

Star Dimensions India accomplishes STATE-OF-THE-ART- LIGHTING ARCHITECTURE for the “BANDRA WONDERLAND” project in Mumbai

Ashish Mehta & Becket Tundatil Creatively Execute Seamless Architectural Lighting Design at the Iconic Bandra-Worli Sea Link.

Between 24th December 2021 and 2nd January 2022, the project came alive as the sun set on the city - with the entire 1.5 km of the Bandra Reclamation promenade being engulfed in specially themed displays that emphasized the four different seasons of the year, boasting different eye-catching sections like a boot house, a crib, an igloo, a reindeer, a Santa ride, a heart, multiple selfie-stations and several different uniquely shaped tunnels and walkways. Even the adjoining greenery and trees located by the sidewalk of the promenade were brightly decorated, which added to the overall grandeur of the space.

On the other hand,

the Bandra Worli Sea Link, which measures in at a total of 5.6 km long and 8-lane wide, too was washed over with a captivating display of colourful lights that emphasized the same ‘four seasons of the year’ concept, offering a truly spell-binding viewing experience, irrespective of whether viewed from up-close while travelling on the bridge or from afar on the city shoreline. The sea-link also hosted a special laser beam show which took place at midnight

on New Year’s Eve and acted as the perfect welcome sight to ring in 2022.

Project Highlight

Entrusted with the responsibility of bringing the ambitious Bandra

India’s maximum city – Mumbai – capped off 2021 in spectacular style with the first-of-its-kind ‘Bandra Wonderland’ project that saw the iconic Bandra-Worli Sea Link and the ever-bustling Bandra Reclamation promenade coming alive in a dazzling display of lights and colour to celebrate the festive occasion of Christmas and New Year’s Eve. PALM +AV-ICN Reports.

Wonderland vision to life was one of India’s leading event management companies - **DNA Entertainment Networks Pvt. Limited**, who are regarded

as pioneers in the art of flawlessly delivering awe-inspiring and unforgettable live entertainment experiences of every scale.

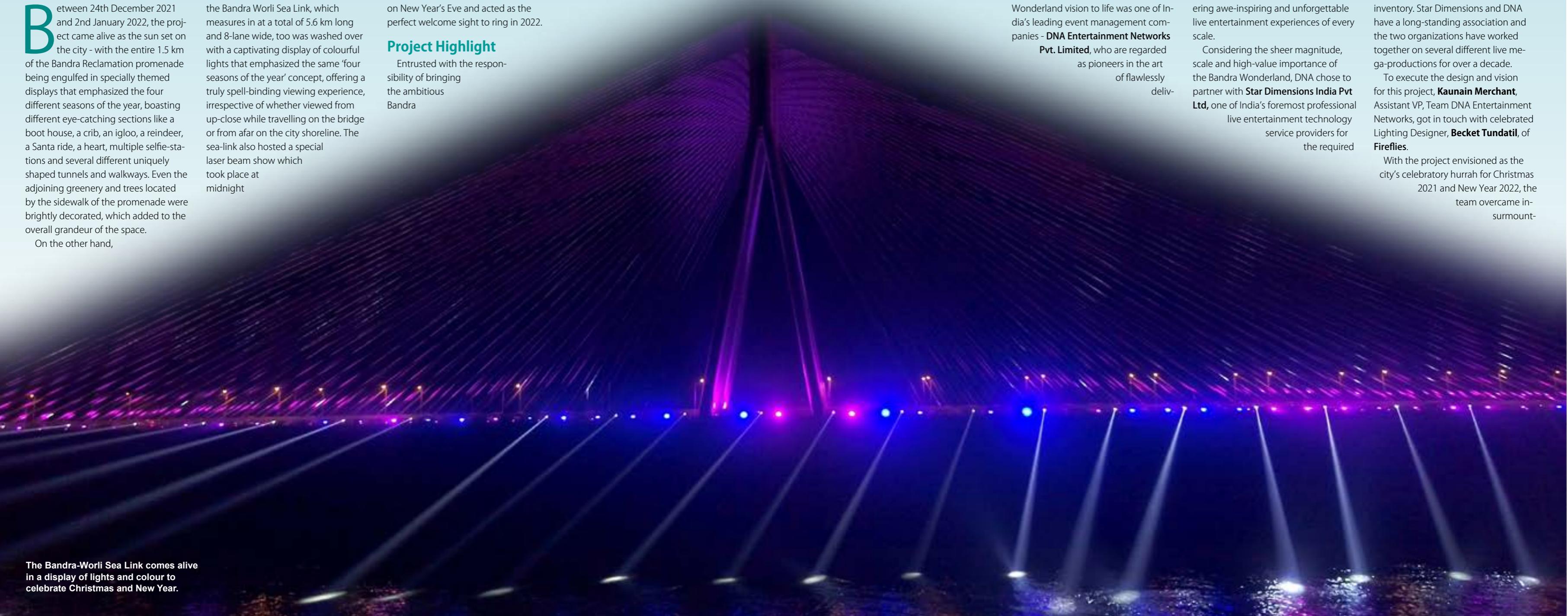
Considering the sheer magnitude, scale and high-value importance of the Bandra Wonderland, DNA chose to partner with **Star Dimensions India Pvt Ltd**, one of India’s foremost professional

live entertainment technology service providers for the required

inventory. Star Dimensions and DNA have a long-standing association and the two organizations have worked together on several different live mega-productions for over a decade.

To execute the design and vision for this project, **Kaunain Merchant**, Assistant VP, Team DNA Entertainment Networks, got in touch with celebrated Lighting Designer, **Becket Tundatil**, of **Fireflies**.

With the project envisioned as the city’s celebratory hurrah for Christmas 2021 and New Year 2022, the team overcame insurmount-



The Bandra-Worli Sea Link comes alive in a display of lights and colour to celebrate Christmas and New Year.



Bandra-Worli Sea Link illuminated with a string of lights in a changing array of colors as the towering arches and cables were bathed in rainbow hues.

able odds to successfully illuminate the iconic Bandra-Worli Sea Link and Bandra Reclamation promenade through a seamless confluence of world-class professional entertainment lighting and architectural lighting technologies.

Ashish Mehta, Technical Director & Co-Founder of Star Dimensions India Pvt Ltd shares, "We have been associated with DNA Entertainment for over a decade and have worked with them on several different mammoth productions – much to their satisfaction and content. This made us the natural go-to partners who could assure the kind of superior technical service and systems that they desired for this project; and we're extremely honoured to have been entrusted with this opportunity to be a part of something so historic. Having said that, working on the Bandra Wonderland project has by far been one of the most challenging yet most memorable and satisfying professional experience in the history of our company – none of which would've

been possible without all the hard-work and dedication of our amazing team who worked tirelessly in ensuring an absolutely flawless execution."

Challenges

Mehta informs that from the first brief with the DNA team to the eventual final execution, the Star Dimensions team had an overall time frame of just 48 hours. Another extremely crucial challenge that stood before the team was that of the environmental conditions of the project location itself. Being an outdoor location directly on the Arabian Sea, it was quite the task for the Star Dimensions team to work in the rather extreme maritime condition, with the location being extremely hot during the day and extremely cold at night.

Despite the odds stacked heavily against them, the Star Dimensions team managed to successfully commission the complete rigging, testing, and programming safely and securely within a span of 36 hours, thanks to meticulous planning and dedicated efforts invested by every single member. Taking the extremely tight turn-around time into special consideration, the warehouse team worked over night with a focused strategy of vehicle movements and ensured safe off-loading of equipment on-site, strictly abiding by the precisely planned load-in roster. Most of the addressing of key fixtures was done at the warehouse itself, which helped in reducing the overall rigging time to half; with the on-site rigging team split into two separate units, each of which were equipped with all necessary personal

safety gear and following mandated safety protocols. The respective teams individually worked tirelessly either during the day or the night and ensured that the entire set up was commissioned seamlessly and within the given time frame.

Between the two distinct locations that had to be illuminated, the one that posed the greater challenge for the Star Dimensions team was undoubtedly the Bandra-Worli Sea-link. The biggest hurdle for the team at this location (in addition to the testing weather conditions), was that of dealing with the sheer volume of vehicular traffic. "With the bridge being one of the busiest roadways in the city, especially during peak work hours, it was nearly impossible for authorities to completely shut the bridge and divert traffic to allow an easier setup experience. That being said, we did receive an immense amount of support from the Govt. of Maharashtra who helped us out by managing the traffic on one of the lanes on either side of the bridge in order for us to off-load our equipment and rig the system up as securely as possible while following all safety and traffic protocols" Mehta recalls.

"The most challenging aspect of this project was Programming & Designing the whole lighting design from five kilometers via networking. Networking installation and programming are the most challenging in distance manner," said Becket.

Conceptualization

Talking about the short timeline to execute the entire delivery, Becket says, "Given the grandeur and importance of the show, there was a tight timeline to implement the project perfectly. The show had to be on-of its kind in India and ensure that people felt the festive

and celebratory spirit. But with a good crew like **Star Dimensions and Light Craft** and top-of-the-line equipment in the country like ClayPaky, Elation Lighting, Chroma-Q Vista, and Martin Lighting, we were sure we could pull off the setup in time with pre-planning and smooth coordination," said Becket.

The execution of lighting design architecture is a systematic process. Becket first designed the whole Architecture of the Worli Sea link by CAD Drafting design with estimation gauge and then executed the measurements and structure design. The Lighting designer built a rig for lighting design and then plotted the configuration to accomplish the right visuals. After finishing the lighting plot, the architecture lighting design was ready to be executed.

"Light Craft and Star Dimension have a versatile inventory for lighting gear and products. For this project, the companies unanimously came together to provide 670 lighting Fixtures. We used Win 11 64bit to ensure that hardware and software run smoothly with Server site System for all the lighting design and Development and observed the system by using a Desk Track to monitor all the workflow and benchmarks," said Becket.

Fireflies used Star Topology to customize the networking design. The lighting designer connected all the devices to a single hub through a cable-called central node. All the other nodes connect to the central node. The hub used in this project is intelligent and active with built-in repeaters. All X, Y, Z Controllers, and Artnet get connected with the final hub that gives Data Packets. These Data packets collect Data from all the controllers and send it to the Computer and Console, which shows which controller was working and sending the signal. After that, they developed a light patch design on the computer and console.

"We used **Croma Q Vista 3 Console & Software**, and **Vista I3 & Vista I2 Lighting Console** for operating and executing the designs. We created a timeline for theme-wise cue play and put Two operators for real-time theme changes," said Becket.

The concept and processing point took three days, and to plan the architecture design, CAD drafting itself took three days. To execute the design and installation setup, 40 Workers, ten technicians, two supervisors, two designers, and a programmer completed the installation within four days. Overall, each day was dedicated to networking, programming, and designing.

Lighting Schematics

Star Dimensions team deployed a

vast range of intelligent lighting fixtures that stretched over 6 kms on each side of the bridge making it one of largest on ground installs that the company has commissioned till date. The inventory included the use of over 1200 fixtures from industry leading manufacturers like **Elation**, **Martin Lighting**, and **Clay Paky**; with lights being spread over 4 lanes on either side of the sea-link which constituted a total of 12kms. The idea of running data cables of those lengths across the bridge was clearly not feasible, and this prompted the team to run the entire rig wirelessly to keep things organized and simplified for quick and easy troubleshooting. The team chose to rely on the Artnet Protocol to run networking capabilities across the entire stretch with multiple distribution boxes for power and data.

Speaking about the choice of inventory deployed for the project and the intricacies involved in bringing the design ideas together, Mehta explains, "Our main workforce for this entire project was **Elation Platinum FLX**, an award winning 3-in-1 light with a very powerful luminary output. We had to achieve a wide coverage over the water and had to ensure that audiences across either side of the bridge were able to experience this spectacle. While balancing the intense flourishes and movements with the heads, we also had to ensure that the six pylons and stay cables appeared clearly with soft lush washes, while maintaining clear visibility of the sea-link's intricate design, and we found the **Martin Quantum Wash** to be the perfect choice to bring this design idea to life, owing to its sheer power and market leading optical system. One of the key aspects in bringing our designs for this project together was for us to secure a centric view of the bridge, and we managed to find such a spot for ourselves on the opposite side of the coast. This made it a lot easier for us to accomplish our programming and design ideas, with



Martin Lighting and Claypaky Dazzle the Eight-Lane Wide Bandra-Worli Sea Link

the lighting programming being commissioned via WAN networking over a span of 5 Km."

For the laser show that took place on the night of New Years Eve, the team deployed **FB4 enabled lasers** from Kvant's Atom and Spectrum series, which have been designed specifically to deliver impactful aerial beam shows and liquid skies. "Conceptually, our objective once again was to ensure that the special laser show could be enjoyed by every single person watching it from any side of the sea-link" Mehta reiterates.

Additionally, the Star Dimensions team commissioned tailored lighting solutions for the different themed sections at the Bandra Reclamation promenade, with the individual walkways and tunnels being equipped with multiple washes that ensured a unique vibe at each space, while features like the boot house, crib, reindeer, and Santa ride etc., were equipped with a mix of spot lighting fixtures, washes and custom-designed

ence," concludes Becket.

Overall, the project was brought to life by Star Dimensions. The success of this project elevated the festive spirit and placed Mumbai on the Global map of Christmas and New Year Celebrations.

"This Project has turned around heads of all Indians towards the iconic bridge. This is a very proud moment for us to be part of this project and establish an everlasting memory" said, Kaunain.

The 10-day long spectacle was celebrated also on several networking platforms online by many noteworthy personalities from the field of politics, entertainment, sport and more – with dignitaries like the Hon'ble Cabinet minister of Maharashtra, **Shri Aaditya Thackeray** posting a video on Twitter showcasing the gorgeous view of the Bandra-Worli Sea Link, while also inviting everyone to see the decoration and enjoy festivities safely. Cricket mega-star **Virat Kohli** also shared his amazement via a tweet that read "Phenomenal Job Guys. The city looks so festive and lovely!"

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