

July 10, 2020

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**SAN BERNARDINO COUNTY
LAND USE SERVICES
GEOTECHNICAL REPORT REVIEW SHEET**

REPORT ENTITLED: 1) Report of Preliminary Geotechnical/Geologic Study, Proposed New Detached Barn for a Wedding Venue, 179 Highway 173, Lake Arrowhead Area, San Bernardino County, CA; 2) Geotechnical Report of Grading, Proposed Detached Barn for a Wedding Venue, 179 Highway 173, Lake Arrowhead Area, San Bernardino County, CA; 3) Change of Consultant Letter For 179 Highway 173, Lake Arrowhead Area, San Bernardino County, CA

Tract/Parcel Map #:	APN: 0331-095-02	
Permit Application #:	GTR-2020-00012 P201800665	
Prepared By:	1&2) Hilltop Geotechnical, Inc.; 3) Brian A. Robinson & Associates, Inc.	
Report Date:	1) 10/30/19; 2) 2/28/20; 3) 6/5/20	
Geotechnical Engineer:	1&2) Maihan Noorzay/Mark Hulett; 3) Brian Robinson	PE#: 1&2) GE3085/CEG1623; 3) GE729
Report Type:	Geotechnical	
Report Status:	Conditionally Approved	

COMMENTS AND CONDITIONS:

It should be noted that Brian A. Robinson & Associates is the new geotechnical engineer of record for this project, per the above referenced response letter (#3).

- 1) Overexcavation and recompaction of the upper 10 feet was conducted for the project, per the above referenced grading report (#2). The area of overexcavation extended laterally 5 feet beyond the building perimeter.

- 2) All foundations shall be underlain by at least 2 feet of engineered, compacted fill. Footings shall be embedded at least 18 inches below the lowest adjacent grade.
- 3) Embedment of footings on or near existing or planned slopes shall be determined by a setback distance measured from the bottom outside edge of the footing to the slope face in accordance with Section 1808.7, Footings on or Adjacent to Slopes, 2019 California Building Code (CBC) and shall be at least the smaller of $H/3$ and 40 feet, where H is the height of the slope. Footings shall be deepened to meet this requirement.
- 4) Foundations proposed on slopes steeper than 10 (horizontal):1 (vertical) (10% slope) shall be stepped in accordance with Section 1809.3, 2019 CBC.
- 5) All fills placed on the project site shall be compacted to at least 90% relative compaction per the ASTM D1557 test method.
- 6) The site shall be graded so the surface water flows away from structures at a minimum gradient of 5% for a minimum distance of 10 feet away from structures.
- 7) The project geotechnical consultant shall inspect and approve all areas and depths of overexcavation prior to any fill placement for any future site grading. The project geotechnical consultant shall inspect and approve all foundation excavations prior to placement of any forms, steel, or concrete.
- 8) The project geotechnical consultant shall review and approve foundation, grading and/or erosion control plans to confirm that the recommendations made in the above referenced reports and response are adhered to in the design and construction of the project. The geotechnical consultant shall sign and stamp the foundation, grading and erosion control plans indicating that the plans conform to the geotechnical report recommendations.
- 9) The above-mentioned geotechnical conditions of approval shall be incorporated into the notes on the project foundation and/or grading plans.
- 10) The foundation plans shall include the following note: "Geotechnical reports were prepared for this project by Hilltop Geotechnical, Inc. dated October 30, 2019 and February 28, 2020. A change of geotechnical consultant of record and response report were prepared for this project by

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Brian A. Robinson & Associates, Inc. dated June 5, 2020. These reports and response as amended by the conditions of approval are hereby incorporated by reference and are a part of the foundation construction documents. The recommendations outlined in these reports and response shall be strictly adhered to during the construction of this project.”

11) If further grading is proposed, the project grading plans shall include the following note: “Geotechnical reports were prepared for this project by Hilltop Geotechnical, Inc. dated October 30, 2019 and February 28, 2020. A change of geotechnical consultant of record and response report were prepared for this project by Brian A. Robinson & Associates, Inc. dated June 5, 2020. These reports and response as amended by the conditions of approval are hereby incorporated by reference and are a part of the grading construction documents. The recommendations outlined in these reports and response shall be strictly adhered to during the construction of this project.”

Please do not hesitate to contact me if you have questions concerning this review at stevek@lilburncorp.com or (916) 475-3783.

Sincerely,



Steven A. Kupferman, PG 3844, CEG 1205, HG 53
Principal Geologist

SAK