

STRENGTH OF ANCHORS IN REBAR CONCRETE PANELS & TENSILE TESTING OF ANCHORS IN UNREINFORCED MASONRY STRUCTURES

Esther Gudiel
13 July 2012

University of Auckland, New Zealand

Project Proposal

- Research the response of specifically measured rebar, concrete panels with anchors under tensile loads
- Test the pull-out strength of adhesive anchors used in the seismic retrofit of unreinforced masonry buildings

Week's Progress

- Installed both horizontally straight and bent anchors into masonry walls
 - Both grout and epoxy were used for installations of straight and bent anchors
 - Needed to saturate the drilled holes so that the masonry would not drain the water from the grout
 - It was also necessary to clean out the drilled holes of any leftover dust, in order for the adhesive and masonry bond to be at its highest capacity
 - Length parameters of 100 mm, 200 mm, and 300 mm anchors were measured and installed into the masonry building
- Tested the strengths of each anchor
 - Displacement tests were done on anchors so the amount of strain corresponding to the stress applied could be graphed and recorded for later analysis
 - Length parameters of 100 mm, 200 mm, and 300 mm anchors were measured and installed into the masonry building
- For each wall of anchor installation, brick and mortar samples were cut out and stored for later testing
 - Bed-joint shear tests were also conducted



Goals

- Analyze compression tests on brick and mortar samples
 - Organize the recordings from the anchor tests and be on the look out for any patterns of anchorage strength for each adhesive
- Observe the response of compression tests on rebar concrete panels



On our way to Wanganui



Eating fish & chips, still wrapped in paper, on Palm Beach



Arts & crafts fair held by locals on Waiheke Island



Enjoying different chocolates and biscuits