

# WEST AUDIO & DESIGN LTD

bespoke audio visual solutions for houses of worship and public spaces

## CASE STUDY

### **Church of the Sacred Heart, Lauriston, Edinburgh – APRIL 2011.**



Referred to us by Seb Jouan, acoustic consultant at ARUP, this became a project of many parts.

#### **1. Main Church Sanctuary**

Many preachers no longer use the Pulpit, favouring a more central, Altar-based approach when conducting their offices. Historically, churches are designed around the acoustic positioning of the Pulpit, and so if this primary position changes, the natural acoustic no longer works well.

As can be seen from the photograph (left), this is a big space, measuring 15m x 40m x 16m high, and has an excellent natural acoustic.

In order to maximise intelligibility and coherence, the space was modelled using EASE Focus™ software and the system was designed around the TC Electronic X024 loudspeaker management system, in combination with 4 x 400W channels of TOA amplification and 4 pairs of Tannoy i7 column loudspeakers. Delays and system Equalisation was applied to the X024 using RT analysis, and results achieved 100 percent client delight, with many positive comments received from preaching staff, choir members and

congregation alike. The Induction Loop system, based on an Ampetronic ILD1000 was re-aligned to produce a frequency and field strength map to IEC 60118-4:2006, with full certification supplied by our team. In order to maximise the use of the system for AV and live acoustic music, an 8-channel Soundcraft sub-mixer was supplied with a dedicated main system line input near the Altar. The existing Inter-M PP9214 mixer was re-used to save on budget costs. We also supplied Beyer Opus600 handheld and tie-clip wireless microphones to complement the package.

#### **2. Main Hall**

An unfinished AV installation due to contractual problems is never a good thing, when the Client has spent thousands of pounds and many months on an architectural refurbishment and upgrade program (see right).

Always up for a challenge, our team was approached to complete the AV installation, which included tracing and re-wiring all microphone points, re-configuring the HDMI projection system and re-aligning both the front end TOA 1212 mixer/pre-amp and PDA200/2 Induction Loop systems.



### 3. Back Hall



Houses of worship have, nowadays, to adopt many ways of attracting new and existing members. Sacred Heart Church, in its Society of Jesuits teaching role, made the decision to adapt one of their many small halls into a “mini film theatre”. Our team installed the latest Mitsubishi HD video projection systems, with Onkyo/Tannoy components supplying the Dolby Digital™ surround sound “wow factor”. A Sony BluRay player completed the line up.

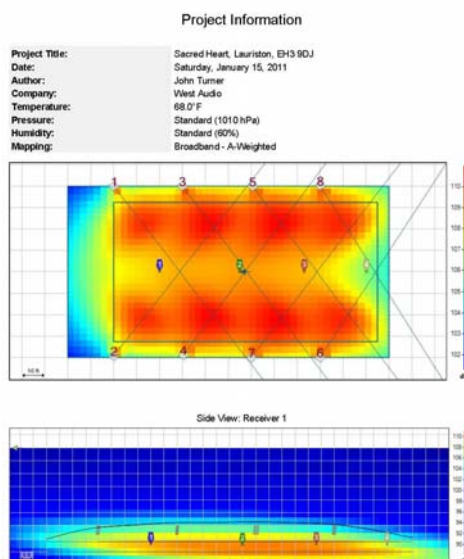
To complement these features, we added a PDA200E induction loop system, with a live mic feed (for floor presenters) and a line input from the Onkyo AV receiver.



The system rack in the Main Hall.

HD Video and XGA signals access the roof-mounted HD projection system via HDMI & XGA Baluns and CAT6 network system, fully patchable throughout the Hall.

EASE Focus 2, Version 2.0.11



Acoustic model of the Church space, using EASE Focus™ software.