



■ PROJECT DETAILS

Pro Shop powered by '47, Boston, USA
Client: Boston Professional Hockey Association (BPHA)
Lighting Design: Hartranft Lighting Design, USA
Architect: Bergmeyer Associates, USA
Owner: AEC Solutions, USA
Photography: David Pires Photography

Sports Entertainment

For the newly relocated Pro Shop at Boston's The Hub on Causeway, Hartranft Lighting Design created a multi-layered retail and entertainment lighting scheme, that creates dynamic lighting scenarios alongside impactful retail illumination.



The Hub on Causeway in Boston, USA, is a joint-venture development of Delaware North and Boston Properties, consisting of more than 1.5 million sqft of mixed-use retail, office, hotel and residential space, as well as an expansion of TD Garden – home of the Boston Bruins NHL team and NBA’s Boston Celtics. This transit-oriented development is a significant investment that will bring substantial improvements to North Station, create major economic impact for the area, and enhance the vitality of this important district in the city of Boston.

As part of the project, the Pro Shop powered by ‘47, the official team store of the Boston Bruins and Boston Celtics, has been expanded and relocated to a prominent location at the Hub on Causeway entrance to TD Garden.

Bergmeyer, a Boston-based design collaborative channelled the core values of Boston’s sports teams – grit, heart, heritage and authenticity – when developing the designs for the new store, creating an immersive retail environment that celebrates Boston’s historic local sports franchises. The store design seamlessly blends exposed ceilings, honed concrete floors, large retail store fixtures constructed of rough-cut wood and welded steel, and an actual section of parquet flooring from the original TD Garden basketball court, complete with state-of-the-art audio-visual displays and digital signage.

The store experience is supported by a multi-layered retail and entertainment lighting scheme, designed

by Hartranft Lighting Design. Merchandise lighting is largely accomplished with Bruck’s SMARTrack LED track lights, while the architecture is complemented with supplemental ambient and accent lighting, which includes linear lighting with acoustic baffles for sound dampening, provided by the likes of ETC, Philips Color Kinetics, QTRAN and Focal Point.

Alongside this, hat displays have integrated LED shelf lighting, courtesy of QTRAN, mannequins stand atop LED backlit pedestal bases, and a 16ft diameter ring of light – Zaneen’s Glorious 5400 Suspension – encircles an enormous, centrally located t-shirt display. One of the most striking features of the Pro Shop is a floor-to-ceiling rotating jersey wall that displays Bruins or Celtics merchandise, backlit with Philips Color Kinetics’ PureStyle Intelligent Color Powercore RGBA linear LED grazers, programmed for each team’s home colours of gold and green respectively on appropriate game days.

The use of dynamic, DMX-led lighting to support the teams and events at TD Garden extends much further beyond the backlit wall display, as more than 40 ETC theatrical wash lights and 20 ETC moving heads, programmed with shows created by the lighting designers, indicate 30 minutes to game time, half time, game wins and, in real time, when a goal is scored during Bruins hockey games. To add drama and impact to these moments, the store’s retail lighting dims down, returning to operational levels when the shows conclude.

Previous Page A huge, 16ft ring of light, from Zaneen’s Glorious 5400 Suspension, dominates the Pro Shop’s central t-shirt display.
This Page The lighting system features linear RGBA LED grazers from Philips Color Kinetics, and is programmed for the home colours of gold and green for the Boston Bruins and Boston Celtics respectively.



When Hartranft Lighting Design initially presented concepts to the owners and store management staff, there were concerns about ease of use, due to inadequate lighting controls at the store's former location, which resulted in store staff using circuit breakers to control the lights. As such, it was important to have a simple, reliable user experience for the Pro Shop management and staff. Management therefore requested that the lighting have a time lock control to turn the lights on before opening and also after hours for restocking, and to automatically set the colour of the theatrical lighting based on team schedules. To meet these needs, the lighting designers knew that they would need one lighting control system that would integrate the retail store lighting and the lighting shows, and integrate with the lighting control system in the TD Garden arena and building exterior.

The merchandise types and store layout warranted an ability to group the track lighting by zones. The lighting designers felt that a wireless control solution would simplify installation, and allow for future 'grouping' of fixtures, if necessary. Further to this, they were intrigued by a new technology that would allow them to adjust the beam spreads of the track lighting without lenses or filters. This could then provide them with a tool to fine-tune the light distribution on the variety of merchandise displays from the shop floor.

They selected LEDRA Brands' Bruck track lighting fixtures, which incorporate Xicato complete solution light engines with Bluetooth wireless control and LensVector beam shaping. This combination met the lighting control and beam shaping needs of the project.

When it came to integrating the store's retail lighting and DMX-controlled theatrical lighting within the larger lighting control system of the TD Garden, Hartranft Lighting Design worked with local ETC representative Boston Illumination Group to specify components that would facilitate the eventual integration with the arena's large-scale Pharos control system.

Through speaking with the technical and engineering staff members at Xicato, Hartranft learned that ETC and Xicato had previously collaborated on another project that would enable ETC's Mosaic Show controllers to communicate with Xicato wireless gateways. The Mosaic Show controllers would also be able to send commands to other loads that include 0-10V and DMX control protocols. Again, this combination of lighting control capabilities met the needs of the project, and was incorporated into its drawings and specifications.

To facilitate commissioning, the lighting designers needed to identify and number each of the 250-plus wirelessly controlled track heads. Using reflected ceiling plan drawings, Hartranft

1. Merchandise lighting throughout the store is largely accomplished with Bruck's SMARTTrack LED track lights, while the architecture is complemented with supplemental ambient and accent lighting.
 2. Hat displays feature integrated LED shelf lighting, courtesy of QTRAN, while mannequins stand atop LED backlit pedestal bases.
 3. Because the previous lighting controls had been less than adequate, lighting designers worked with Xicato to develop a new reliable, simple and intuitive control system, perfectly meeting the needs of store employees.



The store utilises dynamic, DMX-led lighting to support the teams and events at TD Garden. This extends beyond backlit wall displays, as more than 60 ETC theatrical and moving heads have been programmed by the designers to create striking displays of light at key moments.

developed a colour-coded numbering system by store department, which helped with putting the light fixtures into groups and scenes. Xicato commissioning service representatives spent three days on site with the lighting designers, commissioning the wireless lighting system. During this time, they worked with the TD Garden's IT department to create a closed WiFi network communication with the ETC lighting control system. The general lighting was commissioned to recall four scenes – pre open, store open, dynamic show and after hours. Using the same lighting control panel, lighting designers worked to aim each track light and set beam angles. The ability to adjust each beam of light remotely from the shop floor made it very easy for the designers to make precise choices on various merchandise displays. Alongside this, Hartranft worked with Barbizon Lighting to programme the theatrical wash and moving lights to create the desired lighting shows, which would be triggered from the arena's lighting control system. Speaking on completion of the project Hartranft's Paula Ziegenbein said: "This was a very exciting design. Not only did the lighting need to reinforce the floor plan and make the merchandise look spectacular, we also needed to creatively integrate colour and movement to

make the store come alive, and all of this needed to be flawlessly integrated, which was extremely technical and challenging to execute. "This project demanded equal parts right and left-brain engagement, for sure. But how exciting to have these once unimaginable lighting tools available to make it all come together." With its highly complex controls design, this project is the first of its kind to combine Bluetooth wirelessly controlled lighting with beam shaping technology, that interfaces these light fixtures and others with 0-10V and DMX loads onto a single point of lighting show control that receives commands from the arena lighting control system. Tracey Zaslow of AEC Solutions added: "The Pro Shop staff are thrilled with the lighting automation, and the enhanced ability to make programming changes quickly and easily from their smartphones." The end result is a seamless system that takes the burden of lighting control off the store staff, and facilitates a dynamic, immersive retail environment for Boston's sports fans, concert goers, attendees of other TD Garden events, and rail travellers using Boston's North Station as a destination. ■ www.hartranftlighting.com

■ LIGHTING SPECIFIED

Bruck SMARTrack
 Bruck SMARTrack A25 Cylinders with Xicato XIM control
 Bruck SMARTrack E15 track fixtures with Xicato XIM control & LensVector beam shaping
 ETC Desire Series D22
 ETC DataTrack
 ETC Source Four Mini LED 4M Series
 Focal Point Seem 1 Acoustic
 Focal Point Seem 1 Recessed
 Philips Color Kinetics PureStyle
 Intelligent Color Powercore RGBA
 Philips Color Kinetics ColorBurst
 Powercore G2 RGBA Spot
 QTRAN KURV-RGBW
 QTRAN SW24/4.0
 SGM G4 Wash
 Zaneen Glorious 5400 Suspension

CONTROLS

ETC Unison Echo Relay Panel
 ETC Unison Mosaic Show Controller
 ETC Unison Mosaic Touchscreen
 ETC Nomad Puck Eos Series
 ETC ETCpad
 ETC Response DMX/RDM Gateway
 Xicato Intelligent Gateway (XIG)