

"Timber lends an organic warmth and tactility and is adaptable as a material to different geometries."

Virgin Galactic's "Gateway to Space" interior fit-out of Spaceport America's terminal-hanger in Truth or Consequences, N.M., makes the world's first private spaceport operational-ready. The interior features curvy wood ceilings and walls made with 3,620 SF of cross-piece grilles and 2,400 LF of banana-shaped radius trim.

"The timber strips unify Gaia and Cirrus [the names respectively of the first and second floors of the terminal-hanger space] in a fluid way while organising technical requirements like acoustics and other services," says Voon Wong, design architect at Viewport Studio, London, UK. "Timber lends an organic warmth and tactility and is adaptable as a material to different geometries."

And, this geometry is anything but square. The walls run along curves and the ceilings have angular shapes. And, the wood species change from dark to light going from the first to second floors.

"I thought it was never going to work," says Henry Kingsbury, project engineer at New Mexico Acoustics and Specialties, Inc., and the project manager for the Virgin Galactic terminal-hanger building interior fit-out. "I couldn't picture it."

Curves. Work began in April 2019, after the manufacturer provided a mockup of one wall panel section for the first floor.

"Our biggest challenge was the curves," Kingsbury says. "Everything was built on a curve."

Fortunately, the manufacturer provided precise shop drawings. The mockup also helped the subcontractor secure a sign-off before placing the material order.

The job required a lot of field cutting to line up



Banana-shaped soffit trim lines up with the slats of ceiling adjacent panels. Voon Wong, design architect at Viewport Studio, London, UK, says the wood unifies the space "in a fluid way while organizing technical requirements like acoustics."

PROJECT

Virgin Galactic terminal-hanger at Spaceport America Truth or Consequences, N.M.

ARCHITECT OF RECORD

RMKM Architecture Albuquerque, N.M.

DESIGN ARCHITECT

Viewport Studio London, UK

CEILING AND WALL CONTRACTOR

New Mexico Acoustics & Specialties, Inc. Albuquerque, N.M.

SYSTEMS

Custom engineered wood ceilings from 9Wood Springfield, Ore.

wood slats precisely from tier to tier. While trying out several options, the subcontractor ended up cutting each slat individually. This called for careful field measurements.

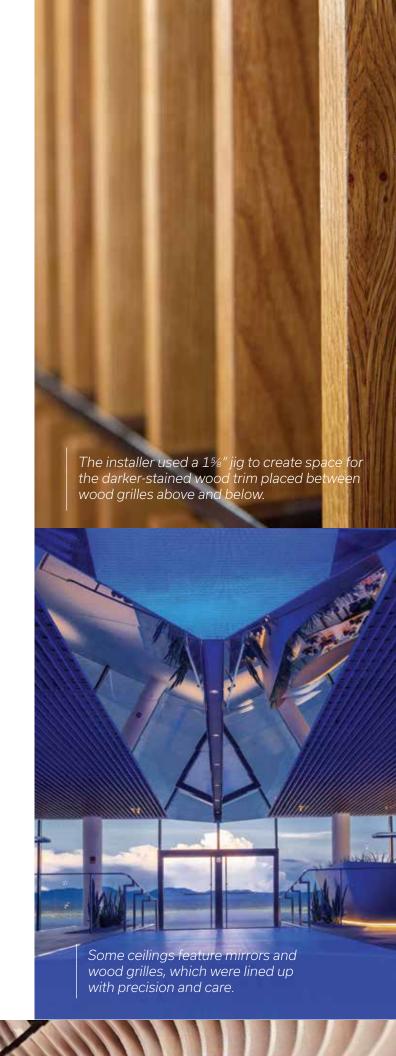
"We left a ½ inch off the wall everywhere and used a 'flex mold' to mark the location of each single slat with a pencil," Kingsbury says.

Collaborations. Another key to success was trade collaboration.

"We had the electrical contractor put their light fixtures in loose so we could line them up with our panels," Kingsbury says. "Sometimes a row of lights ran along the same line as our panel slats. But we couldn't always tell the exact points where the lights would be."

The mechanics cut two holes for a recessed light every 4 feet.

OUR BIGGEST CHALLENGE WAS THE CURVES. EVERYTHING WAS BUILT ON A CURVE.



"The cuts had to be perfect — and stained, because the lights sit above the wood," Kingsbury says.

Improvisations. The starting point for the wood ceiling grilles was provided by the manufacturer in detailed shop drawings.

"Two center points served as the start of the only straight lines on the job — an 8 ft. line one way, and another the opposite way," Kingsbury says.

As installation got underway, the subcontractor cut shorter grille panels first and saved longer ones for later.

"When we figured out that a 'P5' would work and [the manufacturer] had us using 'P6s', we'd jump to the 'P5s'," Kingsbury says. "I'd wanted save those longer 'P6s' in case we needed them somewhere else."

Sometimes crews worked over furniture, since it arrived early. Sometimes they straddled different flooring heights. Sometimes they built access to mechanical systems on the fly.

"We had to 'MacGyver' a door with hat channel and screws," Kingsbury says. "Remove six screws, and you can take out a row of panels."





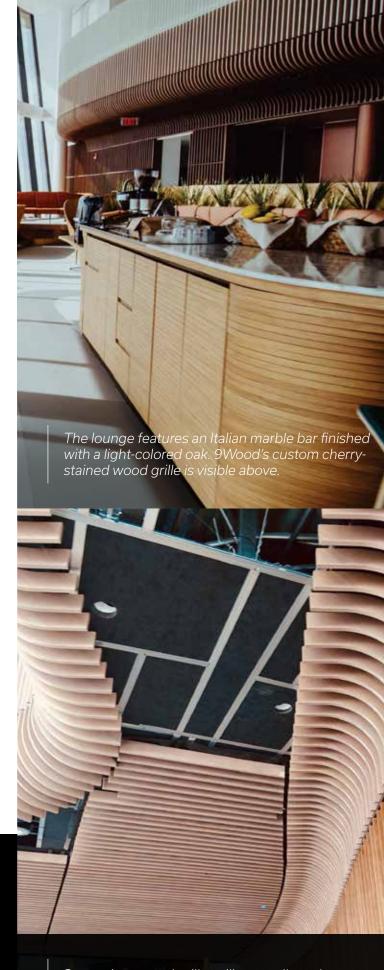
DIVISION 9 ENGINEERED-TO-ORDER WOOD CEILINGS

9wood.com

999 South A Street Springfield, OR 97477 Tel: 888-767-9990 sales@9wood.com

Photos Copyright: Virgin Galactic 2019 and 2020

This information is for illustrative purposes only. The featured products and processes are specific to the project and should not be duplicated without consulting 9Wood. © 2020 9Wood



Cross-piece wood grille ceilings, walls and soffits follow lines and curves in all directions, shown here during their installation.