CUTTING EDGE

Cutting Edge
West End
Brisbane

Richard Kirk
Architect

This workplace, on a reach of the Brisbane River, in Brisbane's renascent West End, arrives as a breath of fresh air in a city obsessed with the making of a distinctive and regionally-based sub-tropical architecture. →

But though its design defers to the requirements of living in a hot climate, with a two-storey wall of operable aluminium blinds, it is far removed from the screen and deep overhang aesthetic that afflicts much architecture in Queensland.

For here, facing Davies Park to one side and with views to the Kurilpa Reach of the river, architect Richard Kirk has made a sophisticated and dexterous building, of pearlescent white-concrete, zinc and iron cladding, that reveals a confidence seldom found in this most pleasant of Australian cities.

The building is the headquarters of Cutting Edge, Australia's leading film and television post-production company. Housed within its four levels, 4,500m² of space, are audio edit suites, sound recording booths, studio spaces, multimedia and digital edit suites, visual effects facilities and a row of 'dry hire' rental spaces. It rises to a top floor containing a boardroom, 40-seat theatre, staff restaurant and a large Japanese-influenced garden of lawns, bamboo, native grasses and river stones, composed around a series of terraces overlooking the river.

Cutting Edge had the option of building on a greenfield site but decided on converting a large riverfront industrial shed in buzzy, vibrant West End. The idea was to fix-up the shed and attach a new building, 'a narrow sliver', on Riverside Drive facing the river.

The criterion for the design was for the architects to gain an understanding of the realities of the occupation and function of the building as a leading-edge post-production facility – there are over 30 kilometres of data cables installed within the building – and to provide its occupants access to the river view. As its architect Richard Kirk recalls it, major elements were added to the brief as it went along – for one, the company grew from one with a staff of 45 to a staff of 80 during the early design stages of the project – and, in the end, only a piece of floor slab and some foundation piles were all that remained of the original industrial shed.

The result is a polished and elegant piece of architecture-making that, as Dr John Macarthur, a reader in architecture at the University of Queensland, puts it, "shows that a new level of assurance is emerging in the younger Brisbane practices...this is sophisticated design resolved to a level that is rare in commercial building."

Writing in Architecture Australia, Dr Macarthur says, "There is a faith here that can accept the context of climate and local architectural idiom as a base for thinking rather than an ideology to be propagated. What appears as modeling on the exterior form of the building is in fact driven by a holistic logic of organization, structure, spatial experience and lighting conditions."

Cutting Edge has three distinct facades. On Riverside Drive, with its stepped balconied corners and slab of aluminium blinds screening recessed windows, it could easily pass for a medium density residential development. To the rear it is clad in iron sheet, recalling the original industrial shed, with a trellis system on which to grow a wall of creeper. But it is on Jane Street, where the building rotates to face the park, that the power of the concrete comes to life.

Here the thin concrete walls and floor plates that help frame the Riverside Drive façade turn, to reveal an aspect of crisp walls of white off form concrete with a row of precast vertical blades set against grey zinc cladding and articulated to protect openings from the low summer sun. A deep cantilevered canopy signals the main entry. The boardroom, twisted and pushed out of the building's vertical plane to capture better views of Davies Park and the river, hovers imposingly overhead. Further along toward the rear of the building, a row of metre-deep precast blades marches along, angled to provide protection from the low-setting sun while still offering views of the park across the road. The blades continue up beyond the parapet in apparent expectation of a yet-to-come addition. Added up, the result is a deeply-etched, sculpted façade, filled with visual interest and enlivened by plays of light and sharp shadows; with an intangible quality to the colour of the concrete – composed of a white oxide additive, white Ravensbourne sand, white cement and white aggregate – that is difficult to define.

"The expression of how things are built is really important to us, and concrete does that," Richard Kirk says. "It appealed to our clients; they liked the tangible tactile nature of the material we were proposing. There's a quality here that only concrete delivers...there are no applied finishes, it will only get better with time. We used concrete strategically and to frame the building's elevational elements. Off form worked perfectly for us."

Inside, the strategy is straightforward. The 'dry hire' suites on the ground level and rows of offices on the two floors above are placed along the Riverside Parade façade, affording users the best of the river views. The remaining spaces, generally black box spaces, are located deep within the building, arranged about a forest of lustrous structural concrete columns that show surprising marble-like qualities. The columns define the circulation paths on each floor. Each column was encased in polymer-coated paper formwork and Kirk admits that the finish on the columns, when stripped of the formwork, went way beyond his expectations.

He says the power of the columns reminds him of the notion of "building around a ruin, where the only permanent feature is the concrete and the columns, everything else can be built or knocked down around them."

The grand gesture of the Cutting Edge building is its foyer, of fire-rated off-form concrete with the board markings left exposed, which rises dramatically for the full height of the building. Steel and timber clad flights of concrete stairs and an exposed black steel and glass lift provide independent sculptural relief within this tall space, while a three storey wall of glass of cathedral-like proportions facing Davies Park floods the foyer with light.

The foyer breaks free at the roof top where the boardroom, staff restaurant, theatre and landscaped garden are arranged beneath a sheltering roof, expressed as a section of a plane rising gently from the rear of the building and projected a considerable distance to provide shade over the boardroom and restaurant. It appears to hover in parts, resting on glass highlights which lend it a surprising lightness, as if it could take off at any moment on an updraft of air. JR

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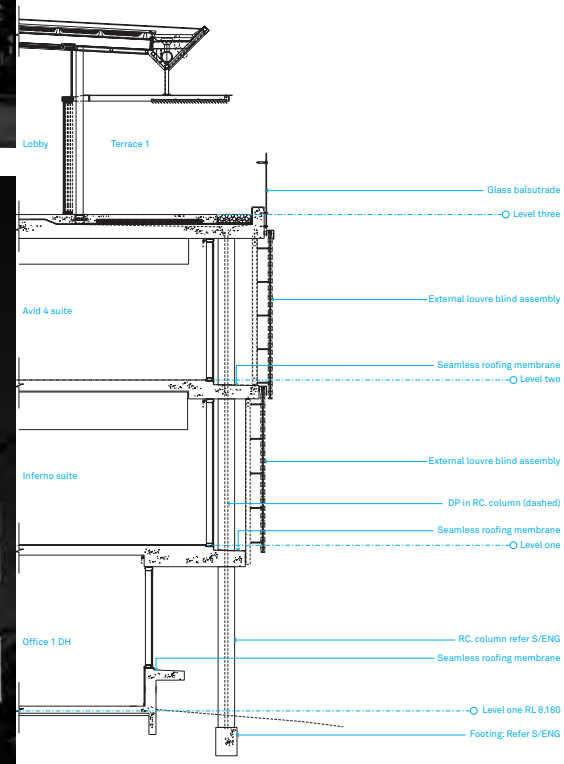
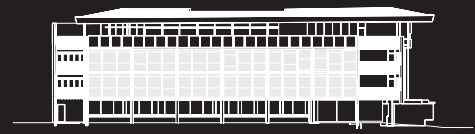
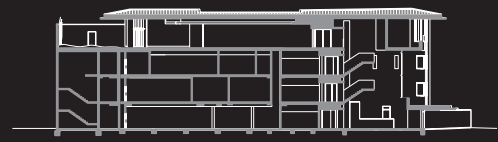
Detail section – section through riverside drive facade



Jane Street elevation



Riverside Drive elevation



Section

Project Statement

The site is located at the southwestern corner of the Brisbane City Frame – a critical juncture where the city ends and the suburban qualities of West End begin – and occupies a prominent river frontage site opposite Davies Park.

It is located just upriver from a local concrete batching plant – the proximity to this facility and the history of concrete production in the area was the first clue to considering the use of concrete as a dominant material and construction method.

Cutting Edge uses insitu concrete walls arranged in a series of fin walls or blades – these elements work as frames to establish views externally as well as a means of ordering the different glazing and screen devices. They frame the overtly transparent building.

To emphasise the strength and plastic quality of these insitu concrete forms fillets were not used on the corners, so the concrete elements are in sharp relief in the intense sub-tropical sun.

The deletion of the fillets allowed the concrete elements to have much stronger reading within the building presentation.

The site has three street frontages, all with very differing scales and relationships with the immediate context. The concrete fins rotate on the critical corner junction to reveal different views of the river and it is this device that connects the differing elevations to the river (transparent, open) and to the park (closed, articulated openings).

The insitu concrete walls are expressed blades and define different spaces. These blades rotate around at the transition between the Riverside Drive and Jane Street elevations, where they are fully expressed in elevation. To exaggerate the mass of the concrete walls, all edges and corners are cast without fillets allowing the sunlight to cast crisp shadows.

The concrete for the walls and fins contains white oxide additive, white aggregate and white Ravensbourne sand which produced a vibrant white hue in the concrete walls when used externally.

As the concrete had a rich depth of colour and texture these walls were also used internally to produce a seamless transition between interior and exterior. Internally the white concrete walls were used to identify the public spaces and foyers and were typically lit, where possible, by natural light.

In addition to the white insitu concrete walls and awnings, precast concrete blades were used as another method of articulating the Jane Street elevation – the blades worked as sunscreens and structure.

The white insitu concrete was also used to make the concrete entry awning which is cantilevered a substantial distance – the concrete allowed a sculptural approach to this entry sequence and with the use of the material internally makes the seamless transition from exterior to interior.

Penetrations within the insitu concrete walls are carefully detailed to emphasise the monolithic quality of the material – generally frameless glass is used in these areas.

To contrast and to emphasise the colour and texture of the concrete the flooring throughout the public spaces is a polished concrete.

Externally walls and soffits use pre-weathered zinc cladding and internal soffits are hoop pine battens. Externally the building is designed to weather well and to be durable – finishes and materials that contrast with the fleeting temporality of the work undertaken inside.

Architectural expression

The building language developed is a direct expression of the organisation of the building and the materials used. This is best demonstrated when comparing the different elevations to each street frontage.

The north-western Riverside Drive elevation is stepped in section at both ground and the upper level to reduce the observed mass of the building to two levels. The two middle levels contain the main suites and have full height glazing which is protected by the operable blinds which respond to the sun's position.

Balconies are located at each end of the elevation to book-end the run of repetitive detailing and further reduce the impact of the building volume. The raked roof is not parallel to the plan but reflects the subtle shift in the river alignment at that portion of the Kurilpa Reach.

The Jane Street elevation fronts Davies Park, but the walls are rotated to pick up more of the River view to the west and the distant bend to the south-west. Laid over the zinc clad walls are vertical blades to protect the openings from the low summer sun. These fins also articulate the elevation and further emphasise the rotations of the walls.

The Buchanan Street elevation houses the large blind functions of the facility – the outside broadcast vans and the two-storey studio and mix room. As these functions did not permit plan or section manipulation a steel trellis was introduced to place a layer over the wall. The effect of shadows and night lighting produces a range of effects. Where the Jane Street and Riverside Drive elevations are designed for both close and distant view relations, this elevation fronts a very narrow street.

Environmental/energy efficiency

The first three levels are mechanically ventilated with the top level having both mechanical and natural ventilation systems available, depending on the temperature and functions.

Mechanical zones were increased to at least five zones per floor to minimise energy use when spaces are not operational. The computer rooms are mechanically ventilated 24 hours a day with 100% redundancy.

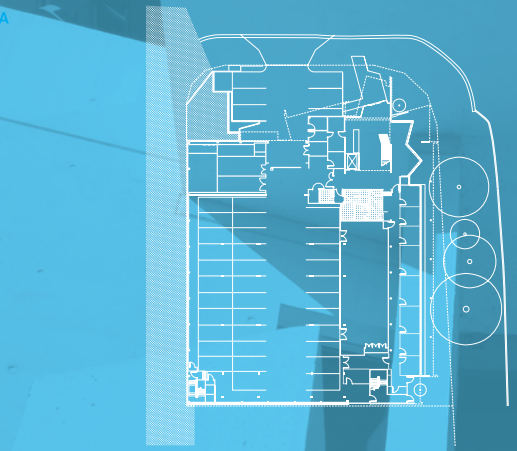
The building is glazed for views and natural light on the Riverside Drive and Jane Street elevations. Most glazed areas are protected by external screening with operable screens used on the river elevation.

A Building Management System is used to monitor the performance of the mechanical ventilation, security and access, and the operable blinds.

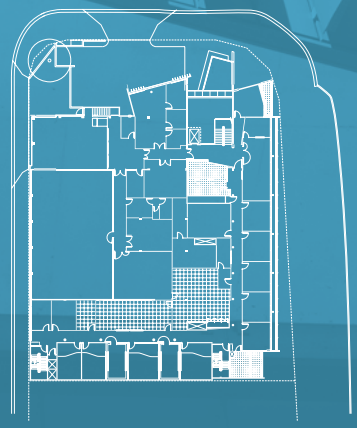
The insitu concrete and landscaped roof terraces are passive means by which to improve the local climate in and around the building environs.

Richard Kirk

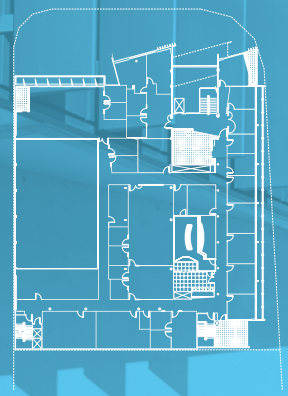
Project Cutting Edge
Location West End, Brisbane, Australia
Architecture Richard Kirk Architect
Principal Richard Kirk
Project Team Brendan Pointon, Fedor Medek, Andrew Drummond
Structural and Civil Cardno Alexander
Quantity Surveyor Rider Hunt
Acoustic Hyder
Hydraulic McKendry Rein and Petersen
Landscape Terrain
Mechanical and Electrical DMA
Contractor Hutchinson Builders
Certifier Philip Chunn and Associates
Photographer Jon Linkins



Ground



Level 01



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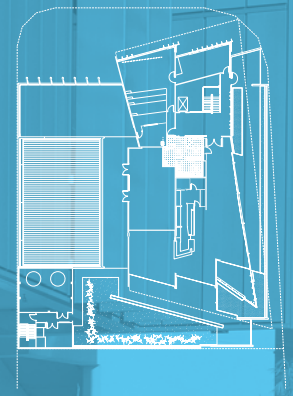

Level 03