



RESTORATION of the FLAGLER MEMORIAL MONUMENT Miami Beach, Florida



Client/Owner
Team Contracting, General Contractor/City of
Miami Beach, Florida

Location
Flagler Island, Miami Beach, FL

Project Dates
2008-2009

Materials
Concrete
Cast stone

Services Provided
Treatment
Documentation

Conservation Solutions, Inc. (CSI) treated the 1920 cast stone and concrete monument in 2009. Work was based on our assessment and the architect's and engineer's recommendations. The logistics of working on the unoccupied island were a major challenge of the project. Each day, a team of skilled craftsmen were ferried to and from the isolated island in Biscayne Bay from Miami Beach to work. All water, materials, and equipment had to be loaded at the site by barge and crane.

The entire monument was first cleaned by a combination of low pressure water-jetting. Loose and flaking paint and previous repair parges were removed from the obelisk to expose sound original surfaces. Areas were sounded and where necessary, damaged concrete was cut back to a sound surface and to expose deteriorated rebar. The rebar was blast-cleaned to bright metal and treated with a corrosion inhibitor and a protective coating. All losses and spalls were then rebuilt using restoration mortars. Cracks were injected with a compatible grout. The entire structure was then coated with a potassium silicate paint matching the historic color.

Work on the figures was more extensive. Each had suffered damages from vandalism and corrosion of the internal reinforcing. Extensive surface erosion had deteriorated the legibility of the forms. Inexpert repairs over the monument's 80 year life had further masked the modeling. Each was cleaned using the JOS/Quintek Microabrasive System and was then treated with a biocide. Loose fragments of the parge were then carefully chipped away to reveal the substrate. Replacements for missing and damaged arms, hands and feet were modeled and cast in restoration mortar. Each figure was then coated using similar methods and materials to the obelisk.