

# DARTMOUTH COLLEGE SOCCER FIELD

## INTEGRATING SOUND AND ATHLETICS

A COMMUNITY CASE STUDY - AUGUST 2008

### ABOUT THE FACILITY

When Dartmouth College soccer teams battle Ivy League rivals, they now have a top facility. Burnham Field became their new home in September 2007. Located in Hanover, New Hampshire, Dartmouth is America's ninth-oldest university. The field lies near a quiet residential area of Hanover, a town of 10,850 people.

Named for former coach Alden "Whitey" Burnham, who led the "Big Green" to its first Ivy League soccer championship in 1964, Burnham Field's bleachers hold 1,600 fans. A grass berm provides additional room for spectators. The natural turf field, constructed to NCAA standards, features field lighting and a scoreboard. Both Dartmouth's men's and women's soccer teams play home games there.



### THE SOUND SYSTEM

Dartmouth needed a sound system for basic athletic use, such as announcing starting lineups and playing the national anthem. That required a highly directional system ideal for a natural grass field. They also needed weather-resistant loudspeakers to withstand harsh New England winters.

"It had to be able to address the people in the grandstand," says Paul "PR" Appleget of Advance System Design, who installed the system. "So we needed to get sound to those people and



participants on the field, but simultaneously keep sound away from residential properties that bordered on Dartmouth's athletic field."

This required a system that provides exceptional directional control. Matt Moore of Cavanaugh-Tocci Associates (CTA), the primary designers of the audio system, selected Community's R6-51 loudspeakers.

"We only wanted to push the sound in one direction," says Appleget, the Lead Designer for Advance System Design. "And that was away from the poles, away from the neighbors, and onto the field. To get that level of pattern control, especially in the low frequency range, you have to choose a very large box."

### SOUND SYSTEM (CONTINUED)

Using two R6-51 loudspeakers offered the best solution according to Moore, but their size created another issue. "It had to be very big in order to be directional enough to keep the sound away from the residences to low enough frequencies. Figuring out how to make that size loudspeaker work on a big lighting pole was a challenge."

Appleget explains how the combined weight of the loudspeaker box and gimbal-type mounts meant raising a 700-pound mechanism into the air. With the help of a crane and personnel lift, the installation team managed to complete the task. Appleget made certain to correctly size the wire to keep it from losing energy over long distances. The team also installed and wired four smaller WET series W2-2W8 loudspeakers above the grandstand seating.

Nearly a year after the installation, Dartmouth's Assistant Athletic Director for Facilities and Operations Randy Meck had nothing but positive feedback. "We have been very pleased with the sound system. It probably has more on it than we actually need, but it's a fantastic system!" He also notes that they've yet to hear any complaints from their neighbors.

### EQUIPMENT HIGHLIGHTS

- Two Community R6-51 high-output three-way multi-driver arrays
- Four WET Series W2-2W8 dual 8-inch two-way systems
- QSC CX amplifiers with a single Biamp Nexia unit handling system DSP
- Shure ULX wireless microphones
- Shure SCM-800 mixer

### ABOUT ADVANCE SYSTEM DESIGN

Advance System Design works with numerous commercial, industrial, recreational, hospitality, medical and residential clients. A Community dealer founded in 2002, Advance System Design is located at 75 Maple Street, Burlington, Vermont 05401. They can be reached by calling (800) 660-8652 or by email: [advance.install@verizon.net](mailto:advance.install@verizon.net).

### THE LOUDSPEAKERS

There is a Community R-Series for every installation. Highly weather-resistant for outdoor applications, but appropriate for indoor use as well, the R-Series offers exceptional voice clarity and sound projection capability.



**R6-51**

Community's WET Series has long been known for delivering exceptional speech and music performance under the most extreme weather conditions. WET Series II boasts a number of significant enhancements.



**W2-2W8**

A copy of the R-Series Application Guide can be downloaded from our website [www.communitypro.com](http://www.communitypro.com). Our All-Weather/All-Purpose Loudspeaker System brochure featuring R and WET is also available for download from [www.communitypro.com](http://www.communitypro.com).

*Celebrating 40 years of innovative loudspeakers, Community has been a leading supplier of professional loudspeaker systems since 1968. Headquartered in Chester, Pennsylvania, Community distributes its products to over fifty countries on six continents.*

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