soil PACIFIC Inc.

Geotechnical and Environmental Services

Project No. A-2910-05 January 12, 2005

Mr. Constantino Noval Spain Investments Corp. P.O. Box 65143 Los Angeles, CA 90065

Subject: Transfer of Responsibility as Project Geotechnical Consultant

Proposed four Units Condominiums

3711 Baldwin Street, Los Angeles, California

References: Please see the attached references

Dear Sir;

Pursuant to your request, and in accordance with U.B.C. code section 33.17.3, this letter has been prepared to document that a request for our services as Geotechnical Consultant is desired. Soil Pacific, Inc., has reviewed and essentially concurs with the above referenced geotechnical reports. This transfer is acceptable with the following provisions:

1) It is based on the premise that field conditions are accurately described in the referenced report; and 2) Soil Pacific, Inc., may make modifications in descriptions and the corresponding recommendations, should field conditions significantly deviate from those indicated in the referenced report.

The opportunity to be of service is appreciated. Should any questions arise, please contact the undersigned in writing for clarification.

Very Truly,

Soil Pacific Inc.

Abnish Amar, Ph.D.

RCE

Referenced Reports

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- 2. Grading Progress Report No. 14, Tentative Tract No. 50779 for subject property; Report by Pacific Soils Engineering, Inc., dated April 22, 1994 (W. O. 201787-G)
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Geotechnical and Environmental Services

Project No. A-2910-05 January 12, 2005

Mr. Constantino Noval Spain Investments Corp. P.O. Box 65143 Los Angeles, CA 90065

Subject:

Soll and Foundation Engineering Proposed four Units Condominiums

3711 Baldwin Street, Los Angeles, California

References: Please see the attached references

Dear Sir;

In accordance with referenced report and available information, we are providing the foundation engineering design recommendations for the subject project. The following recommendations have been drafted and solely based on the engineering information, soil testing of the previous soil engineering reports. Although the project is comprised of retrofit of the existing building which sustained damages during the unfortunate fire incident. The following recommendations may be used in preparation of the retrofit engineering planning and/or during and in the course of the construction.

The opportunity to be of service is appreciated. Should any questions arise, please contact the undersigned in writing for clarification. AOPESSO,

Very Truly,

Soil Pacific Inc.

Abnish Amar, Ph.D.

RCE

Recommendations

Based on our review of the available information and design recommendation of the previous consultants, the proposed construction is considered feasible from a soil engineering standpoint providing the following recommendations are made a part of the plans and are implemented during construction.

1.1 Clearing and Site Preparation

Site grading is not anticipated at the site. The following recommendations may be used in preparation and/or grading plan specifications if there is any.

- 1. The proposed room addition will be consisted of second floor addition. However, if any grading desired, then the area should be stripped of all vegetation, construction debris and trashes, non engineered fill, left in place incompetent material if any to approved soils. If soft spots are encountered, project soil engineer will evaluate the site conditions and will provide necessary recommendations.
- 2. The exposed grade should then be overexcavated to *approved earth materials*. The excavated area should be scarified to a minimum of 8 inches, adjusted to optimum moisture content, and reworked to achieve a minimum of 90 percent relative compaction.
- 3. Compacted fill should have a minimum of 1.5 feet depth below proposed footing and extend at least 5 feet beyond all perimeter footings or to a distance equal to the depth of the certified compacted fill, whichever is the greatest.
- 4. Compacted fill, consisting of on-site soil shall be placed in lifts not exceeding 6 inches in uncompacted thickness. The excavated onsite materials are considered satisfactory for reuse in the fill if the moisture content is near optimum. All organic material and construction debris should be removed and shall be segregated. Any imported fill should be observed, tested, and approved by the soils engineer prior to use as fill. Rocks larger than 6 inches in diameter should not be used in the fill.
- 5. The fill should be compacted to at least 90 percent of the maximum dry density for the material. The maximum density should be determined by ASTM Test Designation D 1557-00.
- 6. Field observation, and compaction testing should be performed by a representative of Soil Pacific Inc. during the grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compaction effort should be made with adjustment of the moisture content, as necessary, until a minimum of 90 percent relative compaction is obtained.

1.2 Foundations

The following recommendations may be used in preparation of the design and construction of the foundation system.

1.2.1 Bearing Value

The allowable bearing value for conventional footings, of residential building having a minimum width of 15 inches and a minimum embedment of 24 inches below the lowest adjacent grade in approved compacted engineered fill materials, should not exceed 1900 pounds per square foot. This value may be increased by one-third for short duration (wind or seismic) loading.

1.2.2 Isolated Square Pad Footings

The proposed structure can be adequately supported by shallow spread footing and isolated footings. The minimum embedment for individual pad footings should be 24 inches below the lowest adjacent grade. Allowable bearing value is 1900 psf increased by 200 psf for each additional depth of 12 inches and each additional width of 12 inches to a maximum of 4000 psf. The bearing value may be increased by 1/3 when considering short duration seismic or wind loads.

1.2.3 Foundation Settlement

Based upon anticipated structural loads, the maximum total settlement for the proposed foundation is not expected to exceed 1 inch at design load. Differential settlement between adjacent footings and lateral displacement of lateral resisting elements should not exceed ½ inch.

1.2.4 Concrete Type

Based on experience with similar projects in the area Type II concrete can be used. The soluble sulfate content of the soils in contact with the concrete will, however, be performed after grading of the site so as to confirm the recommended use of Type II concrete.

1.2.5 Slabs-on-grade

Slabs-on-grade should be a minimum of 4 inches nominal thick. Slab areas that are to be carpeted or tiled, or where the intrusion of moisture is objectionable, should be underlain by a moisture barrier consisting of 10-mil Visqueen, properly protected from the puncture by one inch of sand to and below.

1.3 Utility Trench Backfill

Utility trenches backfill should be placed in accordance with Appendix D. It is the owners and contractors responsibility to inform subcontractors of these requirements and to notify Soil Pacific when backfill placement is to begin.

1.4 Seismic Design and Construction

Construction should be in conformance with seismic design parameters of the latest edition of Uniform Building Code (U.B.C.) Section 19. Based on our review of the general geology map of the project site the project soil profile type is defined as Sd. Please refer to the Appendix C for closest faults and other related seismic design parameters.

1.5 Surface and Sub-surface Drainage Provisions

Proper surface drainage gradients are helpful in conveying water away from foundations and other improvements. Subsurface drainage provisions are considered essential in order to reduce pore-pressure build-up behind retaining structures. Ponding of water enhances infiltration of water into the local soils, and should not be allowed anywhere on the pad.

1.6 Conventional Retaining Wall

For preliminary design, the following guidelines are presented for structural wall design consideration.

- 1) Any retaining structure along the east side of the existing building may be constructed on a conventional foundation using the following design criteria. The wall may be constructed a minimum equivalent fluid pressure, for lateral soil loads, of 35 pounds per cubic foot for onsite non expansive granular soils conditions and level backfill (10:1 or less). If the wall is restrained against free movement (= +/- 1 % of wall height) then the wall should be designed for lateral soil loads approaching the at-rest condition. Thus, for restrained conditions, the above value should be increased by 20 pounds per cubic foot. In addition, all retaining structures should include the appropriate allowances for any anticipated surcharge loads.
- 2) An allowable soil bearing pressure of 1400 lbs, per square foot may be used in design for footings imbedded a minimum of 24 inches below the lowest adjacent competent grade.
- 3) A friction coefficient of 0.30 between concrete and natural or compacted soil and a passive bearing value of 400 lbs. per square foot per foot of depth may be employed to resist lateral loads.

Free-draining material consisting of at least 1 cubic foot of 3/4-inch crushed rock/ gravel should be utilized around pipe drains. If an open space greater than 1 foot exists between the back of the wall

and the soil face, gravel backfill should be compacted by vibration. An impervious soil cap should be provided at the top of the wall backfill to prevent infiltration of surface waters into the backdrain system. The cap may be a combination of concrete and/or compacted fine grained soils. The compacted backfill soil cap should be at least 1 foot thick when used in conjunction with a concrete slab type cap and at least 2 feet thick when used exclusively.

4) Any proposed retaining wall within the western portion of the building pad should be constructed on a deep foundation (pile foundation embedded into firm bedrock).

1.7 Utility Trench Backfill

Utility trenches backfill should be placed in accordance with Appendix D. It is the owners and contractors responsibility to inform subcontractors of these requirements and to notify Soil Pacific when backfill placement is to begin.

1.8 Drainage Control

Patio or driveway subgrade soil should be compacted to a minimum of 90 percent to a depth of 18 inches. All run-off should be gathered in gutters and conducted, off site in a non-erosive manner. Planters located adjacent to footings should be sealed, and leach water intercepted.

1.9 Reinforcement

Observation and classification of soil samples recovered from the site indicate the potential for expansion is high at surficial soils. Based on this, footings should include a minimum of two No. 5 steel bars, placed at the top and two No. 5 bars at the bottom, and slabs should have No. 3 at 18 inches on-center, rebars properly located at the center of the thickness.

1.10 Observation and Testing

It is recommended that Soil Pacific Inc. be present to observe and test during the following stages of construction:
☐ Site grading to confirm proper removal of unsuitable materials and to observe and test the placement of fill.
☐ Inspection of all foundation excavations prior to placement of steel or concrete.
☐ During the placement of retaining wall subdrain and backfill materials.
☐ Inspection of all slab-on-grade areas prior to placement of sand, Visqueen.

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☐ After trenches have been properly backfilled and compacted.	
☐ When any unusual conditions are encountered/.	

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