

## **APPENDIX L – ADDITIONAL GEOTECHNICAL DESIGN PARAMETERS**

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Jia Yuan USA Co., Inc.  
801 S. Figueroa Street, Suite 1800  
Los Angeles, California 90017

Attention: Tracy Chu

Subject: Addendum I, Additional Geotechnical Design Parameters  
Proposed City Center Hotel and Residential Development  
1020 South Figueroa Street, Los Angeles, California  
(Vesting Tentative Tract No. 73422)

References: *Report by Geotechnologies, Inc.:*  
Geotechnical Engineering Investigation, revised December 17, 2015.

*City of Los Angeles, Department of Building and Safety:*  
Soils Report Approval Letter (Log # 91304), dated January 13, 2016.

Ladies and Gentlemen:

Based on the latest design information provided by the client, it is the understanding of this firm that the proposed development will now be constructed over four subterranean levels, extending on the order of 40 to 45 feet below the existing site grade. It is anticipated that the excavation to an approximate depth of 50 feet below the lowest site grade elevation will be required for the proposed subterranean levels and foundation elements. The remainder of the project design scope has remained relatively unchanged. It is the opinion of this firm that the geotechnical recommendations provided in the referenced geotechnical report remain applicable for the proposed development, except as modified herein.

**RETAINING WALL DESIGN**

Cantilever retaining walls supporting a level backslope may be designed utilizing a triangular distribution of active earth pressure. Restrained retaining walls may be designed utilizing a triangular distribution of at-rest earth pressure. Retaining walls may be designed utilizing the following table:

| Height of Retaining Wall (feet) | Cantilever Retaining Wall Triangular Distribution of Active Earth Pressure (pcf) | Restrained Retaining Wall Triangular Distribution of At-Rest Earth Pressure (pcf) |
|---------------------------------|--|---|
| 35 feet                         | 42 pcf   | 65 pcf  |
| 40 feet                         | 45 pcf   | 65 pcf  |
| 45 feet                         | 47 pcf   | 65 pcf  |
| 50 feet                         | 49 pcf   | 65 pcf  |
| 55 feet                         | 50 pcf   | 65 pcf  |

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures.

Seismic wall pressure, surcharge design recommendations, and subdrain recommendations provided in the referenced geotechnical report remain applicable for the proposed development.

### **SHORING DESIGN**

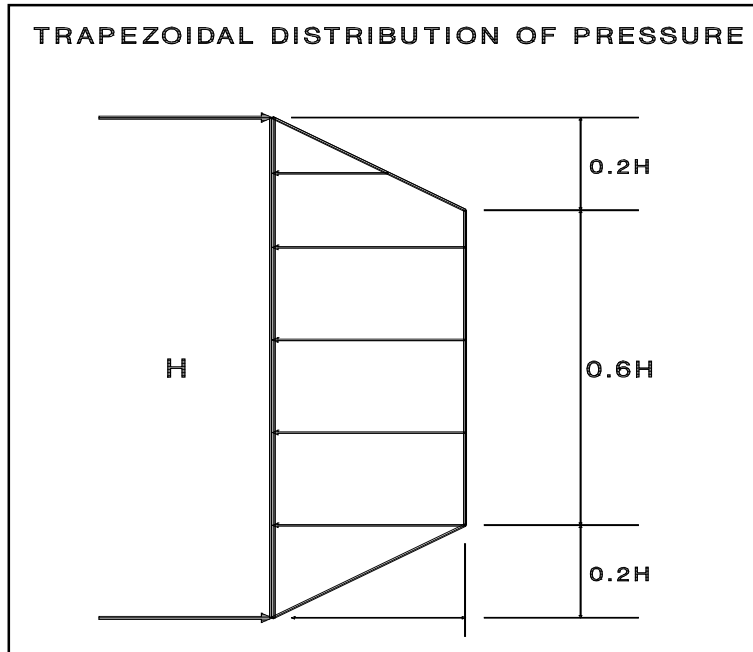
A triangular distribution of lateral earth pressure should be utilized for the design of cantilevered shoring system. A trapezoidal distribution of lateral earth pressure would be appropriate where shoring is to be restrained at the top by bracing or tie backs. The design of trapezoidal distribution of pressure is shown in the diagram below. Equivalent fluid pressures for the design of cantilevered and restrained shoring are presented in the following table:

| Height of Shoring (feet) | Cantilever Shoring System Equivalent Fluid Pressure (pcf) Triangular Distribution of Pressure | Restrained Shoring System Lateral Earth Pressure (psf)* Trapezoidal Distribution of Pressure |
|--------------------------|---|--|
| 40 feet                  | 40 pcf  | 26H psf  |
| 50 feet                  | 45 pcf  | 30H psf  |
| 55 feet                  | 48 pcf  | 32H psf  |

\*Where H is the height of the shoring in feet.



Tieback and lagging recommendations are provided in the referenced geotechnical report and shall remain applicable for the proposed development.



Should you have any questions please contact this office.

Respectfully submitted,  
GEOTECHNOLOGIES, INC.

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