

File: 202049

August 17, 2020

Miramar Enterprises  
c/o Javier Chavarria  
848 Burns Court  
Pacifica, CA 94044

Subject: **Monterey Townhouses  
Monterey Road  
Pacifica, California  
GEOTECHNICAL COMMENTARY**

Mr. Chavarria:

This letter has been prepared to respond to issues raised at the planning commission meeting earlier this month. During that meeting, comments were made regarding the geotechnical report we had prepared for the planning stages of the project, specifically with regards to the lack of boring information in the area of the buildings, and the presence of ground water in the borings.

The borings conducted for the original report were drilled at locations which we determined would provide information on the worst case soil conditions (swale), and in the better areas of the site (where the hillside was cut down during the development of Monterey Road). The borings were drilled at, or close to the proposed improvements (Boring 1 in the access driveway, and Boring 2 was just 20 feet from the downslope side of the townhouses). Additional borings were not drilled at that time, as access would have required clearing of vegetation and perhaps minor grading of the slope to achieve access. This was not considered reasonable for a feasibility level study, but will be conducted once the project receives planning approval, but before construction plans are prepared and a building permit can be issued.

Ground water was encountered in the borings drilled at the end of the winter season, as would be expected. Ground water levels during the summer months are expected to be deeper, if present at all. We have anticipated that cuts deeper than 10 to 15 feet into the hillside should be expected to encounter ground water, although it is likely that it will be a localized condition (i.e. in the swale, or from joints or fractures in the bedrock) as opposed to a universal condition. More information will become available through the anticipated further drilling on the hillside once the conceptual plan is approved.

Our original report was issued to determine the feasibility of the development of the site. Since that time, we have prepared an update to our original report (9/2/14), and prepared a response letter (8/3/19) to address issues raised by the Town's geotechnical review consultant. As noted in our 8/3/19 response letter, further work will be required during the design level analysis of the project. That further work is expected to include slope stability analyses, as part of a final geotechnical report, as well as updating the report to address updates associated with the building code.

File: 202049  
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In summary, it is our opinion that there was sufficient information developed during our initial geotechnical investigation to evaluate the feasibility of the subject project. As the feasibility looks quite favorable, the next step is to get planning approval so that we can conduct further work to develop a specific design which will meet all current geotechnical requirements for analysis and construction.

Should you have any questions please contact the undersigned.

Respectfully Submitted;  
**GeoForensics, Inc.**



Daniel F. Dyckman, PE, GE  
Senior Geotechnical Engineer, GE 2145



Email cc: 1 to addressee

File: 202049  
September 28, 2020

Monterey Road Pacifica, LLC  
c/o Javier Chavarria  
848 Burns Court  
Pacifica, CA 94044

Subject: **Monterey Townhouses  
Monterey Road  
Pacifica, California  
GEOTECHNICAL COMMENTARY (#2)**

Mr. Chavarria:

This letter has been prepared to respond to comments raised in the Steven Bond letter of 9/18/20.

In his letter, Mr. Bond indicates that he has reviewed several documents, but apparently has never been to the site. As a result, his analysis makes factual assumptions about the site that simply do not exist. This may account for some of the erroneous assumptions and extrapolations made in his letter, including:

The “earthen wedge” of material which is to be excavated from the hillside to develop the project is believed by Mr. Bond to consist of loose sediment at the base of a natural valley. Mr. Bond’s analysis assumes the site is composed of loosely consolidated sediments (p.1). However, our borings indicated that while there are some loose materials in the drainage swale along the southern side of the property, the majority of the property consists of medium dense to dense surface soils over relatively shallow weathered bedrock. This broader portion of the project site was originally a moderately steep hillside which was cut down to permit the construction of Monterey Road, and is nowhere near the base of a natural valley (actually located approximately halfway up the mountain to Route 35).

As there are two completely distinct areas of the property, to simply transfer ground water levels from the drainage swale across to the middle of a cut slope is inappropriate. Mr. Bond’s diagram of a projected water table therefore shows a much steeper grade to the water table than we believe actually exists. This inappropriate steeper grade then causes the proposed buildings to extend deeper below the water table. It would also increase the water flow quantities that Mr. Bond has “estimated”.

The Bond report also incorrectly states that our mitigation for any ground water is to place a “seepage collection system between the retaining wall and the walls of the houses”. This is not correct. A drainage system will be provided upslope of the retaining wall (as per normal construction practices), and if warranted, the under-slab granular systems can also be fitted with collection pipes to intercept any water seepage which might attempt to bubble up under the buildings.

For Mr. Bond’s “significant adverse impacts” on the environment require that the site be developed so as to create a dam against the hillside. There is no intent to create such a feature, as the cost to support hydrostatic pressures are substantially greater than the cost to incorporate adequate drainage facilities and structures within the project design.

File: 202049  
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As noted in our previous letters and responses to the City Review consultant's letter, our 2002 investigation was only intended to identify any **major geotechnical or geologic constraints for the conceptual review of the proposed development of the site**. The City reviewer did not find any "inadequacies" in our report. The reviewer simply noted that quantitative slope stability calculations were to be performed as part of a design level investigation, to which we concurred in our response letter. Even the City reviewer (Geocon) did not identify ground water as a significant issue for this project.

Finally, it is telling that Mr. Bond concludes that his postulated ground water problems "**will occur even with the mitigations discussed or proposed**" (p.1), despite nearly every paragraph tempered with phrases such as: "likely to result", "probable outcome", or "could produce". Also contrary to business and professional codes, the document does not include his professional geologist stamp, or even his registration number(s).

Should you have any questions please contact the undersigned.

Respectfully Submitted;  
**GeoForensics, Inc.**



Daniel F. Dyckman, PE, GE  
Senior Geotechnical Engineer, GE 2145



Email cc: 1 to addressee