



sps|envirowall
TOTAL RENDERING SOLUTIONS

System Built **Housing**

Airey Units

3rd Edition, 2010

System Built Housing



Airey Units

Airey houses such as those pictured were built shortly after the Second World War under the Temporary Housing Program 1944 - 49.

The houses, which were constructed from pre-cast concrete panels, were meant to provide temporary accommodation but were often built to such a high standard that many of them survive to this day.

The Airey houses are basically prefabricated concrete boxes made from concrete columns 104mm x 57mm reinforced with a small steel tube. They are clad with thin concrete cladding panels fastened to the columns with copper wire. A large proportion suffers from cracked columns. Cracking is worse in areas of high exposure. Corrosion of steel tube arises from contact with water and loss of alkalinity. (Carbonation.)

System Built Housing

Recommendations

Visual inspections should be carried out removing panels at the base and identifying the level of corrosion. Sampling and chemical analysis of the concrete should be carried out to identify the depth of carbonation and the chloride content of the concrete.

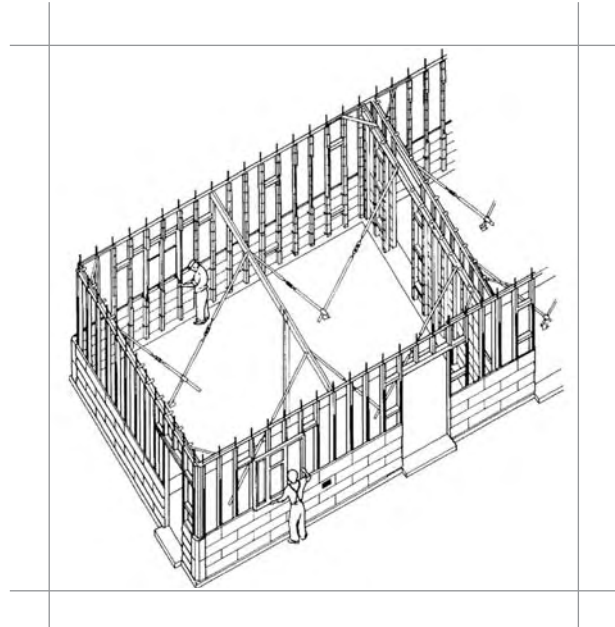
Repair- cracked bases should be cut off and removed the tubes pressure grouted and new column bases cast. In some extreme cases ring beams have been cast which incorporate the new bases. If the columns are cracked along their length they should be replaced by timber steel or concrete. External insulate and render to protect the frame from further water ingress and eliminate the risk of interstitial condensation

Specification

To achieve 0.35 W/m²K,

- **Adhesive Mortar (5mm) - optional**
- **Insulation**
 - EPS – 90mm
 - Rockwool - 80mm
 - Phenolic – 50mm
- **Nylon Insulation Fixings**
- **Base coat (4mm)**
- **Reinforcement mesh**
- **Top Coats (2-15mm)**
 - Enviro**dash**
 - Enviro**brick**
 - Brick Slips
 - Eco**rend**/Granicem L Monocouche Renders
 - Enviro**sil**/Enviro**cryl** top coat

For a full technical consultation, survey and project specific report and specification please contact **sps|envirowall's** technical department.



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