

# The Aman Hotel at 3401 Collins Ave Miami Beach, FL



OKO Group  
4100 NE 2<sup>nd</sup> Ave  
Unit 307  
Miami, FL 33137

Attention: Mr. Kevin Dunn

Subject: Aman Hotel – Miami Beach, FL 33140

The amazing new Aman hotel at this iconic Miami beach site includes a three-level basement within the property and under the existing tower.

To accomplish this new Miami Beach feat, several successful techniques (proven in previous South Florida projects) provided by Keller North America (prior HJ Foundation and Hayward Baker) are proposed.

The project will commence by removing the existing sheet piling installed for the previous 1 level basement. Subsequently the East and South Facades of the existing building, which are to remain and preserved, will be underpinned via jet grouting (See description attached) to minimize its settlement. A Metal structure bracing will be built and installed to secure the remaining facades against vertical and lateral loads, such as wind, during construction and while it gets attached to the new structure.

Following, a complete property perimeter sheet pile and/or secant pile wall will be installed, including partitions and existing building support as required for the excavation, tremie pour and dewatering to allow for safe, water controlled, permanent waterproofing installation and basement construction.

Similar projects in South Florida (with YouTube links) among others:

Aston Martin [https://youtu.be/khgfAtmzc\\_c](https://youtu.be/khgfAtmzc_c)  
Estates at Acqualina <https://youtu.be/x6x2tjcETmY>  
Monad <https://youtu.be/k-rEhDggIFY>  
601 Washington  
Raleigh Hotel  
Oceana Bal Harbour  
Auberge Condominiums <https://youtu.be/ram6CpX-Hkc>  
Residences by Armani <https://youtu.be/w2fJp1oOI2I>  
Turnberry Ocean  
Optima Plaza <https://www.youtube.com/watch?v=cDxrYI87Yzw>  
River Landing <https://youtu.be/5AFZq1BtD6U>  
Ocean Wave  
Via Mizner (II, III)  
830 Brickell

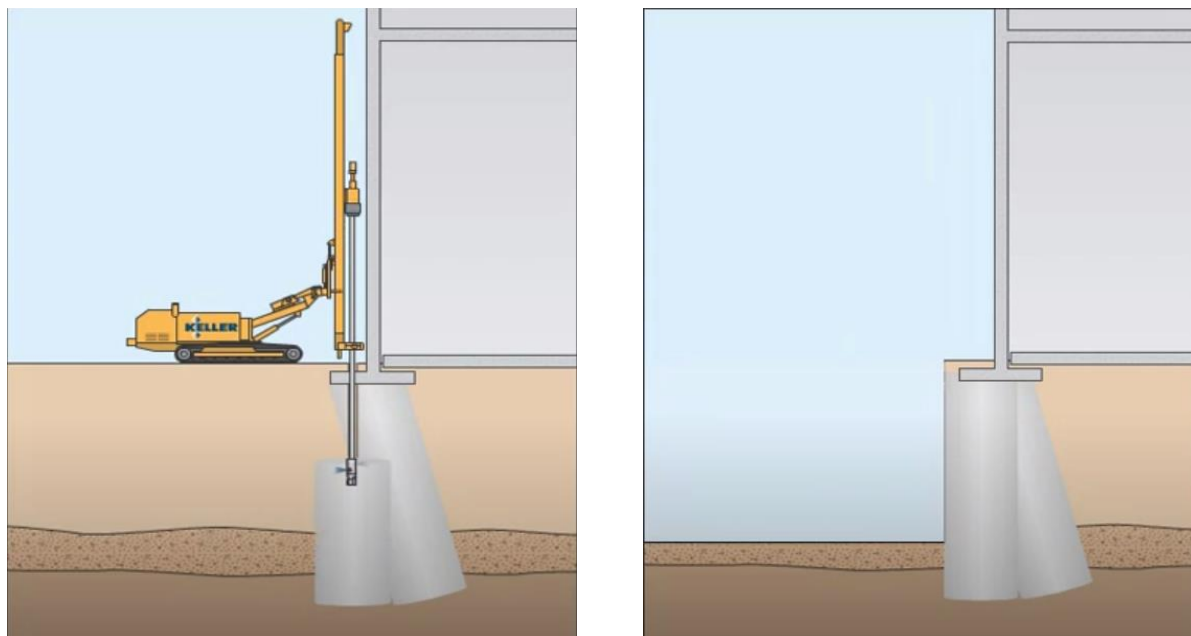
## Underpinning

Underpinning provides additional support to existing foundations that are unable to safely support existing or future loads.

Foundation underpinning techniques bypass the problem soils by installing structural elements to transfer the building's load to underlying competent soils or bedrock.

Jet Grouting uses high velocity fluid jets to construct cemented soil of varying geometries in the ground.

Video <https://youtu.be/u2MtF90NMXk>



## Process

Jet grouting creates in situ geometries of soilcrete (grouted soil), using a grouting monitor attached to the end of a drill stem. The jet grout monitor is advanced to the maximum treatment depth. Then high velocity jets (cement grout with optional water and air) are initiated from ports in the monitor. The jets erode and mix the in situ soil with grout as the drill stem and monitor are rotated and raised.

The jet grouting process constructs soilcrete panels, full columns, or partial columns with designed strength and/or permeability. The soilcrete geometry and physical properties are designed based on the in-situ soils.

## Quality assurance

With 40 years of experience, working across the globe, Keller has seen and completed more jet grouting projects than any other contractor in the world. Our robust design, testing procedures and experience provide us confidence in knowing when the technique can be used and also most importantly what the limits of application are.

To meet the intent of the project and ensure that the jet grout program is successful, an in situ test program is generally installed prior to production. Based on review of the project borings, the application, and previous project experience, initial jet grout

parameters (or sets of parameters) are established and executed in the field for the test program. The test program will specifically demonstrate the column spacing, overlap, and geometry of the jet grouted elements. The test program will also verify consistency of the grout batching, evaluate the equipment functionality, and confirm the real-time recording and reporting of the jet grout parameters. All of these processes are used to establish a standardized protocol for each specific soil type that is consistent and repeatable for the production columns.

Keller's proprietary data acquisition (DAQ) system enables us to continuously monitor and record specific jet grout parameters at the rig. The DAQ interface provides real-time information to the drill rig operator, while the column construction data is uploaded wirelessly to a server soon after completion to be used for report generation. These reports can then be reviewed in near real-time by project management and submitted to the client.

### **Secant piles**

Are columns constructed adjacent (tangent) or overlapping (secant) to form structural or cutoff walls. From soil mixing to drilled shafts, Keller draws on its complete suite of techniques to optimize the design and construction of these walls.

<https://youtu.be/1uQmTDNM2RA>

### **Process**

The columns are constructed using Cased CFA/auger cast. Sequenced construction of the elements helps ensure a tight connection to minimize water intrusion (final waterproofing and concrete wall will follow). The design incorporate beams for reinforcement. Bracing and walers provide additional lateral support, if needed.

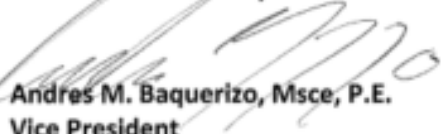
### **Quality assurance**

We use the latest technology, testing regimes and best practices protocols developed over many years to ensure the position, verticality and structural integrity of our pile walls.

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Please contact us for additional information

Keller North America, Inc.



Andres M. Baquerizo, Msce, P.E.  
Vice President

