St. John’s Seminary Chapel, Archdiocese of Boston  
Brighton, MA

LOCATION: Roman Catholic Archdiocese of Boston, 2121 Commonwealth Avenue, Brighton, MA 02135

SCOPE OF CONSULTING: Speech-reinforcement sound system design

COMPLETION DATE: Designed 1999 / Installed 1999

ARCHITECT: David Perry Architects (preservation & restoration architect)

ASSOCIATED ACOUSTIC CONSULTANT: Marshall/kmk Acoustics, Chappaqua, NY

REFERENCES: Fr. Chris Coyne, Director of Liturgy (seminary office: 617-746-5463)  
David Perry, architect (617-497-0032)

DESCRIPTION: Restoration of a historic mid-19th century Italianate-Romanesque-style chapel with antiphonal (collegiate) seating and elaborately-decorated marble, wood and polychromed plaster interior. Speech intelligibility was always difficult in this tall, narrow and highly-reverberant space—a new speech-reinforcement sound system was designed to address this deficiency.

Digitally-controlled, steerable line-array loudspeakers were recommended as one of two possible loudspeaker designs, and selected by the seminary as the most-viable solution. Two 9’-tall medium-resolution line-array loudspeakers are surface-mounted on the front nave wall. Unfortunately, architectural decoration—even custom painting—was deferred due to lack of funding.

Other sound system features include a “hands-free” mixing system for masses, supplementary loudspeaker system for the chancel, an independent sound system with column loudspeakers at the rear of the chapel for reinforcement of the cantor or a choir soloist, assisted-listening system for the hearing impaired, and modest speech & music recording system for audition of seminarian sermons or archive use.

A separate refectory (dining hall) sound system was also included in the project.

Acoustics advice included consideration of existing materials, finishes, exclusion of pew cushions, and musical communication issues relative to the raised choir stall, adjacent pipe organ console and overhead pipe organ case at the rear of the chapel.
NAVE AND SANCTUARY – VIEW FROM REAR NAVER