

**SBI, Inc. / Michael J. Turner Home Inspections, LLC**

187 Thoroughbred Avenue

Montz, LA 70068

504.382.2410

LA State Residential #885905 / Commercial Builders License #58032 / LHI #10762

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July 30, 2019

RE: Evaluation of Residents Structure

Dear Mr.,

With your permission an elevation of the foundation and a structural assessment was performed on the property. The following recordings were concluded. Photo's are provided at the end of report.

A visual non evasive structural evaluation was performed in your presence to determine the structural conditions of the home. The following conditions were concluded.

The residence was a single-family home resting on a concrete slab on grade foundation with wood framed walls as viewed from the attic and from the exterior perimeters. The wall surface cladding was brick veneer with weep holes at the bottom for drainage. The brick veneer was supported with metal corrugated brick ties as visible from the attic. The ceiling joist and roof rafters were dimensional lumber (2" x 6") with under-sized collar ties / beams at several locations. The purlins, strapping and bracing, supporting the roof structure was dimensional lumber (southern yellow pine #2). Interior walls and ceilings were painted drywall. The property was vacant during the time of this visual evaluation.

Standing water was observed around the home's foundation. The foundation had several inches of water resting against the concrete slab on grade foundation on both the right and left sides. The soil was saturated due to the rain occurring during the inspection. The site drainage was poor. These conditions can lead to foundation movement, settlement and structural conditions over time, if not addressed.

We recommend drainage be provided which may include but not limited to removal of concrete drive to re-grade soil away from home or by installing sub-surface drains to discharge and remove water away from homes foundation. Sump-pump(s) may need to be installed since the entire plot of land that surrounds this home had standing water. French drains may not work in conditions where the soil retention cannot provide ample absorption. The estimated cost for repairs. **\$8,500**

Cracks were noted at several locations of the brick veneer wall. The right-side brick had a step crack which was opened approximately 1/4" and can lead to water entry and possible suspected mold growth. The step cracks showed no indications of variance of surface planes. In other words when running a finger across the surface of the bricks the bricks smooth, plumb / level. Rework of this area to remove and repair cracks to brick veneer wall known as tuck and point would need to be applied. The estimated cost of repairs. **\$950.**

The two vertical cracks noted on the front left and front right appears to be caused from expansion. All concrete slabs on grade foundations tend to crack at the corners and usually crack at about a 45° angle. Since the main foundation and porch was poured as one, the resistant force of the concrete and the expansion force of the brick will crack vertical. Most construction methods today employ a control/expansion joint to the brick

veneer wall. When the porch is not poured separately from the slab on grade concrete the result is usually corner cracks. This does not indicate any significant structural concerns, but repairs should be made to prevent future cracking.

Recommend both front corners of the brick veneer be cut to allow for an expansion joint. This control joint will have either a backer rod installed and sealed with an elastic material or a casing or chase if you will, to provide controlled movement without effecting the brick walls. Estimate cost of repairs. **\$2,100.**

After carefully viewing the framing components located in the attic, we found twisted ceiling joist which will result in drywall pulling away at the interiors known as (nail pops), and improper alignment or spacing of roof rafters at several areas. When spacing roof rafters 24" on center, every other common rafter and/or jack rafter should align with the ceiling joist as it rests upon the double top plate wall. Since many of the rafter's measurements were inconsistent, additional framing should be installed. Multiple collar beams or collar ties were under-sized (2" x 4") at the front of home. Collar braces are horizontal ties that resist outward movement and deflection in roof rafters. These collars are usually installed approximately mid-height of the rafters.

Minimum ventilation was provided in the attic. This can lead to extreme hot temperatures and moisture, resulting in wood framing components expansion and contraction as wood absorbs and wicks moisture. It can also decrease roof covering life by cooking the shingles. A constant supply of intake and exhaust air movement required for this size attic would be needed - to control these conditions.

Some "common" roof rafters showed separation at the plumb cut and ridge board, in which nails were exposed. This was caused from human error (non-professional workmanship) where the measurement of the common rafter was cut shorter. This can be simply repaired by installing another rafter alongside the under-cut lumber known as (sister).

Purlins which support the roof rafters were limited where the bracing rest on top of the ceiling joist. The cracks noted over doors and other areas of the interior walls of the home is the result of inadequate and improper framing. Resting roof supports on non-load bearing walls and ceiling joist spaced at 24" on center can and will contribute to racking / movement of interior doors thus resulting in wall cracks. Once proper framing and supports are resolved to the roof and ceiling framing, then cracks can be cosmetically repaired. If no other means to brace the roof, accept installing them on top of interior non-load bearing walls than properly sized headers / lintels or ceiling joist will be added so that loads can be transferred to the foundation. Estimated cost for repairs **\$5,700 - \$6,500**

If possible, obtain a copy of the initial construction records on file at the city permit office to note contractors pile and footing locations (if any).

Thank you for the opportunity to serve you! Should you have any questions feel free to contact us.

Sincerely,

*Michael J. Turner*

Michael J. Turner

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LA State Residential Building Contractor #885905

LA State Commercial General Contractor License #58032

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PHOTO's Provided Below:





