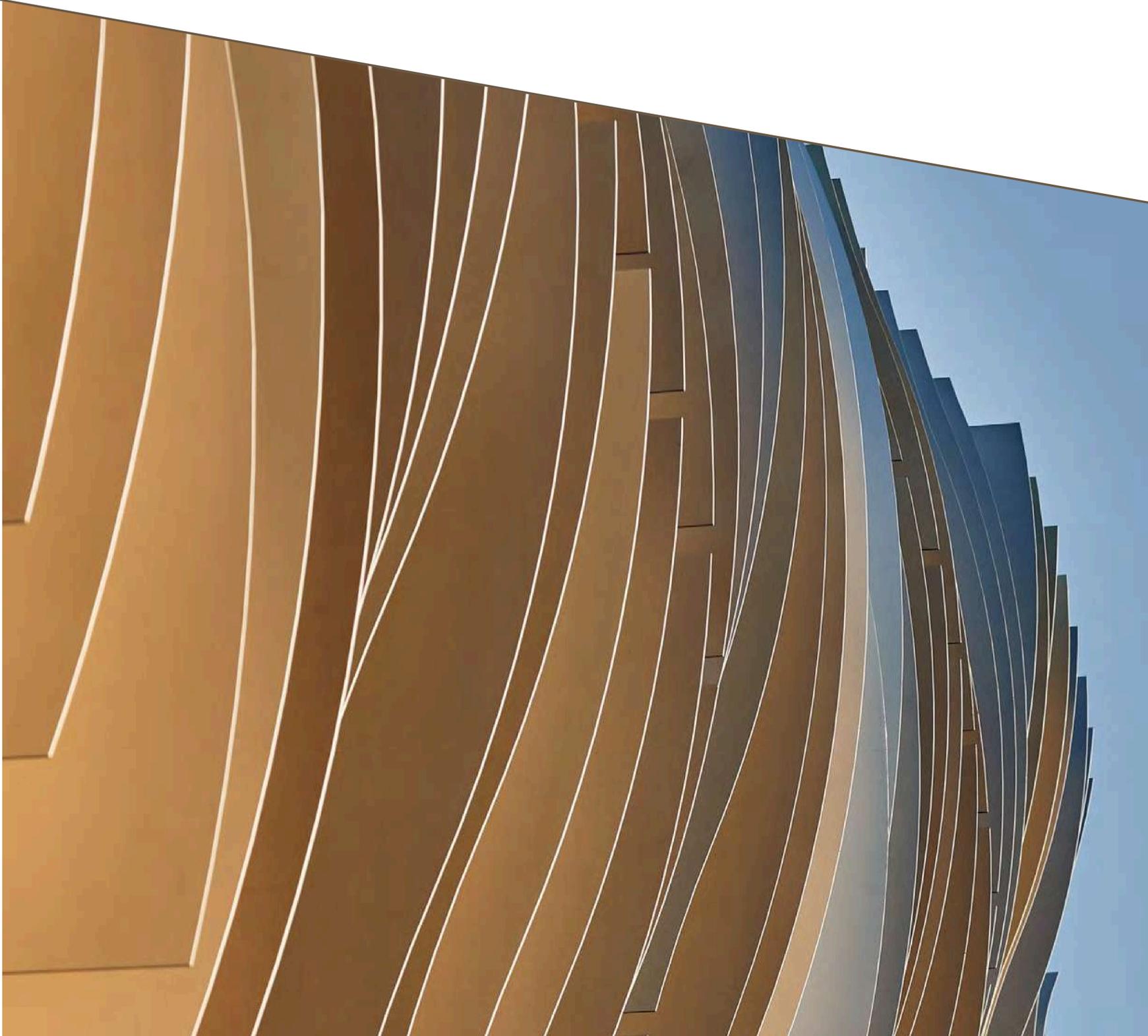


Louvreclad[®]
architectural exteriors

Integrated Public Art Facades

Exemplars of Public Art

Made to Perform





Introduction

Often overlooked as mere utilitarian structures, car parks are emerging from obscurity to reveal their potential as significant urban artworks.

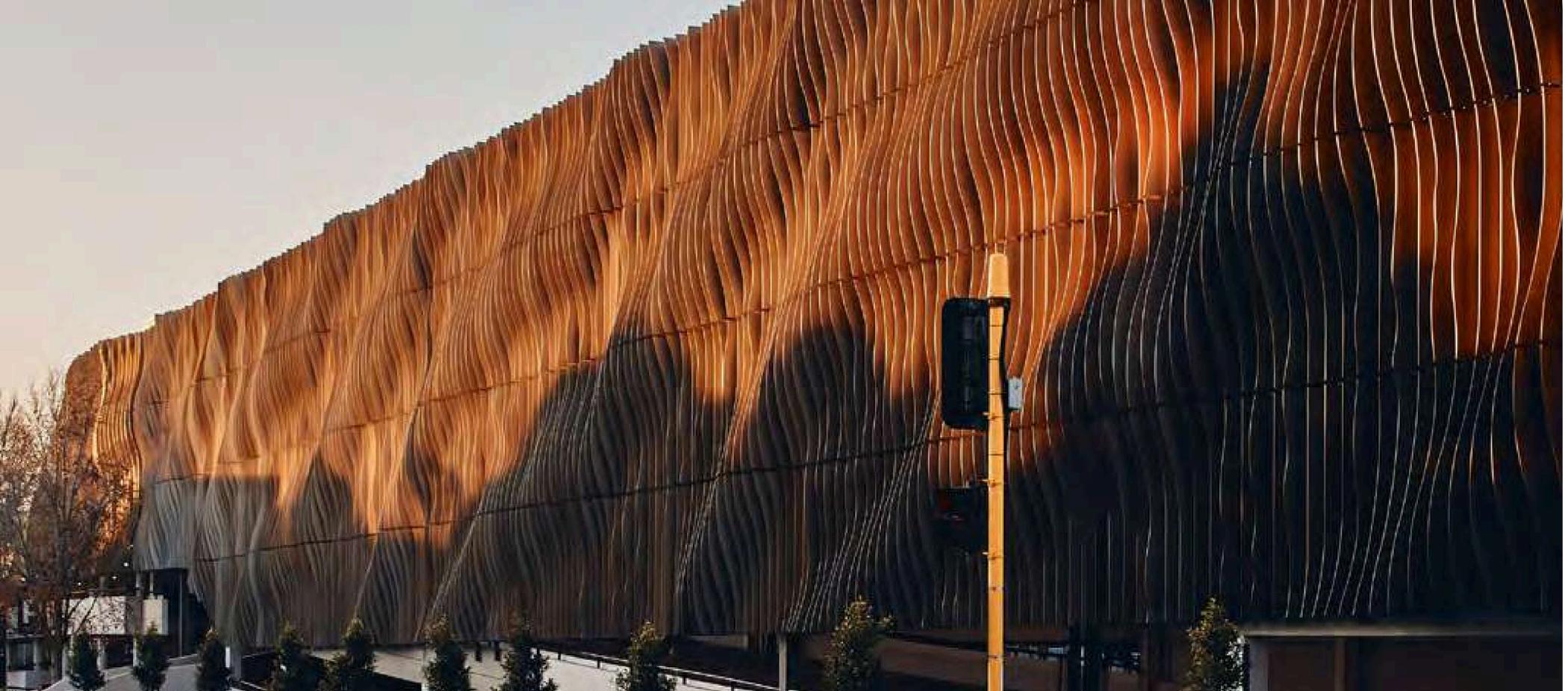
These structures offer architects an exciting platform to express their creative vision and reflect the identity of the surrounding area. They can improve the urban environment, enhance user experience, increase property values, and more. For these projects, the facade is the key. The various materials and product types now available make bespoke car park design a viable architectural option.

As with all work of this scale, in-depth planning is essential. It requires the input of a capable – and appropriately inspired – artist, and effective collaboration with various other stakeholders to bring the inspiration to fruition.

From a technical perspective, public art projects require consideration of factors like the impact of wind on the facade, bracing requirements, natural ventilation and so forth.

Titled 'Integrated Public Art Facades – Exemplars of Public Art,' this White Paper examines these issues and more. It analyses the car park facade at Vicinity Centres' Chadstone – The Fashion Capital. It is a how-to guide for projects of this type, and an outline of the key considerations for the successful design and delivery of bespoke car park facades.





The Project

Situated in suburban Melbourne, Chadstone – The Fashion Capital is a two-level Super Regional shopping complex. It is home to a myriad of major retail outlets along with 375 specialty stores, making it the largest centre of its kind in Australia.

Though the facility has operated since 1960, its car parks have retained their brutalist appearances – until the recent major makeover. This transformation was the result of a concept conceived by visual artist Matthew Johnson, in collaboration with Jackson Clements Burrows and Cera Stribley Architects, Hickory Construction and Louvreclad. These car park buildings, located adjacent to the busy Princes Highway, where the shopping mall segues into a residential area, required great care to craft a visually appealing facade that would capture the attention of passersby.

Matthew's concept came to life in an impressive display of 11 kilometres of custom cut aluminium fins that clad the car park, situated on this prominent intersection of Chadstone. The once unremarkable brutalist structures have been re-imagined as works of public art.

Designed, engineered, supplied, and installed by Louvreclad, approximately 3000 custom cut vertical fins (13x244 repeat patterns), anodised in several unique colours, come together to form this unique facade. Positioned precisely to harness the interplay of material and light – an effect that alters according to aspect, time of day and other factors – they present an undulating, wave-like appearance, thereby infusing the buildings with an entirely fresh look and feel.

Louvreclad Polaris Series perforated aluminium screens were also integrated at each corner with a custom wave-like pattern to limit visibility into the car park and minimise light refraction.

The cladding solution that enabled this transformation is Louvreclad's Platinum Series. Customised as per artist Matthew Johnson's vision, Cera Stribley's Director Luan Trinh worked closely with Matthew to create the language of his concept as a facade.

The client, Vicinity Centres, wanted to ensure the car park user experience was meticulously planned and executed. This meant they sought to inspect every aspect of the design to confirm its seamless integration with the existing structure, lighting, and overall user experience.

To keep Vicinity informed about every phase of design development, Cera Stribley leveraged 3D modelling and animation to visually depict the concept, thereby facilitating effective communication about the project's scale and feel to the client as it progressed.

Contrasting the exterior, Louvreclad also designed, engineered, and installed Barossa Series aluminium diagonal battens to the interiors of the car parks. Specified in vibrant pink and white powder coat finishes, this internal screen was customised for wayfinding purposes.



The Inspiration

While faced with the task to expand available car parking spaces, Vicinity Centres had no desire to demolish and rebuild what it already had at Chadstone. Beyond the time involved in such a task, it made no sense from an environmental point of view.

Opting for expansion, the organisation also wanted to enhance amenities for its customers and do away with the old brutalist structures that had stood for so many years. As an organisation with a rich history of supporting the arts, Vicinity recognised this renovation as an opportunity to make a meaningful contribution to the local community while simultaneously elevating their infrastructure.

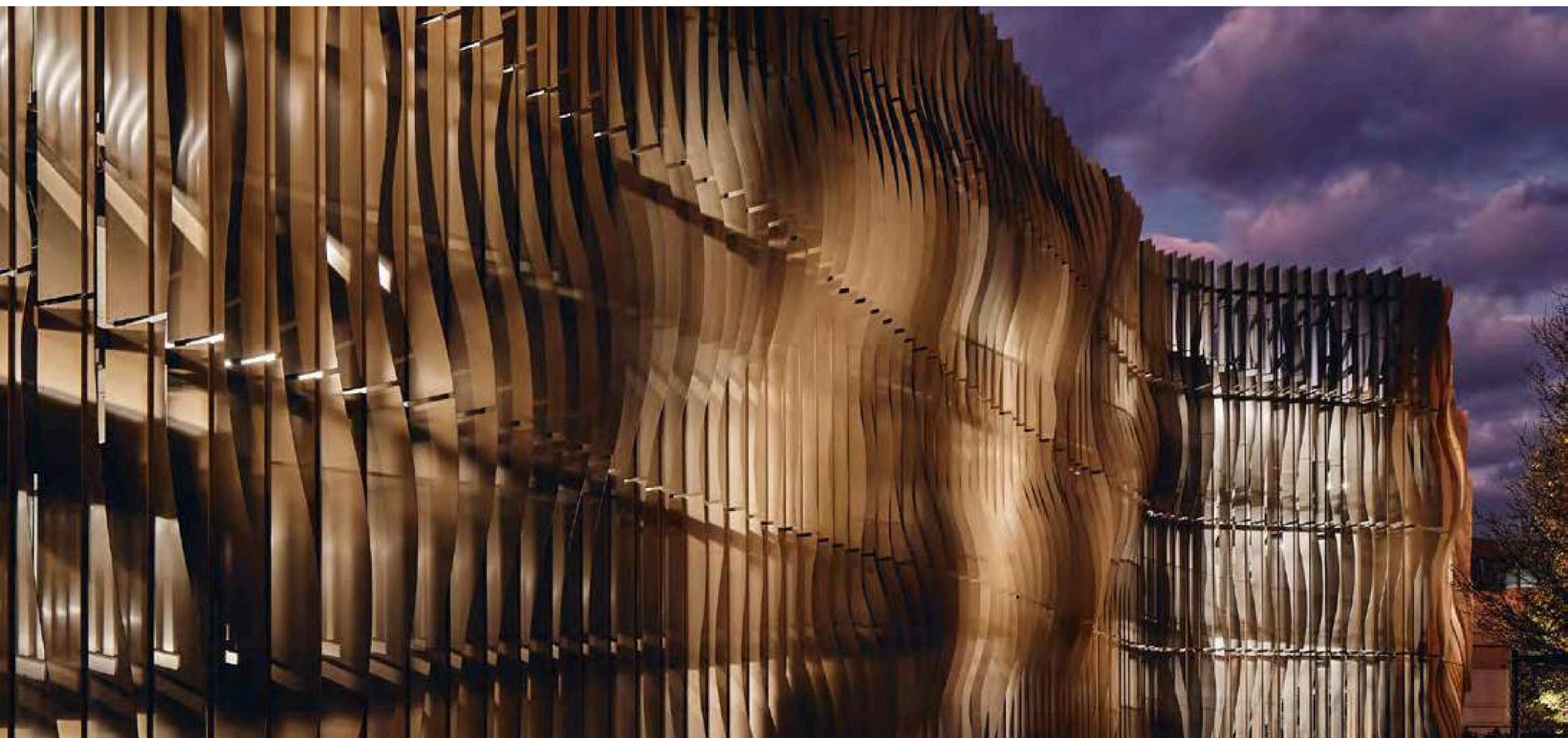
Tasked with the transformation was artist Matthew Johnson, selected through a rigorous vetting process. Johnson undertook a detailed site analysis, ensuring his vision for the four car parks resonated with their surrounding context. He began by designating each car park an artistic name, thereby adding a layer of subjectivity that informed the design concepts.

Exploring the concept of 'architecture as fashion', Johnson envisioned wave-like fins for car park facades, a design inspired by the visual narrative of fabric billowing in the wind. Drawing inspiration from the surrounding landscape and the pioneering work of architects like Zaha Hadid, he considered the proximity of adjacent streets, the flow of traffic, and other environmental elements, which he sketched out in concept drawings.

To illuminate his idea within the anodised aluminium, he experimented with colour and various light scenarios to ensure the intrinsic qualities of the material were expressed in the design. Collaborating with Luan Trinh from Cera Stribley, they developed computer-generated 3D models and animations to provide the client with a tangible understanding of the concept.

Throughout all stages of design and construction, Johnson maintained an active role. Unlike most projects, where the architect is the lead designer, here it was up to the artist to bring the concept to realisation. It was essential that various other parties – the architect, builder, and specialist contractor – worked cohesively to ensure the finished structure remained true to the initial concept.

As the specialist facade contractor, Louvreclad played a key role to ensure these bespoke vertical sun blades were designed and engineered to harmonise with the project concept. Working closely with all parties, the company's design team utilised years of experience with similar projects to modify the aluminium blades and design and engineer connection details that dealt with structural integrity, vibration, reverberation, airflow, safety, and more. As an example, Louvreclad devised a solution to incorporate a crash barrier system into the support structure of the fins and therefore minimise disruption to the overall design.



Considerations & Challenges

Two primary factors underscored the importance of prototyping: first, due to the sheer magnitude of the Chadstone project, physical engineering and testing were necessary for a successful outcome; second, it was a requirement for client approval, ensuring that all partners were satisfied with both the design and the quality of the finishes.

The specialist facade contractor, Louvreclad, grappled with three principal challenges during the installation process. Firstly, finding a method to span the fins from floor to floor without resorting to midrails or excess outriggers; secondly, the need to install the facade from inside the car park (due to access limitations around the exterior of the site); and thirdly, coming up with a strategy to fabricate, keep track of, and install the various fins, which were produced in six different anodised colours and 244 different shapes.

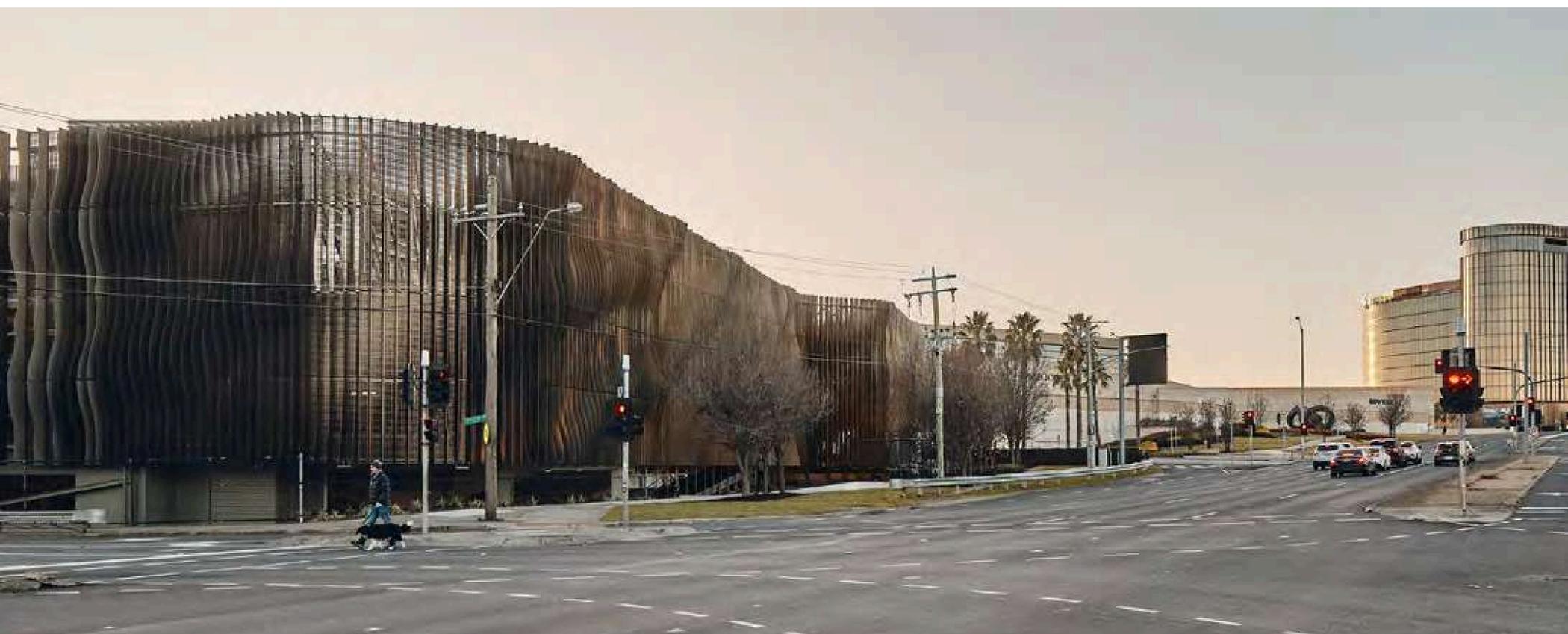
To address the last point, Louvreclad implemented a simple numbering and labelling system, while a stiffener was used to solve the issue of attaching the fins without midrails. Though a steel structure was initially intended to support the vertical blades, Louvreclad successfully produced a custom-folded slimline aluminium support bracket that was not visible from the front. This aluminium alternative proved to be structurally adequate, lighter, more corrosion-resistant, and more discreet. Regarding the access issue, a crawler crane positioned on the top floor was employed to complete the installation of the facade materials.

From an engineering perspective, key considerations included allowing for thermal movement of the structure and slab deflection, which was especially important considering the vehicular loading involved in car parks; and ensuring sufficient bracing was used to prevent vibration or reverberation.

The Result

Now complete and fully functional, the Public Art Facades at Chadstone – The Fashion Capital have significantly transformed a renowned Melbourne streetscape. Highly praised by the local community and faithful to the original vision of its creators, the facade stands as a testament to the extraordinary outcomes possible when innovative building materials and techniques are employed, underpinned by a commitment to effective collaboration.

Natalie Boston, Vicinity Centres' National Mixed-Use Design Manager, reflects on the project, stating, "What was really different about this project was that the artist involvement throughout all the stages of the project was critical to the success of making sure this was an art facade, not just a concept of an artwork translated into architecture. With Matthew's input and involvement throughout, we have truly ended up with an integrated urban art piece."





Louvreclad

With over 40 years of experience, Louvreclad is a family-run Australian business specialising in the design, manufacture, and installation of bespoke external ventilation louvres, architectural screens, and aluminium facade solutions for large-scale commercial projects.

Louvreclad's aluminium facade solutions are non-flammable and are manufactured in accordance with QA, ISO, and AS certification standards. These solutions contribute to the creation of comfortable, healthy, safe, and energy-efficient built environments that simultaneously push the boundaries of sustainability and design ambition.

A key element to Louvreclad's success is its commitment to collaboration. As demonstrated in numerous projects over the years, including the Chadstone – The Fashion Capital case study, the company values collaboration as an opportunity to share its expertise, and to learn from its partners, in a quest to break new creative ground.

Louvreclad champions the notion of Early Contractor Involvement, with its team lending its expertise to meet challenges as they arise and collaborating with clients through every phase of projects – from initial design to installation.





Speak to an expert

Reach out today to discuss your facade solution requirements; we would love to hear from you.



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