Arena Park Lumen

Lumen draws inspiration from the innovative and socially vibrant context of San Jose, using geometry and light to highlight innovation, community, and environment. Our proposal offers a space to appreciate the city's natural and built setting and integrates a public engagement program for events and learning. Lumen aims to be a synthesis of icon and commons.

Our design strategy merges two typologies of architecture: an observation tower, and a circular forum. In our proposal, both types share a similar formal DNA, yet diverge in their tectonic expression. Referencing the conical geometry of the former San Jose Electric Light Tower, and its successive rings of light, Lumen retools and highlights the cone's salient geometric qualities for an integrative design approach.

Geometrically, the Tower is formed by the intersection of three cones. The expression of these concave and convex surfaces relies on three sets of curves endemic to the cone: its straight ruling lines, its circular sections, and its parabolic, elliptical and hyperbolic curves. The straight sections form the Solar Sail Panels, composing an extended wing for harvesting solar exposure for energy. Recent advances in solar technology can accommodate an array of colors. Our proposal deploys a light-colored reflective panel to aid in minimizing heat gain while maintaining solar absorption to source an array of energy loads throughout the design.

The curved sections of the cone at the north facade functions as a structural lattice helping to brace the form laterally while the circular sections form the viewing platforms inside the observation tower. Sited within the Northwest corner of the Arena Green Park, Lumen captures a striking 180-degree viewshed toward the city center, Mount Diablo, and the San Jose airport.
The resultant form is a tectonic knit of light, structure, and surface. Each is playing an integral role in curating shade and light for both day and night.

As the Tower points itself toward the sky, the base of Lumen embeds itself into a constructed ground called the Forum. This space for gathering, performance, and assembly serves the adjacent community of Garden Alameda and the city at large. By partially embedding the Forum within the park grounds, cooling loads and

solar exposure are significantly reduced. In addition, solar light tubes bring daylighting to spaces deep within the plinth.

As an experiment in spatial and structural synthesis, our Light Lumen can lay the foundation to catalyze innovative industries in solar technology, structural engineering, landscape design, and community engagement with San Jose and the Silicon Valley. We are committed to realizing this scheme with the values of collaboration to produce a landmark that can serve as a beacon of innovation and sustainability to present and future stakeholders.