



MCKAY CONANT HOOVER INC
Acoustics and Media Systems Consultants



\$18 M RENOVATION OF INTERIORS & HVAC REPLACEMENT & REHEARSAL SPACES 2005



BEFORE

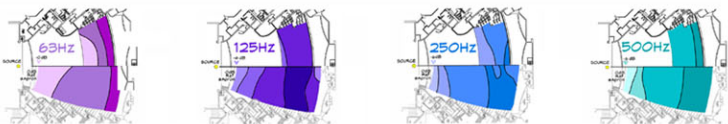
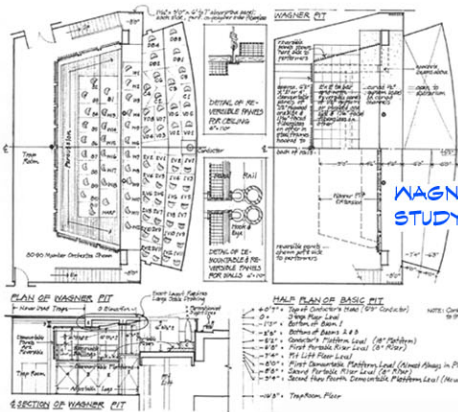


ALL NEW ORCHESTRA SHELL TOWERS AND CEILING RE-DESIGN 2001

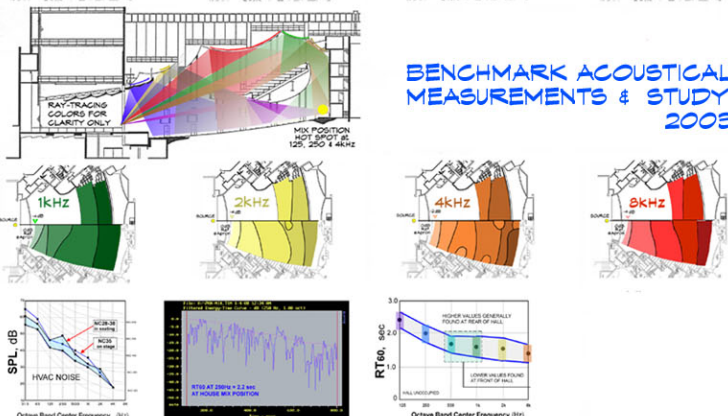


ALL NEW ORCHESTRA SHELL TOWERS AND CEILING RE-DESIGN 2001

MCH was retained by the City of Phoenix in 1989 to improve the acoustics for opera within the 2587-seat Phoenix Symphony Hall, originally built in 1972. The design solution could not affect the hall design overall, needed to minimize any alterations to orchestra shell, but enabled some improvements to the proscenium eyebrow in order to better “throw” voice sound out to the audience and at the same time improve the singer’s ability to hear the orchestra. Additionally, to serve Wagnerian opera, the orchestra pit required substantial redesign and expansion. The \$1.7M remodel was hugely successful and resulted in a growing opera program and attendance in subsequent years. MCH was again retained in late 2000 to fully redesign the old, original orchestra shell. At the time, orchestral balance and ensemble was poor, envelopmental sound was nearly absent throughout the hall, and what good sound there was, faded rapidly by 2/3 back into the orchestra level. Musicians’ morale was low. Working closely with the facility management and the maestro, MCH designed a new, completely custom shell that allows for rapid adjustments to accommodate different sized orchestras and chorus as well as Doc Severenson’s Pops orchestra. The new design, which incorporated all of the original monolithic shell ceiling structural elements, has solved the poor ensemble and balance on-stage, generated substantial envelopmental sound for the majority of the audience seating areas, extended the good sound to under the balcony overhang all by effecting specific changes in the shell and eyebrow alone. The newly-invigorated hall opened on schedule to a memorable Yo-Yo Ma program three days after September 11th.



BENCHMARK ACOUSTICAL MEASUREMENTS & STUDY 2003



In September 2005, the 2,387 seat Phoenix Symphony Hall reopened after its \$18.5 M renovations which included important acoustical upgrades provided by MCH. Richard Nilsen in the *Arizona Republic* commented "what had been an aural dead zone has come alive" with the hall "roughly 1000 percent better. The basses are no longer tubby, but can be heard with a rich transparency. The strings have more gloss. the wind solos have more bite." In addition, some simple but important modifications in the orchestra pit now enable the Arizona Opera to work considerably better with its orchestra.

Reference: Maryellen Gleason, President and CEO,
The Phoenix Symphony 602.495.1117

Visit: www.ci.phoenixsymphony.org

SYMPHONY HALL RENOVATIONS
PHOENIX, ARIZONA