



Northern Piling Ltd

# Cuddyhouse Turbine

Fife

Civil Development

Case Study

## Project Overview

Client: BM Contracts Ltd  
 Engineer: Northern Structural Services  
 Sector: Civil  
 Value: £18k  
 Description of works: Design, supply & install precast concrete piles to form foundations.



## TECHNICAL DETAILS

Pile Type: Precast Concrete  
 Pile Length: 5m - 9m  
 Pile Testing: 9no. Dynamic Tests  
 No. of piles: 13no.  
 Pile Size: 250mm sq  
 Working Load: 600kN Compressive + 35kN Shear



NPL were contracted to design, supply and install precast concrete piles for a wind turbine just off Cuddyhouse Road in Fife. The new turbine would replace the broken turbine which had been lying dormant on the site since malfunctioning shortly after its installation.

Problems were encountered in manoeuvring the rig on and off site due to the narrow access road, although this was quickly rectified and piling operations were able to begin as promised. Northern Piling opted for the design of specialist piles with additional steel reinforcement cast within them due to the scale of the structure and the increased lateral loading of 35kN it would have to sustain. The 250mm square cross section also offered plenty of resistance to the 600kN compressive load provided by the turbine.

The project took a total of 1 day to complete, with all 9no dynamic tests being carried out during this time.

