

# CASE STUDY

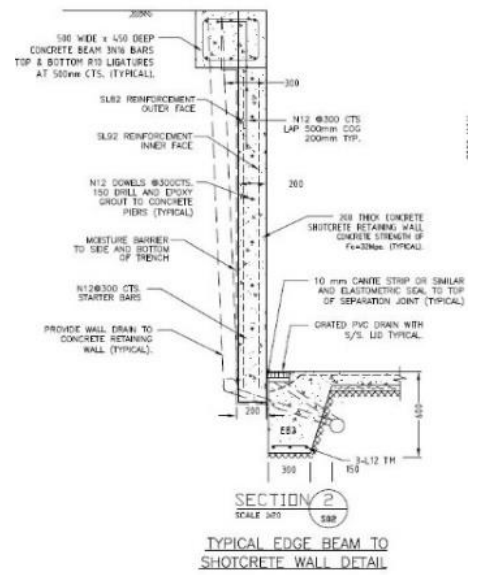
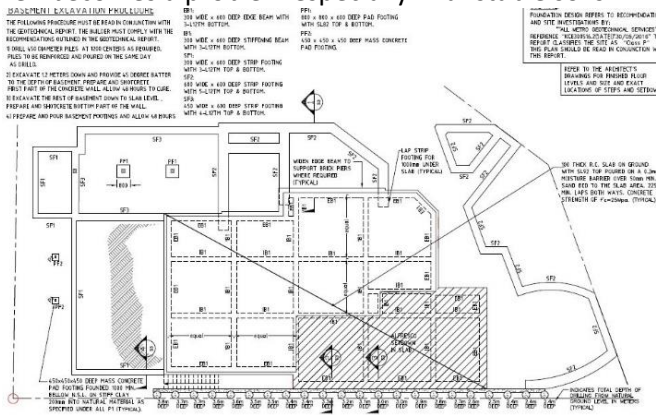
## BEHIND A SHOTCRETE BASEMENT WALL

**Location:** Pascoe Vale, Melbourne

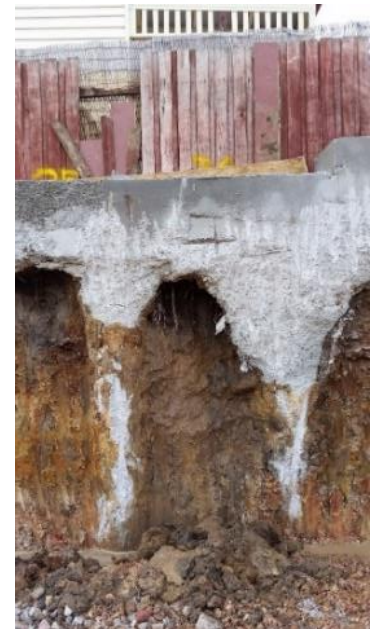
### The Situation

With the price of housing always on the rise, and the shortage of good blocks within a short distance of the City, there is a tendency for an increasing number of “knock-downs” where an existing house in a good location in an established suburb is demolished and a new house built. The downside is that these are often on relatively small blocks. Further, sometimes there are height restrictions that limit the size of the new house.

To maximise the space on the block, this owner/builder decided to build right on the boundary and to excavate to create a basement. This called for shotcrete walls for the foundations and the resulting basement walls. Drainage then becomes a problem especially in unstable soils.



The architect specified strip drain and recommended Capiphon Drainage as an alternative to a well-known brand of slotted pipe that comes already covered with geotextile (sock) and is most often used in similar situations.



Click on the photos to see how the water coming from the adjacent property is flowing through the soil and is causing the soil to slump into the trench.

A 10-15 cm deep trench was excavated alongside the cut and filled with a layer of fine gravel which was then graded to achieve a 2% slope to the stormwater exit. Plastic sheeting was then laid over the gravel and Capiphon installed (as 3-metre pipes) and covered with another thin layer of gravel.



The plastic sheet was then folded back over the Capiphon and up the wall ready for construction of the steel mesh and subsequent shotcreting.



(insert photos/videos of outflow to sump when driveway completed)

