The Hampton Synagogue – Westhampton Beach, NY

**LOCATION:** 154 Sunset Avenue, Westhampton Beach, NY 11978

**SCOPE OF CONSULTING:** Speech-reinforcement sound system design and noise control recommendations

**COMPLETION DATE:** Designed 2003 / Installed 2003

**ARCHITECT:** Eddie Jacobs (designer & visual artist)

**REFERENCES:**
- Rabbi Marc Schneier, senior rabbi (synagogue office: 631-288-0534)
- Rabbi Arial Konstantyn, assistant rabbi (synagogue office: 631-288-0534)
- Eddie Jacobs, project designer (Mishkenot, Israel: 011-972-50581843; USA: 917-749-8400)

**DESCRIPTION:** The Berman Sanctuary at The Hampton Synagogue is an intimate, contemporary-styled worship space built in 1993. The sanctuary seats about 200, and is used year-round by the small but growing Orthodox Jewish community on eastern Long Island. In summer months, however, the congregation—drawn from the many nearby summer homes and vacation communities—swells to three or four times the sanctuary’s seating capacity. Large folding glass doors, forming the north and south sanctuary walls, are opened onto awning-covered outdoor porches to accommodate the overflow worshipers.

When the porch doors are closed the sanctuary has supportive natural acoustics which are appropriate for the spoken word. Both the rabbi, speaking from the ahmud at the east wall, and the cantor, from the central bimah, can be heard and understood throughout the sanctuary. When the porch doors are opened, however, acoustical characteristics of the sanctuary change dramatically, with the result that congregants both inside and outside have great difficulty hearing and understanding the rabbi or cantor. Environmental noise in the synagogue’s neighborhood (including busy streets leading to the beach, volunteer fire department, power lawn machinery, and an active regional airport) frequently makes it impossible to hear anything inside or outside the sanctuary.

The congregation asked us to design a Shabbat speech-reinforcement sound system which would bring every word of the worship service to listeners inside and outside the sanctuary. They were particularly concerned that the design both meet the strict Halachic requirements of Jewish Law and be as visually inconspicuous and unobtrusive as possible. Small microphones are permanently mounted to the pulpit and bimah, with wires and connectors concealed inside floors and columns. Two steerable line-array loudspeakers in the sanctuary are discretely built into the walls, hidden behind panels wrapped in color- and texture-matched grille cloth. Continuous 8-meter horizontal “line-source” loudspeakers are mounted under the sanctuary roof soffit at the front of each outdoor porch, appearing to be part of the awning structure. This little-known and seldom-used loudspeaker design (which makes clever use of fundamental physics concepts) provides seamless coverage over the entire width and depth of the porch seating areas, but does not send amplified sound away from the sanctuary and toward adjacent residential properties. The result is an electro-acoustically superior speech-reinforcement sound system for the entire congregation, whether seated inside or outside. At the rabbis’ instruction the sound system is not used for Shabbat services when the sanctuary porch doors are closed. The system can also be switched to a non-Shabbat mode when needed for weekday meetings, lectures, concerts or other synagogue social events.

We worked closely with the Zomet Institute, of Alon Shevut, Israel, to ensure that the sanctuary sound system is in full compliance with Halachic restrictions of Jewish Law, and used only in accordance with guidelines set by the synagogue rabbis. Our sound system design is consistent with the architectural and liturgical fabric of the sanctuary, but does not compromise the goal of excellent speech reinforcement. Halacha and high quality speech amplification are not mutually exclusive!
YEAR-ROUND SANCTUARY – VIEW FROM REAR OF MEN'S SECTION

COVERED PORCH FOR SUMMER CONGREGATION – VIEW FROM LAWN