

The behavior/nature of the reverberant sound field's acoustic room modes associated with the control room is also critical – again usually for the lowest frequency modes. Afore-hand design *e.g.* of the geometrical shape of the control room can help to reduce such problems. Frequently, the rear portion of a control room has many diffusing-type surfaces (as discussed above) to spread out/disperse the sound waves reflecting off of the wall surfaces at the rear of the control room. Frequency-specific sound absorbing resonant cavities (such as those discussed above) can be placed *e.g.* in the corners of the control room to specifically absorb/damp problematic room modes of the control room. A well-designed “top-down” control room in a recording studio might look something like that shown in the figure below:

