

January 6, 2023

Christopher Houden Jr
Willow Partners
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Thanks for sharing the letter from your neighbor to the north. As the structural engineer of record for the proposed development at 1550 N. Prospect Avenue, Pierce Engineers (PE) has prepared the following information to address the questions raised about potential impacts on the existing retaining wall to the north of your property from construction operations and the relocation of the Goll House. Protecting the integrity and safety of the development site, the bluff, the Goll House and neighboring sites is the highest priority of our work, as it is of other members of the development team. We appreciate the opportunity to share additional detail on the research we have done to-date about this retaining wall as well as the steps we will continue to take throughout the construction process.

When performing design for new buildings on tight urban sites such as the 1550 N Prospect site it is PE's standard practice to locate existing construction drawings for neighboring buildings and/or retaining wall structures. This is an important step for the design and construction team to develop appropriate plans to safely construct the new building. When working near existing footings, foundation walls and retaining walls, we first assess current conditions and work with the construction team to develop construction approaches to ensure that existing foundations, adjacent structures and retaining walls are not overloaded due to lateral surcharge pressures from new foundations or construction operations.

As part of our initial due diligence for the relocation of the Goll House, PE obtained a copy of the original building plans (dated 07-07-1950) and plans for an addition (dated 03-27-1963) for the apartment located at 1560 N. Prospect Ave. These plans were obtained from the City of Milwaukee Records Center. After a review of the original building plans, PE was able to identify the existence of a retaining wall and its foundation constructed North of your property line. It is the current assumption of PE that the existing retaining wall has been maintained and is functioning as originally intended. The drawings indicate that the top of the retaining wall is located at approximately elevation 80.0' (Milwaukee Vertical Datum) and the base of the footings is located at approximately elevation 69.4'.

Our assessment is that the planned foundation for the relocated Goll House does not present a risk to the stability or performance of the existing retaining wall. The current relocation plan calls for the Goll House to be moved west to be closer to the street and the finished floor elevation at the first floor will be maintained at approximately elevation 83.3'. In order to properly support the House, PE anticipates designing a new spread foundation system supported on the native soils, that will bear at somewhere between elevation 67.0' and 69.0'. This foundation will not require any excavation below the adjacent foundations supporting the existing retaining wall preventing risk of undermining. Further the elevation of the new footings will not produce any surcharge pressure on the current foundation.

In addition, PE has had several discussions with your construction team to understand their process and advise them of the appropriate considerations to make regarding protecting the adjacent buildings and structures. PE has advised the construction team to limit the use of heavy equipment within 10'-0" of the existing retaining wall, to limit the risk of adding surcharge pressures to the wall during the construction process. Both C.D. Smith Construction and Heritage Movers, have indicated it is feasible to limit heavy equipment adjacent to the wall during the move and foundation construction.

PE understands that the house relocation process will involve temporarily supporting the existing house on a grillage of steel beams which will rest on wood cribbing. We understand that this cribbing will be placed inside the current basement, and the home will be lifted off its present foundations with hydraulic jacks also located inside the home. After lifting is completed, the weight of the existing home will be located further from the retaining wall which will further prevent the risk of adding surcharge to the wall. Construction sequence and methods for building the new tower foundations are still being selected, but PE expects the discussions about ensuring the stability and safety of the neighboring property will continue, throughout design and construction. To further ensure the entire project can be completed without compromising safety of the neighboring buildings, we understand and have been in direct contact with CGC Inc., the geotechnical engineer you have retained to provide foundation recommendations and a global slope stability study. Final foundation design hasn't yet been completed for the Goll House and new tower, but PE understands and expects that final configurations will be reviewed by CGC to ensure that at no time there is a slope stability risk to the existing bluff.

Sincerely,

Lucas Marshall, PE, SE
Associate Principal