

# Inside Outside

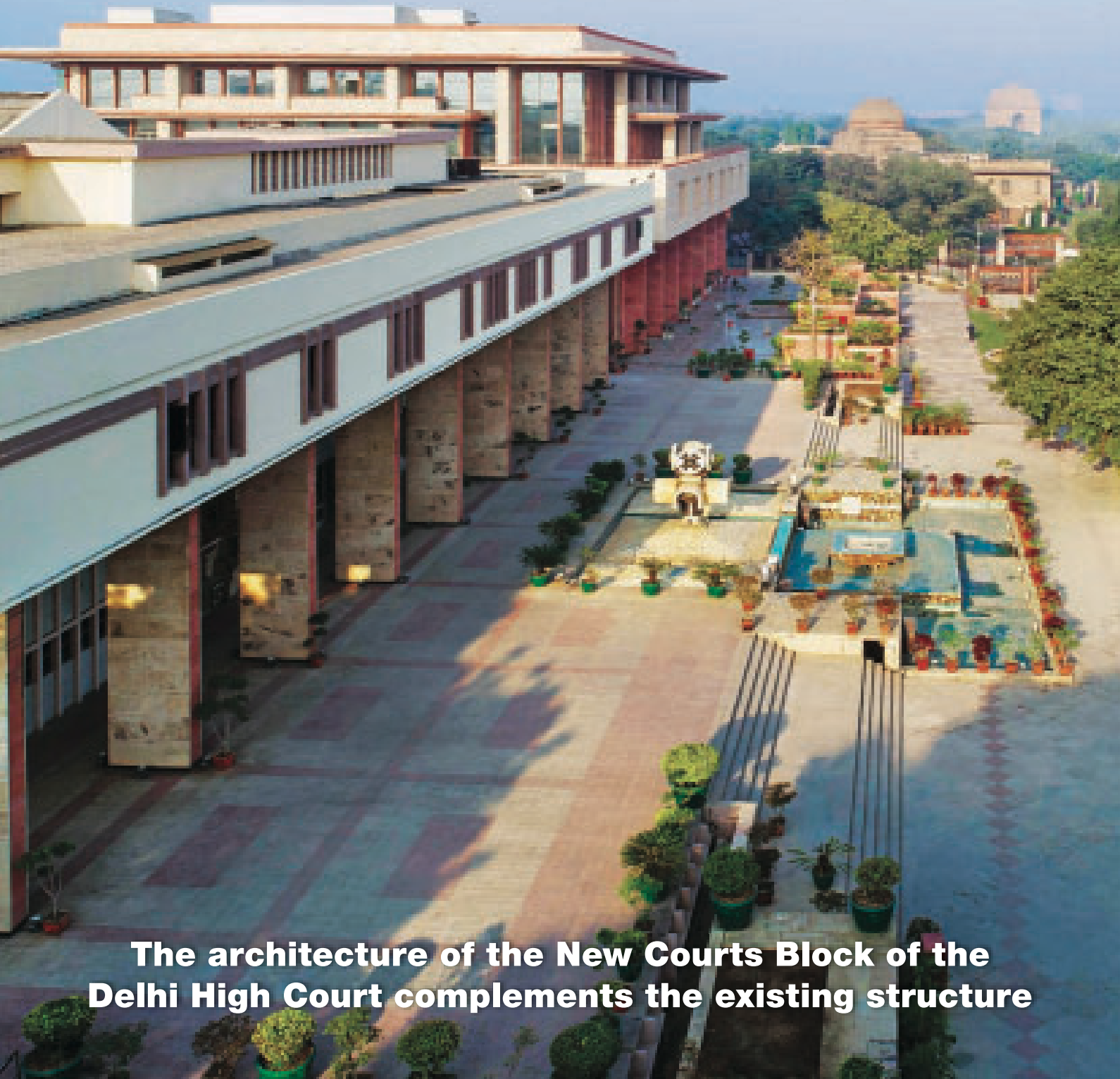
THE INDIAN DESIGN MAGAZINE

[www.insideoutside.in](http://www.insideoutside.in)

ISSUE 404

APRIL 2019

₹100



**The architecture of the New Courts Block of the Delhi High Court complements the existing structure**

# Democratic & buoyant



The architecture of the New Courts Block of the Delhi High Court complements the existing structure even as it brings the courts up to date on the contemporaneous requirements of a new century

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The 14,815-sq m Delhi High Court extension spreads across four storeys and houses 15 courtrooms, nine registrars' courts, 16 new chambers for judges and more.





Delhi High Court embarked on an ambitious plan in 2013 to increase capacity by 40 per cent in four years.



Sheets of aluminium stacked vertically and digitally cut to express the underlining principles of justice 'Truth Triumphs'.

For every city, its courts are a landmark, whether by their prominence in the common people's lives or a sense of the unknown apprehension of landing up there sometime. Over the years, however, courts have actively tried to make the experience pleasanter, and the Delhi High Court's New Courts Block is no exception. As the nation's judiciary system strives to evolve and expedite legal procedures, architectural interventions

become crucial to support these endeavours.

The Delhi High Court's location is already in a rather sylvan location, just off the India Gate lawns in the heart of New Delhi, and a short distance from the nation's Supreme Court. Sited amongst generous green between Jaipur House, which now houses the National Gallery of Modern Art (NGMA) and the Khair-ul-Manazil Masjid, built in 1561, the existing High Court building was built in 1966.

Unlike the rather classical



The façade of the Delhi High Court extension also imitates the monument's geometric patterns on some vertical stone panels that bind it to the monument's historic context.



architecture of the Supreme Court, the Delhi High Court had a building with a façade that blended broad pillars with the far straighter lines of modernist architecture – all clad in a combination of local cream-hued sandstone and concrete. ‘This was designed by a CPWD architect called Benjamin,’ says Goonmeet S Chauhan, lead architect of the project and a partner at Design Forum International, the architects of the project.

As the workload increased over the years, in 2013, the Delhi High Court embarked on an ambitious plan to increase capacity by 40 per cent in four years and 60 per cent by 2020, which has been met precisely through a comprehensive master plan. The design of the New Courts Block, which sits adjacent to the main High Court building, is in line with the existing building, even as it has incorporated modern elements to

Rectangular perforations align linearly, enabling airflow through convection—ingeniously addressing concerns of natural ventilation and temperature control.







**The interiors are designed to create a de-stressing ambience for litigants, lawyers and judges.**

suit contemporary requirements. In keeping with the vibe of its neighbours, the new building has been conceived as a sibling of the existing High Court block, drawing heavily from the essence of its neighbours.

'For me there were three things to be seen as far as context is concerned. First, only the main building block has some level of distinction, so I wanted continuity so that the two emerge as belonging to a family. Then, adjacent to the court is Sher Shah's tomb, and I thought there has to be some kind of symbolic reference. Finally, there is Jaipur House, with a beautiful dome. I wanted the dome to actually be visible from the new block.' Chauhan says the language of the stone comes from Jaipur House, from where he has also incorporated the eaves

(*chajja*) in Agra stone.

The New Courts Block, built over four years, houses 15 new courts, nine joint registrar courts, 16 judges' chambers, 16 judicial staff areas, lawyers and litigant facilities, etc. The court brings with it a quiet, refined architectural vocabulary, augmenting the existing block. It envisaged a combination of redevelopment, relocation of functions within the existing complex and building from scratch on new land. Deriving the design for the project focused on contextuality and a sense of place, incorporating green building features, universal accessibility, safety and security.

'This is a building of today. We have brought in the element of the eaves, visible in most of Lutyens Delhi buildings – and he possibly took a

lot of inspiration from Fatehpur Sikri. What is notable is the sharp edge of the eave and the silhouette of the buildings – instead of being rectangular, you see a sharp edge – I took that and the colonnade from Rashtrapati Bhawan, Parliament, etc, which adds a bit of rhythm – and in some sense there is a colonnade existing in the High Court building. I have made sure you don't see the aluminium, which is clad in stone.'

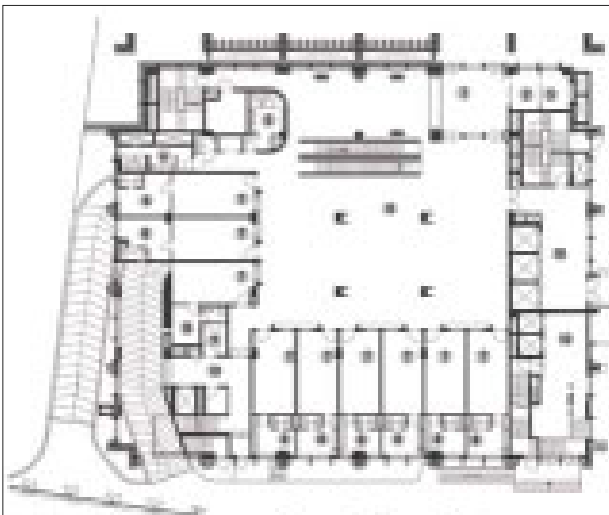
Requirements for modern gadgetry have been accommodated. The planning focuses on maximizing functionality, and the courtrooms are 30 per cent larger than the existing ones, featuring two large screens on the side wall panels, two speaking altars for the arguing counsels and two tables for their battery of lawyers, all



Goonmeet Singh Chauhan, Anand Sharma, Anoj Tevatia

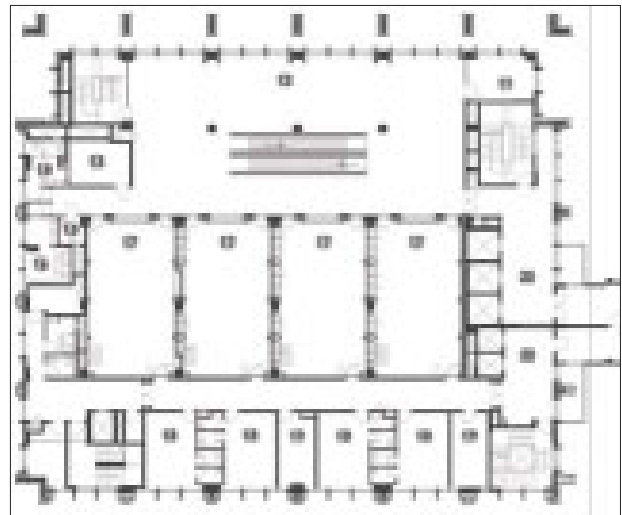
## FACT FILE

**Typology:** Institutional  
**Name of Project:** New Courts Complex, Delhi High Court  
**Location:** Delhi  
**Name of Client/Company:** Public Works Department  
**Principal Architect:** Design Forum International (Tevatia Chauhan and Sharma Architects)  
**Design Team:** Goonmeet S Chauhan, Girish C Joshi, Vikas Sharma, Vikas Madan, Kanika Gupta, Reena Sharma  
**Site Area (acres/sq m):** Part of the High Court Block  
**Built-Up Area (sq ft & sq m):** 14,815 sq m  
**Commencement Date:** December 2013  
**Completion Date:** December 2017



GROUND FLOOR PLAN

1. Security check, 2. Police control room, 3. Fire control room, 4. Waiting lounge, 5. Male toilet, 6. Female toilet, 7. Registrar's court, 8. Registrar's room, 9. Pantry, 10. Lobby

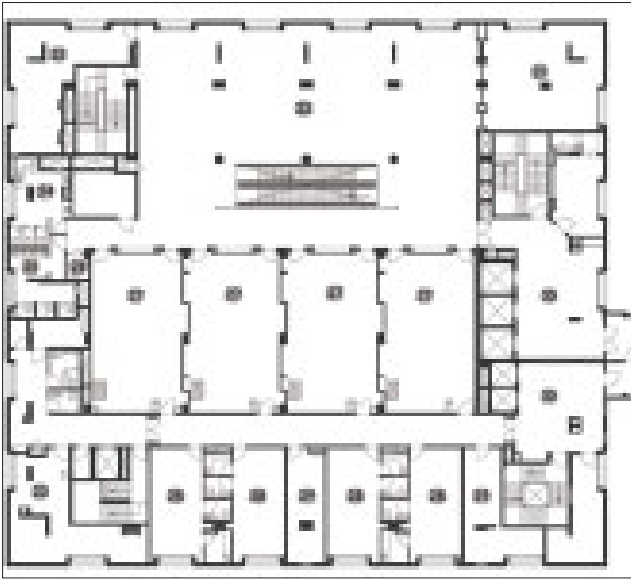


FIRST FLOOR PLAN

11. Bar, 12. Visitor's lounge, 13. AHU, 14. Female toilet, 15. Handicap toilet, 16. Male toilet, 17. Court, 18. Judge room, 19. Judge office, 20. Lobby

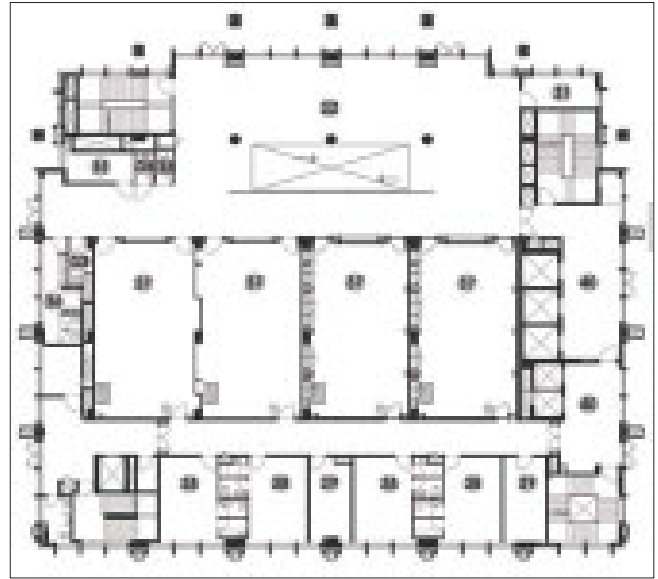






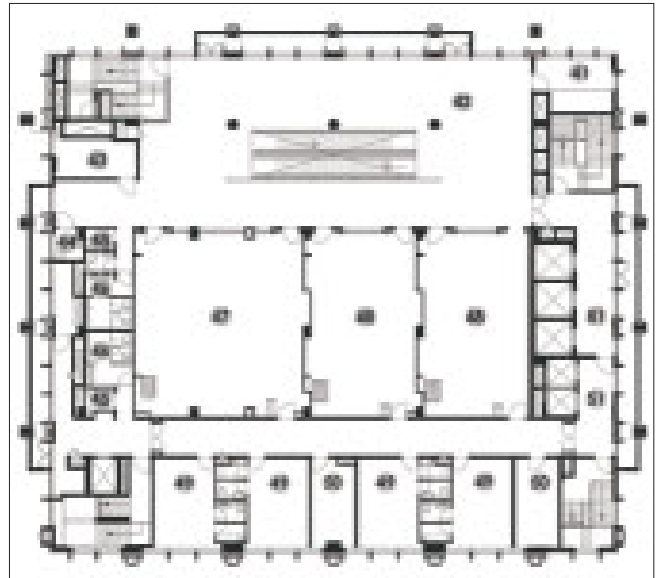
SECOND FLOOR PLAN

**21. Bar, 22. Visitors' lounge, 23. Store room, 24. Female toilet, 25. Male toilet, 26. Handicap toilet, 27. Court, 28. Judges' room, 29. Judges' off ce, 30. Lobby**



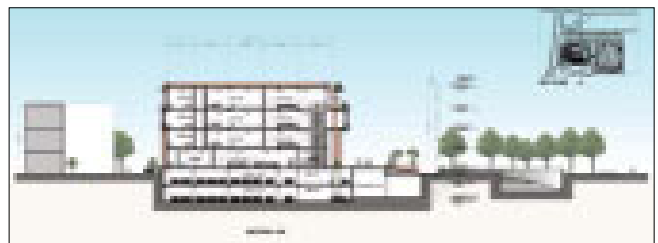
THIRD FLOOR PLAN

**31. Bar, 32. Visitors' lounge, 33. Female toilet, 34. Handicap toilet, 35. AHU, 36. Male toilet, 37. Court, 38. Judges' room, 39. Judges' off ce, 40. Lobby**



FOURTH FLOOR PLAN

**41. Bar, 42. Visitors' lounge, 43. AHU, 44. Handicap toilet, 45. Female toilet, 46. Male toilet, 47. Double bench court, 48. Court, 49. Judges' room, 50. Judges' off ce, 51 Lobby**



As part of its distinctive design narrative, Ar Goonmeet Singh Chouhan believes that 'continuum must win over revolutionary change, much like a modern avatar of the old order.'



Escalators, in addition to tactile flooring, and careful integration of signages ensure universal accessibility.



The floors are engraved with disabled-friendly signages at all levels, ensuring adequate way-finding and circulation measures.

provided with power points and input cables to upload extant content onto the screens.

A balance is achieved between the linearity and the façade form of the existing court block and the richness of Rajsthani stone that defines the nearby monuments. Horizontal and vertical elements, with a high podium, imposing columns, a rectangular colonnade and waterscape in the foreground, depict synergy with the original building. The material palette, however, shifts from paint to a combination of sand blasted Dholpur stone and red Agra stone, acknowledging the NGMA. The sizes, patterns and textures of the stone are in consonance as well, making it truly adherent to the traditional Indian theme prevalent in the precinct. While the view from Sher Shah Suri road

gives the impression of a very Lutyenesque character, when seen from within the campus, it marries beautifully with the rectilinear character of the existing high court building.

Interestingly, Chauhan says he had to resist pressure to add a dome to this building, in keeping with many of the surrounding buildings. 'The dome is an imperialist symbol of concentration of power, while this is a democratic building, made for the people'.

### Inside look

What is most striking is the feeling of spaciousness, of openness in the new block. Remarkably, the new court rooms are open, something that Chauhan says is getting appreciation from judges, lawyers and litigants alike, in contrast to the rather enclosed areas that courts



An effort was made to integrate technology within the courtrooms as well as the larger design of the complex to optimise efficiency in terms of spatial functioning, circulation, safety and security, public communications, and building energy costs.

are usually in. 'This is more democratic architecture, which is helping in transparency. These courts have thick glass windows, which allows you to look out.' Instead of the traditional wooden heavy panelling used generally in courts, stone panelling has been used. Chauhan also points out that there is 30 per cent more fresh air, which along with high lighting levels, transforms the interior spaces – making for less tension and more productivity. 'Women have been given separate bar rooms,' adds Chauhan.

While choosing materials for floorings, wall cladding etc, preference has been given to materials that could be sourced from within 500 km. In masonry, lightweight Autoclaved Aerated Concrete (AAC) blocks, which are partly composed of fly ash, have been used to enhance

the thermal properties of the building, and reduce the dead weight on the structure.

An interesting and challenging aspect was the high water table due to its proximity to the Yamuna floodplains. 'There are two-and-a-half basements in this building, and a diaphragm wall had to be built to address the situation,' says Chauhan. 'It's a top down construction; you drive a wall and hammer it down,' he explains. 'It's a two ft by eight ft wall, which gets repeated to create a bund and then dewatering is done. This building is buoyant – the building is not transferring the load down to the earth, instead the earth is pushing the building up. We had to tether the building to the ground using tension anchors. These are modern buildings with a lot of technology embedded in them but you don't see the technology,' points out Chauhan.



The interiors provide a truly immersive experience to the visitor, where walls display grand paintings and ornate artwork.



One courtroom has been provided at every floor with a video-conferencing facility.



The planning focuses on maximizing functionality, and courtrooms are 30 per cent larger than the existing ones.

While most planned buildings today comply with the universal accessibility norms of providing disabled-friendly toilets and barrier-free movement using lifts and ramps, the architects went a step ahead in complying with universal accessibility norms for the differently-abled by integrating elements that help visually-impaired people navigate the building comfortably. Accordingly, tactile flooring and railings, and low volume audio guidance using a PA system was introduced. Staircase skirting is designed in a stepped manner and in a dark, contrasting colour to allow the person climbing down to clearly see the edge of the steps. Risers too are of a dark granite to allow for better perceptibility while climbing.

Surveillance and security measures are a result of significant strategizing. Great care has been taken to

ensure a generous and well-planned security hold area at the entrance. Four fire escape staircases with natural light have been positioned on the four corners to enable quick egress. A high degree of transparency within the building, CCTV cameras, emergency PA system, centralized security control room, etc. ensure a heightened sense of security. The provisions of fire safety like alarms, fire suppression systems as well as ducting for fresh air supply at the crawling height have been executed meticulously and cleverly concealed behind ceramic frit glass panels. The design of the building also provides for large terraces on the third and fourth floors which could serve as a refuge area in case of fire.

The principles of green building design have been employed earnestly to impact the consumption of energy,



**Plush wooden furniture that follows a light colour scheme resonates with the architectural theme of the edifice.**

management of water, to enhance indoor air quality and optimize the carbon footprint during construction and post-occupancy. To optimize the costs of the green initiatives, the architects have chosen the passive green method over active green methods by configuring the basic form of the outer envelope to create shaded spaces around the building. One could liken the form of this mushroom-shaped building with massive overhangs cantilevering over six metres at places to a Banyan tree with a large shady canopy and an array of secondary aerial roots. This shaded microclimate around the whole building also reduces heat gain through conduction. The deep cantilevers are also punctured with linear cut-outs that allow any trapped hot air to escape through.

The hard plaza outside the

building on the ground floor happens to be in the northeast with this big structure on the southwest. This ensures the natural shading of the plaza, making it a pleasant hangout during the recesses through the day. A large water feature in the front plaza and the horticulture integrated within the feature further cool this plaza and enhance the micro-climate on the front side.

'The outer walls are all comprised of double cavity walls using AEC blocks which have superior thermal properties. To address the problem of the heat gain from the roof, thermal insulation and heat reflective tiles have been used. The rear side of the building, which faces the harsh southwest sun, uses special high-performance glass with coatings that enhance its heat curtailing properties. To mask reflections, a dense three-metre vegetation belt that abuts

the building has been added and therefore judges entering from the rear side will see a plantation from their cars, instead of a bare stone wall with glass,' says Chauhan.

Green buildings are expected to have an enhanced quality of indoor air in terms of percentage of fresh air and the ability to filter  $pm_{10}$  and  $pm_{2.5}$ . The New Courts Block employs an enhanced fresh air infusion system which brings in 30 per cent more fresh air from outside. To ensure that the energy costs of this additional fresh air are minimal, a heat recovery wheel system has been used. The shaded exterior envelope and insulation help in bringing down the total air-conditioning load. This, in turn, reduces the total energy demand on the building by approximately 20 to 25 per cent. Solar energy has also been used to reduce

## architecture

dependence on conventional energy sources.

This facility will also work as a zero-discharge facility. All the waste water goes to a sewage treatment plant in the basement. Clean, odourless water will be used for the water-based air-conditioning systems, flushing and horticulture. The other output is solid waste cake, to be used as manure for horticultural purposes. Sensor operated urinals and low flow faucets have also been employed to curtail wastage of water.

There are no dark corners in the entire building. On the periphery, approximately 50 per cent of the exterior surface is glazed as opposed to a minimum of 25-30 per cent. Even staircases, toilets and corridors have plenty of natural light. The central escalator area and the basements have large skylights to further augment daylight. Even the second basement receives daylight through the open well ramp and a carefully planned skylight placed in the basement now serves as a sitting-cum-landscape feature in the front plaza. 'The central area of the building is sky-lit, so the level of illumination is bearable, you don't see reflection on the clear glass,' says Chauhan.

The egalitarian level of the new building is so pronounced that even the ushers have their proper change rooms and a separate toilet, along with a driver's lounge – with two televisions.

Legal headaches may not get easier, but for those in the new block, at least they will have a better environment to work and rest in!



Themed artwork depicting Delhi's glorious architectural history makes public spaces de-stressing and delightful.



For the visually impaired, facilities include tactile, flooring, tactile railings and low volume audio guidance using PA System.