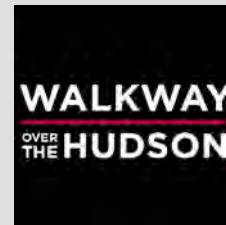




Photos Courtesy of The Dulanski Group

## PROJECT SNAPSHOT

Project Name: **Illuminating the Walkway Over the Hudson River Bridge**  
Bridge Entrance Locations: **Poughkeepsie and Highlands, New York**  
Completion Date: **September 2023**  
Committee Chairman: **John Storyk**  
Lighting Design: **Domingo Gonzalez and Matthew Hangad, [Domingo Gonzalez Associates](#)**  
ETC Representatives: **Nick Emerick and Gary Dulanski, [The Dulanski Group](#)**  
Local ETC Technician: **David Singer, [Lite-Trol Services](#)**  
Programmer: **Sam Updike, [At Full Lighting](#)**  
LED Light Fixtures: **[GVA Lighting](#) (RGBW fixtures)**  
City Theatrical Solution(s): **[Multiverse® Vero Transceivers](#), [Yagi Long Range Antennas](#)**



[Walkway Over the Hudson](#) is the nonprofit organization dedicated to supporting and improving Walkway Over the Hudson State Historic Park. This linear park spans the Hudson River between the Town of Lloyd in Ulster County and the City of Poughkeepsie in Dutchess County.

## CASE STUDY Q&A WITH GARY DULANSKI OF THE DULANSKI GROUP:

**City Theatrical (CT):** Hi Gary! Can you tell us more about implementing wireless DMX for the recent lighting update at Walkway Over the Hudson?

**Gary Dulanski (GD):** We were looking to incorporate Multiverse wireless DMX/RDM into the ETC Mosaic Show Control System we chose to operate the new RGBW LED light fixtures by GVA Lighting on the Walkway Over The Hudson Bridge.

We have used Multiverse wireless DMX/RDM before with ETC fixtures, and we knew it was reliable and would last, and the Multiverse Transceiver product would be perfect for this outdoor installation that stands high above the Hudson River, through the extremities of all seasons in beautiful upstate New York.

We used multiple sets of Multiverse Vero Wireless DMX/RDM Transceivers, encased in custom stainless steel enclosures by ETC, as well as long range Yagi Antennas by City Theatrical to relay the wireless DMX signal across the bridge from the administration building on the far west end of the walkway.

CT: Why was wireless DMX the right solution for this outdoor architectural lighting installation?

GD: It was cost prohibitive to have electrical conduit installed for a hardwired solution across the entire length of the bridge, so we knew Multiverse Vero wireless DMX/RDM was the right solution for this outdoor installation.

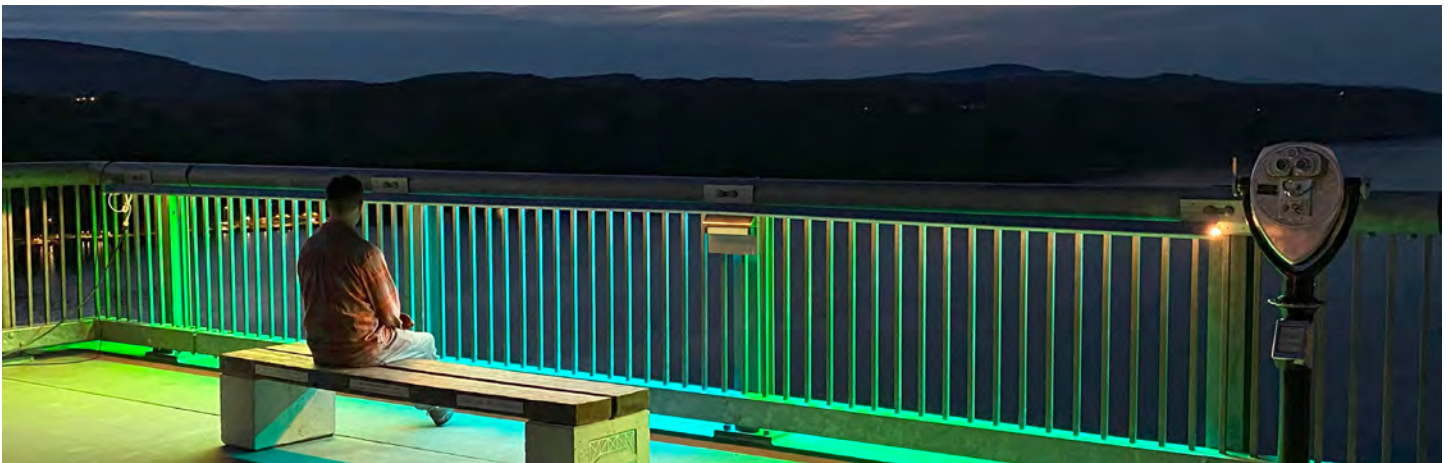
The team was not streaming DMX to fixtures, their system was set up to send DMX triggers to the ETC show controllers located at three locations on the bridge.

CT: Can you walk us through some of the steps in this expansive wireless DMX installation?

GD: Sure, let's start with some site photos of the Walkway Over The Hudson. The left photo shows the Walkway Over the Hudson Historic State Park sign. The right photo shows the bridge before the recent lighting installation.



GD: The lighted areas are called 'Belvederes'. There are three Belvederes spaced across the bridge. They act as lookout points and resting places for visitors.



**"We have used Multiverse wireless DMX/RDM before with ETC fixtures, and we knew it was reliable and would last, and the Multiverse Transceiver product would be perfect for this outdoor installation that stands high above the Hudson River, through the extremities of all seasons in beautiful upstate New York."**

- Gary Dulanski, The Dulanski Group





One of the long range Yagi antenna and Multiverse Vero Transceiver pair locations.

GD: The ETC Mosaic show controllers and City Theatrical Multiverse Vero Wireless DMX/RDM transceivers (shown above and right) are mounted inside of custom stainless steel enclosures, which are mounted to the railings around the bridge.

CT: What was your wireless DMX system composed of at each location?

GD: Most locations have a transmit and receive Yagi antenna and Multiverse Vero pair to relay the wireless DMX/RDM commands down the length of the bridge. The end locations just have one.

The locations are spaced and staggered as per the direction from City Theatrical's engineering team.



Custom stainless steel enclosures shown on the bridge



Walkway Over the Hudson State Historic Park entrance with Yagi antennas

“My colleague Dan Keenan and I set up each Multiverse Vero pair. We elected to configure in the 900MHz band, to prioritize a stable data transmission. The setup and configuration were a breeze with the beautiful high contrast screen on each Multiverse Vero, which is easily readable in the strongest sunlight.

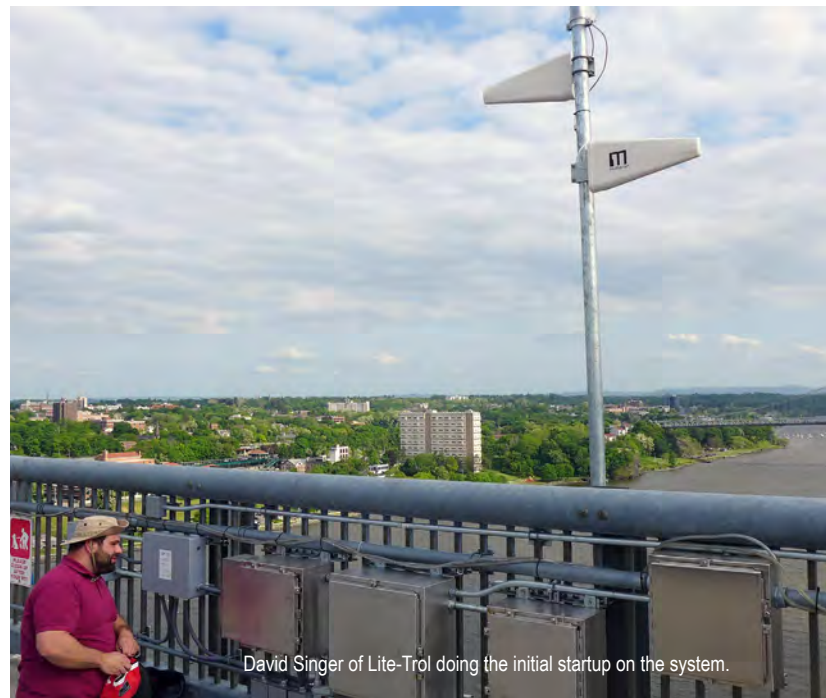
The bridge experiences large temperature swings and strong wind. In the morning, it can be calm and cool, and in the afternoon, it can be exceedingly hot and sunny with a tremendous wind. Luckily, each Multiverse Vero Transceiver pair is additionally sheltered with a NEMA enclosure with no active heating or cooling. Our wireless DMX systems are doing just fine.

If we ever need a hand, we call City Theatrical technical support staff and get the issues resolved same day. It has been a very smooth process.”

- David Singer, Service Technician, Lite-Trol Services



Custom stainless steel enclosures shown on the bridge.



David Singer of Lite-Trol doing the initial startup on the system.



Sam Urdike of At Full Lighting doing the programming.



Sam Urdike of At Full Lighting and Gary Dulanski.

GD: We had a wonderful experience working with the extended team on this project!

CT: Do you know how far the wireless DMX broadcast goes, from location to location on the bridge? Any outdoor-related issues?

D: It varies from approximately 440- to 750-feet, depending on the “hop”.

CT: Have you had any outdoor-related issues?

GD: We’ve had no weather or humidity problems that I know of. We picked Multiverse Veros to put inside the stainless steel enclosures instead of regular Multiverse transceivers because Multiverse Veros have the wider temperature limits and were designed for outdoor environments, so we didn’t have to heat/cool the enclosure like we did for the Mosaic show controllers. Everything has been working fine that I know of, for us as well as the design and bridge teams.

CT: How is your Multiverse Vero wireless DMX/RDM system working now at the Walkway, since it’s installation in September 2023?

GD: The Multiverse wireless system is used to send DMX-based commands from the primary Mosaic Show Controller in the administration building out to the three show controllers on the bridge. The bridge controllers hold all the preset lighting looks and dynamic effects and feed DMX to the lighting fixtures.

The administration show controller holds master calendar and clock schedule information and incorporates a photosensor interface that adjusts the sunset turn-on time to allow for cloudy weather. The primary controller also sends master intensity commands throughout the night, for a setback at midnight, and then again at 2 AM. In addition to the color changing walkway lighting, the bridge controllers use DMX to control the intensity of handrail lights that never turn off due to safety, but do dim depending what primary show is being played, like the star gazing show. The system has a touchscreen to allow the park staff to temporarily override the calendar programming and select a different look for a special event, and to trigger a flashing red-yellow warning to help alert people to get off the bridge in inclement weather. Every action the bridge controllers take is a command sent over Multiverse.

For this project, we took advantage of the support of City Theatrical’s engineering team, the known dependability of Multiverse technology, the robustness of the Multiverse Vero’s design for exterior environments, the multiple SHoW ID capabilities, and the wide selection of City Theatrical’s antenna solutions. It has been working out really well!

We hope that when you’re in the area, you will come and join the 600,000 visitors a year to appreciate the natural beauty of the Walkway over the Hudson. Make sure to stay for the light show after sunset, and you’ll “see” Multiverse Vero wireless DMX in action!

For more information on Walkway over the Hudson, visit: <https://walkway.org/>

For more information about The Dulanski Group, visit: <https://dulanski.com/>



Sam Updike signing the ceremonial switch that turned on the bridge lighting in September 2023



The Lighting Design and Project Management team