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NEW PUBLIC BUILDINGS

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MAY 2006

Áras Chill Dara, Devoy Park, Naas, Co. Kildare

New civic offices for Kildare County Council and Naas Town Council

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Architects' Account

In 2000 Kildare County Council and Naas Town Council made a strategic decision to consolidate the Local Authority services provision in a centralised location. The competition design brief expressed the aspirations that the project should allow the Local Authority to fulfil its role as a:

"Public Service Provider (...) an enabling force for the creation of community spirit and pride (...) welcoming to all who enter, yet it must also state the importance of being the host of a range of civic authorities."

To realise these aspirations, key decisions were taken at the site selection and briefing phase: The headquarters should be located close to the centre of Naas to strengthen the existing urban fabric of the town and be easily accessible to the public. A 'civic garden' was to be incorporated into the design as a "contribution to the urban fabric and the people of the town". The new civic offices should be "welcoming to the public and allow for external events." The existing Pavilion on the site should be integrated into the design. The site selected was a 32,900m² former military barracks close to the centre of Naas. The final brief required accommodation for 420 staff, a council chamber and also a distinct area for Naas Town Council. Parking for 413 cars had to be provided. The brief also stipulated that the project should be designed to a high level of sustainability.

CLIENT

Kildare County Council and Naas Town Council

ARCHITECTS

heneghan.peng.architects in association with Arthur Gibney and Partners

QUANTITY SURVEYORS

Boyd Creed Sweett

SERVICES ENGINEERS / FIRE ENGINEERING / ACOUSTICS

Buro Happold, London and Dublin

CIVIL AND STRUCTURAL ENGINEERS

Michael Punch and Partners

FAÇADE ENGINEERS AND RAMP ENGINEERING

RFR, Paris

LIGHTING ENGINEERS

Bartenbach Lichtlabor GmbH, Aldrans, Austria

LANDSCAPE ARCHITECTS

Mitchell and Associates

BUILDING SIGNAGE

Zero-G

MAIN CONTRACTOR

Pierce Contracting



A slowly inclined ground plane gradually ascends from the Limerick Road, creating a 'civic garden' for Naas around which the civic offices are formed. This sloped garden merges with the street, utilising the depth and opening up the entire site to public access. Like the theatre stage, the sloping surface highlights activities on the garden while conversely providing views back to the town. The two building bars that form the civic offices enclose and are a continuation of the civic garden. The inclined façades form continuity with the grass surface so that building and park no longer read as two distinct elements but rather combine to create an outdoor room around the retained pavilion.

The offices – which have a split level section, one bar occurs at garden level, the other at car park level – are connected by a series of accessible ramps that form the main public route through the building; their transparency allowing the garden to flow through. The ramps are spaces of social interaction, facilitating co-operation between departments and the public.

The main building bars of the offices have an exposed reinforced concrete structure, its embodied energy provides an active role in the environmental control of the offices. The ramp structure minimises the structure along the façade, thus increasing the perception of being in an outdoor space. Vertical loads from the roof are taken by a row of columns along the centre of the space, with pre-stressed vertical cables in the façade plane taking asymmetrical roof loads. The ramps hang between the columns and façade cables spanning horizontally. The façade is a rainscreen composed of single glazed sheets; a moderate internal temperature is maintained by sunshades and louvers. It is a

transitional space between exterior and interior and thus not controlled to the same level as the offices.

The building façades are glazed to maximise the available natural light. A glazed curtain wall carried on the floor slabs wraps the entire building, transforming from solid elements to full-height glazing according to location. On the garden side, an outer skin of frameless glass sheets screen, printed with a grass motif, creates a space of entry and shading. The qualities of glass as a material that reflects, refracts, absorbs light and changes the degree of transparency relative to the angle of the viewers are celebrated. A complexity of perception is created by the contrasting angle of the inclination and orientation of the opposing façade.

Photography: Hisao Suzuki

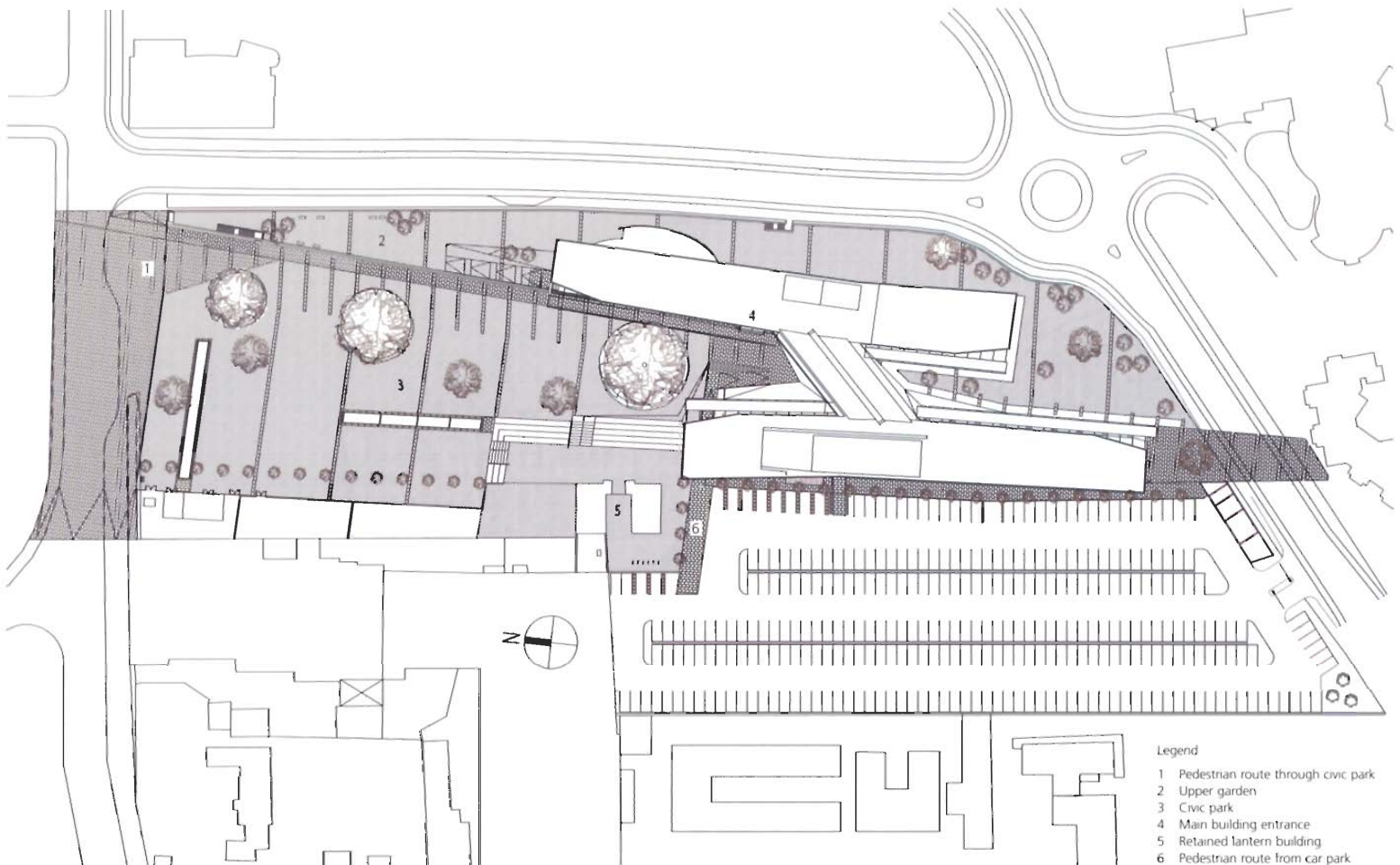
Project Size: 11,400m² (building); 8,452m² (park)
Project Duration: April 2003 to December 2005 (on-site)
Project Cost: €42million

- 1 The view of the ascending outdoor room of the civic garden from the main road, with the main pedestrian route to the building on the left, along the retaining wall of the raised garden
- 2 View from the public plaza to the slowly inclined plane of the civic garden
- 3 Internal ramp space looking onto garden as it passes through the building



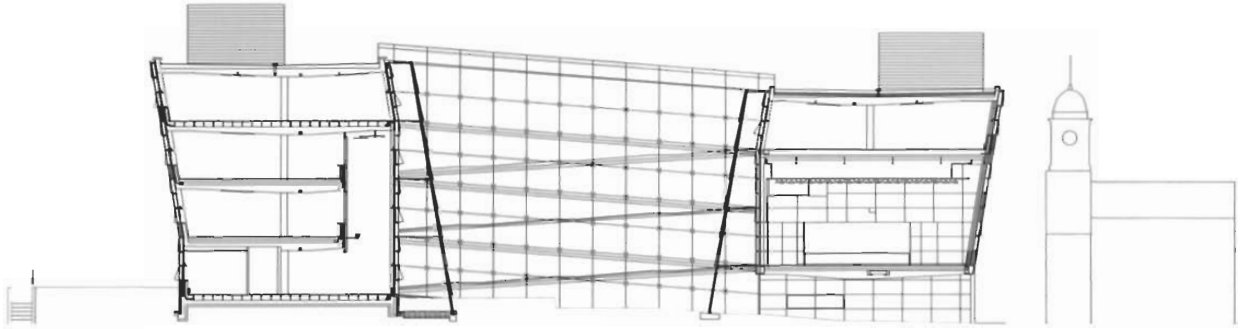


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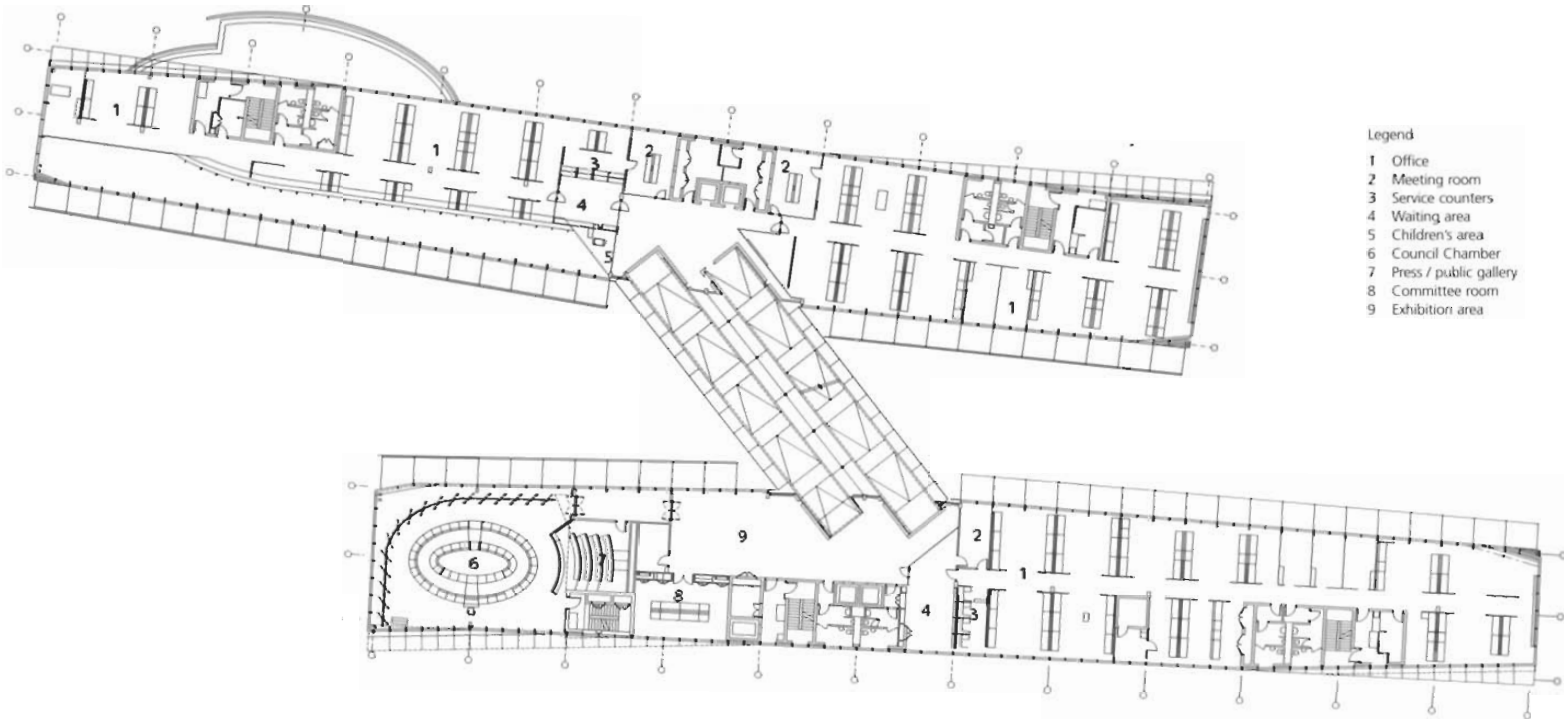


Site plan

- 4 View from the south garden. The ramp and garden screen of the east and west bar create the outdoor room space
- 5 Fully accessible Council Chamber with bespoke maple elliptical bench style desking

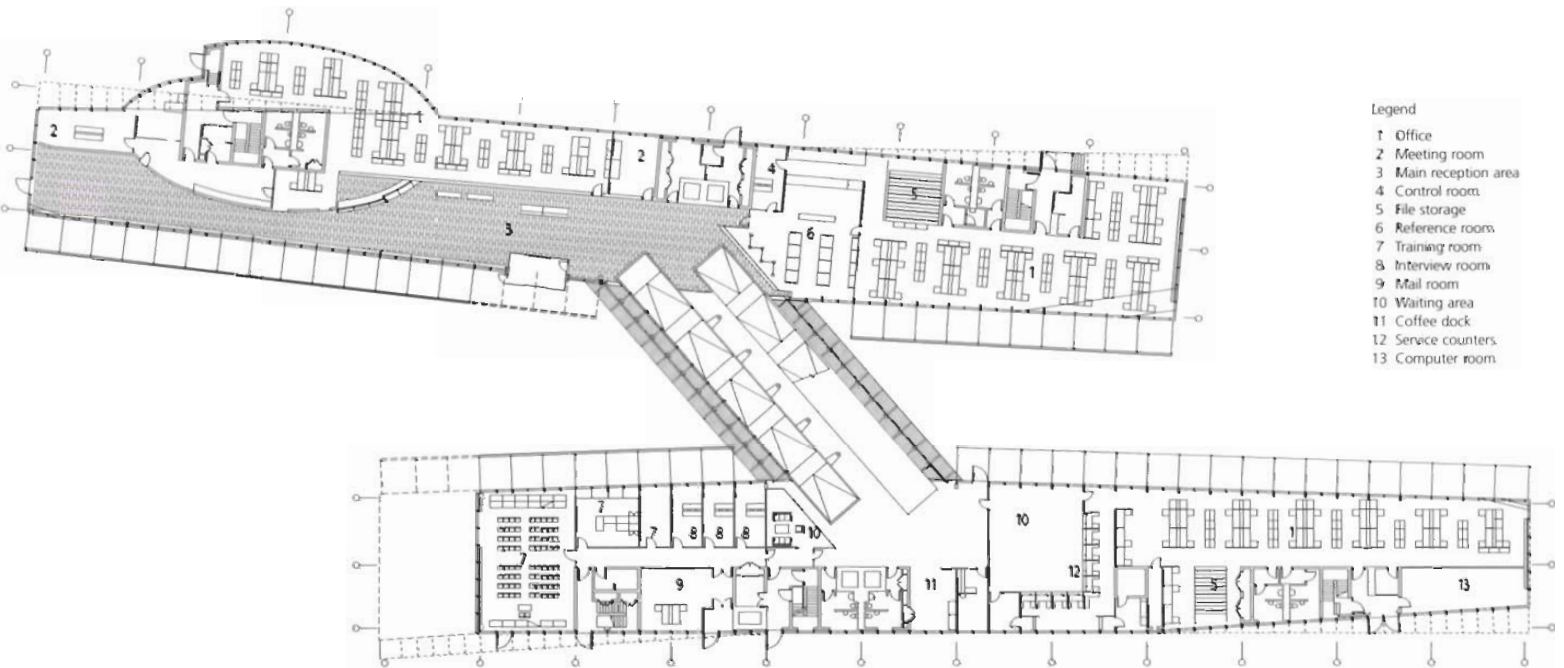


Section through atrium and Council Chamber looking south



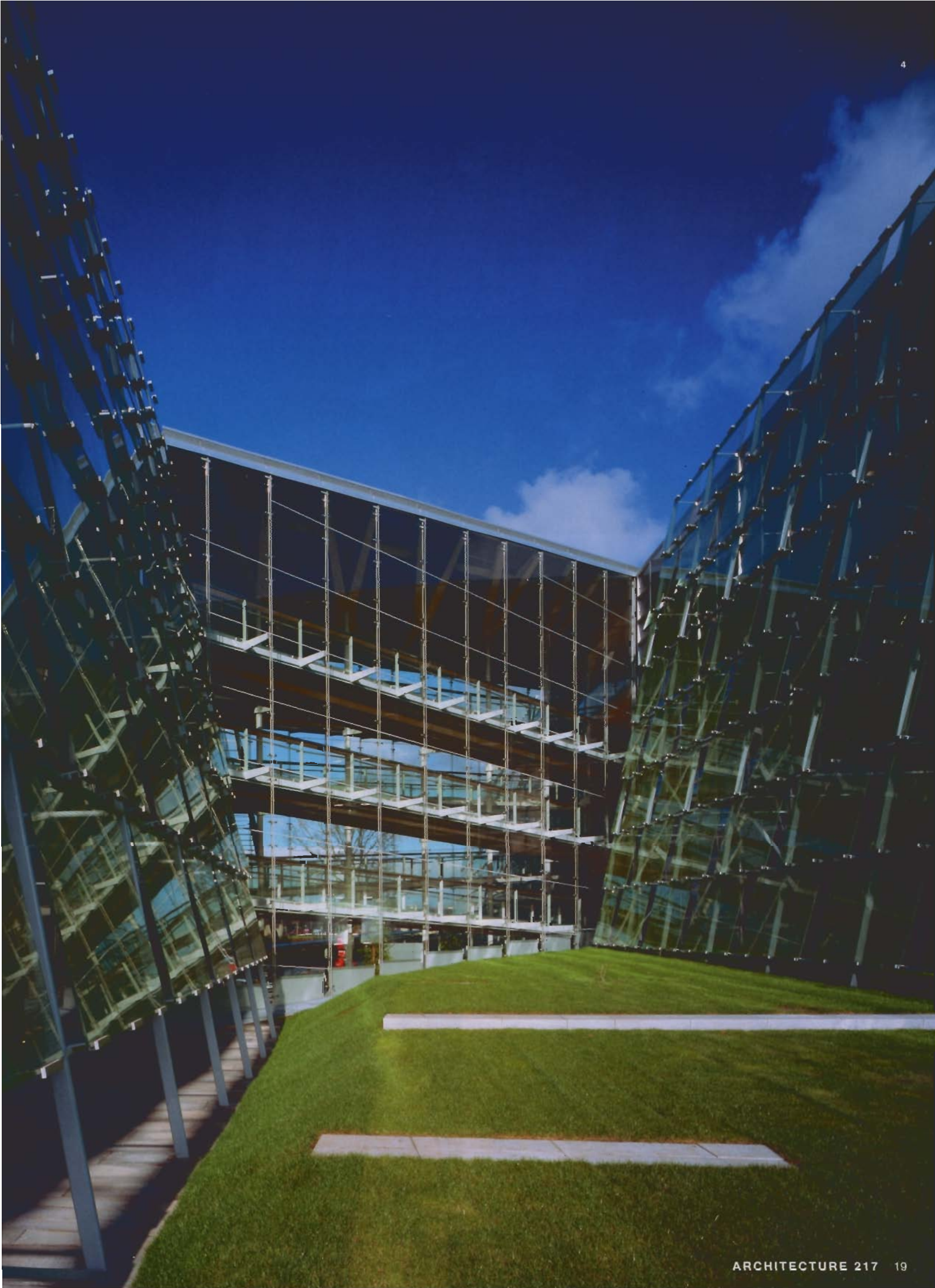
First floor plan

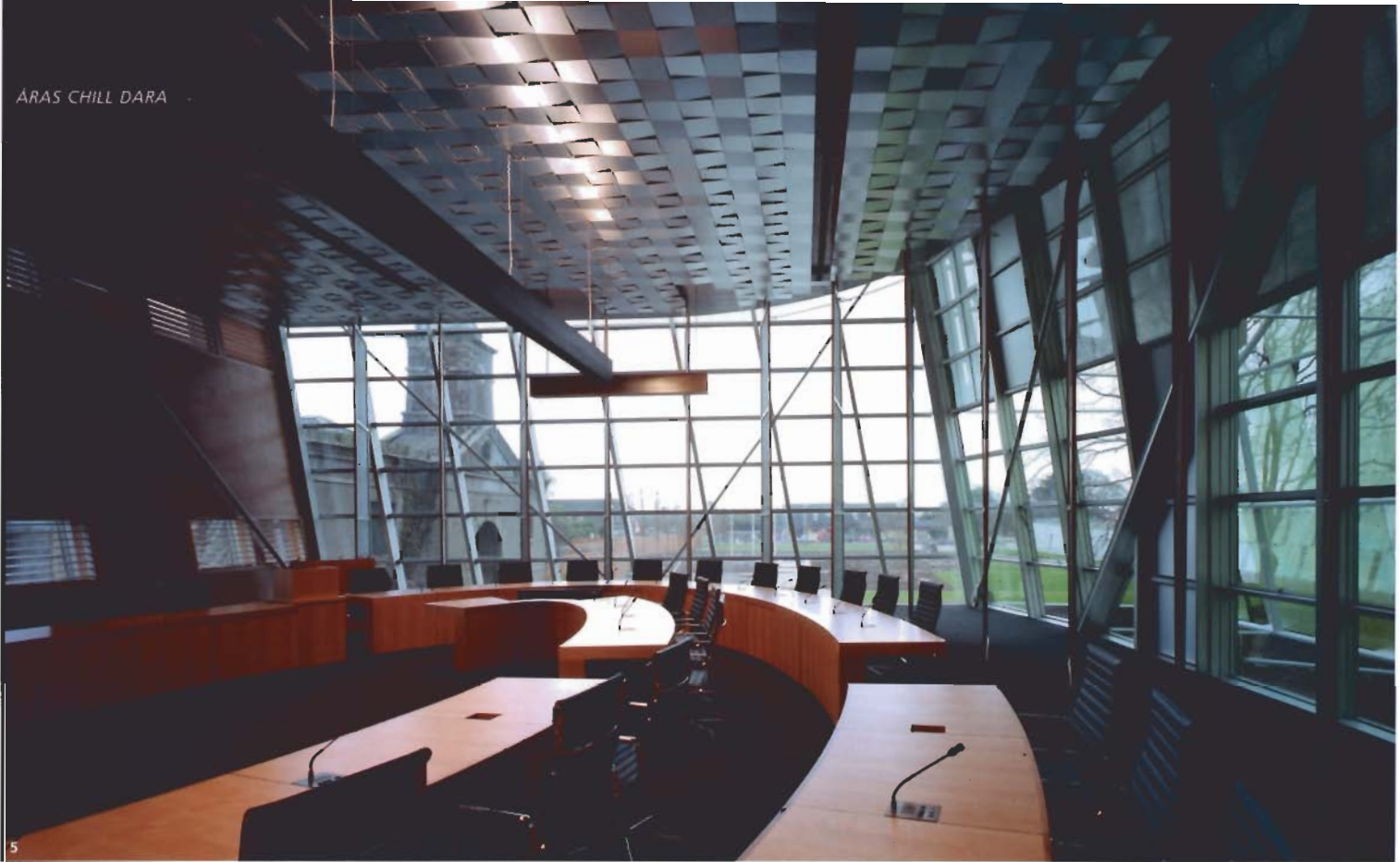
- Legend
- 1 Office
 - 2 Meeting room
 - 3 Service counters
 - 4 Waiting area
 - 5 Children's area
 - 6 Council Chamber
 - 7 Press / public gallery
 - 8 Committee room
 - 9 Exhibition area



Ground floor plan

- Legend
- 1 Office
 - 2 Meeting room
 - 3 Main reception area
 - 4 Control room
 - 5 File storage
 - 6 Reference rooms
 - 7 Training room
 - 8 Interview room
 - 9 Mail room
 - 10 Waiting area
 - 11 Coffee dock
 - 12 Service counters
 - 13 Computer room





Áras Chill Dara: Inclusive Design – Architects’ Accessibility Statement

As a public service provider, Áras Chill Dara, the local authority, welcomes a diverse group of people who avail of its services. The brief required the project to be organised in a “clear and simple manner for the public”, while providing a “secure working environment” for staff.

A clear and accessible public route

The new civic offices are accessible in aspiration, image and operation. A guiding principle of the design is that all spaces should be accessible to all users; both staff and public use the same routes of circulation and interaction. The ramp space, around which much of the building is organised, is the heart of the building. While a ramp could be considered to be a code for a particular type of inclusive design, it functions here both as an accessible surface and as a central navigation point around which all the public areas are accessed.

The ramp space is a central reference through the building and garden. Visible and accessible from the entrance, all public counters and meeting rooms are directly reached from the ramp landings, as are the lifts. In order to make the service as simple as possible, departments with the heaviest public usage are located close to the entrance adjacent to the exhibition space, public café, lifts and toilets.

Colour and contrast

The ramp is conceptually an extension of the floor surface, however, its surface is wood in contrast to the carpet and stone of the entrance and ramp landing, creating a tactile change for the user. The highly glazed space is filled with light, providing an additional sensory change from the more controlled landings. Colour is used sparingly throughout the building; its presence indicating public counters, which are clearly visible with the bright yellow back wall.

A building that provides for differences

The design strives to accommodate all along the same route, however, at times, differences must be acknowledged and alternatives provided. All public desks have a lowered portion for wheelchair accessibility as well as a higher portion

for those who are standing. For the aurally impaired induction loops are located within secured public counters and the public gallery of the Council Chamber. All male and female toilets include an accessible toilet, while a separate toilet has also been provided that can serve for those who need a carer.

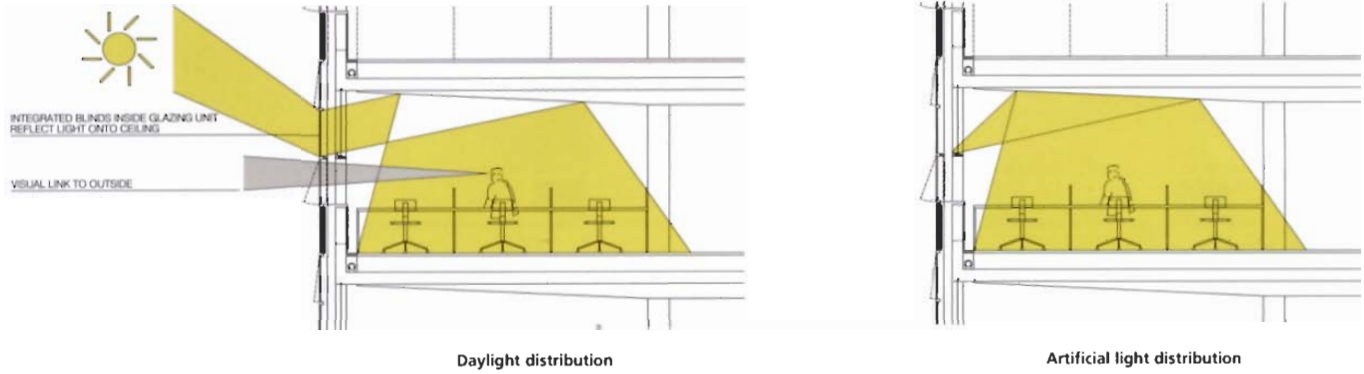
A clear and simple navigation

The building has been designed to allow for easy navigation, which has been taken into account in the sign system by minimising signage. To accommodate the diversity of languages now spoken in Kildare, the sign system is supported by a printed directory distributed at the reception. This is being produced in six languages and a Braille card.

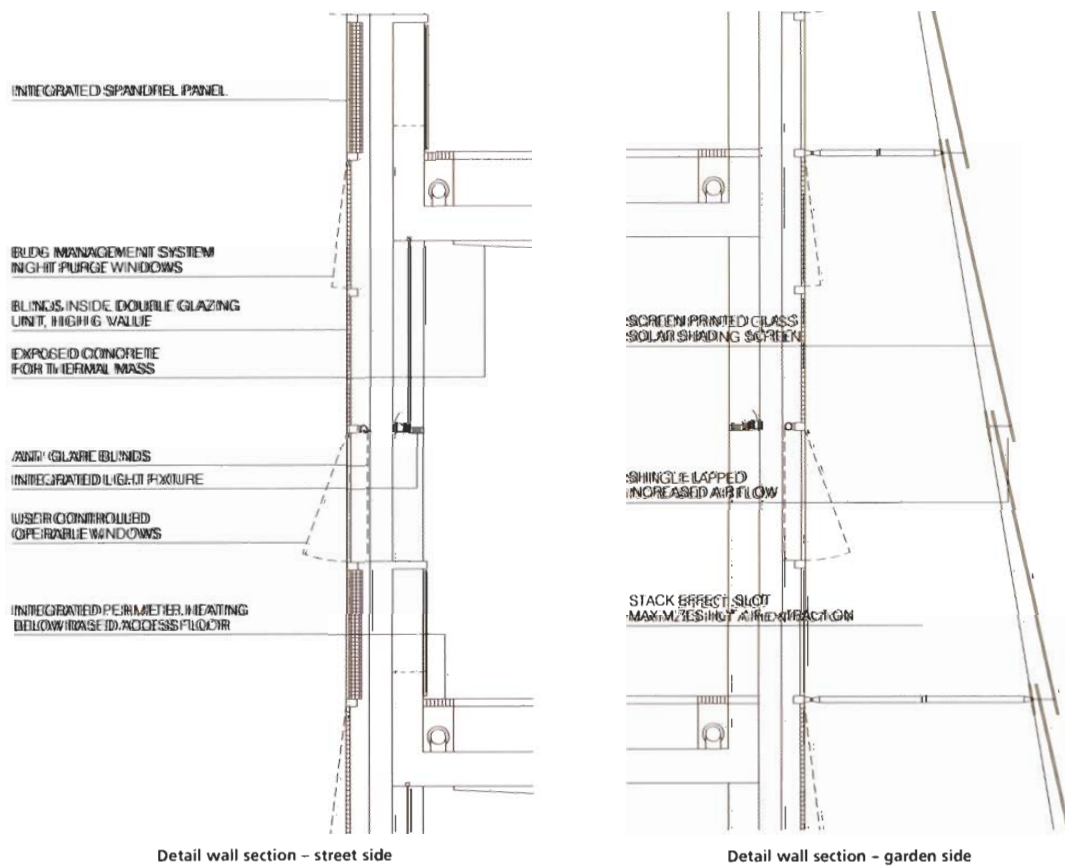
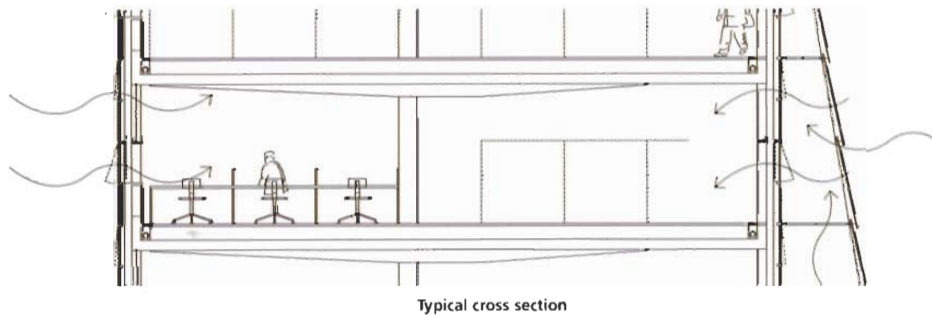
This project aspires to create an inclusive environment where everyone, regardless of age or ability, can avail of the services and activities that are provided.



Deep space lighting strategy. To provide continuous even light distribution through the full depth of the building cross section



Natural ventilation. The exterior skin operates at different levels in order to maintain a comfortable internal climate



Áras Chill Dara – A Fully Naturally Sustainable Building

– Architects' Sustainability Statement

Áras Chill Dara had to allow the Local Authority to fulfil its role as a:

"Public Service Provider (...), facilitator(s) for the fulfilling of community projects and an enabling force for the creation of community spirit and pride. (...) Welcoming to all who enter, yet it must also state the importance of being the host of a range of civic authorities." (Design Brief for the new civic offices)

The architectural response to this brief was to form the civic offices around a civic garden and to create a light-filled building, whose activities are visible from the garden. As a public authority, which is administering the public interest, the building should be open and visible.

Energy efficient design

The environmental challenge was to design a building that was both transparent and energy efficient. Coupling the requirement for a low energy design with an open and transparent building led to considerable effort in the design of the façades to ensure a balance of transparency, control of solar heat gain, optimisation of natural lighting and maximisation of the thermal performance of the curtain wall system.

Natural ventilation

By taking advantage of Ireland's moderate climate, the building has been designed to operate as a fully naturally sustainable building, utilising and optimising a full spectrum of this technology. A narrow cross section is maintained to allow for continuous air flow. A 3-metre clear ceiling height is provided to redistribute heat build up.

A responsive façade

The exterior skin operates at different levels in order to maintain a comfortable internal environment. A curtain wall wraps the building; the extent of glazing varies, as its orientation and relationship to the garden changes. The basic façade module is four panels high per floor. The top two panels have integrated lamellae redirecting daylight to ceiling reflectors, whilst reducing solar build up and improving the unit's thermal performance. The third panel is glazed to allow an exterior connection. The lowest panel is glazed on the garden side to maximise the garden connection; on the street side it is solid. Vertical shading screens block low angle east and west light, reducing glare and heat build up.

A glazed transitional space

A key decision was to consider the glazed ramp space, which connects the building, whilst allowing the garden to flow through a 'transitional space'. This is a space through which people pass but is not a workspace. The interior space closely tracks the external conditions, creating a loosely controlled naturally ventilated space. The façade is single glazed with extensive venting, which is utilised for cooling and for the fire strategy. Both exterior and interior, this is where garden and building overlap.

Orientation

The building allows the garden to flow through the site, which results in an east and west major façade orientation. Staff on both sides of the building have sun during the day, however, low sun angles had to be dealt with. A screen-printed glazed screen provides 25% shading on the garden façades, while creating a public façade for the building. The slot formed between itself and the primary building façade constructs a chimney, which enhances the extraction of hot air from within the building. On the other façades, solid panels provide the shading required. These façade

treatments, in conjunction with the heavy concrete structure, allowed for a predominantly naturally ventilated building

Siting

Áras Chill Dara is located close to the centre of Naas making use of existing resources. Much of the site has been retained as green space and, where hard surfaces are utilised in the car park, porous paving reduces surface water run-off.

Lighting

Artificial lighting is the single largest consumer of electricity in a building. To address this concern, the building has been designed with a narrow cross section of 12-metres, while a clear ceiling height of 3-metres is maintained along the exterior façades. The underside of the ceiling is shaped to achieve a sense of spatial expansion towards the outer walls. In terms of artificial lighting, a system was developed with lighting lamella inside the double-glazed units to reflect daylight onto the ceiling and back onto the work surface. This distribution method allows for light to be distributed evenly into deep office areas.

The building management systems controls dimmers to create a seamless transition between daylight and artificial lighting. This is achieved by controlling the geometry of distribution so that daylight and artificial light follow exactly the same path. By integrating lamella inside the double glazing units, the design greatly reduces the cleaning maintenance costs. Technology allows a fully effective solution to be implemented as transparently as possible to its user.

Contributing to the environment

The environmental strategy for Áras Chill Dara takes a two-fold approach: to conserve the resources of the environment, while simultaneously constructing a space that contributes to the environment in which the project is situated. Strategies are integrated that enable the building to operate with a minimal use of energy, while creating a public garden and pleasant working environment for the users.



“A Fresh New Voice on the Irish Scene”

Review by John Tuomey

The last time I saw *Oisin in a Timewarp*, the colossal man-on-a-horse sculpture by the late James McKenna, its clamped together timber structure was standing in storage in a narrow annexe to the Temple Bar Studios. How strange, nearly 20 years later, to stand beneath the heavy belly of the monument in the hallway of this new glasshouse in Naas. I remember James McKenna lecturing nonplussed students at UCD on the history of Western architecture, starting significantly enough (given Heneghan Peng's trajectory) with the pyramids at Giza. McKenna, in a memorable aside to a trenchant talk, argued that even within the rational discipline of architecture there was a mystery at the heart of artistic creativity that defied verbal explanation, but that remained palpable in the experience of the actual work itself.

Driving home from Cork on a rainy night in January, we took a detour to see this new building for the first time. It glowed in the dark, a giant glasshouse in a walled garden. Defying the street cred of its sustainable energy agenda, it was as if the owners wanted to show off the glamorous arrival of their new HQ. Lit up in the wet night behind winter skeleton trees, the building looked brilliant – light, bright and elegant.

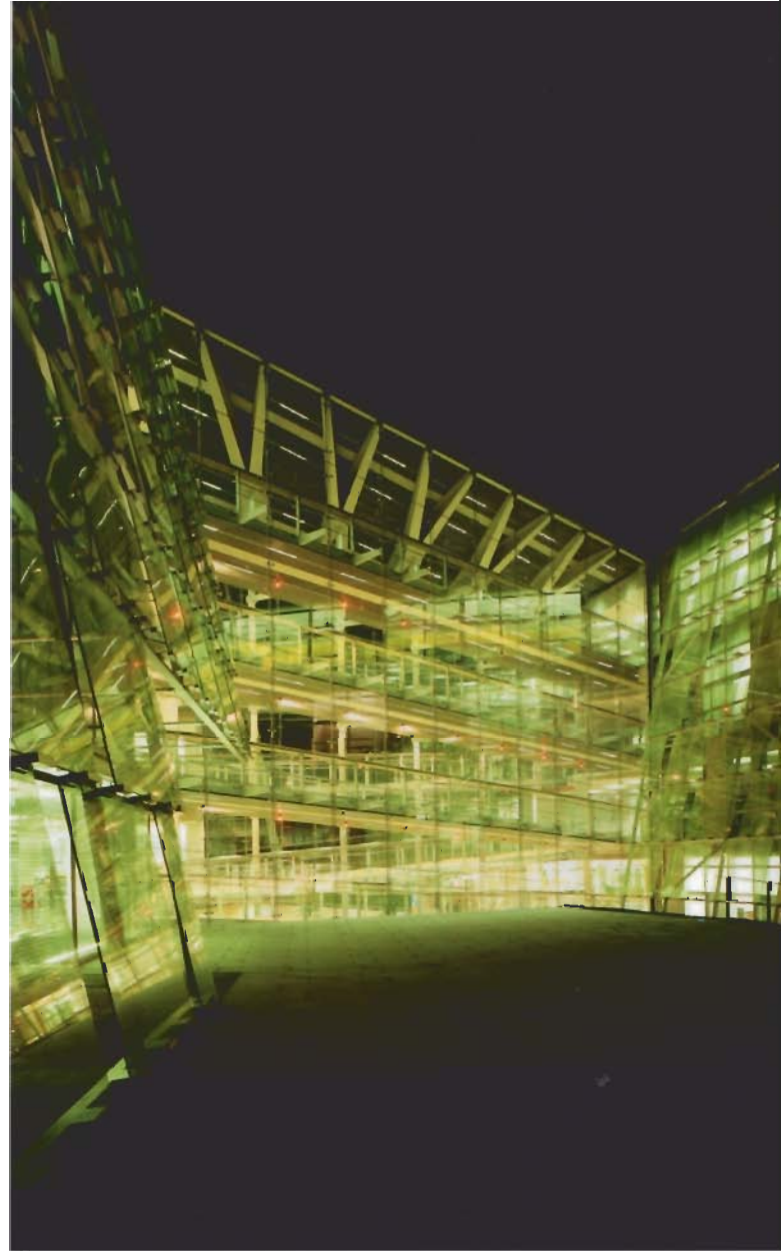
Returning as a reviewer for *Architecture Ireland* in the cold light of day, things were bound to be a bit more complicated than the initial drive-by kick in the head sensation of something new and different. But the building stands up to closer scrutiny and is definitely worth a journey, as the *Michelin Guide* would say, not only a detour.

Several things impress me about this work.

The first, and most obvious, is the integration of site and structure. The parkland is pulled right through the scheme, exploiting the long dimension of the site, neatly disposing the necessary carparking to one side and cleverly combining pedestrian routes from street and carpark to arrive together at the front door. Easier said than done.

Secondly, the tilting walls and consequentially skewed glazing contribute two particularly beneficial effects. Seen from the street, the space between the office buildings seems to open up to the sky. The sloped ground, split levels and leaning glass screens involve a larger dimension of the surrounding landscape/skyscape than a more conventionally four-square building would manage to engage. The other notable effect of the carefully tailored, crisply chamfered design is to give an all-over, all-round sense of singular form to the composition.

This is a fairly big building but it doesn't give any impression of front and back hierarchies. Even on the plainer elevations you still have the feeling of orbiting a glass-skinned object in the round. The concept is continuous, not just a special effect on the face of a less than special backside, which has become so common in our value-engineered environment.



A third significant difference from the norm is the absence of a central organising atrium, the ubiquitous hallmark of the new wave of civic offices to which this project belongs. In fact, this building has a vestigial side-strapped atrium of a kind along the Town Council's offices, but I think it would work just as well or better without it. Instead of a soaring atrium with distant overhanging balconies we are presented with a zigzag gangway street linking half-level floors. A wide, flowing interconnective space economically provides the building's social structure, and gives a genuinely accessible and relaxed character to the corporate institution, for staff and visitors alike.

In the final analysis, this building seems to be at its best when it is most 'through going' and true to the driving scheme behind the design. For this reason, the ovoid insertion identifying the Town Council's offices seems an awkward intrusion. I would have liked it better with no curves and no timber slatting. The lack of continuity of outside parkland under the rising ramp makes the smaller rear garden feel cut off, adrift from the purpose of the project. Likewise, the raised promontory garden seems awkward of access and, apart from contributing a truly remarkable retaining wall to the side street, this element is less confluent integral to the design than the occasion demanded.

In my opinion, this is an exceptional building, a fresh and welcome new voice on the Irish scene. The strategic clarity and distinctive promise of the competition winning design more than hold their ground in built reality. It is forcefully schematic, and this may narrow its appeal, but it is robustly and delicately realised. It displays a scope of ambition and an appetite for clearing a path through the clutter of our overburdened environment. Good enough reasons to be cheerful and to applaud a considerable achievement.