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March 25, 2014

Donald W. Davies, P.E., S.E.
Senior Principal

Mr. Ed Ghandour
Security National Guaranty
505 Montgomery Street, 11th Floor
San Francisco, CA 94111

Subject: **Monterey Bay Shores Resort**
Sand city, California

Re: Building Foundations

Dear Mr. Ghandour:

This letter is to provide a structural engineering opinion on the foundation requirements of the Monterey Bay Shores Resort. In order to provide this opinion, we have reviewed the following documents:

- Monterey Bay Shores Vesting Tentative Map, October 21, 2013
- Civil Engineering drawings of plans and site sections, by Bestor Engineers, Inc., January 17, 2014
- Geotechnical Site Feasibility Study by Jacobs & Associates, February 6, 1987
- Geotechnical and Coastal Engineering Update, by Haro, Kasunich and Associates, October 23, 2013
- Response to Coastal Commission Information Needs, by Haro, Kasunich and Associates, December 23, 2013, and January 16, 2014

We understand the project will include a four story structure, between elevations +22 MSL to +65 MSL, with resort wings up to 9 stories, with a top roof at +122 MSL. That provides for uneven structural loads throughout the resort.

Based upon the above information, the boring logs from the Jacobs & Associates Geotechnical Site Feasibility Study, and further consultations with John Kasunich of Haro Kasunich and Associates geotechnical engineers, it is our opinion that deep foundations with pile construction will be required as part of this's project's development.

Pile foundations in many locations will be both the most appropriate, safest, and least environmentally impactful way to address site foundation issues. As one example, there are numerous site retaining walls that will be required as part of this development. These retaining walls could be built with open-cut excavations and backfilling of a cast concrete retaining wall on a mat footing. However, the amount of soil disruption on site could be significantly reduced if soldier piles and lagging were used for these retaining walls. This would allow for vertical cuts at the face of the excavations, minimizing further site disruption.

Similarly, given the variability of the site founding layers across the site and the deflection sensitive nature of this project (both for below grade, buried concrete structure water protection, and for brittle finishes of public and hotel room and resort spaces), a deep foundation solution that involves piles or caissons will

Structural + Civil Engineers

1301 Fifth Avenue, Suite 3200 Seattle, Washington 98101-2699
T: 206 292 1200 F: 206 292 1201 www.mka.com



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be the most appropriate and safest foundation solution. Material disruption to existing site conditions will be minimized if piles are used. This allows foundations to be smaller and other forms of soil remediation can be avoided, minimizing site impacts for the construction of a resort as proposed on this property.

With pile foundations, slabs on grade would be designed to span between the piles as an elevated structural slab. Should future site settlement or liquefaction from a seismic event cause the soils below the slab on grade to settle, interior project finishes would be protected from damage with the spanning slab. This approach also allows for the minimizing of ground drainage systems and other site soil preparation prior to building the slab on grade. In our review, we have not considered any wave action or other ocean-related site impacts from water.

Because the appropriate founding layers are relatively shallow (generally starting between 15' to 40' below grade from the Jacobs and Associates borings from 1987), the pile lengths could be relatively short, although final determination and analysis is needed. Pile designs would not be finalized until appropriate geotechnical design recommendations are provided and final design loads are understood. However, given the expected shorter pile lengths required, if necessary at a future date, pile foundations as noted above can be removed or cut off below the elevation of the bottom of the footings.

Attached is a sketch that describes the solution proposed above.

If you have any questions regarding the above recommendations, please let me know.

Sincerely,

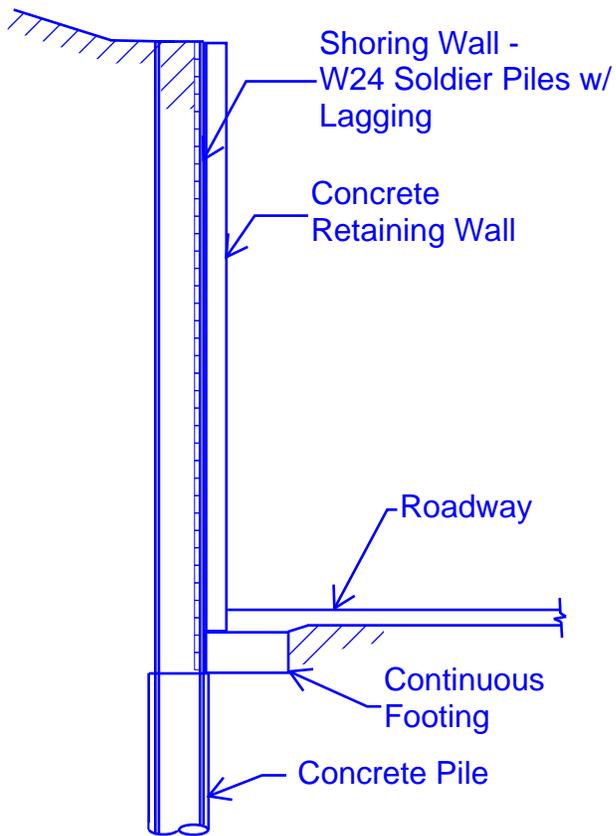
Magnusson Klemencic Associates, Inc.

Donald W. Davies
ddavies@mka.com

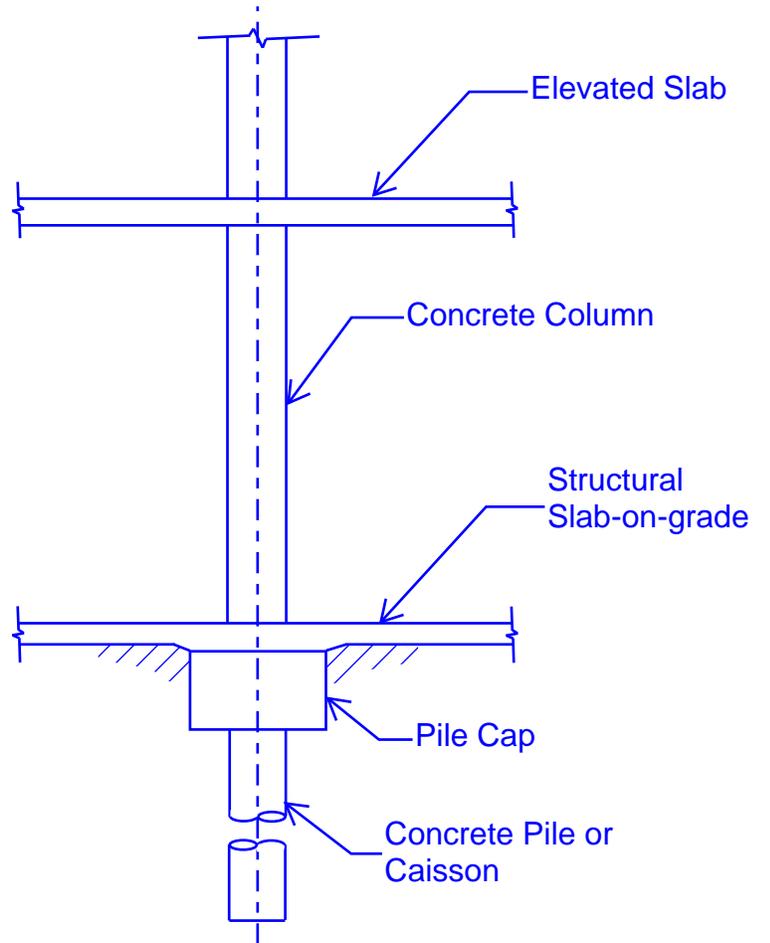
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Attachment

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Retaining Wall Detail



Interior Column Detail

Note: Single caissons or pile groups based on 3d pile spacing would be used for deep foundation solutions, subject to final loading and geotechnical criteria development.