

AlbCad Design

7030 Woodbine Ave, Markham, ON, L3R 6G2
Tel: 647.367.1146
Fax: 647.367.1818
www.to.albcad.com

Structural Inspection Report

Property description

This Structural Inspection Report made today _____ by AlbCad Design,
P.Eng _____, for property (_____)

Photo 1



Photo 2



The property under study is a condominium, located at the first floor (see photo 2), on the right side of building stairs (see photo 1), divided in 6 condominium units; this building does not have a large basement, only a small section that is used as a storage room (see photo 3 and 4) for this unit; the other parts of the building are sitting on a concrete slab. The condo unit is divided in 6 rooms: a living-room, a dining-room, a kitchen, 3 bedrooms and a bathroom .At the basement, we noticed a small storage room (see photo 3). In the hall (see photo 5), modifications have been done to allow access to the basement: the wardrobe has been enlarged and the stair seems to have been moved and is not finished with any floor covering .

Photo 3



Photo 4



Photo 5



The building has been built recently (in 2008, according to the Evaluation Service Department for Quebec City) with good quality materials. The foundation is made out of concrete. The outside coating is bricks. Windows are PVC casement windows. Doors are made of steel. Structure is including concrete slabs. Roof has a slope, covered with asphalt and gravel shingles.

Purpose

The main purpose of the inspection was to make an assessment state of the structure of the basement small cave inside unit with max inside dimensions 14'-0" x 10'-10" and 6'-0" high from floor to the ceiling of the basement (8380 Rue de Buffalo, Québec, QC, G2C 2H1) in order to determine the state of structure and suspended concrete slab made on top of the basement . The present report followed upon a visual inspection of premises in order to determine the structure state. The tools has been used to detect any rebar (armature reinforcement) inside of the suspended concrete slab. This mandate does not include checking of bearing capacity of the soil. There is not any geotechnical report no tests was made on the soil to determine bearing capacity of the soil and if it is contaminated or affected by the pyrite. From here and for the rest of the report as well as for structural engineering calculation, architectural drawings and design, which will follow this report, the bearing capacity of the soil will be assumed to be 2000 lb/sq.ft. Only elements mentioned in this report were checked.

Structural opinion and observations/recommendation.

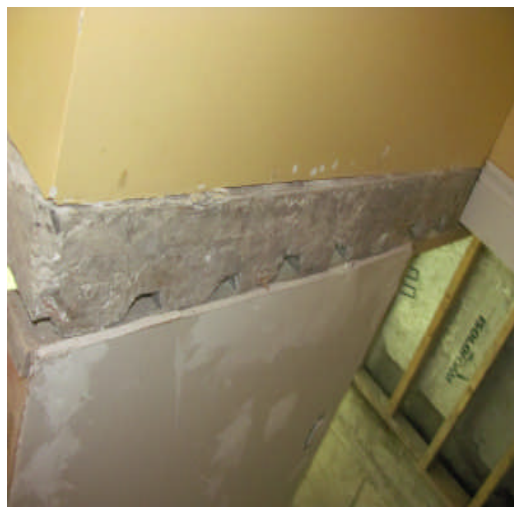
From visual inspection and carefully examinations by steel reinforcement detector of 5" thick suspended concrete slab structure which stands between the ground floor of the unit and the basement cavity , it is evident that the concrete itself doesn't contains (armature) rebar inside. (Photo 5 and 6)

The first concern of the structure in terms of the strength and poor structural performance is the missing reinforcement (armature) inside the suspended concrete slab. **It is strongly recommended this concrete slab to be subject of further bracing and the methods and the details of this reinforcement will be shown at the architectural and engineering plans which will follow this report.**

Photo 5



Photo 6



This concrete slab has been supported in three sides of the basement by means of 2 x 4 " wall made by wood studs and sitting on top of the foundation footings extended in depth. The structure of the supporting walls and bearing capacity seems not to be strong and safe enough to hold the suspended concrete slab sitting on top of it. The concrete slab seems not to have any side of it sitting or being connected with concrete foundation wall and in some places the wood wall structure holding the concrete slab doesn't sit well over the extended concrete foundation footings. Furthermore this concrete slab holding structure is totally unacceptable, it has to be noncombustible and the needs for further steps in terms of the structure safety is a must. (Photo 7,8 and 9)

It is strongly recommended this structure of supporting wall holding suspended concrete slab to be subject of further bracing and the methods and the details of this reinforcement will be shown at the

architectural and engineering plans which will follow this report.

Photo 7



Photo 8



Photo 9



The existing foundation walls has been lowering by means of the concrete footing under benching and this foundation basement lowering seems to be done well and satisfies minimum necessary requirements for this kind of foundation modifications. (Photo 10 and 11).

Concrete bench under the existing foundations footing seems to perform well at the time of inspection was taking place. The two new block wall on interior part of the perimeter of the main foundation wall seems to perform well but some concerns still exist in terms of the wall humidity. There is a little spot at the lower part of the concrete block wall and seems that some humidity is evident there. Further actions has to be taken and some waterproof membrane has to be placed at least inside part of this wall. The concrete slab in the floor of the basement seems to be well done and performing well at the time of the inspection. We inspected the outside of the foundation: there is neither disorder sign, nor any abnormal crack on the

coating.

Photo 10



Photo 11

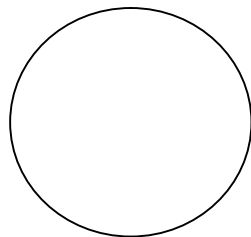


Conclusion:

The overall state structure of the building falling at this part of the building (_____) seems to perform well and there is no disorder sign that could indicate a settlement of the structure. The recommendations we made above for further actions in terms of bracing the structure holding the concrete slab has to be taken in consideration and engineering and architectural plans will be attached with this report with all necessary engineering and architectural details in order to satisfy the main requirement of making the structure safe.

PREPARED BY: -----, **P. Eng**
Registered Professional Engineers Ontario

Seal Goes Here



Attachment:

The seal appearing on this document was authorized by P. Eng-----, Registered Professional Engineers Ontario. Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Province of Ontario Engineering Practice Act. The signature on this document can be validated electronically by obtaining a validation certificate Professional Engineers Ontario. This signature and subsequently this document is no longer valid if unauthorized modifications are made to it.

