



DAVID H. KOCH THEATER AT LINCOLN CENTER, NEW YORK, U.S.A.

PROJECT. The New York State Theater at Lincoln Center is the home venue of both the New York City Opera and the world-famous NYC Ballet for which it was originally designed. However, over the years, the NYC Opera increasingly lost the audience's favor as compared to the nearby Metropolitan Opera. In addition, the Theater's acoustical deficiencies and electro-acoustic enhancement system had long been subject to criticism. The necessary reconstruction and renovation measures also leading to a considerable improvement of the acoustics could be realized thanks to the capital donation of David H. Koch, a major patron of the arts. As a tribute to his generous funding, the Theater will bear his name for the next 50 years.

ACOUSTICS. The auditorium's considerable volume of 19,000 m³ with more than 2,700 seats as well as the reconciliation of the high, yet sometimes contradictory acoustical requirements of the Opera and the Ballet presented a special challenge for improving the acoustics. Some of the major and acoustically relevant renovation measures in the Theater were the installation of new seats, the re-design of the auditorium's surfaces as well as the extension and re-design of the orchestra pit. A special feature is the orchestra pit's mobile balustrade which can be either sound transparent or sound reflecting and thus influences the balance and brilliance of the orchestra sound perceived in the auditorium. The extremely silent ventilation system in the orchestra pit by means of a finely perforated floor with an air plenum was another absolute novelty. Due to the improved acoustics, nowadays the electro-acoustic enhancement system installed in 1999 is no longer in use in the New York State Theater.



CLIENT

New York State Theater
City Center of Music & Drama Inc., New York

ARCHITECT

JCJ Architecture, New York

PROJECT DATA

Planning / construction period	2007 - 2009
Room volume	19,000 m ³
Reconstruction costs	US \$ 107 million

SERVICES RENDERED

Room acoustics, building acoustics
Planning, status evaluation measurements

1 The renovated auditorium
2 The variable orchestra pit
3 Section of the acoustical computer model
4 Computer simulation of view to podium
Pictures: 1-2 Elliott Kaufmann; 3-4 Müller-BBM

