Please see enclosed files for some background, the area I want to fit UFH to is shown in view 1 and view 2 photos and associated floor plan and perspective view.

- 1. The area under discussion is a 74 sq meter, highly glazed, single storey extension along the whole length of a stone 200 year old building to current building regs to house a kitchen /dining sitting area.
- 2. In the immediate future, I plan to install under floor heating in the lower 65m2 (kitchen/dinning room) shown in pink
- 3. A 13kW Kensa GSHP is installed and as it will be feeding some of the original radiators in the house the flow temperature is set for 45 degrees. The manifolds will not have a mixing valve.
- 4. Manifold, heat pump and buffer tank positions are shown in red. Pipes to be sleeved and penetrate through wall into kitchen area
- 5. A Wilo pico 25/1-8 pump is feeding the manifold and the radiators
- 6. The area has a 100mm thick reinforced concrete slab with 120mm Celotex beneath There is DPC above and below the Celotex which sits above sand blinding
- 7. I plan to use some form of tile trays such as low profile profix plus
- 8. I have between 50-55mm of height available before my tile and cement or a total of 70mm of height before getting to the finished floor level.
- 9. I am hoping to DIY the UFH and get in a firm to pour liquid screed.

I have received conflicting advice regarding the wisdom of my approach. I had hoped that the large thermal mass consisting of the 100mm slab and the additional makeup of screed and tile would stabilize at a comfortable temperature albeit slowly. However I have had several comments saying the floor surface will never get warm enough to warm the room.

So I am looking for advice about a suitable UFH design