

ONTARIO
**KNOW-HOW
IN ACTION**

BELZONA[®]
GREAT LAKES

005/2021

**HOSPITAL
STAIRS
CONCRETE REBUILD**


BELZONA[®]
Repair • Protect • Improve
AUTHORIZED DISTRIBUTOR

THE PROJECT

STAIRS REPAIR
APRIL, 2013

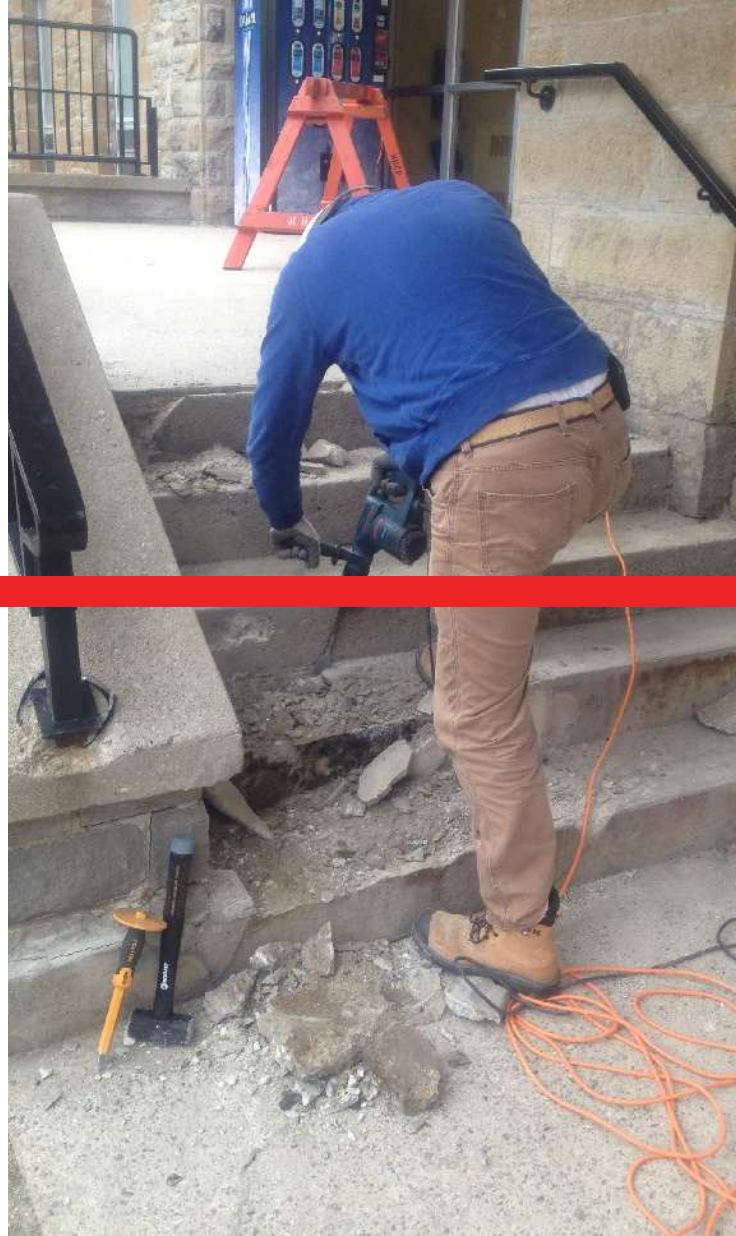
Four sets of stone steps at a hospital in Penetanguishene, Simcoe County were severely damaged and required large amounts of rebuild done in a cost effective and time critical manner.

It is important for healthcare facilities to ensure preventative maintenance schedules are set up in order to maintain operations without interruption. The repairs had to be done with no to minimal downtime and with no interruption to the operation of the facility.

RESTORED & PROTECTED

The steps had suffered severe damage and spalling caused by weathering, salt and freeze thaw effect. Large cracks and spalled stone were visible making the usage of the steps dangerous.

Rebuilding the steps with the traditional solution of casting concrete will mean long disruptions to the hospital staff, and patients. In addition, new casted concrete will deteriorate when exposed to the harsh Ontario weather just like the old steps.



THE SOLUTION

The damaged stone was removed back to a firm substrate. Due to the extent of the damage forms were created and Belzona 4154 (Bulkfill Resin) was mixed with locally sourced aggregate and packed into place. Once cured the forms were removed and 1/4" of Belzona 4131 (Magma-Screed) was applied over the stair treads and risers. To protect from further weathering and salt, Belzona 5231 (SG Laminate) was applied over the steps with a high visibility yellow Belzona 4411 (Granogrip) stripe at the edge of the step tread.

SLIP RESISTANT



The application was completed in a timely manner as each set of steps took between 3 - 4 days to complete.

Belzona 4154 (Bulkfill Resin) is an epoxy-based resin that can be easily mixed with a variety of locally-sourced aggregates at a simple mixing ratio. It can be used to fill large areas before being overcoated with a Belzona protective coating.

Belzona 4411 (Granogrip) is a hard-wearing safety grip system which creates a durable, slip-resistant surface. This system does not deteriorate easily and it reduces the potential for accidents in the long term.