



Project No. G2213-32-01
October 23, 2018

Lennar Homes
16465 Via Esprillo, Suite 150
San Diego, California 92127

Attention: Mr. Alex Plishner

Subject: UPDATE LETTER AND RESPONSE TO GEOTECHNICAL REVIEW COMMENTS
AVION
P.T.S. NO. 598173
SAN DIEGO, CALIFORNIA

Reference: *Geotechnical Investigation, Avion, San Diego, California*, prepared by Geocon Incorporated, dated August 24, 2018 (Project No. G2213-32-01).

Dear Mr. Plishner:

This correspondence has been prepared to respond to geotechnical review comments contained in the October 1, 2018, *Cycle 18 Issues*, pages 26 and 27 prepared by Mr. Kreg Mills from the City of San Diego, LDR-Geology department. Each issue along with our response is presented below.

Issue 5: *According to the San Diego Seismic Safety Study Geologic Hazard Maps, the site is located in geologic hazard category 53, indicating unfavorable geologic structure. The project's geotechnical consultant must indicate if the overall geologic structure is favorable or unfavorable for the proposed development as designed or provide recommendations to mitigate the geologic hazards to an acceptable level.*

Response: Based on our geotechnical investigation, no unfavorable geologic structure was observed that would adversely impact the proposed development.

Issue 7: *In general accordance with the Subdivision Map Act, the project's geotechnical consultant should indicate whether or not there are any soil conditions within the area of the Tentative Map which, if not corrected, would lead to structural defects.*

Response: Based on our geotechnical investigation, no soil conditions were encountered that would lead to structural defects on the property, provided the recommendations of our referenced report are followed.

Issue 8: *Indicate if critically expansive soils or other soils problems which, if not corrected, would lead to structural defects.*

Response: Based on our geotechnical investigation, no critically expansive soil or other soil related problems were encountered that would lead to structural defects, provided the recommendations of our referenced report are followed.

Issue 9: *Indicate if the presence of rocks or liquids containing deleterious chemicals which, if not corrected, could cause construction materials such as concrete, steel, and ductile or cast iron to corrode or deteriorate.*

Response: Based on our geotechnical investigation, no rocks or liquids containing deleterious chemicals were encountered that could cause construction materials such as concrete, steel, and ductile or cast iron to corrode or deteriorate. In addition, the results from the laboratory water-soluble sulfate content tests performed during our study indicated a “Not Applicable” and “S0” sulfate exposure to concrete structures.

Issue 10: *The project’s geotechnical consultant should provide a statement as to whether or not the site and the property that is proposed of the Tentative Map is safe from geologic hazards and is geotechnically suitable for the intended use.*

Response: Based on our geotechnical investigation, the site is considered geotechnically suitable and no geologic hazards were identified that would preclude the development of the property as currently proposed, provided the recommendations of our referenced report are followed.

Issue 12: *Currently the plans propose non-conforming slopes (1.5 horizontal feet to 1 vertical foot). Per San Diego Municipal Code 142.0133 (c), cut and fill slopes greater than 8 feet in height shall not exceed a gradient of 50 percent (2 horizontal feet to 1 vertical foot). The design professionals should revise the plans to meet the City’s slope gradient requirements.*

Response: San Diego Municipal Code 142.0133 (d) states that the City Engineer can approve steeper slopes provided the “geotechnical report clearly demonstrates that the steeper slope will be stable and not endanger the public health, safety, and welfare.”

Our geotechnical investigation presents a quantitative evaluation of the proposed 70-foot-high, 1.5:1 (horizontal:vertical) cut slope south of Lots 35 through 44. Although conventional limit equilibrium slope stability analysis techniques are not typically used for evaluating rock slopes, we performed this evaluation to satisfy agency requirements. The results of the analysis indicated that the slopes up to the designed heights would possess a static and pseudo-static factors of safety against deep seated sliding greater than 1.5 and 1.0, respectfully.

To further evaluate the geologic structure as it relates to rock slope stability, measurements were taken on the joints and fractures encountered in the exploratory trenches during our study. The joints/fractures were randomly oriented and, in the vicinity of the slope, were dipping at a high angle between 64 and 85 degrees. In this regard, no adverse structural conditions were encountered.

We have also observed and evaluated existing similar 1.5:1 cut slopes in metavolcanic rock within the adjacent Heritage Bluffs and 4S Ranch subdivisions, as well as other significant projects in San Diego County. We have not experienced stability problems on these slopes and they have been performing adequately. Therefore, it is our opinion that the 1:5:1 cut slopes proposed for the site should be approved by the City Engineer.

Issue 15: *The plans that were submitted for review did not address previous comment 12. Therefore, previous review comment 12 that has not been cleared remains applicable and should be addressed by the project’s designers.*

Response: See our response to comment 12 above.

Issue 17: *The geotechnical report submitted did not address all the open review comments. Therefore, the previous open comments (5, 7-10) that have not been cleared remain applicable.*

Response: See our response to comments 5 and 7 through 10 above.

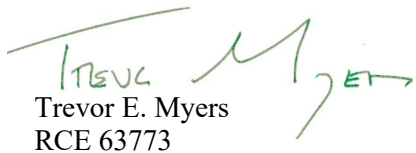
Issue 18: *The plans that were submitted for review did not address previous open review comment 12. Therefore, previous review comment 12 that has not been cleared remains applicable and should be addressed by the project's designers (3rd request).*

Response: See our response to comment 12 above.


If there are any questions regarding this correspondence, or if we may be of further service, please contact the undersigned at your convenience.

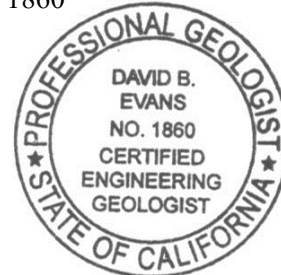
Very truly yours,

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