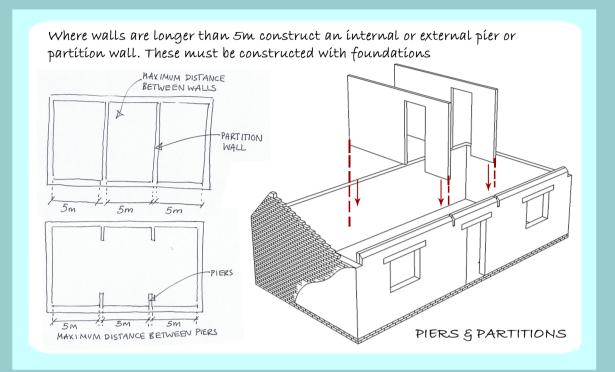
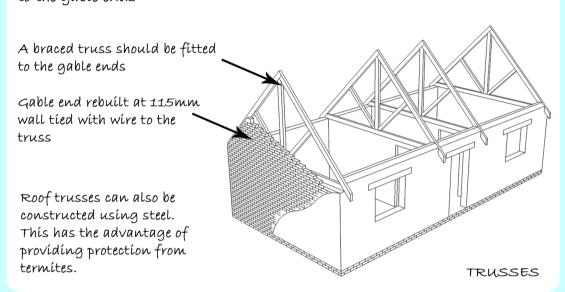
Guidelines for Safer House Construction

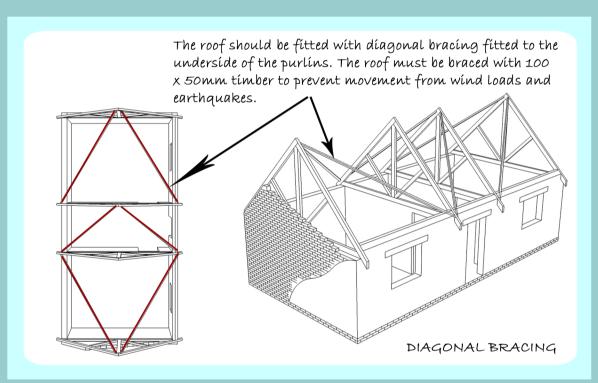
Retrofitting - improving existing houses

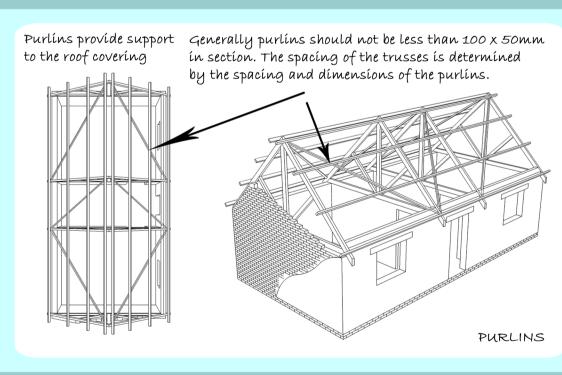
STRENGTHENING THE ROOF STRUCTURE

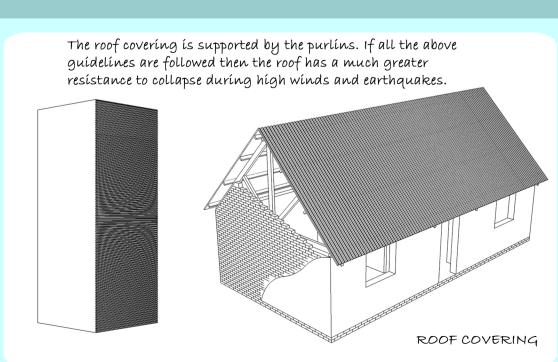


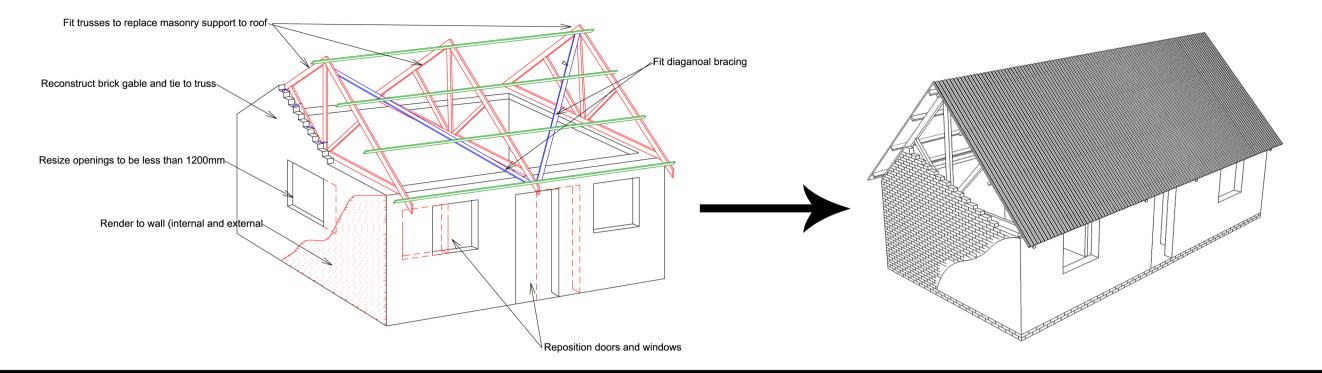
Gables should be removed and a hip roof constructed or a braced truss fitted to the gable ends









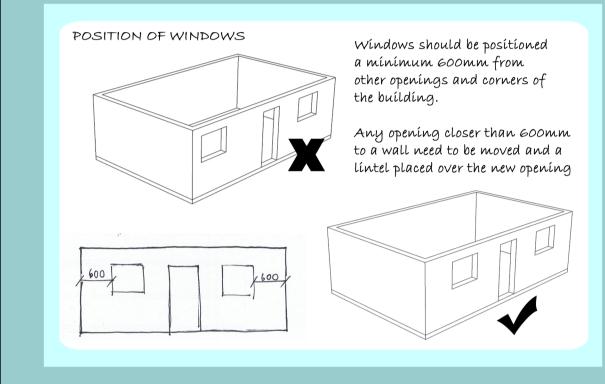


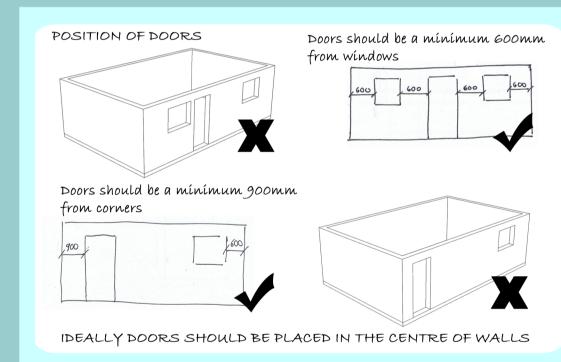
RETROFITTING

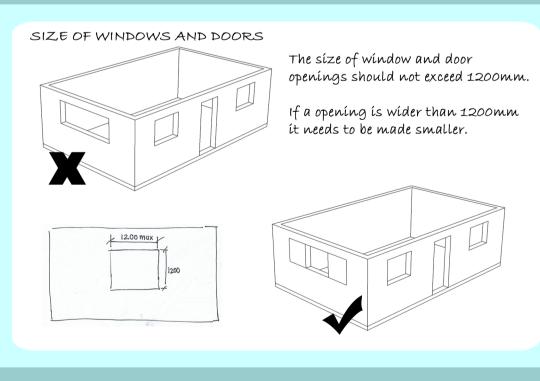
RETROFITTING IS THE PROCESS OF MAKING AN EXISTING STRUCTURE STRONGER.

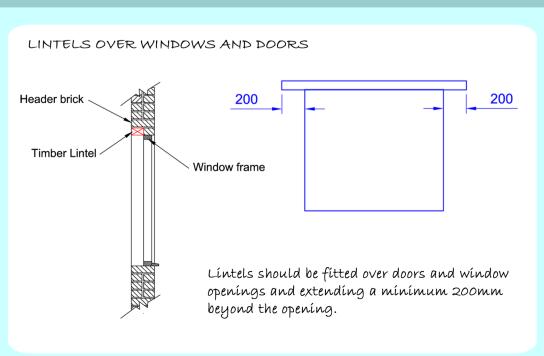
THE SUGGESTIONS IN THIS POSTER DEMONSTRATE HOW THIS CAN BE DONE.

WINDOW & DOOR OPENINGS

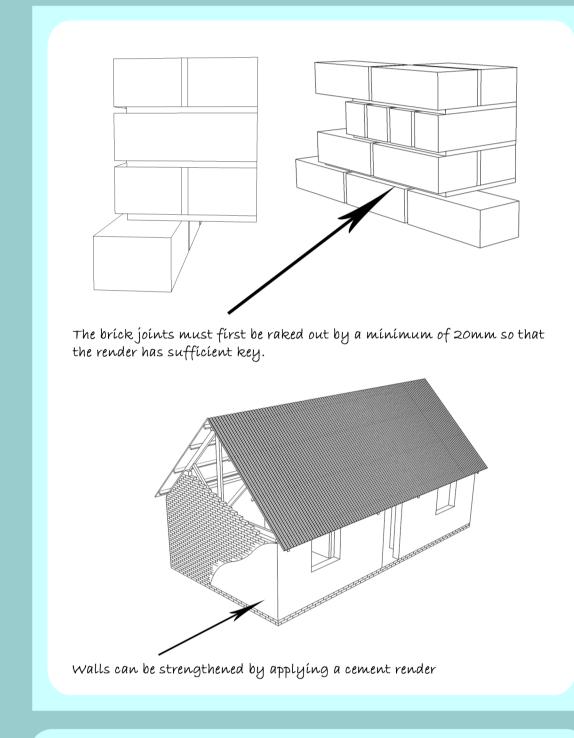




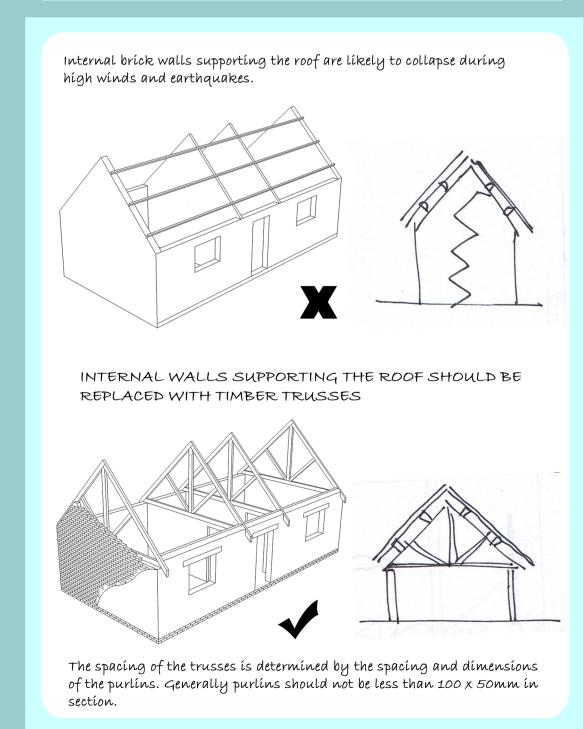




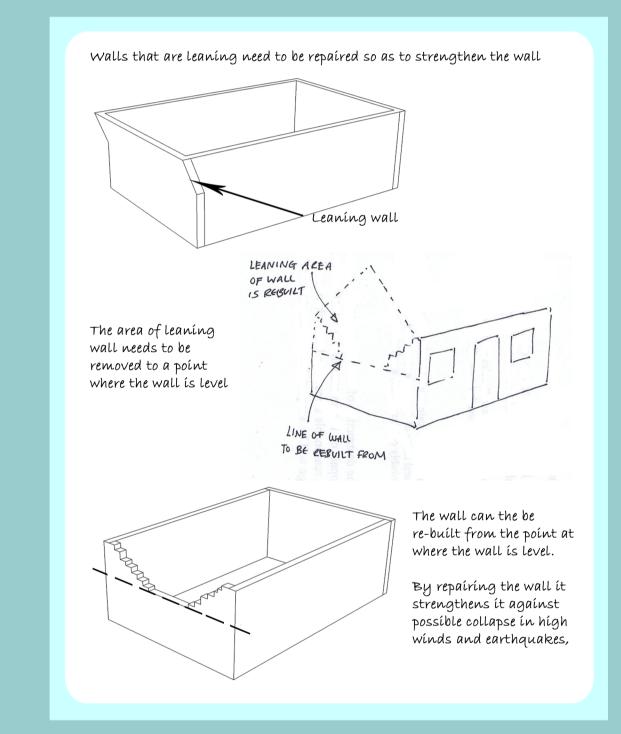
APPLYING CEMENT RENDER TO WALLS



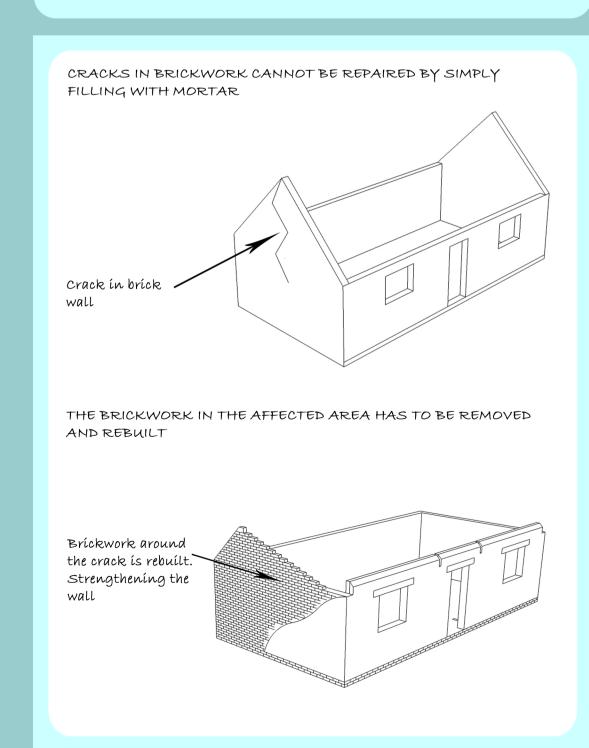
REMOVING INTERNAL SUPPORTING WALLS



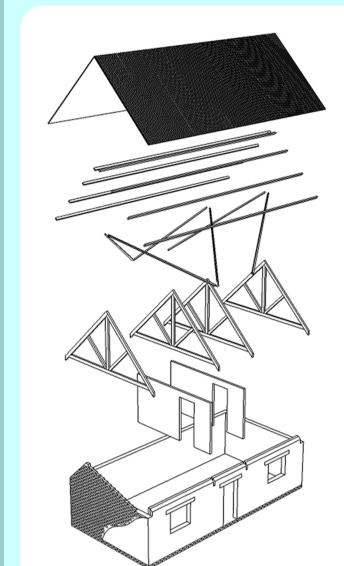
REBUILDING LEANING WALLS



REPAIRING CRACKS IN WALLS



RETROFITTING TO STRENGTHEN HOUSES



1. Provide additional fixings for roof covering at ridge and eaves

2. Purlins support the roof

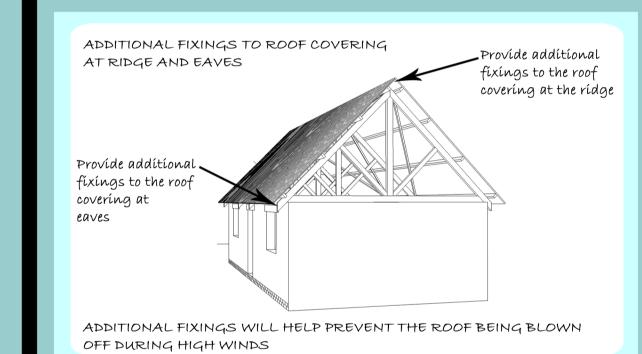
3. Díagonal bracing strengthens the roof structure by preventing sideways movement

4. Roof trusses strengthen the roof structure, and help to prevent collapse during high winds and earthquakes

5. The maximum space between walls should be 5m. Internal partiton walls or piers can be used to support longer walls.

6. Window and door positionings should be a minimum 600mm and 900mm respectively from corners of buildings

ADDITIONAL FIXINGS TO THE ROOF



TIES FROM WALL PLATE OR RAFTERS

