF = C\iota$	ıbic Feet

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

#### 3.1 GENERAL

Asbestos-containing materials (ACMs) were identified in the scope of this survey. General and specific conclusions and recommendations are provided below.

The EPA, OSHA and the State of Florida have promulgated regulations dealing with asbestos. For commercial building owners, the EPA NESHAP (40 CFR 61) regulations require removal of RACM, prior to conducting activities which might disturb the material. They also deal with notification, handling and disposal of asbestos.

The EPA recommends that an Operations and Maintenance (O&M) Program be developed for any facilities with ACM, and this Program should address all ACM (known and/or assumed) present. The O&M Program establishes notification and training requirements along with special procedures for working around the ACM. The O&M Program would remain in effect until all asbestos is removed.

Category I and Category II non-friable materials, as defined by the EPA, may remain within a facility during demolition with no potential cessation of work, provided they remain non-friable and the appropriate engineering controls (i.e., wet methods) are utilized, with the resulting waste disposed of as asbestos-containing waste. However, there is no guarantee that these materials will remain non-friable. If the materials become friable, then they are classified as RACM. Additionally, local jurisdictions may have more stringent interpretations regarding classification of these materials.

RACM, as defined by the EPA, must be removed prior to renovation or demolition activities that may disturb the materials.

The OSHA regulations deal with employee exposure to airborne asbestos fibers. The regulations restrict employee exposure, and require special monitoring, training and handling procedures when dealing with asbestos. Additionally, OSHA has regulations that may supersede the EPA regulations. In order to protect the worker, OSHA has established a permissible exposure limit (PEL), which limits employee exposure to airborne fiber concentrations. OSHA requires objective evidence that the PEL will not be exceeded, as justification that personal air monitoring and engineering controls will not be required. OSHA has also established rules requiring the containerization and labeling of asbestos waste.

The State regulations require that anyone involved in asbestos consulting activities be a licensed asbestos consultant and that anyone involved in asbestos abatement, with the exception of roofing materials, be a licensed asbestos abatement contractor.

#### 3.2 SPECIFIC

MAS-02: Black Wall Mastic RF-01: Silver/Black Flashing

These materials are defined by the EPA as a Category I non-friable materials. These materials do not appear to present a significant issue, as observed, at the time of the survey. We recommend that the identified ACM be maintained as part of an O&M Program and periodically monitored for any changes in condition. Additionally, we recommend that a licensed asbestos abatement contractor properly remove and dispose of the ACM prior to conducting renovation activities that might disturb the ACM. However, Florida regulations do allow a properly trained and licensed roofing contractor to disturb asphalt roofing materials.

#### 4.0 LIMITATIONS AND CONDITIONS

As a result of previous renovations, there may be hidden materials, such as floor tile, sheet vinyl flooring, insulation, etc. These materials may be found in various areas hidden under existing flooring materials or in wall cavities. Any materials found during construction activities, either not addressed in this survey report, or similar to the ACM identified in this survey report should be assumed to be ACM until sampling and analysis documents otherwise.

Because of the hidden nature of many building components (i.e. within mechanical chases), it may be impossible to determine if all of the suspect building materials have been located and subsequently tested. Destructive testing in some instances is not a viable option. We cannot, therefore, guarantee that all potential ACM has been located. For the same reasons, estimates of quantities and/or conditions are subject to readily apparent situations, and our findings reflect this condition. We do warrant, however, that the investigations and methodology reflect our best efforts based upon the prevailing standard of care in the environmental industry.

The information contained in this report was prepared based upon specific parameters and regulations in force at the time of this report. The information herein is only for the specific use of the client and GLE. GLE accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, unless prior written authorization has been obtained from GLE.

# APPENDIX A Analytical Results and Chain of Custody

#### Brame Heck; Old Fire Station No. 1

21000-24166

Sample	Sample Type		Fiber Type
CT-01A	2' X 4' White Fissured Ceiling Tile	100%	Mineral Wool
CT-01B	2' X 4' White Fissured Ceiling Tile	100%	Mineral Wool
CT-01C-QC	2' X 4' White Fissured Ceiling Tile	100%	Mineral Wool
CT-02A	12" X 12" White Spline Fissured Ceiling Tile	100%	Mineral Wool
CT-02B	12" X 12" White Spline Fissured Ceiling Tile	100%	Mineral Wool
CT-02C	12" X 12" White Spline Fissured Ceiling Tile	100%	Mineral Wool
CT-03A	2' X 4' White Drywall Ceiling Tile	100%	Gypsum, Quartz, Calcite, Clay
CT-03B	2' X 4' White Drywall Ceiling Tile	100%	Gypsum, Quartz, Calcite, Clay
CT-03C	2' X 4' White Drywall Ceiling Tile	100%	Gypsum, Quartz, Calcite, Clay
DW-01A	Drywall & Joint Compound	100%	Gypsum, Quartz, Calcite, Clay
DW-01B	Drywall & Joint Compound	100%	Gypsum, Quartz, Calcite, Clay
DW-01C	Drywall & Joint Compound	100%	Gypsum, Quartz, Calcite, Clay

Analyst / Approved Signatory:

Darryl Neldner

Analysis performed by GLE Associates, Inc. NVLAP Code 102003-0, CO AL-17485, TX 30-0337

Feedback regarding laboratory performance should be addressed to lab@gleassociates.com.

Report Date: 6/25/2021 Page 1 of 5

<sup>\*</sup> Polarized Light Microscopy coupled with dispersion is the technique used for identification in accordance with EPA 600/M4-82-020, EPA 600/R-93/116, and NIOSH Method 9002.

<sup>\*\*</sup> The percentage of each component is visually estimated. The result of this analysis relate only to the material tested. The report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. (>1% greater than one percent, <1% less than one percent) QC - Sample reanalyzed for QA/QC.

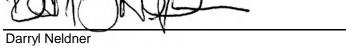
<sup>\*\*\*</sup> This report shall not be reproduced except in full, without the written approval of the laboratory. GLE Report # 26333

#### Brame Heck; Old Fire Station No. 1

21000-24166

Sample	Sample Type		Fiber Type
FT-01A-QC	12" X 12" Gray Floor Tile & Tan Mastic	100%	Polymer, Quartz, Calcite, Clay, Mica
FT-01B	12" X 12" Gray Floor Tile & Tan Mastic	100%	Polymer, Quartz, Calcite, Clay, Mica
FT-01C	12" X 12" Gray Floor Tile & Tan Mastic	100%	Polymer, Quartz, Calcite, Clay, Mica
M-01A	White Ceramic Tile Grout	100%	Quartz, Calcite, Clay, Mica
M-01B	White Ceramic Tile Grout	100%	Quartz, Calcite, Clay, Mica
M-01C	White Ceramic Tile Grout	100%	Quartz, Calcite, Clay, Mica
M-02A	Black Vibration Damper	100%	Polymer
M-02B	Black Vibration Damper	100%	Polymer
M-02C	Black Vibration Damper	100%	Polymer
M-03A	Tan Ceramic Tile Grout	100%	Quartz, Calcite, Clay, Mica
M-03B-QC	Tan Ceramic Tile Grout	100%	Quartz, Calcite, Clay, Mica
M-03C	Tan Ceramic Tile Grout	100%	Quartz, Calcite, Clay, Mica
M-04A	Gray Interior Caulk	100%	Polymer, Quartz, Calcite, Clay, Mica
M-04B	Gray Interior Caulk	100%	Polymer, Quartz, Calcite, Clay, Mica
M-04C	Gray Interior Caulk	100%	Polymer, Quartz, Calcite, Clay, Mica

Analyst / Approved Signatory:



<sup>\*</sup> Polarized Light Microscopy coupled with dispersion is the technique used for identification in accordance with EPA 600/M4-82-020, EPA 600/R-93/116, and NIOSH Method 9002.

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#### Brame Heck; Old Fire Station No. 1

21000-24166

Sample Type		Fiber Type
Gray Exterior Caulk	100%	Polymer, Quartz, Calcite, Clay, Mica
Gray Exterior Caulk	100%	Polymer, Quartz, Calcite, Clay, Mica
Gray Exterior Caulk	100%	Polymer, Quartz, Calcite, Clay, Mica
White Mastic on Ducts	100%	Polymer, Quartz, Calcite, Clay, Mica
White Mastic on Ducts	100%	Polymer, Quartz, Calcite, Clay, Mica
White Mastic on Ducts	100%	Polymer, Quartz, Calcite, Clay, Mica
Black Wall Mastic	5%	Chrysotile Asbestos
	95%	Polymer
Black Wall Mastic		Positive Stop/Sample not analyzed
Black Wall Mastic		Positive Stop/Sample not analyzed
White over Gray Plaster	100%	Quartz, Calcite, Clay, Mica
White over Gray Plaster	100%	Quartz, Calcite, Clay, Mica
White over Gray Plaster	100%	Quartz, Calcite, Clay, Mica
Built Up Roof	100%	Bitumen, Quartz, Calcite, Mica
Built Up Roof	100%	Bitumen, Quartz, Calcite, Mica
Built Up Roof	100%	Bitumen, Quartz, Calcite, Mica
	Gray Exterior Caulk Gray Exterior Caulk Gray Exterior Caulk White Mastic on Ducts White Mastic on Ducts White Mastic on Ducts Black Wall Mastic Black Wall Mastic Black Wall Mastic White over Gray Plaster White over Gray Plaster White over Gray Plaster Built Up Roof Built Up Roof	Gray Exterior Caulk  Gray Exterior Caulk  Gray Exterior Caulk  White Mastic on Ducts  White Mastic on Ducts  White Mastic on Ducts  100%  White Mastic on Ducts  Black Wall Mastic  Black Wall Mastic  Black Wall Mastic  White over Gray Plaster  White over Gray Plaster  White over Gray Plaster  100%  White over Gray Plaster  100%  Built Up Roof  100%  Built Up Roof  100%

Analyst / Approved Signatory:

Darryl Neldner

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Report Date: 6/25/2021 Page 3 of 5

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#### Brame Heck; Old Fire Station No. 1

21000-24166

Sample	Sample Type		Fiber Type
RF-01A-QC	Silver & Black Flashing	<b>5%</b> 95%	Chrysotile Asbestos Bitumen, Quartz, Calcite, Mica
RF-01B	Silver & Black Flashing		Positive Stop/Sample not analyzed
RF-01C	Silver & Black Flashing		Positive Stop/Sample not analyzed
S-01A	Trowel Applied Texture	100%	Polymer, Quartz, Calcite, Clay, Mica
S-01B	Trowel Applied Texture	100%	Polymer, Quartz, Calcite, Clay, Mica
S-01C	Trowel Applied Texture	100%	Polymer, Quartz, Calcite, Clay, Mica
S-02A	Stucco	100%	Polymer, Quartz, Calcite, Clay, Mica
S-02B	Stucco	100%	Polymer, Quartz, Calcite, Clay, Mica
S-02C	Stucco	100%	Polymer, Quartz, Calcite, Clay, Mica
VB-01A	4" Black Cove Base & Tan Mastic	100%	Polymer
VB-01B-QC	4" Black Cove Base & Tan Mastic	100%	Polymer
VB-01C	4" Black Cove Base & Tan Mastic	100%	Polymer
VB-02A	6" Black Cove Base & Tan Mastic	100%	Polymer

Analyst / Approved Signatory:

Darryl Neldner

Analysis performed by GLE Associates, Inc. NVLAP Code 102003-0, CO AL-17485, TX 30-0337

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#### Brame Heck; Old Fire Station No. 1

21000-24166

Sample	Sample Type		Fiber Type
VB-02B	6" Black Cove Base & Tan Mastic	100%	Polymer
VB-02C	6" Black Cove Base & Tan Mastic	100%	Polymer

Analyst / Approved Signatory:

Darryl Neldner

Analysis performed by GLE Associates, Inc. NVLAP Code 102003-0, CO AL-17485, TX 30-0337

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<sup>\*\*</sup> The percentage of each component is visually estimated. The result of this analysis relate only to the material tested. The report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. (>1% greater than one percent, <1% less than one percent) QC - Sample reanalyzed for QA/QC.

<sup>\*\*\*</sup> This report shall not be reproduced except in full, without the written approval of the laboratory. GLE Report # 26333

#### CHAIN OF CUSTODY/SAMPLE TRANSMITTAL FORM **CLIENT:** Brame Heck PROJECT #: 21000-24166 GLE Associates, Inc. 2228 NW 40th Terrace, Suite C PROJECT: Old Fire Station No. 1 Gainesville, FL 32605 LABORATORY SENT TO: PHONE: (352) 335-6648 FAX: (352) 335-6187 GLE Tampa DATE: 06/24/21 SAMPLE INFORMATION SAMPLE # DESCRIPTION SAMPLE# **DESCRIPTION** CT-01 A-C 2' x 4' White Fissured Ceiling Tile MAS-02 A-C Black Wall Mastic CT-02 A-C 12" x 12" Spline White Fissured Ceiling Tile PL-01 A-C White over Gray Plaster CT-03 A-C 2' x 4' White Drywall Ceiling Tile RBU-01 A-C Built Up Roof DW-01 A-C Drywall with Joint Compound RF-01 A-C Silver/Black Flashing 12" x 12" Gray Floor Tile with Tan Mastic FT-01 A-C S-01 A-C Trowel Applied Texture M-01 A-C White Ceramic Tile Grout S-02 A-C Stucco M-02 A-C Black Vibration Damper VB-01 A-C 4" Black Cove Base with Tan Mastic. M-03 A-C Tan Ceramic Tile Grout VB-02 A-C 6" Black Cove Base with Tan Mastic M-04 A-C Gray Interior Caulk M-05 A-C Gray Exterior Caulk MAS-01 A-C White Mastic on Ducts **IMPORTANT: TOTAL NUMBER OF SAMPLES SUBMITTED** 57 **IMPORTANT: POSITIVE STOP ANALYSIS** Yes **IMPORTANT: E-MAIL RESULTS TO** P. Zak, M. Harrell NOTE: Turnaround time starts at receipt by lab and does not include weekend or holidays. **Select Turnaround Time** 3 hour 6 Hour 24 Hour 48 Hour 3 Day 4 Day REPORT RESULTS TO THE ADDRESS ABOVE CHAIN OF CUSTODY: GLE ASSOCIATES, INC. CHAIN OF CUSTODY: LABORATORY PACKAGED BY: Michael D. Harrell SAMPLES RECEIVED BY: DATE PACKAGED: 06/24/21 DATE: METHOD OF TRANSMITTIAL FOLIX TIME: TRANSMITTED BY: CONDITION OF PACKAGED & CHAIN OF CUSTODY: RETURNED TO GLE ASSOCIATES, INC. RECEIVED BY: DATE: INVENTORIED BY: DATE: REPACKAGED AND SEALED BY:

DATE:

PAGE:

OF

# APPENDIX B Personnel and Laboratory Certifications

# d Florida Company

# STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION ASBESTOS LICENSING UNIT

THE ASBESTOS BUSINESS ORGANIZATION HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

### **GLE ASSOCIATES INC**

ROBERT BLAIR GREENE 5405 CYPRESS CENTER DRIVE SUITE 110

**TAMPA** 

FL 33609

**LICENSE NUMBER: ZA0000034** 

**EXPIRATION DATE: NOVEMBER 30, 2021** 

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

# STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

#### **ASBESTOS LICENSING UNIT**

THE ASBESTOS CONSULTANT - ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

### **GREENE, ROBERT BLAIR**

GLE ASSOCIATES INC 5405 CYPRESS CENTER DR SUITE 110

TAMPA

FL 33609

**LICENSE NUMBER: EA0000009** 

**EXPIRATION DATE: NOVEMBER 30, 2022** 

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.



## GLE Associates, Inc. FL 49-0001218

5405 Cypress Center Drive ~ Suite 110 ~ Tampa, Florida 33609 ~ (813) 241-8350

certifies that

#### Artiom Chacon

has completed the requisite training for

#### ASBESTOS INSPECTOR REFRESHER

accreditation under TSCA Title II Course No.: FL 49-0002824

conducted on

May 13, 2021

at

TAMPA, FLORIDA

Certificate Number

6523

Passed Exam with score of 70% or better.

EPA Accreditation Expires: May 13, 2022

Instructor

GLE Associates, Inc.

Robert B. Greene



## GLE Associates, Inc. FL 49-0001218

5405 Cypress Center Drive ~ Suite 110 ~ Tampa, Florida 33609 ~ (813) 241-8350

certifies that

#### Michael Harrell

has completed the requisite training for ASBESTOS INSPECTOR REFRESHER

accreditation under TSCA Title II Course No.: FL 49-0002824

conducted on

May 13, 2021

at

TAMPA, FLORIDA

Certificate Number

6526

Passed Exam with score of 70% or better.

EPA Accreditation Expires: May 13, 2022

Instructor

GLE Associates, Inc.

Robert B. Greene

United States Department of Commerce National Institute of Standards and Technology



## Certificate of Accreditation to ISO/IEC 17025:2017

**NVLAP LAB CODE: 102003-0** 

GLE Associates, Inc.

Tampa, FL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

#### **Asbestos Fiber Analysis**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2021-04-01 through 2022-03-31

Effective Dates



For the National Voluntary Laboratory Accreditation Program



#### **SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

GLE Associates, Inc.

5405 Cypress Center Drive Suite 110 Tampa, FL 33609 Mr. Darryl S. Neldner

Phone: 813-241-8350 x247 Fax: 813-241-8737 Email: dneldner@gleassociates.com http://www.gleassociates.com

#### **ASBESTOS FIBER ANALYSIS**

#### **NVLAP LAB CODE 102003-0**

#### **Bulk Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A01	EPA 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

## 7.5 APPENDIX 5



LEAD BASED PAINT REPORT

#### LEAD-CONTAINING PAINT SURVEY REPORT

## City of Gainesville Old Fire Station No. 1 Gainesville, Florida 32601

**GLE Project No.: 21000-24166** 

Prepared for:

Mr. Michael Richmond, AIA NCARB LEED AP
President
Brame Heck Architects Inc.
606 NE 1<sup>st</sup> Street
Gainesville, Florida 32601

**July 2021** 

Prepared by:



2228 NW 40<sup>th</sup> Terrace, Suite C Gainesville, Florida 32605 352-335-6648 • Fax 352-335-6187



July 12, 2021

Mr. Michael Richmond, AIA NCARB LEED AP President Brame Heck Architects Inc. 606 NE 1<sup>st</sup> Street Gainesville, Florida 32601 via e-mail: m.richmond@brameheck.com

**RE:** Lead-Containing Paint Survey Report

City of Gainesville Old Fire Station No. 1 Gainesville, Florida 32601

GLE Project No.: 21000-24166

Dear Mr. Richmond:

GLE Associates, Inc. (GLE) performed a survey to identify lead-containing paint on June 24, 2021, at the Old Fire Station No. 1, located in Gainesville, Florida. The survey was performed by Mr. Michael D. Harrell and Mr. Artiom Chacon with GLE. This report outlines the sampling and testing procedures, and presents the results along with our conclusions and recommendations.

GLE appreciates the opportunity to work with you on this project. Should you have questions regarding any of the information contained in this report, please do not hesitate to contact our office.

Sincerely,

GLE Associates, Inc.

Michael D. Harrell Senior Project Manager Robert B. Greene, PE, PG, CIH, LEED AP

President

MDH/RBG/lr

G:\Work\Asbestos\'21\21000\24166 - Brame Heck CoG Old Firestation ACM Pb\Report\Lead\Lead Survey Report.doc

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#### 1.0 EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

On June 24, 2021, a lead-containing paint survey was conducted at the Old Fire Station No. 1, located at 427 South Main Street in Gainesville, Florida. The scope of the survey was limited to the main Fire Station building. The survey was performed by Mr. Michael D. Harrell and Mr. Artiom Chacon, with GLE.

#### 1.2 FACILITY DESCRIPTION

A summary of the facility investigated is outlined in the table below.

Facility Type:	Commercial
Construction Date:	1960s
Number of Floors:	Two
Exterior	
Floor Support:	Concrete Slab on Grade
Wall Support:	Concrete Block (CMU)
Exterior Finish:	Brick, Paint, Stucco, Wood Panel
Roof System Type:	Built Up (Modified Bitumen)
Interior	
Wall Substrate:	Drywall and Joint Compound, Plaster, CMU
Wall Finishes:	Paint, Cove Base
Floor Finishes:	Vinyl Floor Tile, Ceramic Tile, Carpet
Cailing System	Drywall and Joint Compound, Attached Spline Ceiling,
Ceiling System:	Suspended Ceiling System
Ceiling Finishes:	Paint, Texture, Spline Ceiling Tiles, Suspended Ceiling Tiles

#### 2.0 RESULTS

#### 2.1 LEAD SURVEY PROCEDURES

It is GLE's understanding that the survey was conducted to provide information needed to comply with 29 CFR Part 1926 "Lead Exposure in Construction; Interim Final Rule" for future demolition and/or renovation activities. The Scope of the "Lead Exposure in Construction; Interim Final Rule" "...applies to all occupational exposure to lead in all construction work in which lead, in any amount, is present in an occupationally related context." Due to the lack of a firm correlation between lead levels in paint and airborne lead levels during construction activities, OSHA has developed task-related triggers that require the implementation of the provisions required in 29 CFR Part 1926. Demolition and/or renovation activities involve tasks covered under this standard.

The survey was performed by observing and testing accessible painted component surfaces of the building. The sampling protocol used in this lead paint survey is a modified version of the survey methodology established by HUD. The protocol was modified to conform to the specific parameters of this project.

After the overall visual survey was completed, an inventory of painted surfaces was developed. The surveyor then subdivided the areas into homogeneous areas of apparent similar paint history.

Sampling of the paint surfaces was performed by collecting representative paint chips. All samples were submitted to EMSL Analytical, Inc., an accredited laboratory recognized under EPA's National Lead Laboratory Accreditation Program (NLLAP), located in Kernersville, North Carolina. These samples were analyzed by EPA Method SW 846 3050B/7000B and the results are reported in percentage of lead by weight of the paint sample (% Wt).

#### 2.2 IDENTIFIED SUSPECT LEAD-CONTAINING PAINT

A total of 18 samples of suspect lead-containing paint were collected from the facility during the survey. The results of the laboratory analyses are included in Appendix A.

A summary of the paint chip sample analytical results is outlined in the following table.

#### TABLE 2.2-1: SUMMARY OF ANALYTICAL RESULTS CITY OF GAINESVILLE OLD FIRE STATION NO. 1 – GAINESVILLE, FLORIDA LEAD SAMPLE INTERIOR OR BUILDING LOCATION **COMPONENT** COLOR CONCENTRATION EXTERIOR (% BY WEIGHT) L-01 Old Fire Station No. 1 Interior Walls Throughout Plaster Walls White < 0.0080 L-02 Old Fire Station No. 1 Kitchen and Room West of Kitchen Drywall Walls White < 0.0080 Interior Metal Doors, Frames, L-03 Old Fire Station No. 1 Interior **Throughout Ground Floor** Gray 0.033 **Beams** L-04 Old Fire Station No. 1 Throughout Ground Ceramic Tile Walls < 0.013 Interior Gray L-05 Old Fire Station No. 1 Interior **Electrical Room Concrete Floor** Gray 0.019 L-06 Old Fire Station No. 1 Interior **EMS Store Room Metal Doors and Frames** White 0.015 Metal Columns and L-07 Old Fire Station No. 1 **Structural Columns and Beams** Yellow Interior .21 **Beams** 0.12 L-08 **Old Fire Station No. 1** Interior **Wood Locker Storage Room Concrete Walls** Light Green L-09 Old Fire Station No. 1 Interior South Ground Storage Concrete Walls White < 0.0080 L-10 Old Fire Station No. 1 Interior Open Bay and Stairwell Plaster Walls Red < 0.0080 2<sup>nd</sup> Floor Cubicle Area < 0.0080 L-11 Old Fire Station No. 1 Interior Plaster Walls Yellow L-12 Old Fire Station No. 1 Cubicles Wood Walls Yellow < 0.0080 Interior L-13 Old Fire Station No. 1 Interior Stairwell Plaster Walls Gray < 0.0080 L-14 Old Fire Station No. 1 Kitchen and Room West of Kitchen Wood Doors and Frames < 0.0080 Interior Gray L-15 Old Fire Station No. 1 Exterior **Exterior Bay Entrances** Metal Roll Up Doors Red < 0.0080 L-16 Old Fire Station No. 1 Exterior Throughout Stucco Soffit Tan < 0.0080

Exterior

Exterior

Old Fire Station No. 1

Old Fire Station No. 1

L-17

L-18

Stucco Fascia

Wood Wall

Red

Tan

0.014

< 0.0080

**Throughout** 

South Side of 2<sup>nd</sup> Floor

<sup>&</sup>lt;sup>1</sup> **BOLD** result indicates lead-containing paint.

<sup>&</sup>lt;sup>2</sup> The requirements of the OSHA Lead in Construction Standard 29CFR 1926.62 are invoked if any amount of lead is present in the sample; there is no minimum concentration.

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical results indicate that six of the 18 painted surfaces tested contain concentrations (% by weight) of lead within the paint greater than the laboratory's detection limits.

Under the present OSHA lead construction standard, all identified lead-containing paint affected by construction activities falls under the requirements of 29 CFR 1926. There are no current government guidelines defining a lead paint concentration that creates a hazardous atmosphere when disturbed. Based on current OSHA guidelines, for those employees who will be disturbing lead-containing paint, their employer must make an initial determination by monitoring employee exposure if any employee is exposed to lead at or above 30 ug/m³ (8-hour TWA).

The employer must implement OSHA prescribed protective measures until they can demonstrate that the employee exposure is not in excess of the action level. For any planned demolition or renovation where abrasive blasting, welding, cutting and/or torch burning of lead-containing paint are planned, GLE recommends the removal of lead-containing paint by a properly trained lead removal contractor where these activities are planned.

For all identified lead painted materials where manual demolition (e.g. drywall) manual scraping, manual sanding and heat gun applications are planned: provide workers with interim protection as outline in the OSHA Lead Construction Standard until the employee exposure monitoring indicate that that all tasks being performed are not exposing employees above the Permissible Exposure Limit (PEL).

The interim employee protection measures include but are not limited to the following: appropriate respiratory protection; appropriate personal protective clothing and equipment; change areas; hand washing facilities; biological monitoring; and training.

All waste generated during the lead paint removal and during subsequent manual demolition or renovation activities should be characterized by Toxicity Characteristic Leaching Procedure testing for lead for waste disposal purposes.

Additionally, the EPA Renovation, Repair, and Painting Rule requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities and schools be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices.

#### 4.0 LIMITATIONS AND CONDITIONS

Due to the inaccessibility of some building elements, it is conceivable that all potential lead-containing paint within the extents of this survey may not have been located and identified. We do warrant, however, that the investigations and methodology reflect our best efforts based upon the prevailing standard of care in the environmental industry.

# APPENDIX A Analytical Results and Chain of Custody



Attn: Paul Zak

Suite C

#### **EMSL** Analytical, Inc.

706 Gralin Street, Kernersville, NC 27284

Phone/Fax: (336) 992-1025 / (336) 992-4175

http://www.EMSL.com greensborolab@emsl.com

l.com

(352) 335-6648

EMSL Order:

CustomerID:

CustomerPO:

ProjectID:

022104851

GLEA51B

Phone: Fax:

Received: 6/25/2021 09:00 AM

Collected:

6/24/2021

Project: 21000-24166 Old Fire Station No. 1

Gainesville, FL 32605

2228 N.W. 40th Terrace

**GLE Associates** 

#### Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\*

Client SampleDescription	Collected	Analyzed	Weight	RDL	Lead Concentration
L-01 022104851-0001	6/24/2021	6/29/2021	.2584 g	0.0080 % wt	<0.0080 % wt
L-02 022104851-0002	6/24/2021	6/29/2021	.2643 g	0.0080 % wt	<0.0080 % wt
L-03 022104851-0003	6/24/2021	6/29/2021	.3224 g	0.0080 % wt	0.033 % wt
L-04 022104851-0004	6/24/2021	6/29/2021	.1484 g	0.013 % wt	<0.013 % wt
L-05 022104851-0005	6/24/2021	6/29/2021	.2707 g	0.0080 % wt	0.019 % wt
L-06 022104851-0006	6/24/2021	6/29/2021	.2751 g	0.0080 % wt	0.015 % wt
L-07 022104851-0007	6/24/2021	6/29/2021	.1467 g	0.014 % wt	0.21 % wt
L-08 022104851-0008	6/24/2021	6/29/2021	.2341 g	0.0085 % wt	0.12 % wt
L-09 022104851-0009	6/24/2021	6/29/2021	.3062 g	0.0080 % wt	<0.0080 % wt
L-10 022104851-0010	6/24/2021	6/29/2021	.2792 g	0.0080 % wt	<0.0080 % wt
L-11 022104851-0011	6/24/2021	6/29/2021	.3113 g	0.0080 % wt	<0.0080 % wt

James Cole, Laboratory Manager or other approved signatory

James Cole

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC EMSL Lab ID 102564 is accredited by the AlHA Laboratory Accreditation Program (AlHA-LAP), LLC in the Environmental Lead accreditation program for Lead in Paint Chips.

Initial report from 06/30/2021 08:04:27



**Paul Zak** 

Suite C

**GLE Associates** 

#### **EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284

(336) 992-1025 / (336) 992-4175

http://www.EMSL.com greensborolab@emsl.com

Phone:

(352) 335-6648

EMSL Order:

CustomerID:

CustomerPO:

ProjectID:

022104851

GLEA51B

Fax:

Received: 6/25/2021 09:00 AM

Collected:

6/24/2021

Gainesville, FL 32605

Project: 21000-24166 Old Fire Station No. 1

2228 N.W. 40th Terrace

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\*

Client SampleDescription	Collected	Analyzed	Weight	RDL	Lead Concentration
L-12 022104851-0012	6/24/2021	6/29/2021	.2632 g	0.0080 % wt	<0.0080 % wt
L-13 <i>022104851-0013</i>	6/24/2021	6/29/2021	.2774 g	0.0080 % wt	<0.0080 % wt
L-14 022104851-0014	6/24/2021	6/29/2021	.297 g	0.0080 % wt	<0.0080 % wt
L-15 022104851-0015	6/24/2021	6/29/2021	.289 g	0.0080 % wt	<0.0080 % wt
L-16 022104851-0016	6/24/2021	6/29/2021	.3232 g	0.0080 % wt	<0.0080 % wt
L-17 022104851-0017	6/24/2021	6/29/2021	.2816 g	0.0080 % wt	0.014 % wt
L-18 022104851-0018	6/24/2021	6/29/2021	.2932 g	0.0080 % wt	<0.0080 % wt

James Cole, Laboratory Manager or other approved signatory

James Cole

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC EMSL Lab ID 102564 is accredited by the AIHA Laboratory Accreditation Program (AIHA-LAP), LLC in the Environmental Lead accreditation program for Lead in Paint Chips.

OrderID: 022104851



#### Lead (Pb) Chain of Custody EMSL Order ID (Lab Use Only):

EMSL Analytical. Inc 706 Gralin Street

Kernersville. NC 27284 (336) 992-1025 (336) 992-4175

GLE Associates EMSL-Bill to: Same 7 Different							
Company: GLE Associates EMSL-Bill to: ☐ Same ☐ Different If Bill to is Different note instructions in Comments							
Street: 2228 N	NW 40th Ter Suite C			Thi	rd Party Billing requires writter	n authorization from third p	arty
City: Gainesville State/P			Province: FL Zip/Postal Code: 32605 Country: US				
Report To (Na	me): Paul Zak			Telephon	e #: 3523356648		-
	pzak@gleassocia	ites co	om	Fax #:		Purchase Order	
	Number: 21000-241		· · · · · · · · · · · · · · · · · · ·		ovide Results: Fax		
	ples Taken:FL	00 01			les: Commercial/Taxal		Evament
U.S. State Sail	ipies raken.i c	Tıı	rnaround Time (TAT			ole   Residential/Tax	Exempl
3 Hour	☐ 6 Hour		Hour	1 1	Hour 96 Hour	☐ 1 Week	2 Week
	. – .				nd Conditions located in the Pr		
	Matrix	,	Method	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Instrument	Reporting Limit	Check
Chips 🗸 % by	wt. mg/cm² ppm (n	ng/kg)	SW846-7000B		Flame Atomic Absorption	0.01%	☑
Air			NIOSH 7082	_	Flame Atomic Absorption	4 µg/filter	
All .			NIOSH 7105		Graphite Furnace AA	0 03 µg/filter	-
			NIOSH 7300M/NIOSH	1 7303	ICP-OES	0.5 µg/filter	
Wipe*	ASTM [	7	SW846-7000B		Flame Atomic Absorption	10 μg/wipe	
*if no box checked	non ASTM 🕝		SW846-6010B or	·C	ICP-OES	1 0 µg/wipe	
assumed	· · _						
TCLP			SW846-1311/7000B/SM SW846-1311/SW846-60		Flame Atomic Absorption ICP-OES	0.4 mg/L (ppm) 0.1 mg/L (ppm)	_ 📙 -
<u> </u>	<u></u>		SW846-1312/7000B/SM		Flame Atomic Absorption	0.4 mg/L (ppm)	<del>-</del>
SPLP			SW846-1312/SW846-60		ICP-OES	0.1 mg/L (ppm)	
TTLC			22 CCR App. II. 7000	B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	
I I LC			22 CCR App. II. SW846-60	10B or C	ICP-OES	2 mg/kg (ppm)	
STLC			22 CCR App. II. 7000i		Flame Atomic Absorption	0.4 mg/L (ppm)	
	<del> </del>		22 CCR App. II. SW846-60	_	ICP-OES	0.1 mg/L (ppm)	
Soil			SW846-7000B		Flame Atomic Absorption	40 mg/kg (ppm)	
	<del> </del>		SW846-6010B or		ICP-OES	2 mg/kg (ppm)	
Wastewater	Unpreserved [	ר ו	SM3111B/SW846-7000B		Flame Atomic Absorption	0.4 mg/L (ppm)	
Preserved wi	th HNO₃pH < 2 💆	<b>5</b>	EPA 200 9		Graphite Furnace AA ICP-OES	0.003 mg/L (ppm)	
			EPA 200 7		ICP-MS	0.020 mg/L (ppm) 0.001 mg/L (ppm)	
	er Unpreserved		EPA 200.8 EPA 200 9		Graphite Furnace AA	0.001 mg/L (ppm)	
Preserved wi	th HNO <sub>3</sub> pH < 2 $\Box$	]	EPA 200 5		ICP-OES	0.003 mg/L (ppm)	<del>- H</del> -
	<u></u>		40 CFR Part 50		ICP-OES	12 µg/filter	
TSP/SPM Fill	er		40 CFR Part 50		Graphite Furnace AA	3.6 µg/filter	
Other:					11/	$\triangle M$	
Name of San	npler: Michael D. Har	rell		Signa	ture of Sampler: //	$I(\cdot)/II/$	
Sample #		ocatio	on I	1 3.3	Volume/Area	Date/Time S	Sampled
L-01	White Plaster	2.5.5.1				06/24/21	
 L-02	White Drywall				<del></del>	06/24/21	
Client Sampl		1-45		-	Total # of Sa		
At All All							
Kelinquisned	Relinquished (Client): Date: 62121 Time: 1700						
Received (Lab	ı):	<u></u>	Date:	10/2	クレ Time:	19100	
Comments:							
BillTo GLE Associates. Inc., 5405 Cypress Center Drive. Suite 110. Tampa FL. 33609: US.  Attention. Deoridrea Jones Phone. 888-453-4531 Email. djones@greassociates.com. Purchase Order							

2

OrderID: 022104851



# LEAD (Pb) CHAIN OF CUSTODY EMSL ORDER ID (Lab Use Only).

EMSL Analytical. Inc
706 Gralin Street
Kernersville NC 27284

(336) 992-1025 (336) 992-4175

USD (

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
L-03	Gray Metal		06/24/21
L-04	Gray Ceramic Tile		06/24/21
L-05	Gray Concrete		06/24/21
L-06	White Metal		06/24/21
L-07	Yellow Metal		06/24/21
L-08	Light Green Concrete		06/24/21
L-09	White Concrete		06/24/21
L-10	Red Plaster		06/24/21
L-11	Yellow Plaster		06/24/21
L-12	Yellow Wood		06/24/21
L-13	Gray Plaster		06/24/21
L-14	Gray Wood		06/24/21
L-15	Red Metal		06/24/21
L-16	Tan Stucco		06/24/21
L-17	Red Stucco		06/24/21
L-18	Tan Wood		06/24/21
Comments/S	pecial Instructions:		

Page 2 of 2 pages

# **APPENDIX B Personnel and Laboratory Qualifications**

# United States Environmental Protection Agency This is to certify that



Michael D Harrell

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

# In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and

Territories

This certification is valid from the date of issuance and expires

August 28, 2022

LBP-R-15640-2

Certification #

June 05, 2019

Issued On



Adrienne Priselac, Manager, Toxics Office

**Land Division** 

# United States Environmental Protection Agency This is to certify that

GLE Associates, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

# In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires

March 02, 2024

LBP-2060-2

Certification #

January 05, 2021

Issued On



Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

## The Environmental Institute

## Michael Harrell

Social Security Number - XXX-XX-0236 GLE Associates - 5405 Cypress Center Drive, Suite 110 - Tampa, Florida 33609

Has completed coursework and satisfactorily passed the hands-on skills assessment and an examination that meets training criteria in accordance with requirements for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities as regulated by Georgia DNR/EPD Chapter 391-3-24 and U. S. EPA TSCA 40 CFR Part 745 for the refresher course titled

## Lead Inspector Refresher

December 10, 2018

1853

December 10, 2018
Examination Date

December 9, 2020

Georgia Expiration Date

December 9, 2021

EPA Expiration Date

Bonnie B. Maurras - Principal Instructor

(Approved by the ABIH Certification Maintenance Committee for 1 CM point - Approval #11-584) TEI - 1841 West Oak Parkway, Suite F - Marietta, GA 30062 - (770) 427-3600 - www.tei-atl.com (State of Georgia Accredited - Certification No. 20-0799-006SR - September 21, 1999)



#### **AIHA Laboratory Accreditation Programs, LLC**

acknowledges that

#### EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284

**Laboratory ID: LAP-102564** 

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

#### LABORATORY ACCREDITATION PROGRAMS

	INDUSTRIAL HYGIENE	Accreditation Expires:
$\checkmark$	ENVIRONMENTAL LEAD	Accreditation Expires: September 01, 202
	ENVIRONMENTAL MICROBIOLOGY	Accreditation Expires:
	FOOD	Accreditation Expires:
	UNIQUE SCOPES	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

michal Bru

Michael Breu Chairperson, Analytical Accreditation Board

Cheryl O Morton

Managing Director, AIHA Laboratory Accreditation Programs, LLC

Cheryl O. Charton

Revision 18: 03/27/2020 Date Issued: 07/31/2020



# AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

#### **EMSL Analytical, Inc.**

706 Gralin Street Kernersville, NC 27284

Laboratory ID: LAP-102564 Issue Date: 07/31/2020

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air and composited wipes analyses are not included as part of the NLLAP.

#### **Environmental Lead Laboratory Accreditation Program (ELLAP)**

Initial Accreditation Date: 06/01/2004

Component, parameter or characteristic tested	Technology sub-type/Detector	Method	Method Description (for internal methods only)
Airborne Dust	AA	NIOSH 7082	N/A
Paint	AA	EPA SW-846 3050B	N/A
Fallit	AA AA	EPA SW-846 7000B	N/A
Settled Dust by Wipe	AA	EPA SW-846 3050B	N/A
Settled Dust by Wipe		EPA SW-846 7000B	N/A
Soil	AA	EPA SW-846 3050B	N/A
3011		EPA SW-846 7000B	N/A

A complete listing of currently accredited ELLAP laboratories is available on the AIHA-LAP, LLC website at: <a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>

Effective: 11/21/2019

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