



WILDWOOD®

July 22, 2019

The Honorable City Council
City of Wildwood, Missouri
16860 Main Street
Wildwood, Missouri 63040

Re: Consultant's Proposal for the Study of Dam/Pierside Lane in Association with the Lake at Harbors at Lake Chesterfield Subdivision

Council Members:

BACKGROUND REGARDING THE PROPOSAL >>> As the City Council Members know, the Departments of Planning and Public Works have been working with the two (2) representatives from Ward Seven, the Mayor, and others regarding the lake in the Harbors at Lake Chesterfield Subdivision and the considerations relating to the dam and Pierside Lane, which is constructed on top of this earthen structure. Discussions have been held on how best to address the lake, the dam, and the City's roadway. These discussions have led to a decision to seek a proposal from the consulting firm that specializes in the study of geotechnical and geophysical issues relating to the type of bedrock that underlies this area of St. Louis County and the impacts of groundwater upon these certain rock types, principally soluble limestone. This consulting firm is Geotechnology, Inc.

A proposal was solicited from this firm, which is attached to this letter. This proposal contains a number of tasks to better understand the construction standards of the current dam structure, the methods to verify its stability, and reporting thereafter to the City for its use. The cost of this proposal is approximately fifty-nine thousand dollars (\$59,000.00) for all of the tasks. This amount is on a 'not to exceed' basis.

FUNDING OPTIONS >>> The protection of the dam from a public safety standpoint is paramount to the City and necessary to protecting the driving public that uses Pierside Lane. However, as has been mentioned in the brief introduction of this matter at the City Council meeting held on July 8, 2019, the cost of this study is substantial, and no line item for it was anticipated in the preparation of the 2019 budget for this particular purpose. Funding could be shifted from other dedicated projects (such as, Small Roadway Improvement Projects – Capital, Consultant Services or Contracts - Operating, etc.), but presents a risk, if unforeseen circumstances occur with them. Therefore, the direction of the City Council in this regard would be beneficial to City staff.

One (1) remaining escrow does exist for the extension of Waterfront Way, from its current terminus to Old State Road, but to divert that money from a project that has been identified for completion, since the inception of the City, would need to be a decision that would have to be made by City Council, after presentation of why the roadway was required, then not built, thereafter, escrowed for its cost for future construction, and then programmed for many years by the City of Wildwood to be completed. The amount

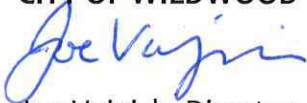
in the escrow is approximately twenty-five thousand dollars (\$25,000.00), which would cover a large portion of the proposed analysis, but not all. Additional funding would have to be determined to complete it.

ACTION ITEMS >>> Therefore, at tonight's City Council meeting, direction is being sought from the members on whether to proceed with the proposal at this time or wait until Fiscal Year 2020, when it can be budgeted, as part of that process. If the decision is to proceed with the proposal, then the Departments of Planning and Public Works would like to understand how City Council would like it funded, particularly if using the escrow money for Waterfront Way Extension for a portion of the cost is acceptable, or not, and where the remainder of the funding should be targeted within the current Capital or Operating Budgets of the City. In some regards, these questions may best be addressed by one (1) of the City Council Committees, where more detail and background can be provided to the members, before a decision is made.

MORE INFORMATION >>> If any of the City Council members should have comments or questions in this regard, please feel free to contact the Department of Planning and Parks at (636) 458-0440. Thank you for your review and input on this information.

Respectfully submitted,

CITY OF WILDWOOD



Joe Vujnich, Director

Department of Planning and Parks

Cc: The Honorable James R. Bowlin, Mayor
Steve Cross, Co-Interim City Administrator
John A. Young, City Attorney
Kathy Arnett, Assistant Director of Planning and Parks
Rick C. Brown, P.E. and P.T.O.E., Director of Public Works



Via email: rbrown@cityofwildwood.com

June 18, 2019

Revised

Mr. Rick Brown, P.E., PTOE
City of Wildwood
16860 Main Street
Wildwood, Missouri 63040

Re: Proposal for Geophysical and Geotechnical Exploration
Lake Chesterfield Dam
Wildwood, Missouri
Geotechnology Project No. J028665.07

Dear Mr. Brown:

In response to your request, Geotechnology is pleased to submit this proposal to provide geophysical and geotechnical exploration services for the evaluation of Lake Chesterfield Dam in Wildwood, Missouri. We have prepared this proposal based on a May 8, 2019 meeting with you and other representatives of the City of Wildwood. The meeting was held to discuss our review of historic documents relative to leaks and repairs of the lake.

1.0 PROJECT INFORMATION

The Harbors at Lake Chesterfield subdivision has paid for multiple repairs to the lake since its construction the late 1990s. The repairs have been related to leaks associated with karstic bedrock features. Even after the repairs, the lake continues to leak and does not maintain a pool elevation satisfactory to the subdivision association. We understand that recent leaking has not appeared to have been through a specific throat location, which has happened in previous leak events. Targeted repair was performed during previous leak events, but a similar approach is not readily available for the current leak. The lake has been drained intentionally since summer 2018. We understand the lake could be filled again by closing a sluice gate, but before continued impoundment of water, the condition of the dam embankment is to be evaluated.

The dam was constructed by placing embankment fill over residual soil. Historical boring and grouting data indicates the rock beneath residual soil contains karstic features in the eastern portion of the dam. A "grout curtain" was constructed in 2005 through a line of injection grouting holes focused in the east portion of the dam. Historical sinks and subsequent repairs were in the eastern portion of the lake. A 2018 geophysical report also indicates a concentration of karstic features in the eastern portion of the lake and near the east end of the dam.