

CASE STUDY

HAZEL NATIONAL LANDING

2025



CASE STUDY: CUSTOM MODULAR
PLANTERS FOR HAZEL NATIONAL
LANDING – MERGING DESIGN,
FUNCTION, AND PRECISION





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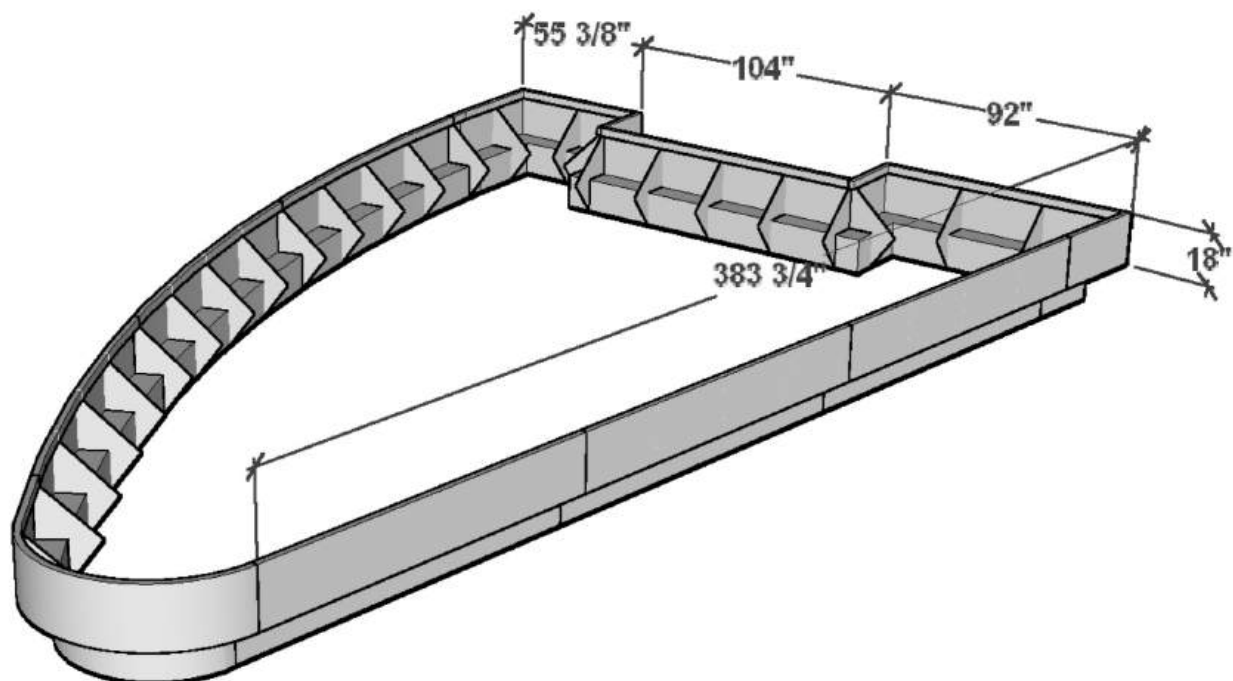
Located in the heart of National Landing, Hazel National Landing is a landmark development in Arlington, Virginia—a vibrant residential and commercial hub adjacent to Amazon’s headquarters. Designed with a focus on connectivity, sustainability, and community engagement, the project features two mixed-use residential towers rising 15 and 11 stories, spanning 527,000 square feet with 488 residential units, a pedestrian-friendly streetscape, and an extension of Potomac Yard’s Central Park. With a rich brick façade that exudes warmth and depth, the buildings embody thoughtful urban design, seamlessly integrating with the surrounding environment through dynamic composition, shade and shadow play, and earth-tone colors.

A key aspect of this integration was incorporating durable, aesthetically cohesive large-scale planter modwalls and site furnishings that could withstand the demands of a high-traffic, mixed-use space. The design team faced challenges in balancing function with form, requiring solutions that upheld the project’s commitment to high-quality materials, durability, and customization. This case study explores how Planters Unlimited addressed these needs, providing modwall planter systems and site furnishings that seamlessly fit within the design language of Hazel National Landing.

MANUFACTURING THE MODULAR PLANTER SYSTEMS

Our client, Ruppert Landscaping, brought us into the Hazel National Landing project, recognizing our expertise in custom manufacturing and large-scale planter solutions. With a deep understanding of design intent and engineering precision, we were uniquely positioned to translate intricate concepts into manufacturable solutions. Given the project's scope, scale, and design complexity, the client selected Fiberglass Modwall Planters as the optimal solution, offering the durability, lightweight construction, and seamless modularity needed to meet both aesthetic and functional requirements. Our ability to integrate design vision with real-world site conditions—critical in large-scale projects where on-site adjustments are inevitable—was a key factor in bringing this vision to life.

To bring the landscape design to life and create a cohesive, biophilic environment, we engineered a custom fiberglass modular planter system tailored specifically for this project. These modular walls, crafted from durable fiberglass, were designed to integrate effortlessly into the site's architectural language while serving both functional and aesthetic purposes. Integrated natural hardwood benching provided durable and elegant seating solutions, while embedded steel reinforcements ensured structural integrity. The steel components underwent a multi-step powder-coating process, ensuring enhanced durability and long-term resistance to corrosion and environmental wear.





As part of the value engineering process, several modular planters were converted into large fiberglass courtyard planters to optimize functionality and cost-efficiency. In addition to the modular walls, modern square fiberglass planters were strategically placed along the streetscape, creating a cohesive visual rhythm within the urban fabric. However, the heart of this project lay within the courtyard, where modular planters shaped pedestrian flow and defined communal gathering areas. Unlike standardized modular systems that require designers to adapt to pre-made components, our custom-built approach preserved the architects' original vision. Working from detailed drawings with complex geometries, we manufactured each modular planter wall to align precisely with as-built conditions, ensuring seamless integration within the space.

The modular planters played a pivotal role in transforming a concrete expanse atop a parking structure into a lush, green oasis. By establishing curved and sloped walkways and delineating seating zones, these planters helped cultivate a dynamic, biophilic environment that encourages both social interaction and quiet contemplation. Beyond aesthetics, the planters served as spatial organizers—defining communal spaces while maintaining openness and accessibility. The courtyard, framed by these large modular elements, seamlessly introduced greenery into the urban setting, reinforcing the project's commitment to nature-integrated design. The result is an inviting, human-centric environment that fosters engagement, relaxation, and a deeper connection to the built landscape.

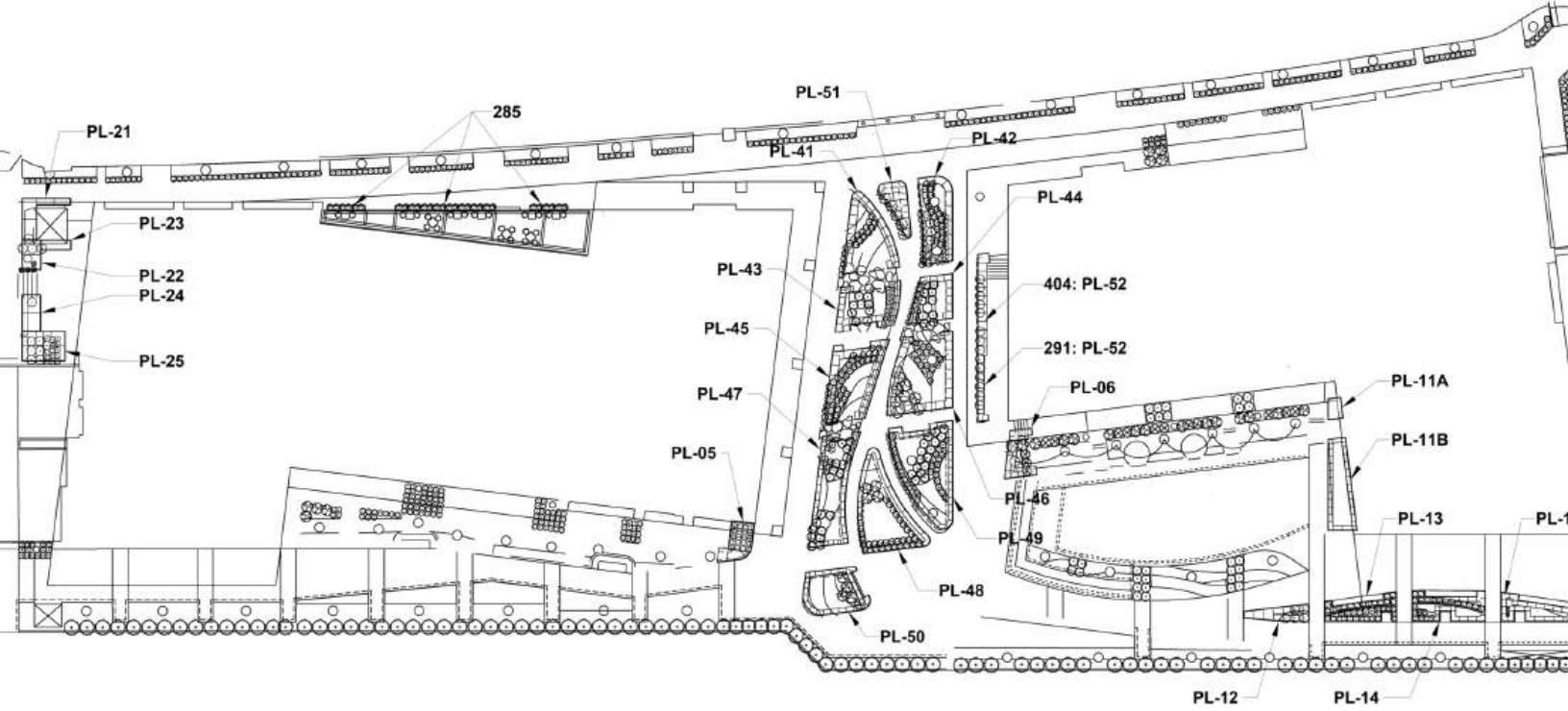
CUSTOM SOLUTIONS AND OVERCOMING PROJECT CHALLENGES

Every aspect of this project was custom-built, requiring a level of precision and adaptability that off-the-shelf solutions simply couldn't provide. Rather than forcing the design to conform to pre-existing products, we engineered a fully custom modular planter system that aligned seamlessly with the project's architectural vision. This approach not only ensured design continuity but also addressed critical functional requirements, including the integration of large-scale planting areas capable of supporting trees and shrubs—elements that would have been unachievable with conventional planters.

Our modular planter system provided the necessary structural framework to support deep-rooted vegetation while maintaining the integrity of the design. This solution allowed for seamless integration of greenery without compromising the project's aesthetic or functional intent.

Our value-engineered approach dictated by the material performance preserved the organic curves, integrated shapes, and freeform structure envisioned by the design team. Leveraging our expertise across a wide range of materials, we recommended fiberglass as the optimal solution for bringing this vision to life. The project's complexity—requiring fluid, sculptural forms and the ability to support raised planting areas above a parking structure—demanded a material with exceptional flexibility beyond that of metal. Our custom fiberglass system met the intricate design criteria, ensuring continuity and cohesion throughout the space.





This project also presented significant challenges due to evolving as-built conditions, requiring adaptive problem-solving and precision manufacturing. Real-world site constraints—such as shifting grades, variable as-built conditions, and unexpected structural considerations—often differ from initial plans, demanding a high level of responsiveness. Our team utilized CNC technology and advanced fabrication techniques to ensure that every curve and elevation change aligned with actual site conditions. From ensuring true top-edge grading despite underlying elevation shifts to navigating complex site coordination, we provided the flexibility and expertise needed to bring the client's ambitious vision to life.

Once approvals were in place, we executed the project with remarkable efficiency. Project delays, due to outside factors, required our team to accelerate production to meet all client-imposed deadlines. With multiple critical milestones throughout the job, we maintained a disciplined production schedule, adapting to shifting demands while ensuring precision and quality. From permitting to final installation, our ability to manufacture at scale and speed ensured that the project was delivered on time—without compromising the integrity of the design.

What Makes Us Different

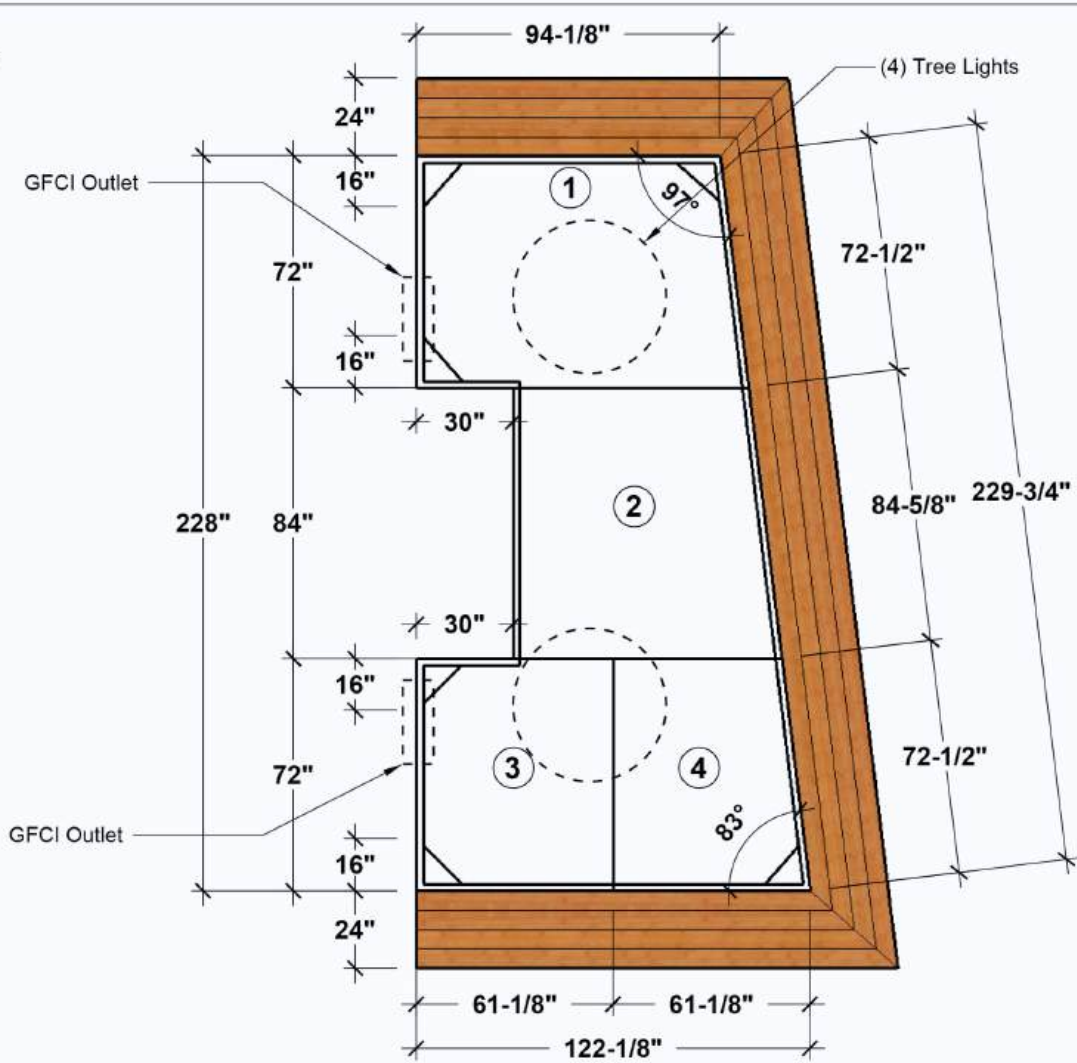
At Carlsbad Manufacturing, we are more than just a manufacturer—we are a full-service design and fabrication partner, bringing custom visions to life with unmatched precision and expertise. Our in-house capabilities span fiberglass, fiberstone, GFRC, steel, corten steel, stainless steel aluminum, and wood, allowing us to engineer solutions in any material to meet the unique needs of each project. We integrate computer-controlled cutting and fabricating, UL-listed lighting, and precision woodworking, ensuring that every component is crafted to exacting standards.

Our commitment to quality extends beyond materials. With in-house drafting, engineering, and layout testing, we ensure seamless execution from concept to completion. Our computer-controlled manufacturing allows us to accommodate aggressive tolerance requirements, guaranteeing accuracy even in the most intricate designs. We preassemble each section in-house to validate design integrity and fit, reducing installation challenges on-site.

As a trusted OEM and contract manufacturer for Fortune 500 to 1000 companies, our products are featured in high-profile locations worldwide, recognized by leading designers and global brands. With custom color matching, innovative fabrication techniques, and a wide range of material options, we offer the flexibility to bring even the most ambitious ideas to life.



TOP VIEW



The Hazel National Landing project exemplifies the power of custom manufacturing in bringing ambitious landscape and architectural visions to life. By leveraging our expertise in fiberglass fabrication, precision engineering, and modular planter systems, we delivered a solution that seamlessly blended functionality, aesthetics, and long-term durability. Our ability to adapt to evolving site conditions, provide value-engineered alternatives, and meet demanding timelines underscores our commitment to excellence in large-scale commercial projects.

At Carlsbad Manufacturing, we don't just build products—we craft solutions that shape the built environment. This project stands as a testament to our ability to collaborate with architects, landscape designers, and construction professionals to create innovative, high-performance outdoor spaces. From design to fabrication to final installation, we remain a trusted partner for projects that demand precision, creativity, and expert execution.

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