

Discovery centre

Public, Workspace

Bangalore



ARCHITECTURE DISCIPLINE



LOCATION: Bangalore, Karnataka

PRINCIPAL ARCHITECT: Akshat Bhatt

DESIGN TEAM: Aditya Tognatta, Nishant Malhotra, Nidhi Khosla

BUILT AREA: 37000 sq. ft.

COMPLETION OF PROJECT: November 2013

ELECTRICAL CONTRACTORS: Lirio Lopez

STRUCTURAL ENGINEER: Isha Consultants Pvt. Ltd.

PHOTOGRAPHY: Jeetin Sharma

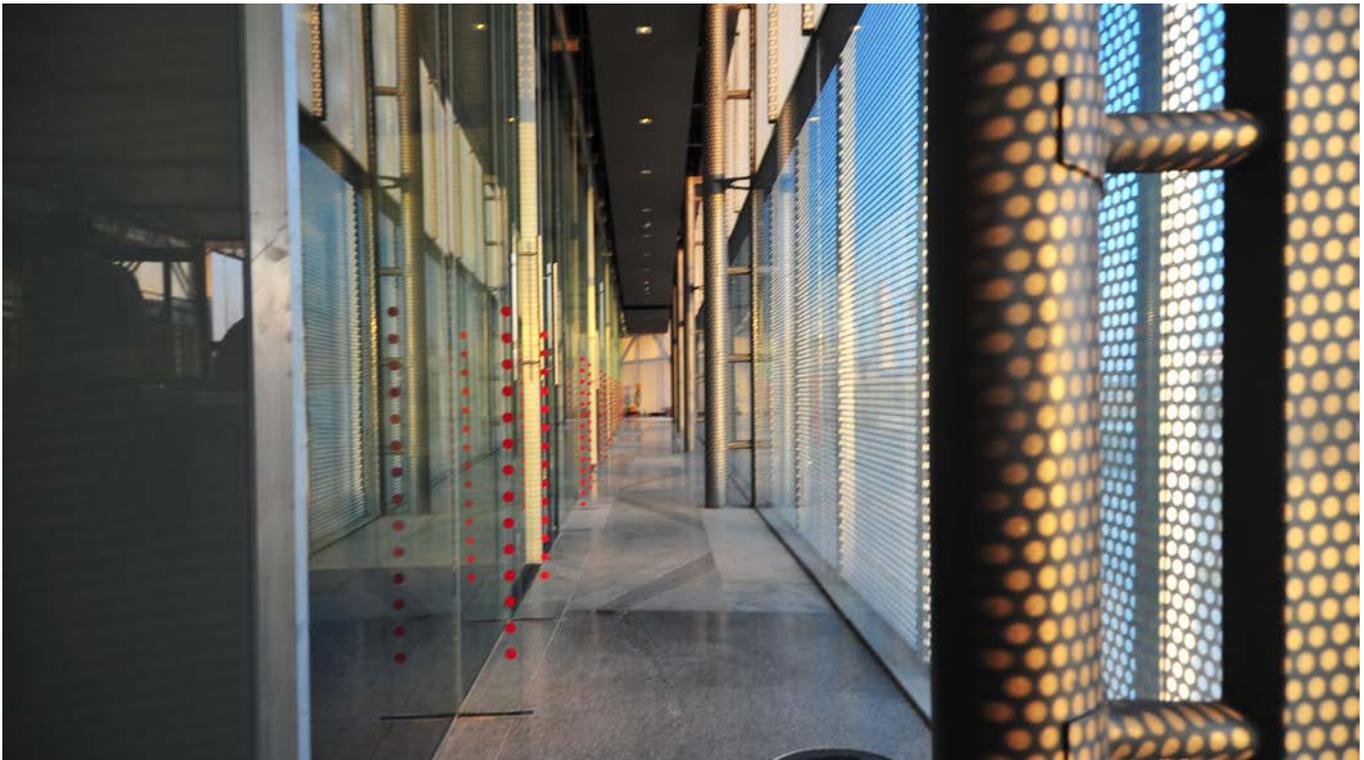
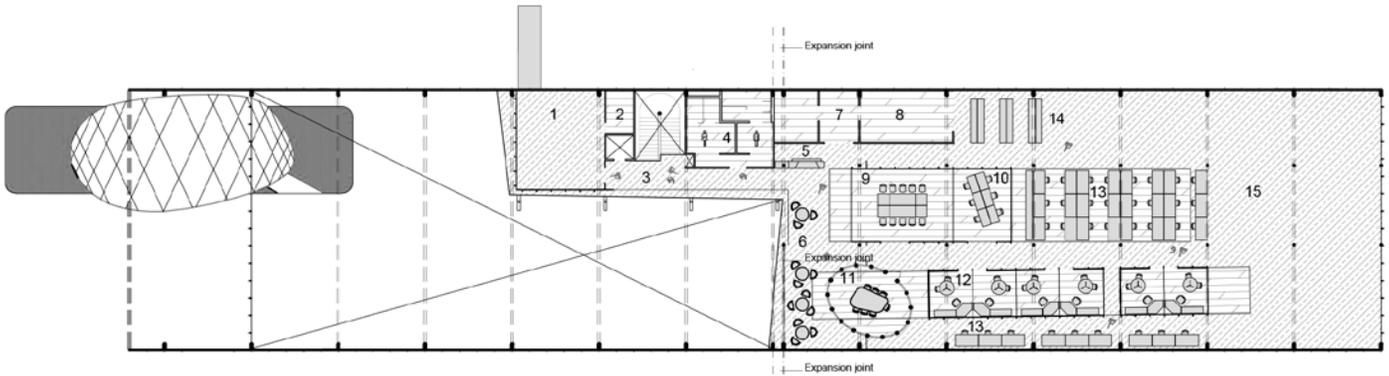
The Discovery Centre is envisaged as architecture that exhibits cultural continuity and creates built form that need not to be conditioned and spruced up timely.

A Greenfield project purposed to demonstrate the upcoming progressive development at the Bhartiya city, Bangalore, the brief was to create a flexible city town hall that would also serve as the site office/sales office to illustrate the urban real estate initiatives of the Bhartiya Group. The brief also demanded the exploration of the possibilities of sustainable design

and sustainable development on an extremely tight budget. Spread across 125 acres, the development is planned as a place-making exercise to craft an environment to attract people.

The Discovery Centre is placed at the heart of the site to engage the visitor right through the development. The building had to tell a story, the concerns of the township and of course demonstrate the residential and commercial characteristics of the development. Optimizing the sky, light and air quality in Bangalore,





the intent was create a progressive design experience that would demonstrate the core value of a high quality of life in the development.

An egg-shaped auditorium amidst an urban plaza is therefore conceived, which would attract the urban Indian family looking to be a part of the township. Built with Glass fibre to introduce the narrative, the auditorium sits amidst a lotus pond that with its lotus motif pays homage to Indian design. Painted red, the egg on the plaza is aimed to bring the family

together at one point. Red as a colour has the longest wavelength, and can be easily spotted from a distance even in the back of beyond- an in the face gesture for the visitor. Every other element such as Golf carts, an ice-cream van, plasma screens are typological inserts that may get amended over time. A single flight staircase in red steel & regional granite stand out as a distinct feature that brings visitors to itself. All other functions are planned as occurrences in an event that one happens to chance upon, inside the building. The Building opens out at a lower level, connecting the



north-south plaza, while creating a spill out space.

Earthfill has been used to create the plinth, in order to use all the material that is dug out from the lower levels. A large span built form is fashioned with the truss being the most economical way of covering these large spans. Using a truss system also aids in keeping the roof light, brings light inside and also enables controlled views of the site. An architectural mesh and glass is hence used; frit printed glass is used in a manner that reduces internal heat gain, and in an environment like Bangalore, is easy to ventilate. Functionally, what is created is a 90m long building with a 20m large span and a double height

space and a deck that is suspended from the trusses to get a clear, multi-function space that can perform most functions (with a height of 4.5m). The structure is exposed in its entirety and painted with water-based paint to further allow for visual connections.

In a conventional large span structure, the column sizes are fairly large; to avoid this, dynamic laced columns are used that enables the structure to become a part of the building skin. Sun breakers at appropriate angles are employed both on the outside and the inside of the building. The clear Bangalore sun is exploited by the Photovoltaic farm that powers the plaza, the public area and the street lighting while Grey water





is used for landscaping. A Thermal storage system is piggybacked on a 100% fresh air, earth cooling system. Displacement ventilation techniques are used to introduce cool air from below the floor; this in turn is extracted through the glass skin and layered the roof. Designed as an exhaust duct, the glass skin has a void in between; beyond a certain point, a pressurized glass cavity is created which exhausts the air. The flooring is such that it can be reused, including the materials used. Some parts of the building are false floor, owing to the underfloor ducts. Atypical elements such as a Robertson deck are used to ensure that even the deck slabs are removable and can be used again.



Grey on the outside and white inside, the multiple layers of the frit-printed glass creates a dynamic during the day and at night. The Lighting transforms itself with the change in the number of people occupying the plaza, and likewise at different times of the day. The Night lighting is dramatically different from the visual experience during the day, and is always unique with Interesting colours making the building come alive even at night.

