

Case Study

How Concrete Chiropractor was able to solve concrete settlement for a fraction of the cost of replacement.



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Introduction

Heller Construction Co. of Edison, NJ who specializes in the construction and leasing of warehouses contacted Concrete Chiropractor regarding a concrete warehouse floor repair project at one of their locations.

Problem

Heller Construction Co. was under contract with a new tenant and needed a fast and cost-effective resolution to their sunken concrete floor problem. Due to time restraints and costs prior to the tenant taking occupancy, concrete replacement was not a viable option.

The concrete warehouse floor area consisted of six bays, or an area totaling 108' x 68' or 7344 square feet. Some areas had dropped as much as 5 ½" inches.

Concrete Chiropractor had met onsite with a Heller Construction maintenance foreman and an assessment regarding the extent of settlement and damage of the warehouse facility floor was made. It was determined that replacement of the floor area was not necessary and could be raised and stabilized for continued use using the time-tested process of Mudjacking.

Heller Construction contacted Concrete Chiropractor after receiving three quotes including an option for poly foam concrete raising. It was determined that due to the high cost of poly foam and apparent risks using this less proven approach, traditional mud jacking was their most cost-effective option.

Heller Construction contracted with Concrete Chiropractor and a start date was scheduled to expedite the repair.

Resolution

Mud jacking is the process of pumping material under a sunken slab of concrete to lift it. This is accomplished by drilling holes in the concrete and then pumping the material below the surface through the holes which raises the sunken concrete.

A hole placement mark out pattern was established and 1 ½" access holes were then drilled throughout the six bay area that was settled. A Portland cement-based grout mix was then pumped beneath the six bays of commercial warehouse floor area that was effected by settlement.

A total of 27 yards of grout material was pumped beneath the concrete bay areas. The access holes were then patched with a quick setting high strength cement.

Results

A typical replacement cost for this area would be in the \$110,000 range. *Concrete Chiropractor* was able to save the floor area for roughly $\frac{1}{3}$ of the cost. In addition to replacement cost, concrete cure time typically takes 28 days.

Concrete raising had the following advantages and benefits:

- Substantial cost savings over replacement
- Very limited down time compared to replacement
- Prevents loss of lease income over replacement
- Less invasive with less disturbance over concrete replacement
- Had lower cost over poly foam option

In a period of days, the affected floor area was raised and repaired; hence ready for immediate use and tenant occupancy. In comparison to concrete replacement, *concrete raising* proved to be the more viable alternative.