

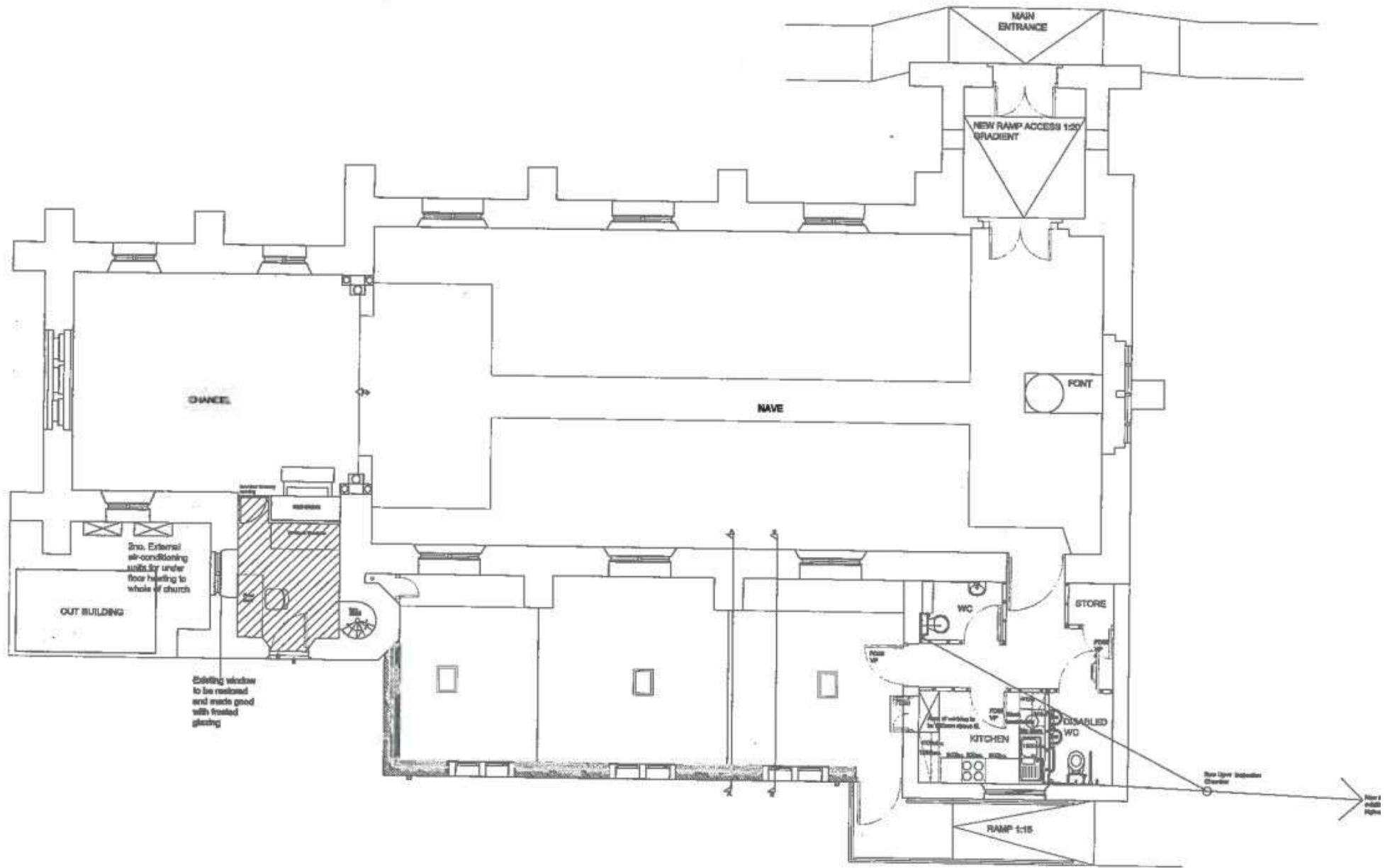
Air source heat pumps – Lynne Tomlinson



St Mary the Less, Allerton Bywater, and its new annex

church interior before reordering





Interior of reordered church and new annex (2011)

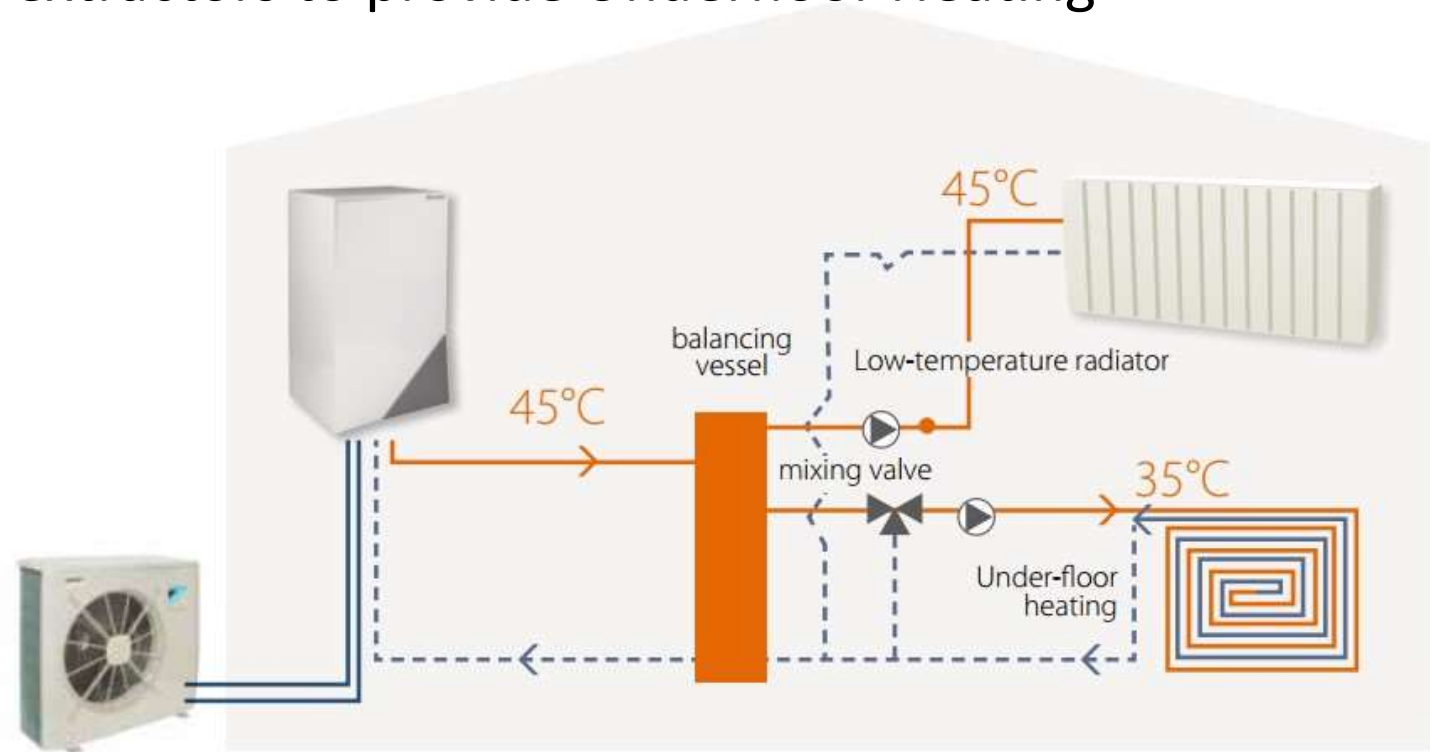


Problems:

- expensive, very greedy heating
- insufficient heaters, to cost £21,000 to buy 3 replacements
- consumed a lot of gas
- usually used both in summer and winter
- inefficient, unpredictable, unreliable
- hot spots and cold spots
- noisy
- generally distracting, and ugly

Solution :

- Air Source heat extractors to provide Underfloor Heating





Reordering in progress,
showing expanse of underfloor heating.



Issues :

- Where to site the Air Source Heat exchangers.?
- Where to site the pumps to pump the heat around?
- Where to site the thermostat?

Learning from our mistakes

- Find the right location.
- Facing south best, then east, then west, then north.
- Allow space for exhaust gas to dissipate.
- Allow time for “radiator” to heat up.

Managing expectations



Because...

- Sit near a door..... you will get drafts
- Sit by the wall..... it will be cooler
- Still dress for the conditions
- It won't be as warm as your living room, you are heating a barn.
- 21degrees? Unrealistic
- 18 degrees, sometimes
- 16 degrees, attainable

Further considerations

- Think for the future.
- Don't miss opportunity. Later may be too late.
- Consider your floor covering.
 - Carpet is the best insulator therefore a poor conductor
 - Wood, a reasonable insulator and a better conductor
 - Lino, like Kardean,
 - Ceramic or porcelain tiles the best conductor.

Summary

- compare Air Source to what we had before
- it is more efficient and cost effective
- cost of power last year was £2200 -
- but we generate more income and it facilitates our mission
- the fresh air is free.
- there is some heat in air, even when it's cold.
- likely to be more, with global warming.

let's invest in it,

extract it

and use it