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April 11, 2024

Attn: Brevan McAlpin

719 Old Lenoir Road
Hickory, North Carolina
28601-3442, USA

RE: STRUCTURAL COMPLIANCE CERTIFICATION REPORT
NC25081 Brevan McAlpin – Post-Fire Structural Evaluation of Second-Floor Assembly

Dear **Brevan McAlpin**,

SECTION 1: EXECUTIVE SUMMARY

A structural inspection was performed by Lee Solutions & Services, PLLC (LSS PLLC) on March 13, 2025, at the property located at 719 Old Lenoir Rd, Hickory, NC 28601, focusing on the upper-level area identified as Suite 201 – Section C, which experienced prior fire exposure affecting the overhead roof system. This area is directly supported by the ground-level space identified as Suite 101, Section A, currently functioning as a gym (see Appendices B–C).

The intent of this structural evaluation was to verify the structural integrity of the steel trusses, beams, and columns in the fire-affected region and to determine whether any unpermitted structural modifications were made. The review was conducted in accordance with the 2018 North Carolina Building Code (NCBC) and applicable engineering standards.

Based on visual observations conducted on-site and available documentation:

- The roof trusses and steel support framing within the fire-affected area of Suite 201 – Section C did not exhibit measurable deformation, displacement, or distress.
- The floor deck system between Suite 101 (first floor) and Suite 201 (second floor) remains intact and structurally sound.
- No structural alterations or repairs were observed, and no signs of unpermitted structural modifications were identified.

Therefore, the structural system within the observed second-floor area (Suite 201 – Section C) is visually confirmed to be **structurally sound** and suitable for continued commercial use, consistent with the 2018 NCBC.

Supporting documentation, including the as-built layouts and site photos, is provided in Appendices B through G for reference.

SECTION 2: BACKGROUND INFORMATION

2.1 Project Overview

This report pertains to the structural evaluation of a two-story commercial facility located at 719 Old Lenoir Road, Hickory, NC 28601. The building was originally constructed in 1943 and has undergone partial redevelopment into commercial tenant suites. The structural inspection was limited to the upper-level area designated as Suite 201 – Section C (±5,000 SF), which sustained localized fire damage prior to redevelopment. This suite is located directly above the gym area, Suite 101, Section A (±5,000 SF), as illustrated in Appendices B–C.



2.2 Objective of Structural Evaluation

The purpose of this assessment was to determine whether the structural framing within the fire-impacted zone remains safe and suitable for continued use and future commercial occupancy, with specific focus on:

- Assessing post-fire conditions of the roof sheathing and steel trusses.
- Confirming no structural modifications were performed without permits.
- Certifying that the structural system remains compliant with applicable sections of the 2018 North Carolina Building Code (NCBC).

The scope of this report does not extend to non-structural trades.

2.3 Site Inspection Date and Methods

A non-invasive structural inspection was conducted by a licensed structural engineer from Lee Solutions & Services, PLLC (LSS PLLC) on March 13, 2025, with access granted to:

- Suite 201 – Section C – the fire-damaged upper-floor area (Appendix C).
- Suite 101 – Section A – the gym area directly below the fire zone (Appendix B).
- Accessible roof framing, structural trusses, and wood sheathing.

No destructive testing, fireproofing analysis, or concealed condition verification was performed. Observations and findings are based solely on visual assessments consistent with industry standards for post-fire structural evaluations.

SECTION 3: STRUCTURAL FINDINGS

3.1 Overview of Structural System

The structural system of the evaluated portion of the building (Suite 201 – Section C – see Appendix C) consists of the following components:

- Roof Structure: Steel trusses supporting 2× plank-style wood sheathing spanning between members.
- Floor Structure (Below): Metal deck or wood decking system (based on observable access), supported by steel girders and columns.
- Vertical Supports: Open-web steel joists and columns bearing onto a steel girder system.
- Lateral Bracing: Provided by rigid steel connections and exterior wall anchorage.
- Foundation System: Not evaluated as part of this scope but no visible differential settlement or deflection observed from floor or wall framing.

3.2 Condition of Fire-Affected Roof Framing

The second-floor area of Suite 201 – Section C, experienced prior fire exposure. Visual inspection of the accessible framing systems revealed the following:

- Steel Trusses: No observable deformation, lateral displacement, or section loss. Trusses remain straight, tight to connections, and perform as intended.
- Roof Plank Sheathing: Several areas exhibited charred wood surfaces consistent with moderate fire exposure. However:
 - No evidence of significant material degradation, delamination, or separation.
 - No sagging, deflection, or compromised continuity detected.
 - Mechanical stiffness appears intact under dead load.
- Steel Connections: No apparent loosening or compromise to welds, bolts, or plates.

Photos of representative framing conditions are provided in Appendix G.

3.3 Floor Structure Below Fire Zone

Suite 101, Section A, directly below the fire-affected area, was inspected from below:

- Floor Decking: No visible fire damage or discoloration on the underside of the floor system.
- Ceiling Support Systems: Appear structurally sound. No buckling, sagging, or compromised load paths observed.
- Vertical Load Paths: Trusses bear directly over column lines and girder beams, continuing through to the first floor.

The floor system showed no signs of heat impact, char, or distress. No repairs were recommended for floor framing based on current observations.



3.4 Structural Modifications

No unpermitted or undocumented structural repairs, reinforcements, or alterations were observed. The framing configuration remains consistent with the layout and materials anticipated for this type of facility, and no work has been performed on the primary load path elements post-fire.

3.5 Summary of Findings

- The primary load-carrying members (trusses, girders, columns, and deck) in the fire-exposed zone remain in structurally adequate condition for continued use under existing and anticipated occupancy loads.
- No observable damage was present in the floor system below the affected suite.
- No structural deformations, section loss, or failures were observed.
- No unauthorized structural modifications were present.

SECTION 4: CODE COMPLIANCE VERIFICATION

4.1 Applicable Codes and Standards

This structural compliance verification was performed in reference to the following governing codes and design standards, applicable to commercial structures within the jurisdiction of Catawba County, North Carolina:

- 2018 North Carolina Building Code (NCBC) – Based on the 2015 International Building Code (IBC).
- ASCE 7-10 – *Minimum Design Loads for Buildings and Other Structures* (Referencing load paths and live/dead load resistance).
- AISC Steel Construction Manual, 15th Edition – (Steel framing evaluation).
- NDS 2015 – *National Design Specification for Wood Construction* (Applicable to plank sheathing).
- ACI 318-14 – (Referenced only if reinforced concrete framing had been involved; not applicable in this case).
- Local interpretations of building safety and permitting enforcement policies as administered by the City of Hickory and Catawba County Building Department.

4.2 Structural Assessment and Observed Compliance

The evaluation performed by Lee Solutions & Services PLLC focused exclusively on visual and physical observation of load-bearing components associated with the second-floor framing system of Suite 201 – Section C (see Appendix C). Based on these observations:

- Live Load and Dead Load Support (ASCE 7-10):
 - The steel trusses and plank roof system retain structural integrity and capacity under typical commercial occupancy conditions. No evidence of overloading, permanent deflection, or failure was noted.
- Continuity of Load Path:
 - All structural elements observed maintain uninterrupted vertical and horizontal load paths to the supporting members and ground. No material discontinuities or weak links were identified.
- Wood Plank Roof Sheathing (NDS 2015):
 - The planks, although exhibiting minor charring in limited zones, maintain physical integrity, support stiffness, and fastening continuity.
- Steel Trusses and Connections (AISC 15th Edition):
 - Trusses showed no signs of lateral torsional buckling, web deformation, flange rotation, or weld/bolt failure. Connection geometry and performance align with standard AISC guidelines.

4.3 Permit-Related Clarification

As requested by the client, the scope of evaluation included a review for any unpermitted or undocumented structural work in the affected area. No post-fire framing modifications, reinforcements, or partial framing rebuilds were observed. The structure remains in its original configuration as shown in the client-provided layouts (Appendices B & C).

This supports the position that no structural work requiring permit authorization has been performed in the subject area.

4.4 Summary of Compliance

Based on the site inspection and evaluation conducted in accordance with the referenced codes and standards:

- The second-floor roof structure in the fire-affected area of Suite 201 – Section C meets or exceeds the structural intent and minimum structural requirements of the 2018 NCBC.
- No structural deficiencies requiring repair were found.
- No unpermitted or noncompliant structural modifications were observed.
- Based on the scope of this visual inspection, the observed framing system complies with the structural provisions of the 2018 NCBC as of the inspection date.



This verification is made in good faith and with reasonable engineering certainty, based on observable conditions as of the inspection date of March 13, 2025.

SECTION 5: STRUCTURAL REPAIR AND PROTECTION PLAN

5.1 Overview

This section outlines repair and protection observations related to the structural system within the fire-affected area of Suite 201, Section C, located above the gym space in Suite 101 (see Appendices C & D). As per the scope of this certification, no structural repairs are required to restore load-bearing functionality. The system has been deemed structurally sound as-is.

5.2 Structural Repairs – Status

No structural repairs are required based on the following:

- No deformation, buckling, or distress was observed in the structural steel trusses.
- The wood plank roof sheathing retains continuity, fastening, and structural capacity, with only superficial charring in limited areas.
- The floor system beneath the affected area is fully intact with no heat transfer effects or visual damage.

Per field assessment, there are no active structural deficiencies, and no framing repairs, reinforcements, or member replacements are warranted at this time.

SECTION 6: CONCLUSION & CERTIFICATION

6.1 Summary of Structural Evaluation

Based on the visual inspection conducted by Lee Solutions & Services, PLLC on March 13, 2025, and a comprehensive review of all provided documentation — including layout drawings, site photographs, and client-supplied plans (see Appendices A–G) — the following conclusions are made regarding the second-floor space located within Suite 201 – Section C at 719 Old Lenoir Rd, Hickory, NC 28601:

- The primary structural framing system, including the exposed steel trusses, columns, and wood plank roof sheathing, shows no evidence of structural compromise, deformation, section loss, or distress that would affect vertical or lateral load path integrity.
- The floor system directly beneath the affected second-floor area (i.e., the gym space in Suite 101) is structurally intact and unaffected by fire-related activity.
- No evidence was found of unpermitted structural alterations or modifications within the evaluated areas.

6.2 Structural Certification

Accordingly, and within the limits of a non-invasive visual structural assessment, the structure within the approximate 5,500 SF observed area is visually confirmed to be structurally sound and suitable for continued use under the building's intended commercial occupancy classification.

This certification is based on:

- Conformance with structural provisions of the 2018 North Carolina Building Code (NCBC);
- Professional judgment in accordance with recognized engineering standards including ASCE 7-10, AISC 15th Edition, and NDS 2015;
- The absence of observable structural hazards or deficiencies requiring repair or reinforcement.

6.3 Engineer of Record

This certification is made by the undersigned, a licensed Professional Engineer in the State of North Carolina, based on site conditions observed on the date of inspection and materials provided by the client. No invasive testing, destructive probing, or code enforcement authority review was performed.

SECTION 7: REFERENCES

7.1 Primary Structural Codes and Standards

- 2018 North Carolina Building Code (NCBC) – Governing code for commercial structures in the jurisdiction.
- ASCE 7-10: Minimum Design Loads for Buildings and Other Structures – Referenced for wind, live, dead, and snow loading requirements.
- AISC Steel Construction Manual, 15th Edition – Applied to evaluate structural steel framing and detailing.



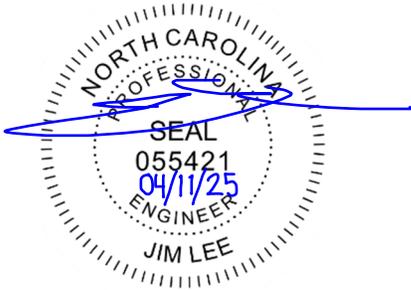
- ACI 318-14: Building Code Requirements for Structural Concrete – Used for assessment of concrete members, if applicable.
- NDS 2015: National Design Specification for Wood Construction – Referenced for analysis of roof plank sheathing and wood framing components.

CERTIFIED BY:

This certificate is issued at the request of **Brevan McAlpin** for legal and regulatory purposes. It shall remain valid for a period of **five (5) years** from the date of issuance, provided no further structural modifications or renovations are made without prior approval from the undersigned structural engineer.

Jim Lee, P.E. – Structural Engineer
Lee Solutions & Services, PLLC. (LSS)

NC P.E. License#: **055421** License Valid Until: December 31, 2025
NC Firm License#: **P-2722** License Valid Until: June 1, 2025



APPENDIXES

- A. Legal Disclaimer
- B. As-Built First Floor Plan Prepared by Client, dated March 13, 2025
- C. As-Built Second Floor Plan (Fire-Damaged) Prepared by Client, dated March 13, 2025
- D. Proposed First Floor Plan Layout Prepared by Client, dated March 13, 2025
- E. Proposed Second Floor Plan Layout Prepared by Client, dated March 13, 2025
- F. Property Record Card Prepared by Catawba County NC GIS, dated March 13, 2025
- G. Site Pictures Taken by Lee Solutions & Services PLLC, dated March 13, 2025



APPENDIX A LEGAL DISCLAIMER

1. Purpose and Scope of Disclaimer

This Legal Disclaimer applies in full to the attached Structural Compliance Certification Report (“Report”) prepared by **Lee Solutions & Services, PLLC (“LSS PLLC”)**, a licensed professional engineering firm in the State of North Carolina. The Report was developed exclusively for the client identified within the report documentation (“Client”), for the **specific purpose** of evaluating the structural condition of an identified fire-damaged portion of a commercial building located at **719 Old Lenoir Rd, Hickory, NC 28601**. Any other use, distribution, or reliance upon this Report is **expressly prohibited** without prior written consent from LSS PLLC.

2. Limits of Report and Services Provided

This Report is based on a **limited-scope, non-destructive, visual structural inspection** conducted on **March 13, 2025**. It reflects only the observable physical conditions and accessible structural elements at the time of inspection and is not a guarantee of future performance, nor a substitute for regular building maintenance, monitoring, or compliance assessments by code enforcement authorities.

Unless explicitly stated otherwise, this Report **does not include**:

- Fireproofing material testing, installation, or certification;
- Evaluation of concealed, obstructed, or inaccessible structural members;
- Assessment of MEP (mechanical, electrical, plumbing), fire suppression, HVAC, or life safety systems;
- Geotechnical, environmental, biological, or chemical analysis;
- Verification of compliance with zoning, ADA accessibility, floodplain, or energy codes;
- Recommendations for insurance, real estate, or investment purposes;
- Construction means, methods, or contractor workmanship validation.

The Report is intended to support the Client’s compliance with structural safety requirements as governed by applicable engineering codes and local permitting authorities.

3. Use Limitations and Third-Party Reliance Prohibited

This Report and its findings are intended solely for the **internal use and decision-making purposes of the Client**. Any third-party use, citation, or reliance upon the Report — including by contractors, lenders, buyers, realtors, insurers, consultants, or government agencies — is **strictly prohibited** without the express, written permission of LSS PLLC. LSS PLLC disclaims all liability to third parties, and such parties waive all claims against LSS PLLC resulting from unauthorized reliance.

No portion of this Report shall be used in advertising, promotional materials, contractual representations, or public filings without the express written consent of LSS PLLC.

4. Code Interpretation, Engineering Judgment, and Jurisdiction

This Report reflects the professional judgment and interpretation of structural engineering standards by LSS PLLC engineers. It references the following standards and codes, where applicable:

- **2018 North Carolina Building Code (NCBC)**
- **ASCE 7-16: Minimum Design Loads and Associated Criteria for Buildings**
- **ACI 318-14: Building Code Requirements for Structural Concrete**
- **AISC Steel Construction Manual, 15th Edition**
- **NDS 2015: National Design Specification for Wood Construction**
- **TPI 1-2014: Design of Metal Plate Connected Wood Trusses**

Interpretations of these standards may vary across jurisdictions. The **final authority on code interpretation, structural adequacy, and approval rests solely with the local Building Official** and Authority Having Jurisdiction (AHJ). LSS PLLC shall not be liable for code changes after the date of the Report or for interpretations that conflict with the determinations of governing authorities.



5. No Warranty, Guarantee, or Future Assumption of Liability

LSS PLLC provides this Report **as-is**, without warranty, express or implied, including but not limited to any warranties of merchantability, fitness for a particular purpose, durability, or code compliance beyond the scope expressly provided. The Report does **not guarantee**:

- That hidden or latent structural issues do not exist;
- That the structure will remain in its current condition;
- That future deterioration, fire, flood, or seismic events will not impact the structure;
- That materials or assemblies meet manufacturer specifications unless explicitly tested.

No warranty is implied for any conclusion or recommendation beyond the professional standard of care applicable to licensed engineers practicing in North Carolina.

6. Client Responsibilities and Assumption of Risk

The Client is solely responsible for:

- Implementing structural recommendations provided;
- Ensuring qualified contractors follow industry-accepted construction practices;
- Obtaining any required permits, inspections, or approvals;
- Conducting future assessments and maintenance of the structure;
- Notifying LSS PLLC if any site conditions materially change after the inspection.

The Client assumes all risks arising from any use, modification, misinterpretation, or noncompliance related to this Report.

7. Indemnification and Hold Harmless Provision

To the fullest extent permitted by law, the Client agrees to **defend, indemnify, and hold harmless LSS PLLC**, including its engineers, agents, affiliates, employees, and successors, from and against any and all claims, demands, actions, causes of action, damages, losses, liabilities, fines, costs, and expenses (including attorneys' fees) resulting from or arising out of:

- Any use of this Report outside its intended scope;
- Any unauthorized reliance by third parties;
- Any delay, damage, or injury caused by implementation or failure to implement the recommendations;
- Any allegations of error or omission that exceed the scope of services performed;
- Any construction or renovation work performed by contractors or third parties.

8. Limitation of Liability

To the fullest extent permitted by law, the **total cumulative liability of LSS PLLC** arising from or in any way related to this Report, whether based in contract, tort, negligence, strict liability, or otherwise, shall be **limited to the total professional fees received by LSS PLLC** for this specific project.

Under no circumstances shall LSS PLLC be liable for incidental, consequential, indirect, special, exemplary, or punitive damages, including but not limited to loss of use, loss of profits, business interruption, or diminution in property value, even if advised of the possibility of such damages.

9. Force Majeure and Unforeseen Conditions

LSS PLLC shall not be liable for any delay or failure in performance due to causes beyond its control, including but not limited to: natural disasters, acts of God, fire, vandalism, extreme weather, material shortages, cyberattacks, government restrictions, or third-party interference.



10. Dispute Resolution and Governing Law

Any dispute arising from or related to this Report shall be governed by the laws of the **State of North Carolina**. In the event of a dispute, the Client agrees that:

- Any claim must be initiated within **one (1) year** from the date of Report delivery;
- Binding **mediation and arbitration** must be pursued before any court filing;
- Exclusive venue shall be in the **courts of Iredell County, North Carolina**;
- Each party shall bear its own legal costs unless otherwise ordered.

11. Severability

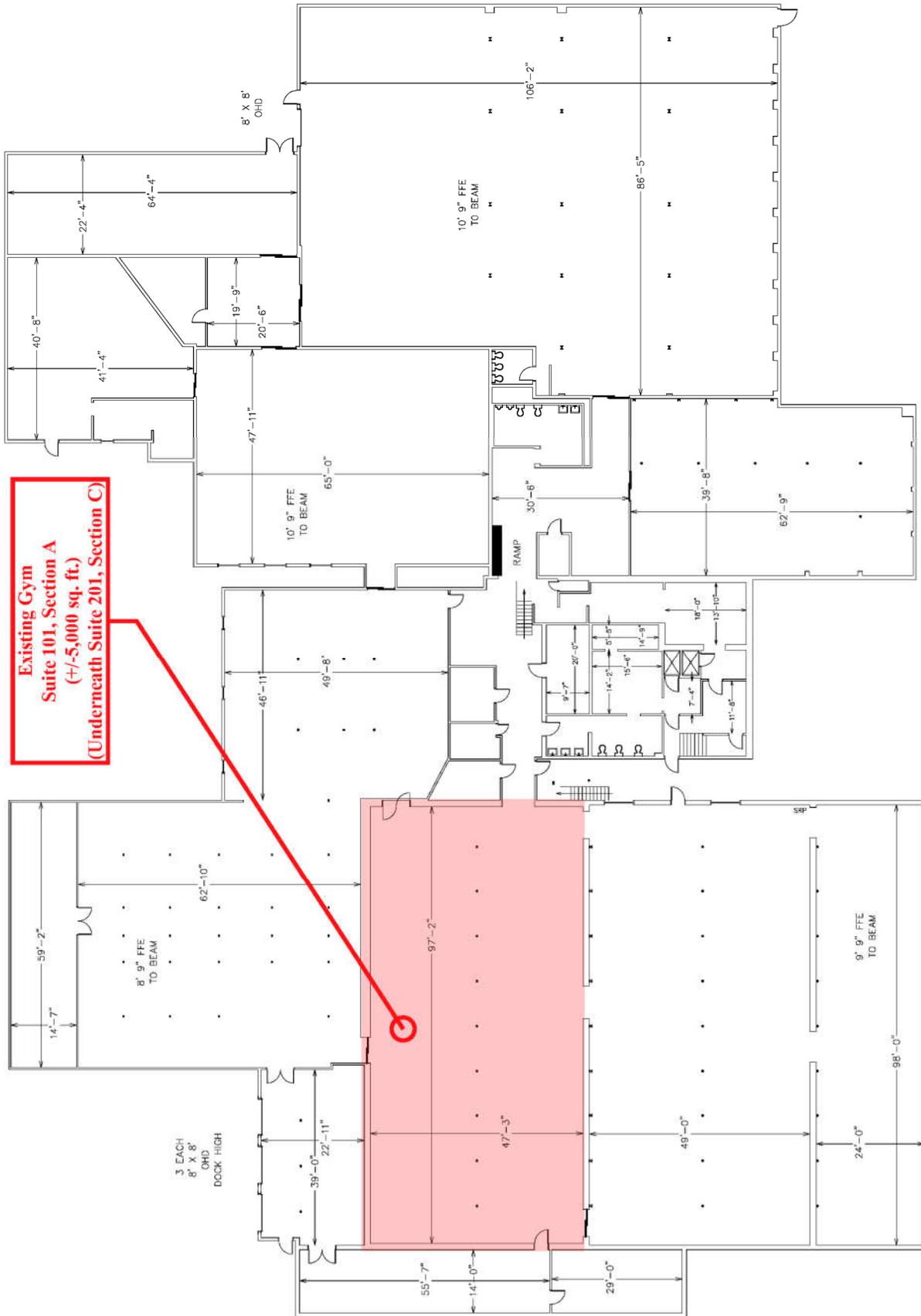
If any provision of this Disclaimer is found to be invalid or unenforceable by a court of law, such provision shall be severed, and the remainder shall remain in full force and effect.

12. Acknowledgment and Acceptance

Use of this Report constitutes full **acknowledgment, understanding, and acceptance** of all terms and conditions outlined in this Legal Disclaimer. The Client and any authorized user waives all future rights to challenge these terms.



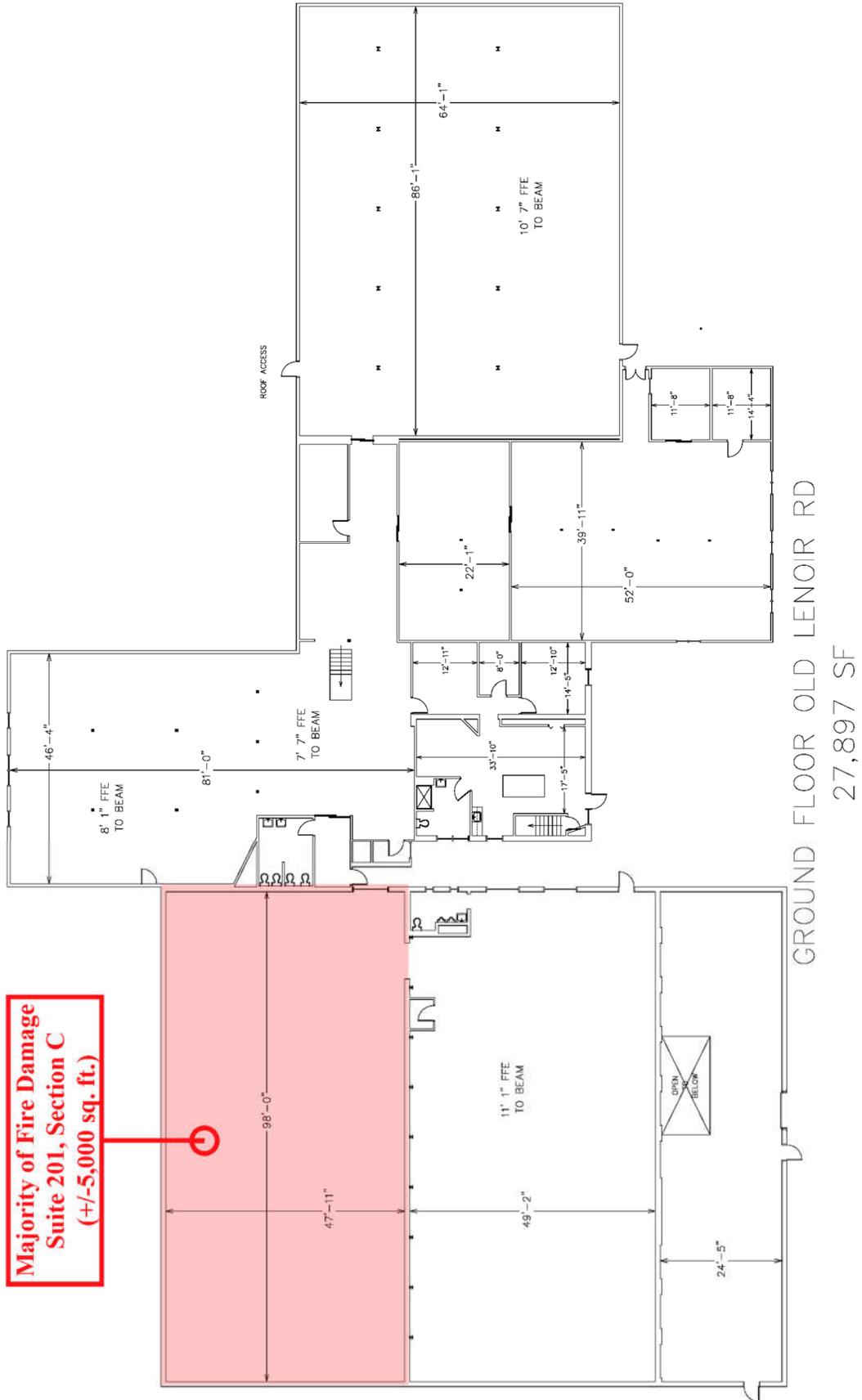
APPENDIX B
AS-BUILT FIRST FLOOR PLAN PREPARED BY CLIENT – DATED MARCH 13, 2025



GROUND FLOOR 7TH AVE NW
 44,660 SF



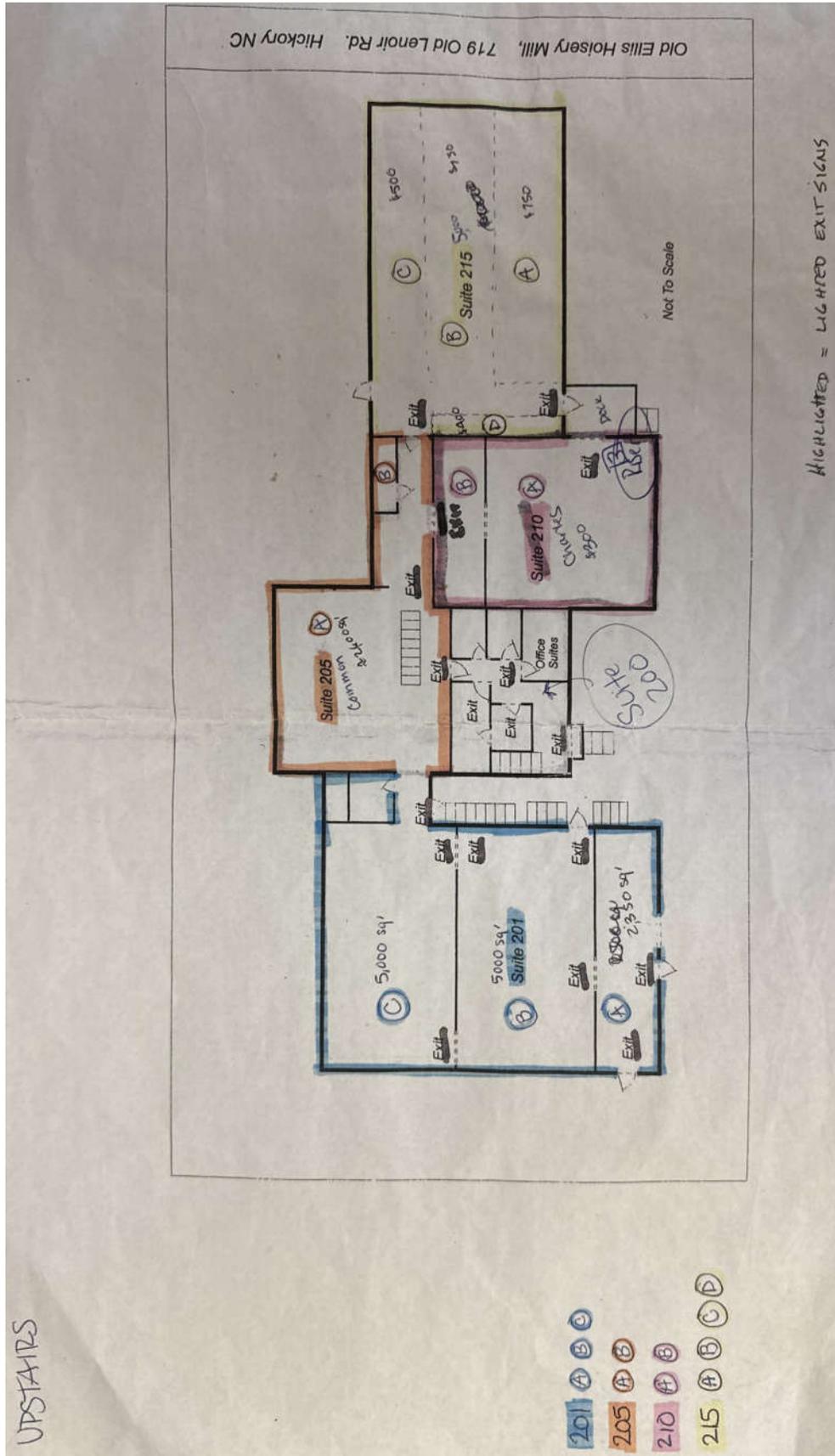
**APPENDIX C
AS-BUILT SECOND FLOOR PLAN (FIRE-DAMAGED) PREPARED BY CLIENT – DATED MARCH 13, 2025**



**Majority of Fire Damage
Suite 201, Section C
(+/-5,000 sq. ft.)**



APPENDIX E
PROPOSED SECOND FLOOR LAYOUT PREPARED BY CLIENT – DATED MARCH 13, 2025



APPENDIX F
PROPERTY RECORD CARD PREPARED BY CATAWBA COUNTY NC GIS – DATED MARCH 13, 2025

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GIS Assessment Report

Assessment Report - Catawba County NC as of January current year

Property Assessment Information:

Card: 1 of 1 Class 1
 Next: Previous Card

Parcel Information:

Parcel ID: 279316935671
 Property Address: 719 OLD LENOIR RD NW
 LRK(REID); 38207

Owner Information:

Name: MCALPIN BREVAN J
 Name2: NIEVES ROBERT RANGEL
 Address: 209 RIDGECREST DR
 City/State/Zip: TAYLORSVILLE, NC 28681-9072
 Update owner mailing address

Revaluation Date: January 1, 2023

Assessment Information:

Market Building(s) Value: \$1,184,600
 Total Market Value: \$1,282,300
 Tax Revaluation 2023: Info, COMPER
 Online Appeals
 Valid Sales (COMPER) for this parcel
 Contact Tax Dept. at 828-465-8436

Market Land Value: \$97,700
 Use Total Value: \$0

Sales Data:

Date	Type	Price	Source	Validity
2024-03-22	LAND & BLDG	\$1,300,000	FEE	VALID SALE

Property Factors:

Topography
 BELOW STREET
 Utilities
 Utility Contacts
 Street or Road
 PAVED

Building Permit Data:

Issue Date	Number	Amount	Purpose

General Building Data

Building #: 1
 Ident. Units: 1
 Year Built: 1943

Interior-Exterior Description

Levels	Use Type	Ht	Walls	Construction	Heating	Air Cond	Size
01 to 01	MULTI-USE STORA	10	BRICK/STUCCO	WOOD FRAME	HOT WATE	CENTRAL	1440
02 to 02	MULTI-USE STORA	10	BRICK/STUCCO	WOOD FRAME	HOT WATE	CENTRAL	1440
01 to 01	MULTI-USE STORA	8	CONC. BLOCK	WOOD FRAME	HOT AIR	NONE	300
01 to 01	MULTI-USE STORA	10	BRICK/STUCCO	WOOD FRAME	HOT AIR	NONE	3840
02 to 02	MULTI-USE STORA	9	FRAME	WOOD FRAME	HOT AIR	NONE	3840
01 to 01	MULTI-USE STORA	10	BRICK/STUCCO	WOOD FRAME	HOT AIR	NONE	4000
02 to 02	MULTI-USE STORA	10	FRAME	WOOD FRAME	HOT AIR	NONE	4000
01 to 01	MULTI-USE STORA	14	BRICK/STUCCO	WOOD FRAME	HOT AIR	NONE	4000

https://gis.catawbacountync.gov/normap/assessment_report.php?key=279316935671&card=1



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GIS Assessment Report

map/report product by the user. The County of Catawba, its employees, agents, and personnel, disclaim, and shall not be held liable for any and all damages, loss or liability, whether direct, indirect or consequential which arises or may arise from this map/report product or the use thereof by any person or entity.

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APPENDIX G
SITE PICTURES TAKEN BY LEE SOLUTIONS & SERVICES PLLC – DATED MARCH 13, 2025



