

  
■ Domestic Buildings

## Reference Details:

**Client** The Wiese Family, Miroquesada, Lima, Peru +++ **Main Contractor** Augusto Cánepa Ingenieros, Lima, Peru +++

**Consulting Engineers** Gallegos Casabonne Arango Ingenieros Civiles S.A.C., Lima, Peru

**DSI Services** Supply, preparation, assembly, testing and prestressing of 32 permanent DYWIDAG Strand Anchors with double corrosion protection in sizes 3 up to 12-0.6" and of 3 tendons with 12 greased, sheathed strands dia. 0.6".



## DYWIDAG Permanent Strand Anchors for seismic upgrade of an apartment building in Peru

### Kontiki Apartment Building, Playa Punta Hermosa, Lima, Peru

This project is a five-floor apartment building built on Kontiki beach directly on the sea in front of a 30 m high cliff face consisting of fissured limestone. The structure consists of four reinforced concrete frames supported by four inclined columns whose foundations in turn are anchored into the rock using permanent anchors. Each beam of the structure was anchored into the rock using the same method so that a total of 32 permanent DYWIDAG Strand Anchors with double corrosion protection in sizes from 3-0.6" up to 12-0.6" were used.

The anchors, with total lengths of 21.50 m to 32.50 m and bonded lengths between 6 m and 10 m, were installed with an inclination of 5 degrees for beams and 50 degrees for columns. For this purpose greased and PE-sheathed strands with a combined length of 6,000 m were used for the entire structure.

For the beams of the first floor the strands had to be extended from the anchor heads to the opposite ends of the beams to post-tension the 11 m long cantilever structure. To this end couplers of type R 12 dia. 0.6" with greased, sheathed, and individually stressed mono strands were used.

Construction, strictly carried out in accordance with the recommendations of the Post-Tensioning Institute (PTI), was completed in July 2002. The Kontiki Building is the first project of its kind in Peru.