

Breadth Topics:

Since the acoustics in the Proscenium Theater were a major concern in the original design of the project, there will be a comparison of the acoustical benefits of the underfloor air distribution system with the design constant volume overhead distribution system. The main comparison will be the noise level reduction associated with the underfloor air distribution system.

The underfloor air distribution system will change the structure of the Proscenium Theater. In order to accommodate the underfloor system an air plenum is built under the floor. The Proscenium Theater consists of two floors of seating, the main level which seats the majority of the audience, then the balcony seating area. The raised floor for the plenum needs to support the balcony. The air system by which air is supplied to the balcony will depend on the feasibility of creating a plenum on the balcony level. The new floor structure will be analyzed to ensure loads of the balcony will be met.