CASE STUDY

CRESSY TERRACE SLOPE STABILISATION



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INTRODUCTION

Following the 2011 Canterbury earthquakes, a loess slope above the Lyttelton Tennis Club courts on Cressy Terrace in Christchurch suffered partial collapse. In early 2016, stabilisation works were undertaken to restore the slope and protect surrounding infrastructure.

PROCESS

Abseil Access was contracted to carry out slope remediation, which included soil nailing, drainage installation, and shotcrete application. The repair design called for a staggered grid of 28 soil nails, each 6 metres deep and drilled into 150mm diameter holes using a drill mast mounted on a 5.5-ton excavator. The 25mm epoxy-coated threaded steel bars were fully grouted. The slope face was first reprofiled to a smooth 70° angle before drilling. After nail installation, geocomposite drainage strips and SE82 reinforcing mesh were placed, followed by a 150mm thick shotcrete layer applied from an Elevated Work Platform.

OUTCOME

All works were completed within specification and timeline. Quality assurance testing was successfully conducted, and the final installation exceeded the design requirements, delivering a structurally sound and durable slope stabilisation solution.





