



Project Profile

Collaborative Life Sciences Building – Portland, Oregon

DELTA®-FASSADE S

University Innovation



→ General Information

Building Name	Collaborative Life Sciences Building
Building Location	Portland, Oregon
Country	USA
Project Size	650,000 sq. ft.
Building Type	Multistory
Project Type	University Educational and Research
Type of Cladding	Perforated aluminum
Total Building Costs	\$232,000,000
Owners	Oregon Health & Science University, Oregon State University and Portland State University
Architect	SERA Architects and CO Architects
Consulting Engineers	Morrison Herschfield
General Contractor	J.E. Dunn Construction Group
Year	2014

→ Project Description

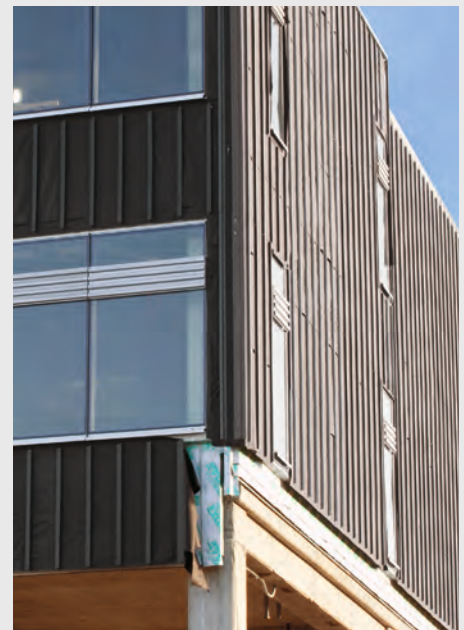
One of the many innovations of the Collaborative Life Sciences Building is that it was created as a partnership of three different universities. Oregon Health & Science University, Oregon State University and Portland State University worked together to build a new allied health, academic and research building that would meet the needs of all three organizations.

The \$295 million project is the first on this scale to combine the resources of multiple universities, expanding life sciences, pharmacy, medical and dental education with 500,000 square feet of instructional and research space.

SERA Architects from Portland and CO Architects of Los Angeles designed the \$295 million structure. CO Architects was responsible for programming and design, while SERA acted as executive architect, providing sustainability design and project management. JE Dunn was responsible for Construction Management services.

The building incorporates numerous sustainable design innovations, including eco-roofs, non-potable water storage for toilet flushing, atrium heat recovery and low ventilation fume hoods. Innovative material re-use included salvaging oil drilling pipes for use as foundation piles. The LEED Platinum building is predicted to have 45% energy savings thanks in part to its thin profile that allows the labs to get daylighting from two sides.

The exterior of the CLSB is made up of pre-finished perforated panels of aluminum that are fabricated in a corrugated profile – a design element that gives great visual interest but also makes it extra important to manage the filtration of exterior elements. This is especially critical in the notoriously high wind and wet weather of Oregon, where gusts are known to get up to 80-100 mph, creating additional challenge in meeting new energy efficient building codes. The team needed to create energy efficient panels with a tight assembly budget, and find an effective and durable water shedding system to



When the exterior of a building is full of holes, how do you keep the wind and water out?



DELTA®-FASSADE S is rolled into place for a trouble-free installation.



Creative design allows daylighting from two sides.

use underneath the perforated open joints. What stands between the perforated panels and the exterior stud had to be durable, breathable, maintainable, economical, and aesthetically pleasing.

DELTA®-FASSADE S was considered for the project as it is designed to channel water from wind-driven rain and snow to the outside of a structure, neutral black in color, extreme UV resistance with as much as 40% of the material allowed to be exposed, known to improve the performance of the insulation.

No test existed for this kind of design, so QED-LABS created a test based on ASTM E1233-06. The results showed the DELTA®-FASSADE S stood up to expected conditions and beyond, without any product failure.

DELTA®-FASSADE S was specified as the water resistive barrier for this demanding application as it exceeded the requirements. The water-tight membrane is highly vapor permeable and extremely tear resistant. Highly stabilized against

damage from UV exposure, the barrier is designed for use in cladding systems that have open joints of up to 2" (50 mm) wide which expose up to 40% of the entire facade surface.

Open joint cladding systems require extreme water and vapor protection. If the water-resistive barrier is not durable in extreme weather or stable when exposed to prolonged periods of UV light, the system will fail.

DELTA®-FASSADE S is the only UV stable water-resistive barrier to pass ICC-AC38 (ESR-2932).

