

## DESIGN & POST TENSIONING APPLICATION OF CEMENT SILOS

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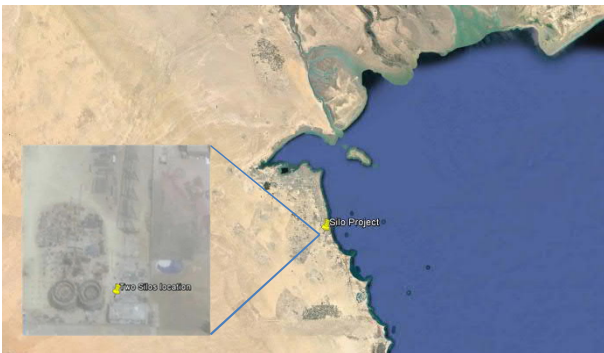
### Abstract

The design & erection of two (2) cement silos for a cement grinding plant is a demanding study requiring engineering competence and high level of efficiency and maintainability. Optimal operating conditions must foresee from the design stage assuring a high quality and a silo-safe cement.

**Keywords:** Cement, silo, post-tensioning (PT), anchorages, buttresses, prestressing, hopper.

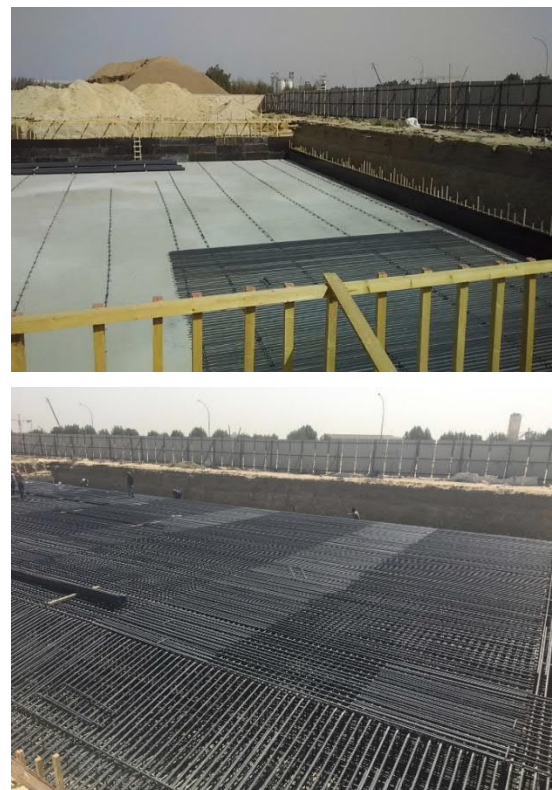
### 1 Introduction

The project is located in the State of Kuwait (*Figure 1*) and is under an advanced phase of construction (expected to be accomplished by the end of 2017).



*Figure 1. Location of the project*

The cement plant consists of a two adjacent and practically identical silos, each having an external diameter of 16,8 m and a height of 60,43 m from foundation level (56.33 m from the natural ground) (*Figure 2*).



*Figure 2. Foundation views*