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May 25, 2017

SCST No. 170213N
Report No. 1

Mr. Harry Stylli
9046 La Jolla Shores Lane
La Jolla, California 92604

Subject: GEOTECHNICAL UPDATE
9046 LA JOLLA SHORES LANE
LA JOLLA, CALIFORNIA

References:
1. Ken Ronchetti Design, 2017, "*Stylli Residence 9046 La Jolla Shores Lane, La Jolla, CA*", 10 Sheets, dated March 20.
2. EAD, 1999, "Hillside Support Caisson Plan" Sheets 1 and 2, LDR No. 99-0230, dated June 9.
3. SCS&T, 1992, "*Report of Geotechnical Investigation, Proposed Residential Site, La Jolla Bluffs, Lot 1, 9046 La Jolla Shores Lane, La Jolla, California*", SCS&T No. 9211042, Report 1, dated August 21.
4. SCS&T, 1993, "*Summary of Preliminary As-built Geology, Field Observations and Tests for Relative Compaction, Proposed Potiker Residence, 9046 La Jolla Shores Lane, La Jolla, California*", SCS&T No. 9211042, Report No. 13-R
5. SCS&T, 1999, "*Assessment of Temporary Bluff Stability, Potiker Residence, 9046 La Jolla Shores Way, La Jolla, California*" SCS&T No. 9911042.1, dated March 8.
6. SCS&T, 1999, "*Summary Report of Slope Stabilization Measures, 9046 La Jolla Shores Lane, La Jolla, California, Volumes I and II*", SCS&T No. 9911041.1 dated July 8.

Dear Mr. Stylli:

In response to your authorization, we have prepared this report to update the geotechnical conditions at the site as they relate to the proposed additions depicted in the architectural plans by Ken Ronchetti Design (Reference 1).

INTRODUCTION

The residence was built between 1993 and 1994. The structure is supported by deep foundations. In 1999, a landslide/topple occurred in the rear yard which is located at the top of a roughly 270-foot high coastal bluff. The residence was protected from additional failure by the construction of a shear pin wall and grade beam that underlies the existing glass wall along the western edge of the patio (Reference 2).

SCOPE OF WORK

Our scope of work consisted of the following:

- Review of the geotechnical data pertinent to the site. This included a search of records at the City of San Diego who provided a box of documents at our request but lost the material when we returned the next day to review
- Review of the proposed improvement plans (Reference 1)
- Conducting a site reconnaissance to evaluate the current geotechnical conditions
- Update of seismic design parameters
- Preparation of this letter

SITE DESCRIPTION

The site is located at 9046 La Jolla Village Lane in La Jolla, California (Figure 1). The site is bound to the north by open space, to the east by a single-family residence, to the south by La Jolla Village Lane and to the west by a single-family residence and a roughly 270-foot high coastal bluff. The southern portion of the property is occupied by a two-story steel and wood-framed single family residence (Figure 2). The residence is supported by deep foundations bearing in Scripps Formation.

PROPOSED DEVELOPMENT

The current development plan (Reference 1) will consist of an extension of the garage at grade, a second-floor office addition over the garage, the addition of two exterior decks at the second floor and a one-story guest room addition at grade. It does not appear that grading will be involved in the proposed improvements.

GEOLOGY AND SUBSURFACE CONDITIONS

The proposed additions will be underlain by compacted fill overlying Scripps Formation.

Fill: Documented fill is present beneath portions of the site. As-graded maps could not be obtained at the City of San Diego and are not in our files. We do have records that indicate the fills were compacted in accordance with the recommendations (Reference 4) in the geotechnical report (Reference 2). Fills were placed in scarp areas and around the shear pin wall following the landslide in 1999 (Reference 6).

Landslide Debris: Landslide debris underlies the portion of the lot north of the residence and underlies portions of the coastal bluff (Reference 3 and 5).

Scripps Formation: Scripps Formation underlies the residence and the upper portion of the bluff beneath landslide debris. The Scripps Formation consists of moderately to well cemented conglomerate, sandstone, and claystone.

RECONNAISSANCE

A site reconnaissance was performed on April 18, 2017. There are no major cracks in the stucco exterior of the house or in the concrete patio. Measurements of the current edge of bluff to the building columns on the west side of the house range from 17 feet to 35 feet. We could not find an accurate map showing the 1999, post repair bluff top so the measurements may be considered a

baseline for future measurements. The nearest bluff-edge-to-shear wall measurement was about 3 feet. Using Google Earth images, it appears there may have been a few feet of bluff top retreat due to scarp erosion. There is no evidence of extension or vertical offsets to suggest impending slope failure or creep.

CBC SEISMIC DESIGN PARAMETERS

A geologic hazard likely to affect the project is ground shaking as a result of a major earthquake on an active fault zone in the vicinity of the subject site. The site coefficients and adjusted maximum considered earthquake spectral response accelerations in accordance with the 2013 California Building Code are presented below:

Site Coordinates: Latitude 32.872546°
Longitude -117.250692°
Site Class: C
Site Coefficients, F_a = 1.000
F_v = 1.307
Mapped Spectral Response Acceleration at Short Period, S_s = 1.270g
Mapped Spectral Response Acceleration at 1-Second Period, S_1 = 0.493g
Design Spectral Acceleration at Short Period, S_{DS} = 0.847g
Design Spectral Acceleration at 1-Second Period, S_{D1} = 0.429g
Site Peak Ground Acceleration, PGA_M = 0.571g

CONCLUSIONS

The proposed occupied additions are located a minimum of 90 feet southeast of the existing bluff top and well behind (approximately 100 feet) setbacks recommended in the original geotechnical report (Reference 3). The nearest approach to the existing bluff top is the northernmost portion of the proposed deck on the southwestern portion of the residence. It is our opinion that the proposed additions will not affect the stability of the bluff. If new foundations are needed for the proposed improvements, they will need to consist of deep foundations, constructed in accordance with the design parameters in the original geotechnical report, Reference 3. With the exception of the seismic design parameters summarized above, the foundation design recommendations in Reference 1 are considered applicable.

RECOMMENDATIONS

Plan Review

SCST should review the project plans and specifications to ascertain whether the intent of the recommendations contained in this report update and the geotechnical report (Reference 3) as modified herein have been implemented and that no revised recommendations are needed due to changes in the development scheme.

Geotechnical Engineering During Construction

Observations and tests should be performed during construction if additional foundations are needed. If the conditions encountered during construction differ from those anticipated based on the subsurface exploration program (Reference 3), the presence of the geotechnical engineer during construction will enable an evaluation of the exposed

conditions and modifications of the recommendations in this report or development of additional recommendations in a timely manner.

CLOSURE

SCST should be advised of any changes in the project scope so that the recommendations contained in this letter can be evaluated with respect to the revised plans. Changes in recommendations will be provided in writing. The findings in this letter are valid as of the date of this letter. Changes in the condition of the site can, however, occur with the passage of time, whether they are due to natural processes or work on this or adjacent areas. In addition, changes in the standards of practice and government regulations can occur. Thus, the findings in this report may be invalidated wholly or in part by changes beyond our control. This report should not be relied upon after a period of two years without a review by us verifying the suitability of the conclusions and recommendations to site conditions at that time.

In the performance of our professional services, we comply with that level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions and in the same locality. The client recognizes that subsurface conditions may vary from those encountered at the boring locations and that our data, interpretations, and recommendations are based solely on the information obtained by us. We will be responsible for those data, interpretations, and recommendations, but shall not be responsible for interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty of any kind whatsoever, express or implied, is made or intended in connection with the work performed or to be performed by us, or by our proposal for consulting or other services, or by our furnishing of oral or written reports or findings.

If you have any questions regarding this report or other aspects of the project, do not hesitate to contact the undersigned.

Respectfully Submitted,
SCST, INC.

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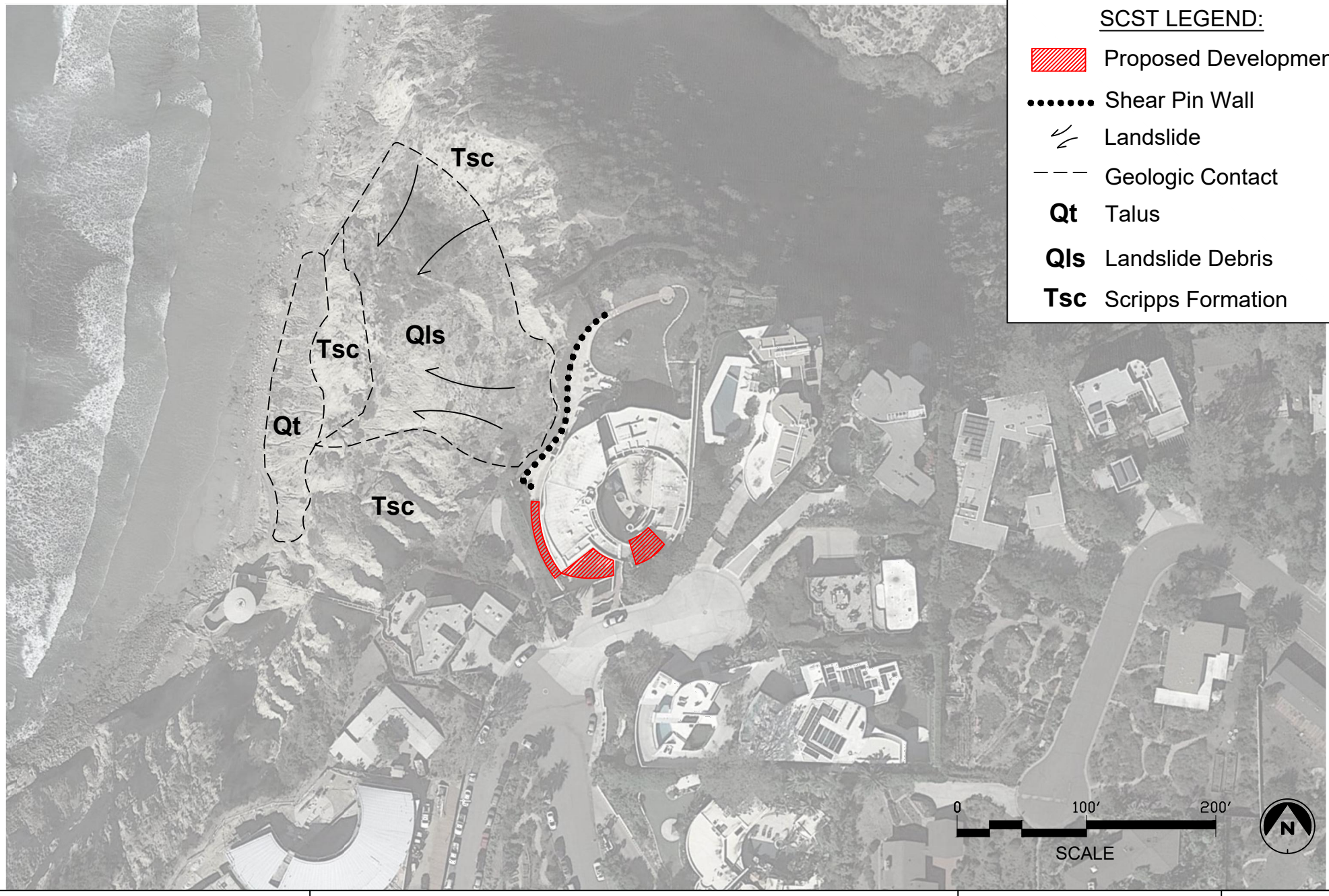
Attachments: Figure 1 - Site Vicinity Map
Figure 2 - Geotechnical Reconnaissance Map

(1) Addressee via e-mail at styllibz@gmail.com

SCST, Inc.	SITE VICINITY MAP 9046 La Jolla Shores Lane La Jolla, California	Date: May, 2017 By: MAW Job No.: 170213N	Figure: 1



SCST, Inc.

GEOTECHNICAL MAP

9046 La Jolla Shores Lane
La Jolla, California

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Figure: 2