MAKING AN IMPACT

This school façade project came to the architects at a stage when the construction of the two academic blocks was already underway. The blocks were rather generic, with six floors of classrooms, labs, and other facilities arranged towards the periphery around matching central courtyards. Their brief was to work within these existing parameters to make a school.
The architects developed a design program in terms of circulation, movement, ventilation, classrooms and other concerns.

Keeping in mind the location of the school in the Newtown Area of Kolkata, and its simple surroundings, this school needed to make an impact and establish a distinct identity. The locality is planned in a radial grid and the site for the school is curved along the longer edges. One approaches the site along the inner curve and the blocks are placed at a slight angle facing each other very slightly. They are separated by an active play area. The school also has a swimming pool on its grounds. Of the 2-acre plot, the school occupies approximately 160 000 sq ft of floor space.

The first step was to create an identity for the school. Abin Design Studio's approach was to create a screen that wraps around the buildings and unifies them visually. Also, they intended for the central courtyards of the buildings to merge with the play area creating a seamless connection between junior and senior school. Due to a restriction in program, this ground level connection was not possible. However, the screen was created with a strong character so that its continuous application across the buildings by itself would prove to be a unifying element.

Graphical representations of symbols, alphabets and numbers became an inspiration for the screen. Younger children relate to simple lines as letters of the alphabet and as they grow, abstractions of the same would start to look more like alpha, gamma and pi. Thus, familiar shapes and symbols were used to create a bespoke stencil screen around the existing unremarkable building mass. The facade not only provides shade to the classrooms from the harsh sun but also lends the school a distinct identity.

488 panels, made of Fibre-Reinforced Plastic (FRP), measuring 3.2 x 3.2 metres envelop each of the two academic blocks. 13 different panels were designed with a combination
of small and large alphabets, numbers and symbols. These have been placed in various orientations to achieve a randomized effect on the façade.

Structural slabs were projected beyond the building surface all around in a way such that an exact number of panels would fit on all surfaces on the symmetrical cuboids. This also enabled simpler servicing of the panels from the back and ensured a better light quality for the building.

A small scale study model was created in-house to understand the same and make a decision on treatment of the panels, the walls and the windows behind the screen.

A mild steel frame work was devised in a grid like manner on the projected slabs to align with the FRP panels. A fixing detail using steel Z-profiles embedded into the FRP panels was developed to fix these 70kg panels to this M.S. support structure.

The grey walls and windows background brings out the white FRP screen in all its glory. Starting with a sample of the module and fixing detail to manufacturing, shipping, complete installation, painting and cleaning, the façade system took 4 months to complete on site. The effect is exactly what Abin Design Studio hoped for with its dramatic expression and unmistakable identity.

These two structures having been dealt with elaborately, there was a third small service block on the far side of the site which would stick out as a sore thumb if not properly handled and would be overbearing if over-designed. This block was thus treated in the same projected slabs and M.S. framework manner but with simple vertical aluminium fins. The contrast was eliminated and the walls, windows and fins were all treated with the same shade of grey along with rolling shutters, doors, etc. This block is neither eye-catching nor bold, but a subtly and aesthetically disappearing mass that helps to clearly demarcate the public zone from the back-end areas.