Structures Unlimited

ENGINEERING DAYLIGHT

Project Report

Blu Water Car Wash

Gambrills, MD, USA

Pre-Engineered Aluminum Enclosures

Architect: Level One Architects Contractor: CDP Development





Testimonial

"[Structures Unlimited] structures are a one-stop shop for well-engineered aluminum frame buildings. Their sales, engineering and building staff went out of their way to make sure the project began on-time, followed progress along the way and were passionate about providing a premium quality finished product."

Clark Porter, Develope



STRUCTURES UNLIMITED SPECS:

Pre-Engineered Aluminum Enclosures

Complex Center Ridge Enclosures

Aluminum Box Beam Frame: 6" x 13" | 152mm x 330mm

Aluminum Finish: #00 White

Size: 25' x 144' | 8m x 44m

KALWALL PANEL SPECS:

Panel: 2.75" | 70mm

Grid core: shoji thermally broken

Exterior FRP: white

Interior FRP: white

Panel U-Factor: .23 | 1.31 Wm2K

Solar Heat Gain Coefficient: 0.22

Visible Light Transmission: 16%

PROJECT CREDITS:

Architect: Level One Architects

Contractor: CDP Development

WHY STRUCTURES UNLIMITED?

Single source turnkey solutions include:

Technical sales consultations

Estimating + budgeting services

Daylight modeling services

Design + engineering services

Drafting + modeling

Project management

Precision fabrication

Professional installation

Blu Water Car Wash, Gambrills, MD, USA

FRESH CONCEPT MEETS CLEAN DESIGN

Not every car wash is the same. The owner and developer of the Blu Water Car Wash in Maryland had a concept for a system that was more efficient, effective and a better overall experience for the user. He just needed an experienced partner to help make the concept a reality. Structures Unlimited, Inc. proved to be the perfect partner with a turnkey solution.

The new concept hinged on a tunnel that is approximately 30' (9m) longer than typical car wash buildings. This accommodates secondary and tertiary drying of the vehicles to provide better, streak-free results and reduced labor costs for the business.

The developer, Clark Porter, needed a vendor who could work with him and the architect to design, manufacture and install a complex, center ridge enclosure and two support structures for the new facility. After initial discussions, a factory tour was organized to meet the Structures Unlimited, Inc. team and showcase our award-wining capabilities available for this unique project. The recent addition of our 3rd Emmegi, 20-meter bed, 5-axis CNC machining center was key to success.

Structures Unlimited provided a modern, rigid frame building system, featuring corrosion resistant pre-engineered structural aluminum framework with Kalwall translucent roof and wall panels.

One concern about the 50% longer car wash tunnel was that it could exacerbate the feeling of being closed in as vehicles pass through. Museum-quality-daylighting[™] delivered by the Kalwall panels alleviates this concern by creating a bright, welcoming environment within the car wash. Car wash tunnels are filled with equipment such as rotating brushes, product dispensing gantries and air-drying nozzles. The glare-free daylight also allows for a more productive maintenance environment for workers. The panels themselves are durable and self-cleaning, meaning normal rain helps keep the roof and walls free of sediment.

The three, factory-finished buildings were delivered on time and field installed by Structures Unlimited's in-house installation team. By providing total responsibility throughout the project, Structures Unlimited brought cost savings and peace of mind for the rest of the team.

Clark Porter said "[Structures Unlimited] structures are a one-stop shop for well-engineered aluminum frame buildings. Their sales, engineering and building staff went out of their way to make sure the project began on-time, followed progress along the way and were passionate about providing a premium quality finished product." Porter will not hesitate to use Structures Unlimited again on upcoming projects.

Structures Unlimited, Inc. has over 50 years of experience of designing large span pre-engineered aluminum structural systems for swimming pool enclosures, skylights and municipal wastewater applications. This unique car wash facility benefits from our unique expertise in providing pre-engineered aluminum structural systems for humid and corrosion prone environments.



















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