



# Climbing to the Next Level

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Article

Creatives behind Sky Bridge at Lancaster Science Center share journey

July 20, 2023 **By Keith Miller**

A unique new climbing structure at Lancaster Science Factory in Lancaster, Pennsylvania, was born from an unexpected yet successful partnership between two companies.



Credit: Holo-Walls

It all started in July 2022 when Kevin McCarthy, president of Holo-Walls in West Lake Village, California, received a phone call from Spencer Luckey of Luckey Climbers in New Haven, Connecticut. Luckey was designing a new climbing structure for the Lancaster Science Factory. McCarthy details his conversation with Luckey for IAAPA News: “His idea was to incorporate our Holo Sheen rainbow holographic film to these climbing platforms so as you look up, this shimmering multicolor rainbow would create an awe-inspiring kaleidoscopic effect. Our first reaction was ‘Wait, what? You want to do what again?’ The call was for a single holographic pattern that could make a climbing structure become a visual buffet of colors and shapes. We said we love a challenge and forged ahead the following weeks and months.”

McCarthy says upon looking at the Luckey Climber system and platforms, Holo-Walls knew it was in uncharted waters. The holographic film, called Holo-Sheen, had to be applied to thick plywood boards that were vacuum formed to create a potato-chip shape. But they also had to be robust and “kid-proof” to withstand children climbing on them daily.

They rose to the challenge by testing several adhesive types, and at the suggestion of Luckey, sought guidance from 3M Industrial Adhesives. They found a super glue in roll form and laminated the Holo-Sheen film to thin rigid sheets used for countertops, incorporating an automotive-grade, ultra-high-bond adhesive. They also added a clear anti-scratch coating to give the Holo-Sheen film protection without compromising its hypnotic appearance.

“The 3M adhesive was tricky and never used for what we had in mind, but our tests showed it was doable,” says McCarthy. “It was very aggressive and would stick to our laminator rolls—they had to be constantly cleaned off as we moved along. We use industrial laminators that take the film and pressure sensitive adhesive through high-pressure rollers. Also, the surface had to be smooth as glass so the film wouldn’t ripple.”

He says the result was a bond so secure it would take a lot of effort to peel off the film, if it could be done at all: “Also, the Holo-Sheen produced holographic rainbow colors with a slight reflection in the film, which gives it depth and almost 3D like qualities. It’s self illuminating with or without additional light sources and provides a mesmerizing effect from almost any distance or angle. It’s part science, engineering, art, and entertainment, with playfulness!”

On April 21, 2023, Sky Bridge opened, and Luckey explains why it’s so much more than a standard climbing structure: “Bridges, being engineering marvels, generally are a mainstay of science-center exhibits, used to teach engineering concepts through relatable examples. Sky Bridge broadens the topic and alludes to more imaginative and elegant solutions. It draws its inspiration from the bridge designs of architect Santiago Calatrava, who makes use of asymmetrically loaded structures to create a weightless aspect that’s both beautiful and efficient.”

He adds that Sky Bridge is a great example of the synergies that can be fostered when a supplier has a great client who shares their vision and pushes them to overcome challenges.



Also, when attractions industry suppliers and manufacturers like Luckey Climbers and Holo-Walls create a new cutting-edge attraction, they learn valuable lessons to apply to future projects. “We learned quite a lot going through the process of making this one of a kind structure feasible,” says McCarthy. “When someone thinks outside the box, this is what happens. Spencer Luckey did that, pushed his idea, and brought us along for the ride. There are so many applications for holographic films; one just has to dig deep and find the creative possibilities. We’d love to do an elevator enclosure where that in itself becomes a dark ride! Pardon the pun, but that would take it to another level.”



Credit: Holo-Walls

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