

CHAPTER **05** PRECEDENTS

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5.1 LANGA TOWNSHIP BRIDGE

Langa Station is situated between the district of Langa to the south and the industrial area of Epping 1 to the north. An existing undercapacity subway connecting the two areas is now being replaced by a 100 m long x 10 m wide "skywalk" bridge structure.

The length of this structure was not only determined by the spacing of the existing rail tracks, but provision had to be made for a possible future rail link between the airport and Cape Town CBD and a future Integrated Rapid Transport route on the northern side of the station. At each end of the bridge commuters are able to approach or leave the structure via either staircases or ramps. A high priority for PRASA is to accommodate special-needs passengers (SNPs), so ramps or lifts have been provided at each of the stations, wherever possible.

A 1 500 m² ticket purchase and circulation concourse area is being constructed over the two main platforms. This area provides sufficient space for a minimum of grade C level of comfort (a Metrorail standard) for peak-hour commuters at all times while moving through the station complex.

As the station had to remain operational throughout the construction period, a large amount of off-site construction was done. All track spanning beams and slabs were precast and all superstructures were prefabricated from structural steel.

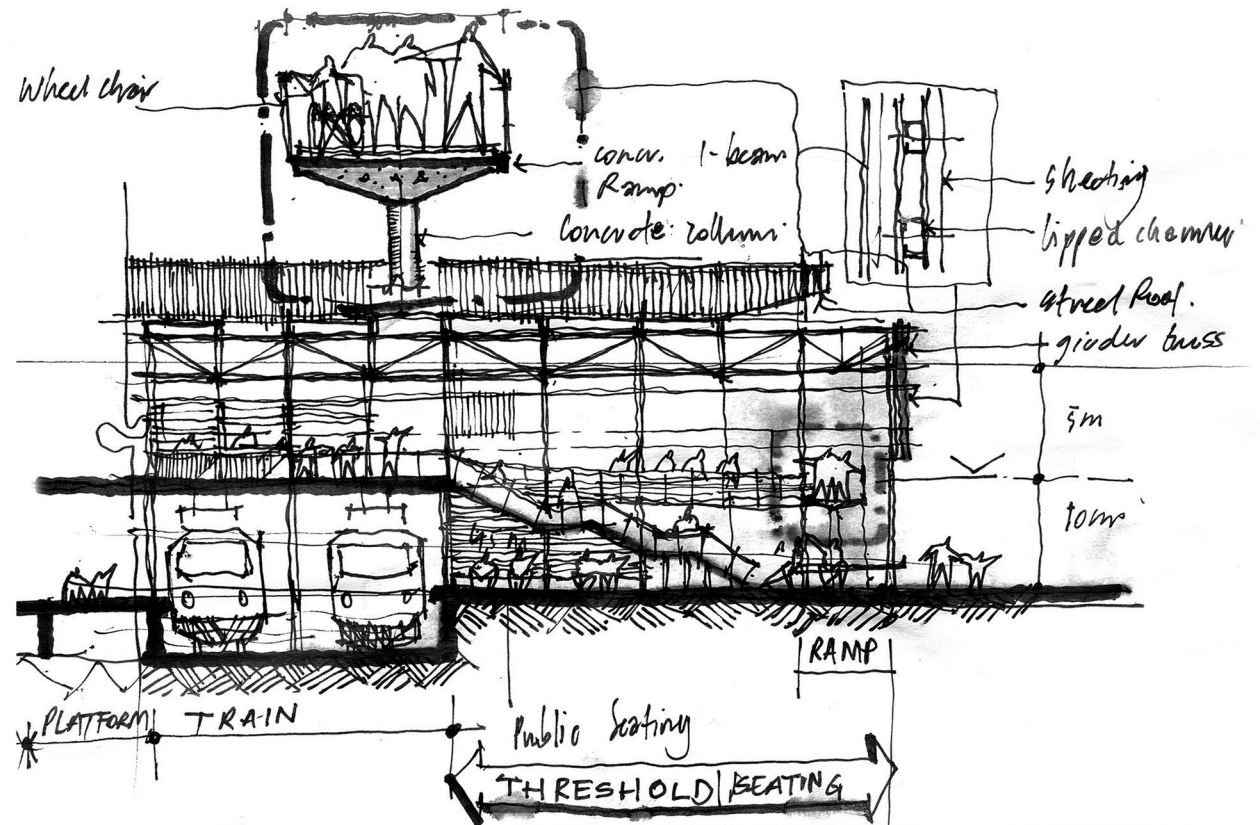


Fig. 5.1
bridge and entrance precedent

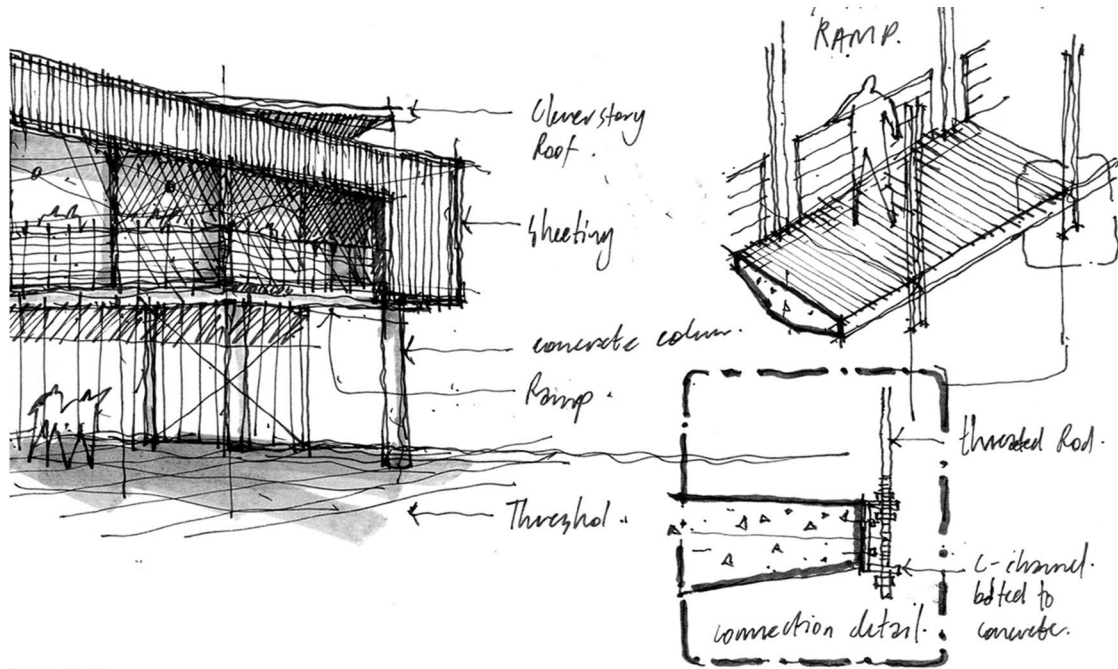


Fig. 5.2
bridge and entrance precedent

5.2 KHAYELITSHA LIBRARY

It has become clear that broad sets of policies and strategies to fight crime and violence need to be effectively addressed in the context of social and economic development. To reduce some of the underlying causes of crime and violence and in addition to strategies of law enforcement and violence prevention, the different sectors of urban develop

The first half of the study period was devoted to a situation and needs analysis, while the second half concentrated on project design. There was continuous interface with the City of Cape Town and the people of Khayelitsha and their representative body throughout the study.

When moving from analysis to project planning the conceptual framework known as the "triangle of violence" was used, i.e. a set of interventions was developed which are directed at discouraging a potential violator, supporting the victim of violence and to arrange the physical environment in a way which helps reduce the incidence of crime.

The proposed project approach is essentially one based on spatial selectivity, and it is a two prong one:

- Within the township of Khayelitsha three "safe nodes" will be created where a number of facilities, which have the potential to reduce violence, will be clustered. The nodes will tackle a number of the people's needs at the same time: e.g. police protection, facilities like safe houses for battered women, youth clubs, adult education centres. The safe nodes will also function as transport nodes.
- The node concept will be complemented by area-based interventions. A Social Development Fund will be made available to the most deprived areas adjacent to the safe nodes for the establishment of community-based infrastructure and facilities, such as kindergardens, water and sewerage pipes etc.

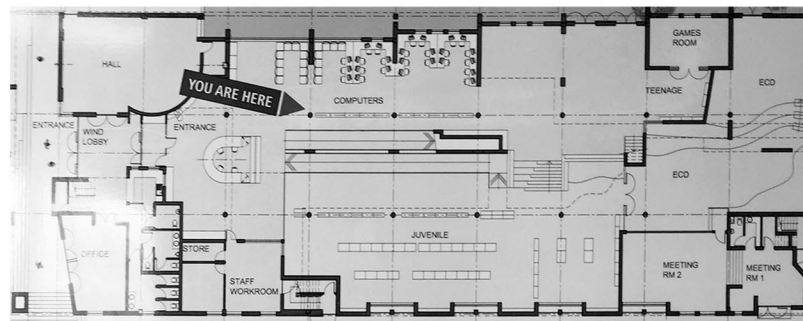


Fig. 5.3
library facility precedent

5.3 STOCK ROAD STATION

Philippi, Cape Town
ACG Architects and Development Planners
KHM Architects
2003

Stock Road Station, perpendicular to the Joe Qqabi Transport Terminus, creates another landmark in this newly established transport precinct. Accessible also from a pedestrian bridge, circulation, commuter facilities and operational areas are judiciously organised into a cohesive whole. The built form was determined by rational considerations, easy expansion and deep penetration of light. Similar to its companion, robust materials have been used, dominated by off-shutter concrete, brick infill and galvanised steel. A large steel frame for planting adorns the longitudinal north façade and edges are animated by en route trading kiosks. Combined, these two transport facilities make a powerful urban gesture unleashing the envisaged potential of much-needed and well-considered development framework.

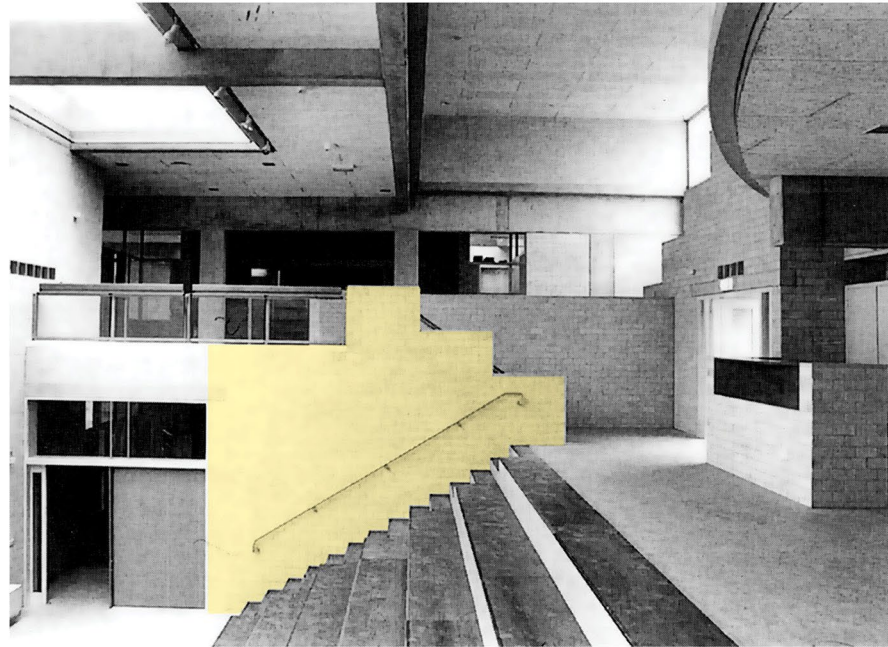


Fig. 5.4
tectonic precedent

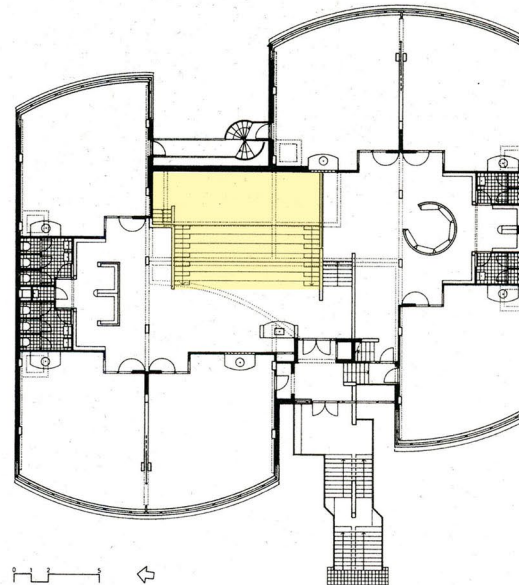
5.4 DE EVENAAR SCHOOL

Herman Hertzberger is an Amsterdam born architect. His major influences in the 20th century architecture, is to challenge early modernist belief that “form follows function” – That shape of the building is defined by its own purpose. Hertzberger believes that the core function of a building does not provide the total solution to space: it is a framework that should enable its users to interpret and define how they inhabit it. His buildings flexible “in-between” spaces that encourage our deeper human needs of dwelling and social activity.

Parapets bordering staircases are very often placed slant wise, following the direction of the hand-rail. This is indeed in many cases the most obvious solution, whereby an indication of the presence of this the stairs is given in a quite logical way. But the situation where a parapet is so positioned that it offers a view of something, as in ‘De Evenaar’ it invites people to lean their elbows on the top, or even to sit on it. Whenever something is going on people want somewhere to pause and watch – and that itself is enough reason to try to let the architecture of the location contribute to potential seating capacity. So in this case it is a good idea to have, instead of the usual slanting parapet divided into stepped sections with horizontal coping that is wide enough to lean your elbows on or sit on. And if, as in this case, the wall is of masonry, the design is much easier to execute since there is no sawing of bricks to be done.



THE PARAPET



THE INBETWEEN SPACE

“open teaching classroom concept”

Fig. 5.4
the parapet and in-between space

5.5 APOLLO SCHOOLS

“Whatever the architect does deliberately leaves undone – the way he concerns himself with enclosing or opening – he always influences, internationally or not, the most elementary forms of social relations. And even if social relations depend only to a limited extent on environmental factors, that is still sufficient reason to aim consciously at an organization of space that enables everyone to confront the other on an equal footing”

THE SPLIT LEVEL DESIGN

The school hall in Apollo primary has a split level amphitheatre-like organisation, which greatly increases the range of visual contact. Situations of players and audience arise easily and spontaneously: children sitting on the treads of stairs connecting the two levels soon start behaving like an audience, thereby challenging the players on the lower level to give what you might call a performance. The split-level design of the central space not only gave rise to the adoption of the amphitheatre idea, it also provided a point of attachment for six class rooms, disposed into two groups of three with maximum mutual visibility. This visual link draws all the classrooms together in a way that would not be possible with a strict division into super imposed storeys. The hall space functions rather like a big communal class, where the teachers also have their own space.

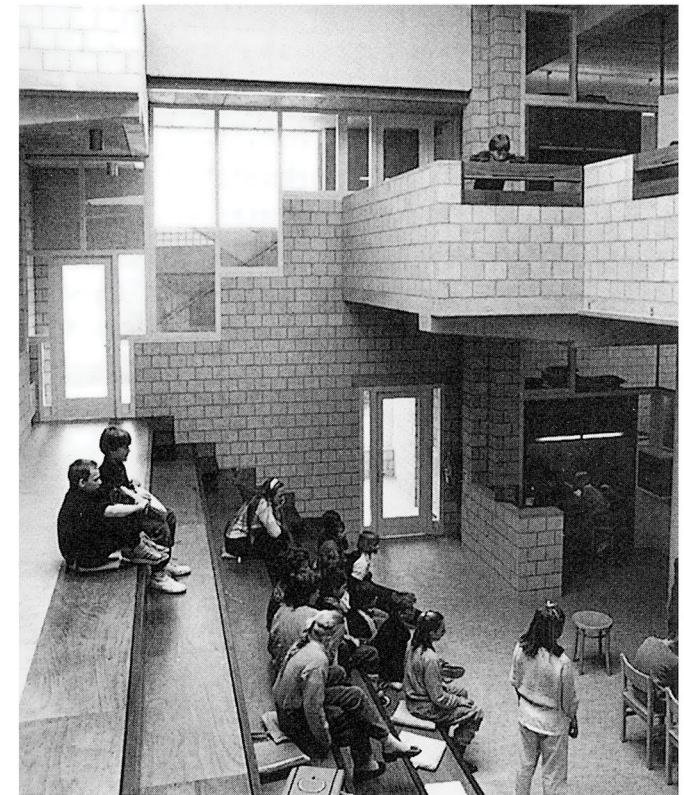
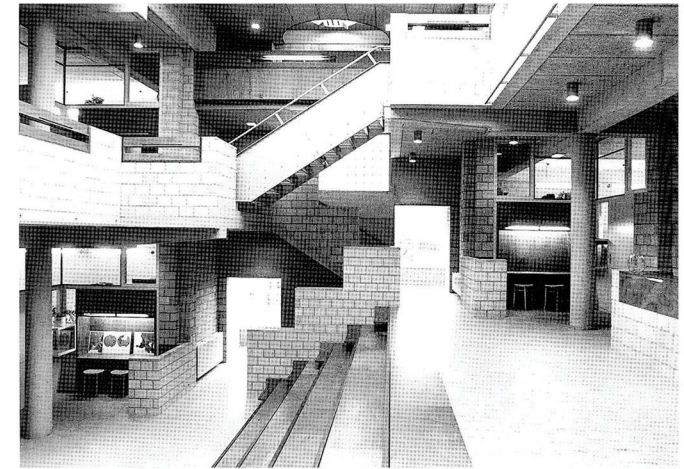
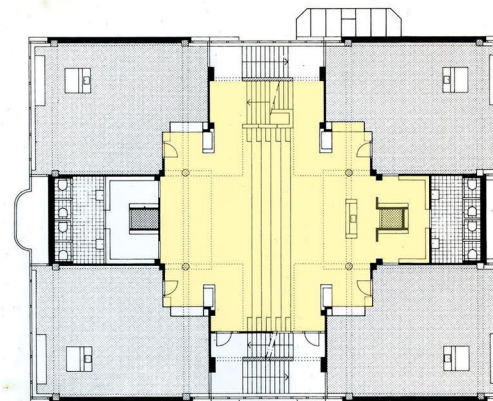
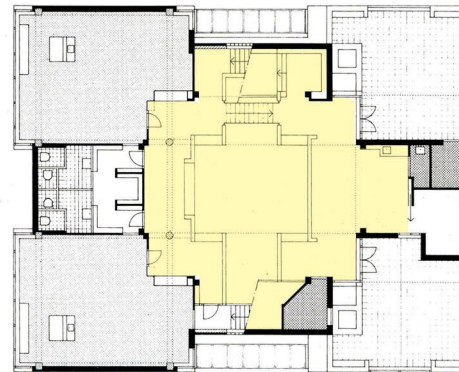
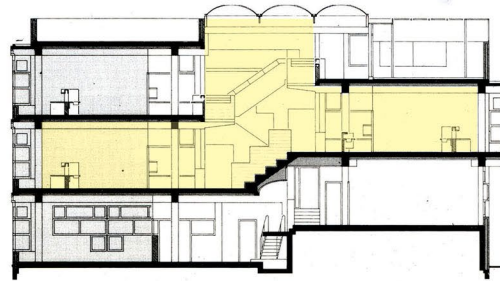


Fig. 5.5
split level design

5.6 SALISBURY CLAIMS HOUSING

Noero Architects

Project: Unbuilt
Client: Murray & Roberts
Location: Johannesburg, South Africa
Date: 1994

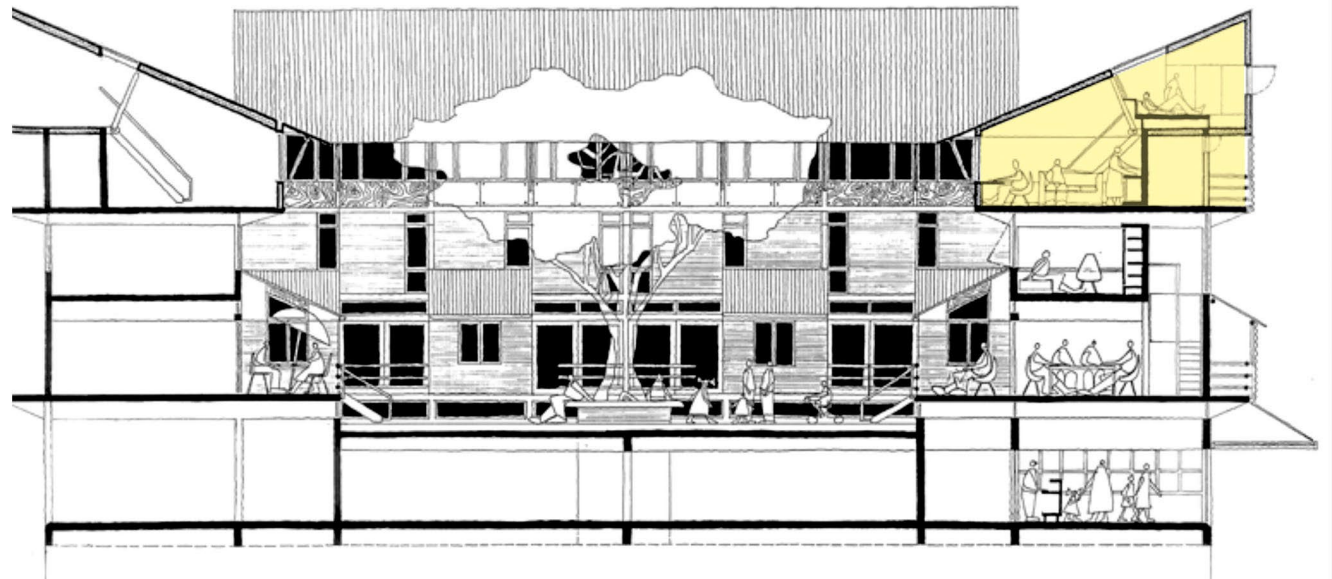


Fig. 5.6
mixed use and adaptability

5.7 SEVEN FOUNTAINS PRIMARY

In creating a sustainable school in Shayamoya East Coast Architects identified a number of key design interventions that, through little or no extra cost, could improve the quality of the teaching and learning spaces whilst at the same time reducing both the running costs for the schools and the environmental impact of the buildings.

PASSIVE LOW ENERGY DESIGN

Carefully considered solar orientation of the main learning areas means that they take full advantage of the seasonal & daily solar cycles to ensure that classrooms are cool in summer and warm throughout the icy winters. All of the occupied areas are well insulated to improve thermal comfort. Good natural light improves the quality of the visual environment. Glare and heat gain are reduced through appropriately positioned solar shading and light shelves.

RAINWATER MANAGEMENT STRATEGY

Rainwater is collected from all impermeable surfaces, stored in an underground reservoir then pumped to header tanks and gravity-fed to flush toilets. Low consumption fittings and appliances reduce the volume of water used.

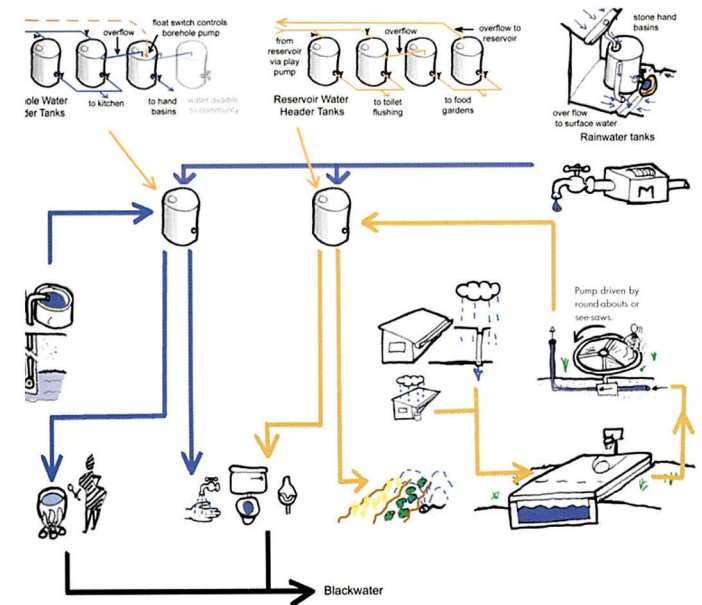
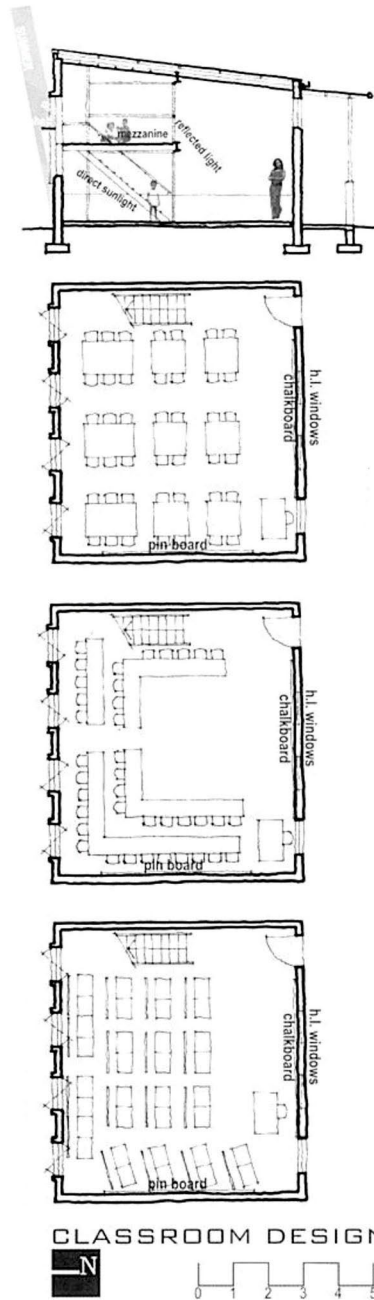


Fig. 5.7
sustainable strategies / classroom design

5.8 CONCLUSION

A majority of infrastructure projects studied in this chapter were sourced in Cape Town. As part of this research I visited Cape in July 2015, the findings were that the funding for Township redevelopment is better utilised, communication between stakeholders is better therefore the execution of projects is seamless. Phumolong and Mamelodi can take precedence not only in the architecture but also in the execution and management of projects.