

## Aggregate – Granite Rock Company

**Customer:** Granite Rock Company

**Operations:** The Granite Rock Company out of San Jose specializes in aggregate mining and production. The facility of interest in this case is the Aromas, California location that deals strictly in sand and gravel.



**Problem:** The aggregate/cement industry suffers substantial maintenance expenditures due to aggressive impact and abrasion in their core product lines. Typical problems include aggregate wear, erosion and corrosion of the metal substrates on material chutes, sand screws, end loader/dump beds, augers and conveyors – anywhere materials are transported and/or change direction.

In this particular situation, an aggregate chute was constantly being damaged by impact and abrasion. Several steel plates (approximately 2ft square) with 2" of mechanically attached rubber were fastened to the chute to protect it. This proved to be a short-term solution as these plates only last about three weeks before requiring replacement.

The abrasive movement of the granite wore through the rubber facing to the steel plate and into the steel chute. Repair and replacement of the chute in this type of application is costly in both materials and labor.



**Considerations:** Alternative products such as mechanically fastened UHMW, rubber or even polyurethane sheet stock were considered. However, these solutions were found to offer only short-term, ineffective and expensive shortcut treatments to serious aggregate wear problems.