



I had long dreamt of building my own recording studio; the idea had been kicking around for years since past experiences signing to Decca as a teenage bubble-gum pop prodigy. Decca's demise finished my early career path but with several recording sessions under my belt at the age of 13, and mixing with record producers, arrangers, session musicians and engineers, this left a lasting impression on me. Many people with a passion for music find themselves doing a daytime job to pay the bills while aspiring to a professional role in music or simply doing it for pleasure. That's me, a regular guy with a day job and an average wage but there is some depth to my musical resume, including performance, live sound engineering, DJing and music production underpinned by a HND in professional sound engineering. The opportunity for the studio design and build came about when I saw a freehold detached bungalow for sale that came with a lot of land and the owner wanted out, quick. It was perfect for development and was in a regeneration area with millions being spent knocking down buildings and rebuilding. Planners were keen for new ideas and it all looked good for my vision to be realised.

I purchased the building in 2001 with a standard mortgage and set about drawing sketches of different layouts to find a good working flow. It took another five years to find the courage to start the project. Borrowing more money to finance the build could potentially leave me having to sell the home if it all went wrong so the only way to afford doing a proper job was to carry out the design and build myself. It was all very scary — I knew I was handy at DIY, but we all think that!

In 2006 I submitted plans that were passed without problems. The key was to apply for planning permission for private residential use at first and to make a further application for change of use once the building was built and established. House prices were spiralling upwards creating equity in the property and I took the opportunity to remortgage £32,000 to start the build. I had a good idea of how the studio layout should look and what materials would be used for the build. I had several books for referencing design, but I kept going back to *Recording Studio Design* by Philip Newell. It was a favourite and essentially my bible of studio design.

Building work started January 2007 raining non-stop for a month, filling up the trench works and halting progress. I bought a digger and a small dumper for £5,000 to move materials around the site and complete the ground works, selling them afterwards to recoup the cash. By August the walls were going up and the whole building shell, roof and windows were completed by June 2008. I did all the work to keep costs down while continuing my full time job which was taking up 50-60 hours a week — building could only be done at weekends and a couple of nights a week.

The build was quite daunting at times; project managing, counting costs and redesigning plans as new information was found. I found it easier to complete small chunks of the build at a time, although there were some frustrations — suppliers were unreliable, things turning up late, substandard or unusable.

Further top-up loans of £50k and £25k were drawn down, putting me on the edge of maximum borrowing. My wife was made redundant, and so was I, three times! The lack of expendable cash and long hours working put a strain on our relationship too, no holidays or Christmas cheer. What had I done? Times were desperate, but there was no going back.

Building Summerfield Studios

Studio owner **PHIL CROFT** traces the development, opening and commercialisation of his self-built facility in Birmingham.

With the roof on, doors and windows sealed, it was time to get cracking on the internal structure. The first room finished would be the live room and I would soon hear the resulting acoustics. All studio areas were 'room within a room' designs for acoustics and isolation. The live room construction uses 215mm solid concrete blockwork between studios and 300mm concrete cavity walls externally. The brickwork was first lined with 30mm RW3 Rockwool glued to the walls; 100mm studwork was built and lined with dead sheet on the side facing the wall. A 12mm thick layer of EPDM rubber strip 100mm wide was glued to the bottom rail of the studwork panels. Once stood up, all the wall panels were coach bolted together to form the floating perimeter wall and in-filled with 100mm RW3 Rockwool, faced off with two overlapping layers of 12.5mm plasterboard. Eco Joist Girder beams supported a web of timber joists to form the inner ceiling structure that sits on the perimeter wall to complete the shell.

The inner and outer ceilings are a composite layer of 100mm RW3 between joists, 12.5mm plasterboard, and then 30mm RW3 sandwiched with another 12.5mm plasterboard, separated by 150mm airspace. This was for each ceiling layer. The whole structure was sealed with silicon at every joint and layer to ensure the room shell was airtight.

The floating floor was a simple design of a 150mm reinforced concrete floor pad covered with 30mm layer of Rockfloor panels, 22mm tongue and groove chipboard flooring, 3mm layer of underlay and 21mm French Pine tongue and groove flooring, and a separate floating drum riser.

The walls and ceiling frames are coach bolted together. This floating structure is very strong and weighs several tons. A layer of deadsheet in the walls is sandwiched between two layers of Rockwool and acts as a limp membrane panel absorber to control sound reradiating from the concrete containment shell. The result is a very well behaved room acoustic with excellent sound isolation.

The live room was whitewashed initially with a view to revisiting interior design and décor at a later stage. Then November 2009 my father died. He was proud of my achievements, loved music but would never see the finished result. I put together a makeshift control room, linked into the live room and recorded my eldest brother Keith singing an acoustic version of *Dance with my Father Again*. It was appropriately the first recording in the studio so we played it at the funeral service.