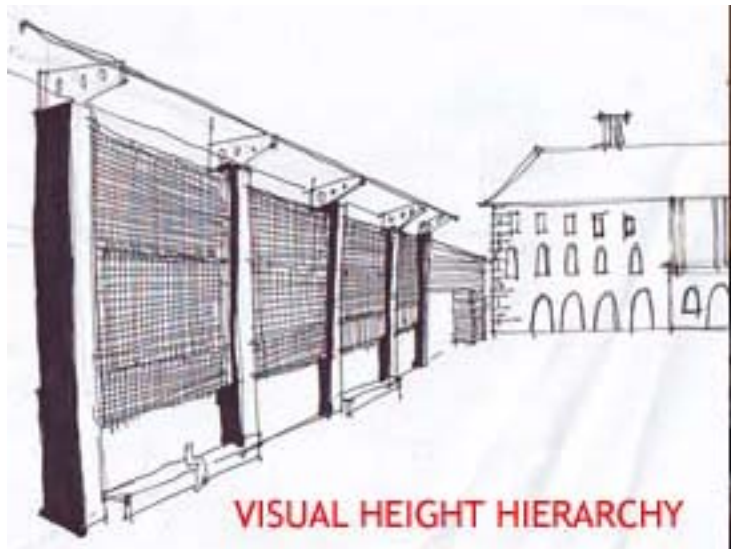
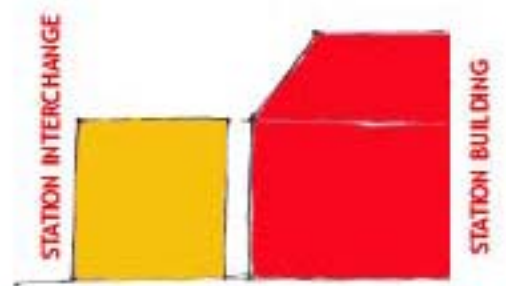


CHAPTER 4

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VISUAL HEIGHT HIERARCHY



BUILDING PROMINENCE TO BE ARTICULATED BY HEIGHT (BACON),
THUS THE EXISTING STATION AFFORDED DOMINANCE.

QUALITY PUBLIC URBAN SPACES AT THE FOCAL POINTS AND IN FRONT OF AND
AROUND BUILDINGS OF HISTORICAL SIGNIFICANCE (PAUL KRUGER STREET SPINE)



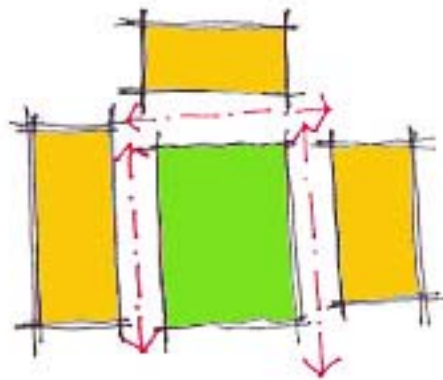
HISTORIC SIGNIFICANCE OF THE PRETORIA STATION RESPECTED AND OBSERVED.
THE FUNCTIONALIST APPROACH ADVOCATES THE PRESERVATION OF HISTORICALLY
SIGNIFICANT BUILDINGS FOR HERITAGE AND EDUCATIONAL VALUES.
THE FORMALIST IDEAL IS REFLECTED THROUGH UNDERSTANDING THE TIMELESS
QUALITIES OF CULTURAL AND URBAN HERITAGE



AXIS OF EXPRESSION

MIXED-USE PRECINCT
PRETORIA STATION SQUARE WITH RETAIL,
OFFICES, LUXURY BUS TERMINUS.
(PAUL KRUGER STREET SPINE)

INTERGRATION OF THE PUBLIC TRANSPORT
SYSTEM WITH THE PEDESTRIAN NETWORK
(PAUL KRUGER STREET SPINE)



SQUARE DEFINED BY BUILDINGS IN A U-SHAPE
Opening up to it, and fully accessible by means of pedestrian walkways

URBAN SPACE-“space between buildings in towns and other localities.”
KRIER

- CIVIC SQUARE ACTIVITIES**
- RECREATION/LEISURE
 - TOURISM
 - INFORMAL TRADE/MARKETS
 - THOROUGHFARE
 - RELIGIOUS GATHERINGS
 - OPEN-AIR ENTERTAINMENT
 - POLITICAL RALLIES
 - LIVE BROADCASTS
 - PAUSE SPACE

UBUNTU

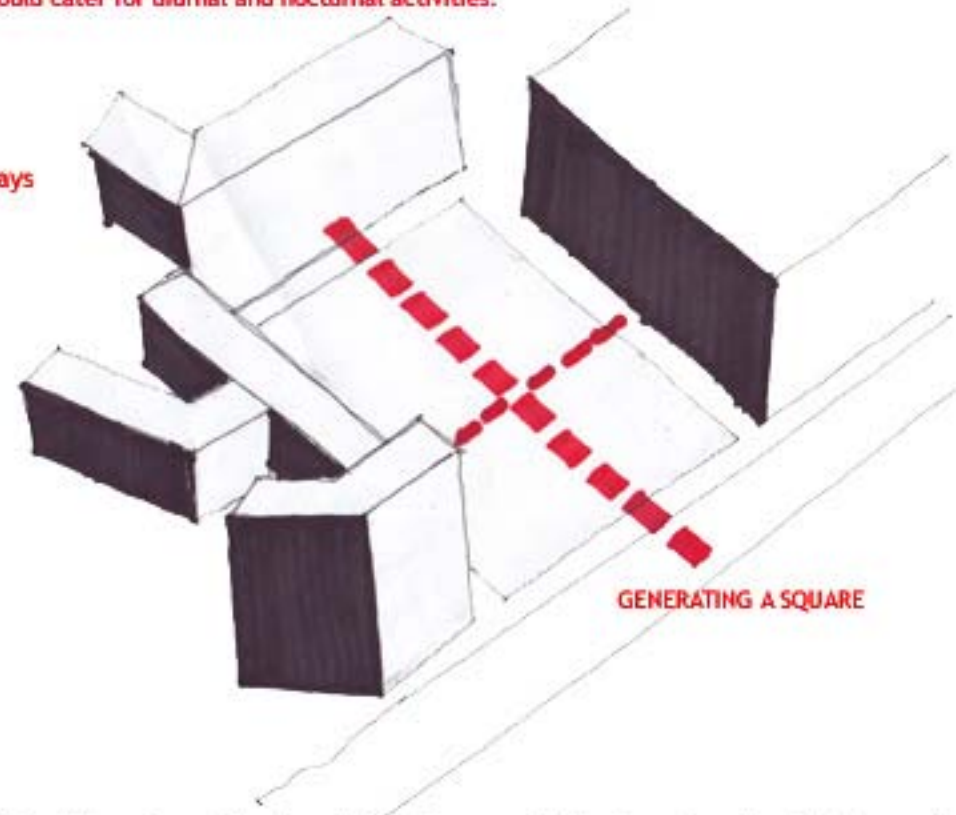
Similarly to urban planning principles, the pattern of traditional homesteads is characterized by a centrally placed courtyard. This courtyard is the communal social space. The Rooms are usually just the shelter spaces at night and during undesirable weather.

FUNCTIONALIST- Promotes communal intercation (civic) in the city core.

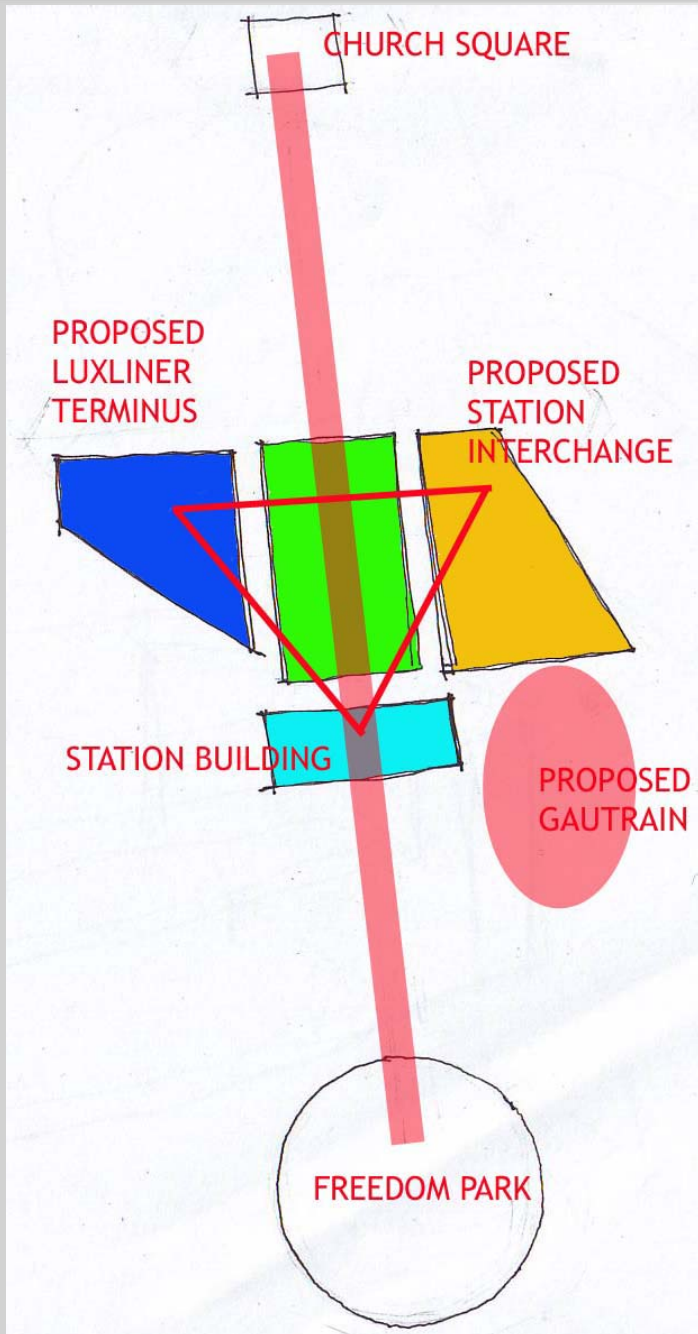
HUMANIST- Concerned with the social domain in architecture.

THE SQUARE AND THE STREET DEFINE THE STREET (KRIER)

Ideally, equilibrium of commercial and cultural activities should be maintained in any public square, dependant upon location, such a square should cater for diurnal and nocturnal activities.



GENERATING A SQUARE

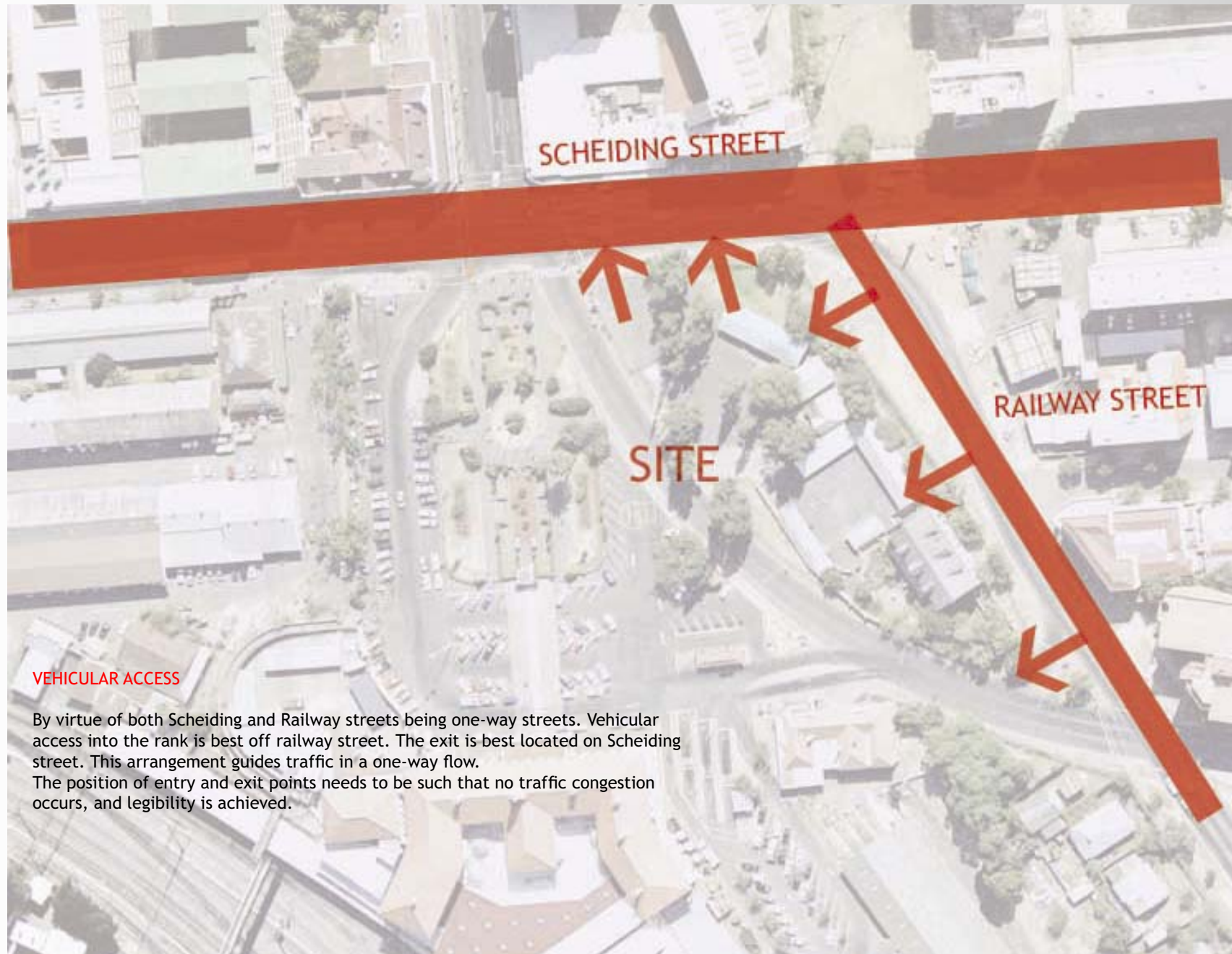


IMPACT OF SURROUNDING DEVELOPMENT.

The positioning of the proposed new luxliner terminus, combined with the existing station building, and proposed station interchange enhance the intermodal status of the Pretoria station.

The locationing of the 3 forms of transport modes create a triangular shaped interdependent link. The result is that the developments frame the civic space, thus creating a vibrant and defined public square.

An opportunity exists to make the Pretoria station the gateway into the city, the point of orientation, and an intermodal interchange reflective of the Capital city status.



VEHICULAR ACCESS

By virtue of both Scheiding and Railway streets being one-way streets. Vehicular access into the rank is best off railway street. The exit is best located on Scheiding street. This arrangement guides traffic in a one-way flow. The position of entry and exit points needs to be such that no traffic congestion occurs, and legibility is achieved.



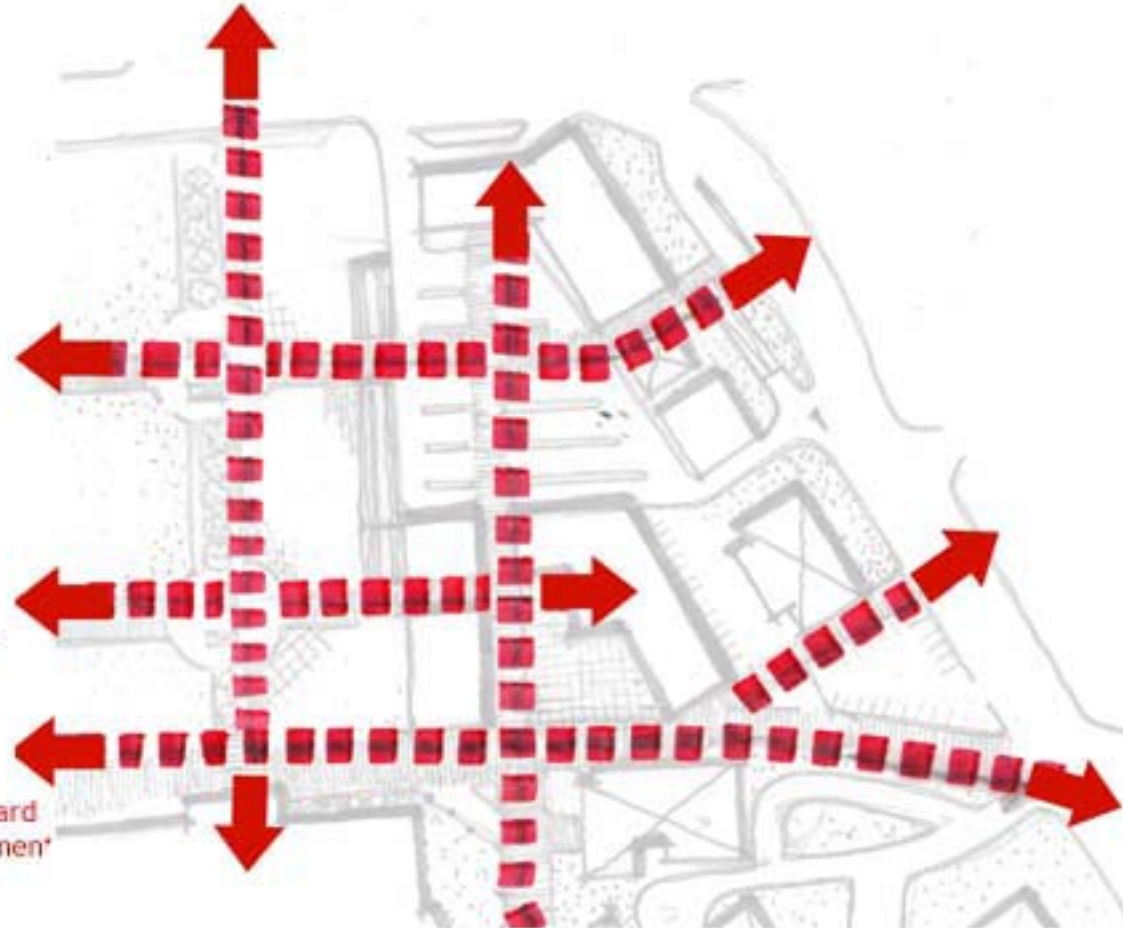
CONCENTRATION OF PEDESTRIAN MOVEMENT AROUND THE SQUARE

The movement pattern on the the square is informed by the existing paths, most especially the north-south axis leading from Paul Kruger street. The intervention follows the Systemic school of thought by prioritising existing patterns, especially movement and shelter.

CONCENTRATION OF PEDESTRIAN MOVEMENT AROUND PRECINCT

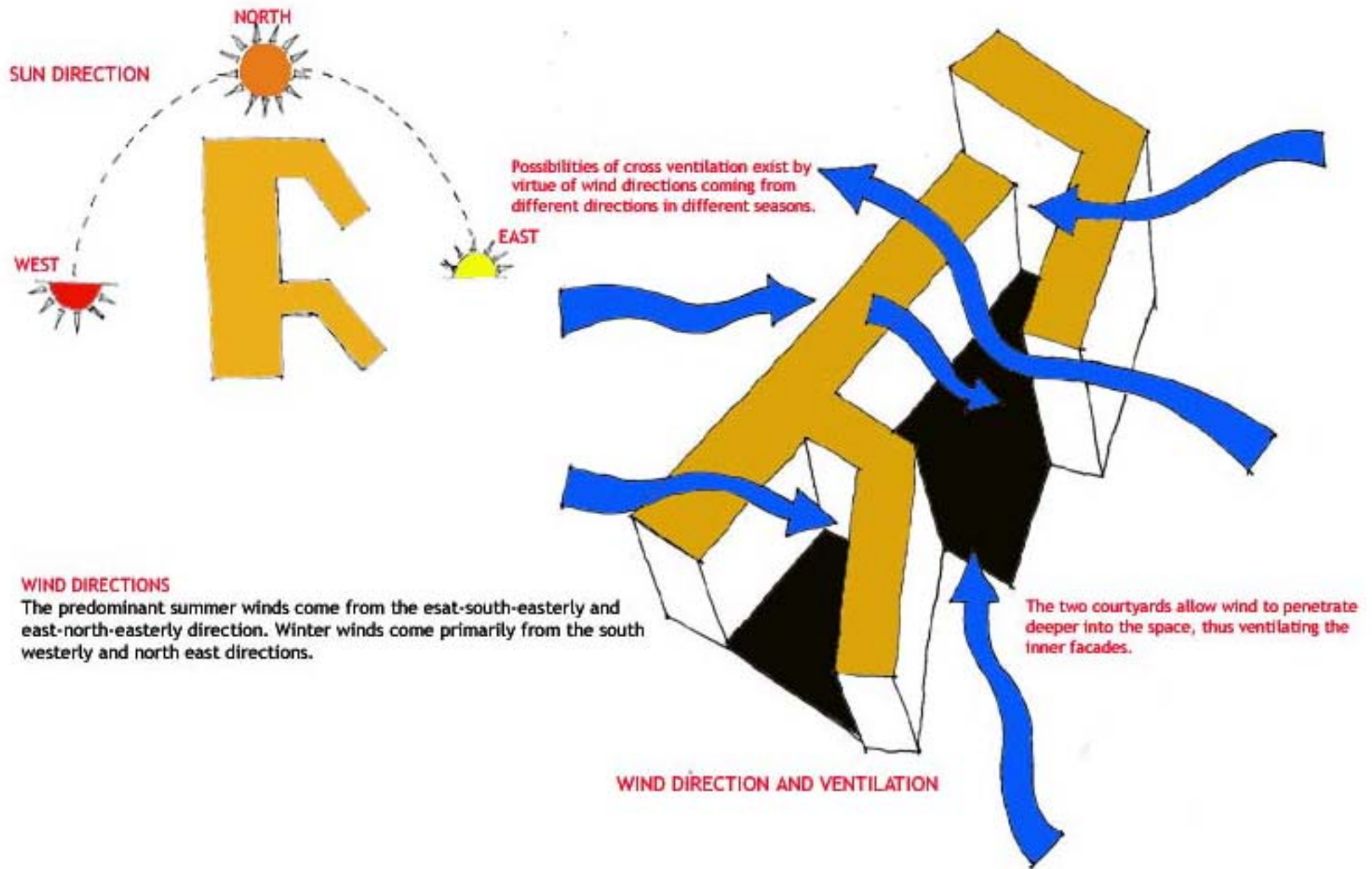
People walk the 400m distance between Pretoria station, Bosman station and the Bosman taxi rank. The major pedestrian movement is in a north-south axis, heading into the city, with some eastward movement heading towards the Sunnyside area.

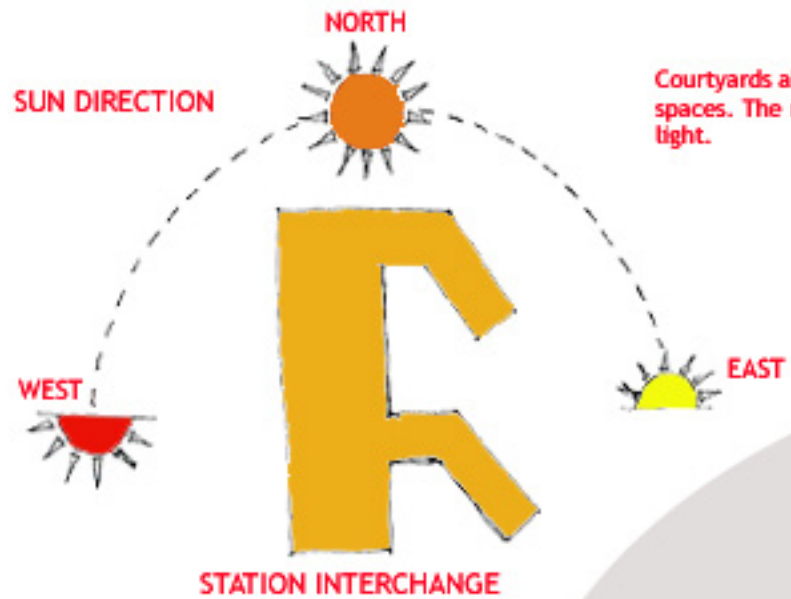
North-south movement North-south movement



'Walking is the most ubiquitous form of movement, open to almost everybody' (Green and Roberts 1998)

The civic square is designed to compliment the axis of expression from Paul Kruger street by means of a prominent walkway axial extension stretching to the Pretoria station building. Traffic will be slowed down at the intersection of Scheiding street and Paul Kruger street to afford priority to pedestrians.



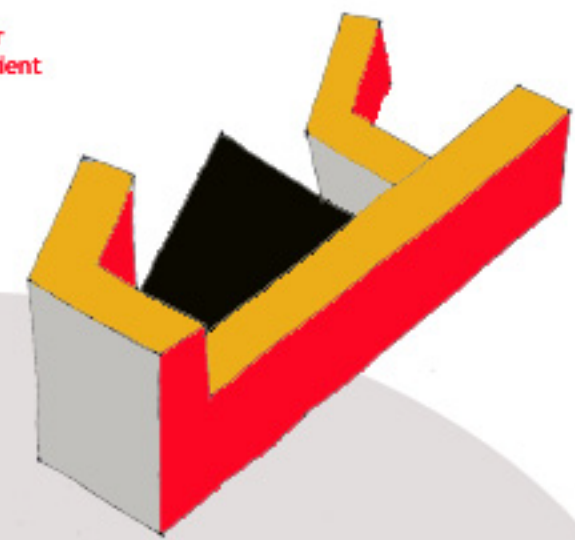


Courtyards allow light to penetrate deeper into the interior spaces. The result is that all the interior spaces have sufficient light.

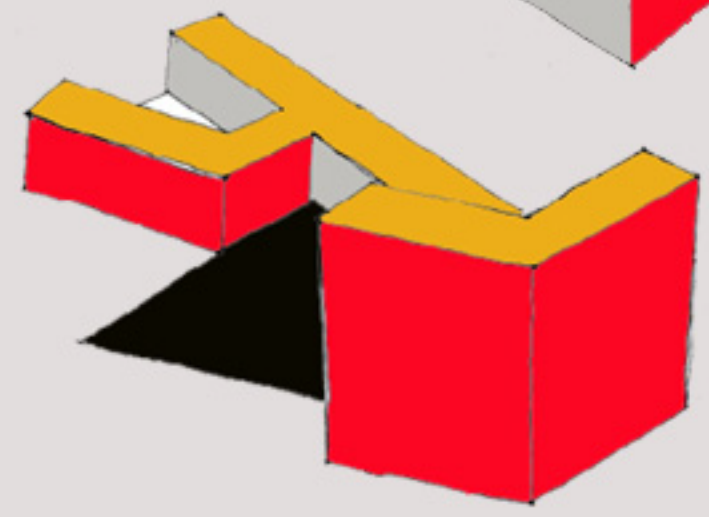
SUN ANGLES AT NOON

- SUMMER 87 Degrees
- SOLSTICE 64 Degrees
- WINTER 44 Degrees

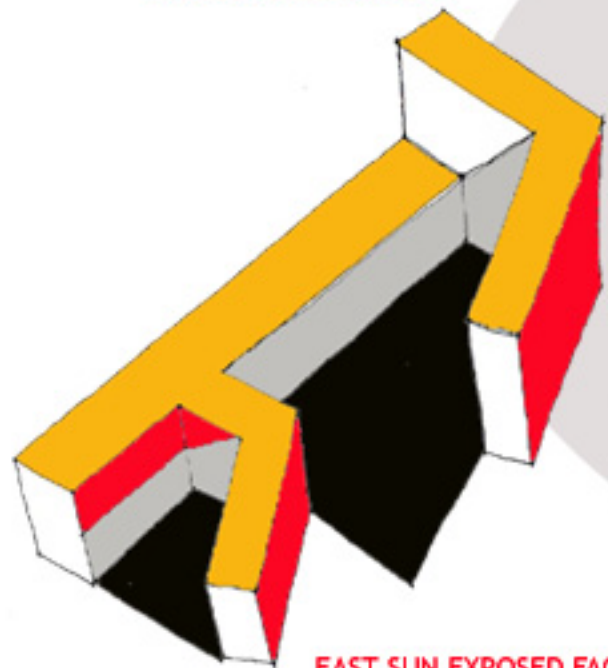
WEST SUN EXPOSED FACADE

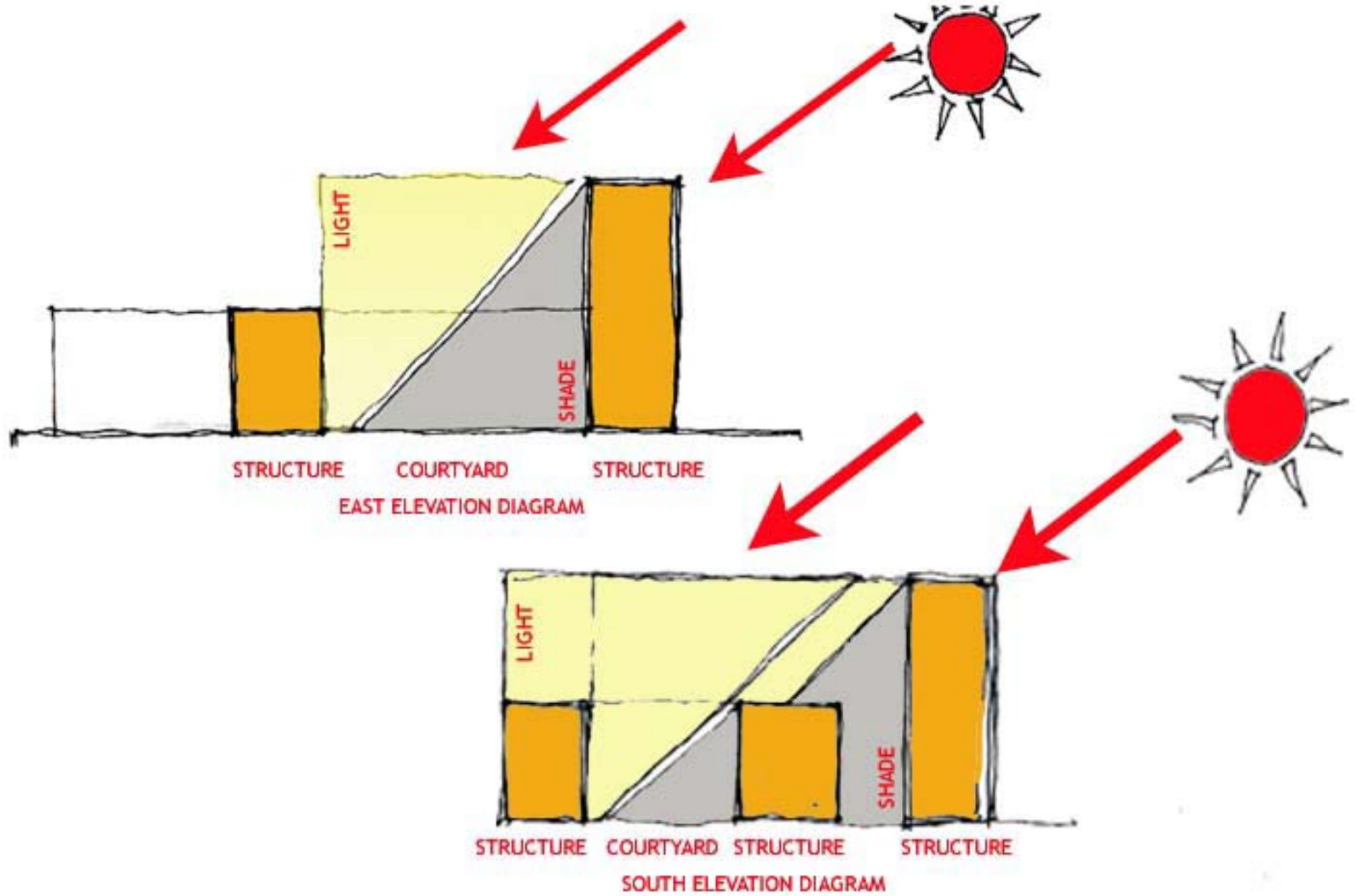


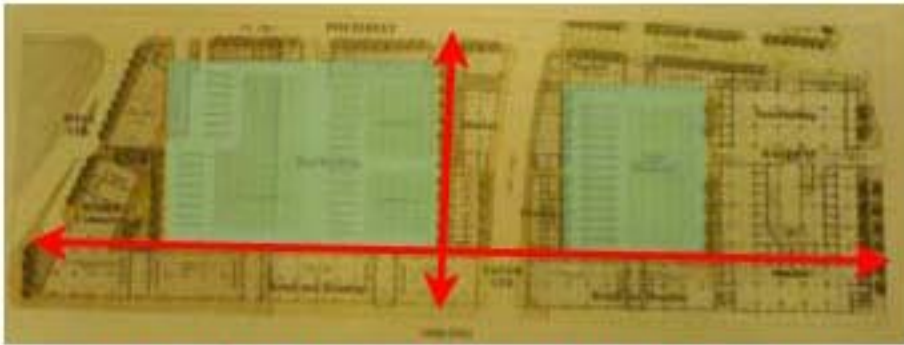
NORTH SUN EXPOSED FACADE



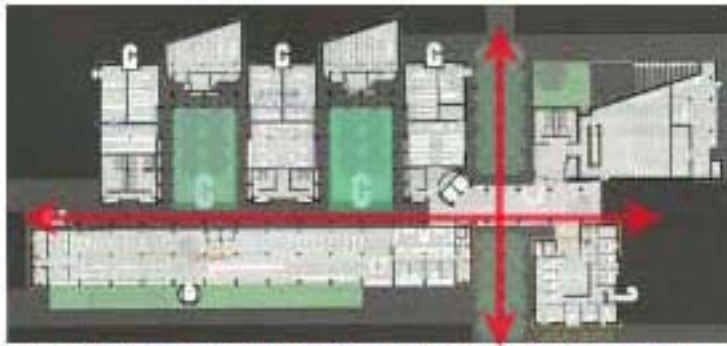
EAST SUN EXPOSED FACADE







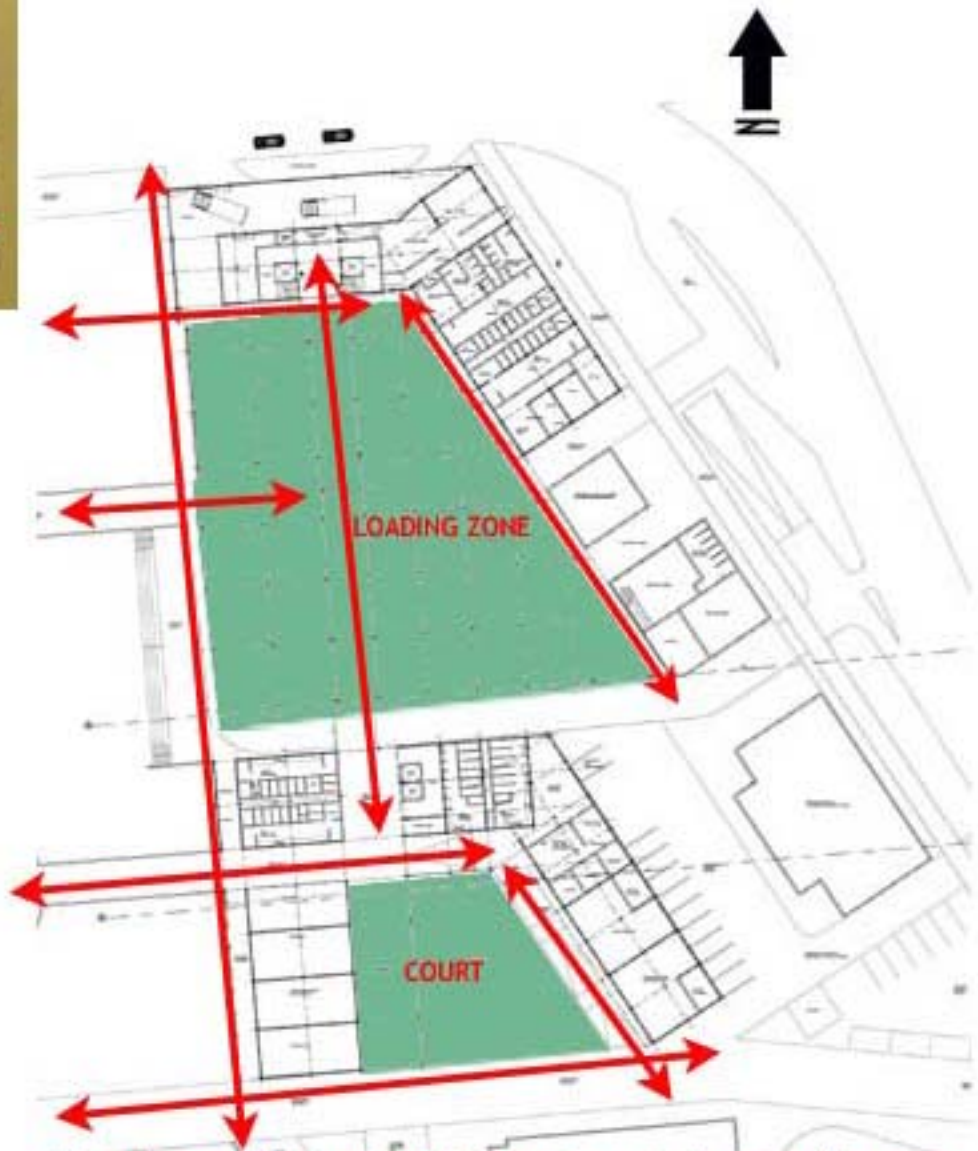
Metro mall highlighting the loading zones acting as central courts. The periphery is used as circulation space.



Tuks law building designed around two central courtyards that act as communal space. The courts are also placed adjacent to the circulation space.



SA Embassy in Berlin is also designed around a central atrium, with the circulation space arranged on the periphery.



Using the courtyard as the point of departure for creating the main public spaces, with accessways directly linking the interior spaces to the courtyards.

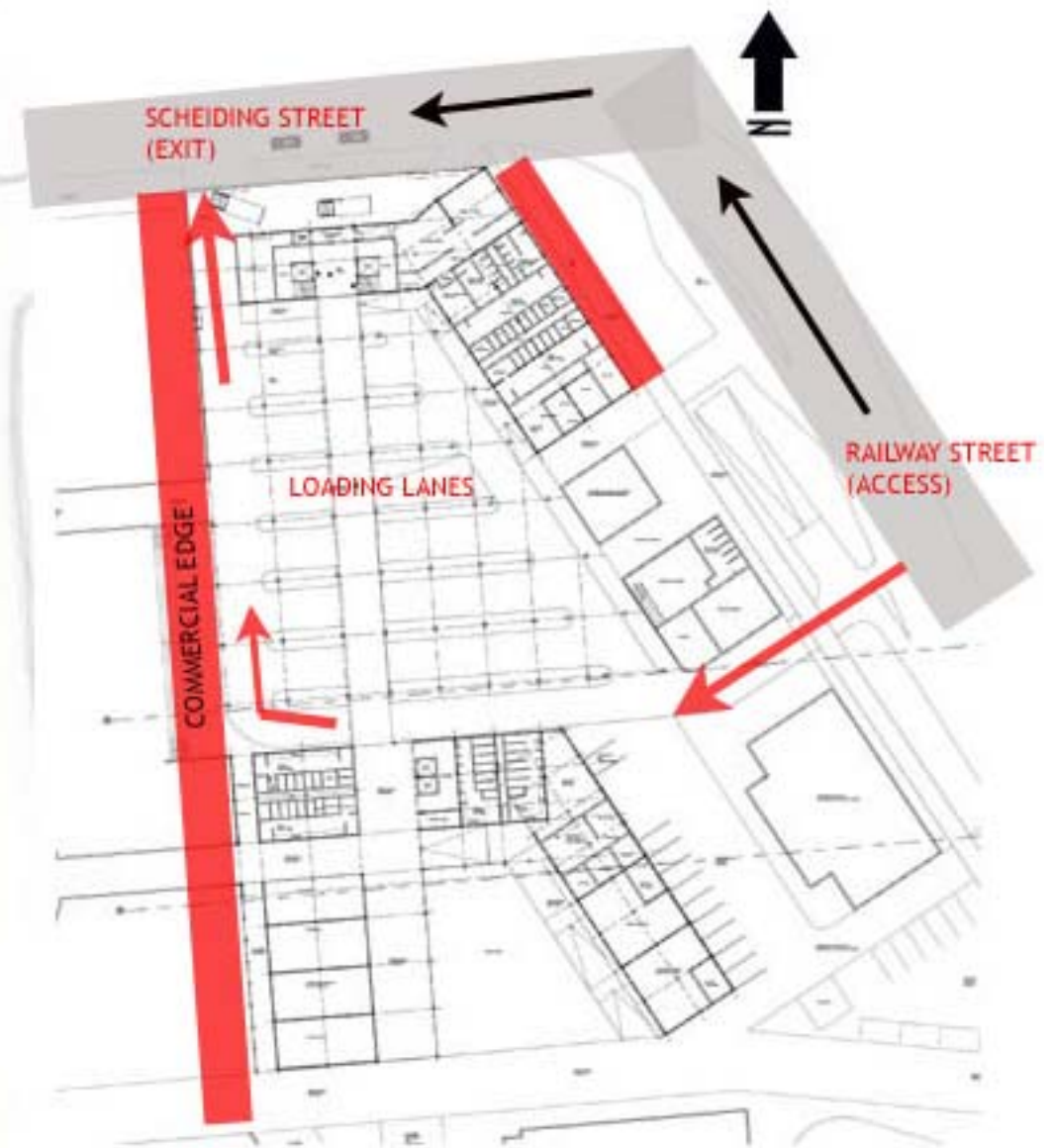


VEHICULAR ACCESS

The Metro mall is designed around a simple yet effective vehicular circulation system. The busy street, (Bree street) is used as the commercial edge and taxi movement is kept completely off this edge, instead the 'backstreet' Gwingwi Mrwebi street is used for the entering and exiting of taxis.

Similarly, the station interchange adopts a system whereby Railway street is the entrance point and Scheiding street is the exit point. Traffic is directed in a one-way flow inside the loading lanes, consistently to the one-way status of both the access and exit streets.

The edge facing the square is seen as the front of the building, and is therefore used as the main commercial edge to capitalize on the high human traffic.







The Federation Square is laid out to accommodate 20 000 people in a square located centrally to an array of various functions such as cinemas, offices, restaurants, and art gallery. The precedent provides examples of how to create a lively civic environment. Although irregular in shape, the square remains bare in its layout to accommodate large masses. Its handling of the floor surface is austere and functional, which helps with keeping maintenance requirements low.

(www.federationsquare.com)



(www.federationsquare.com)



Vast open space

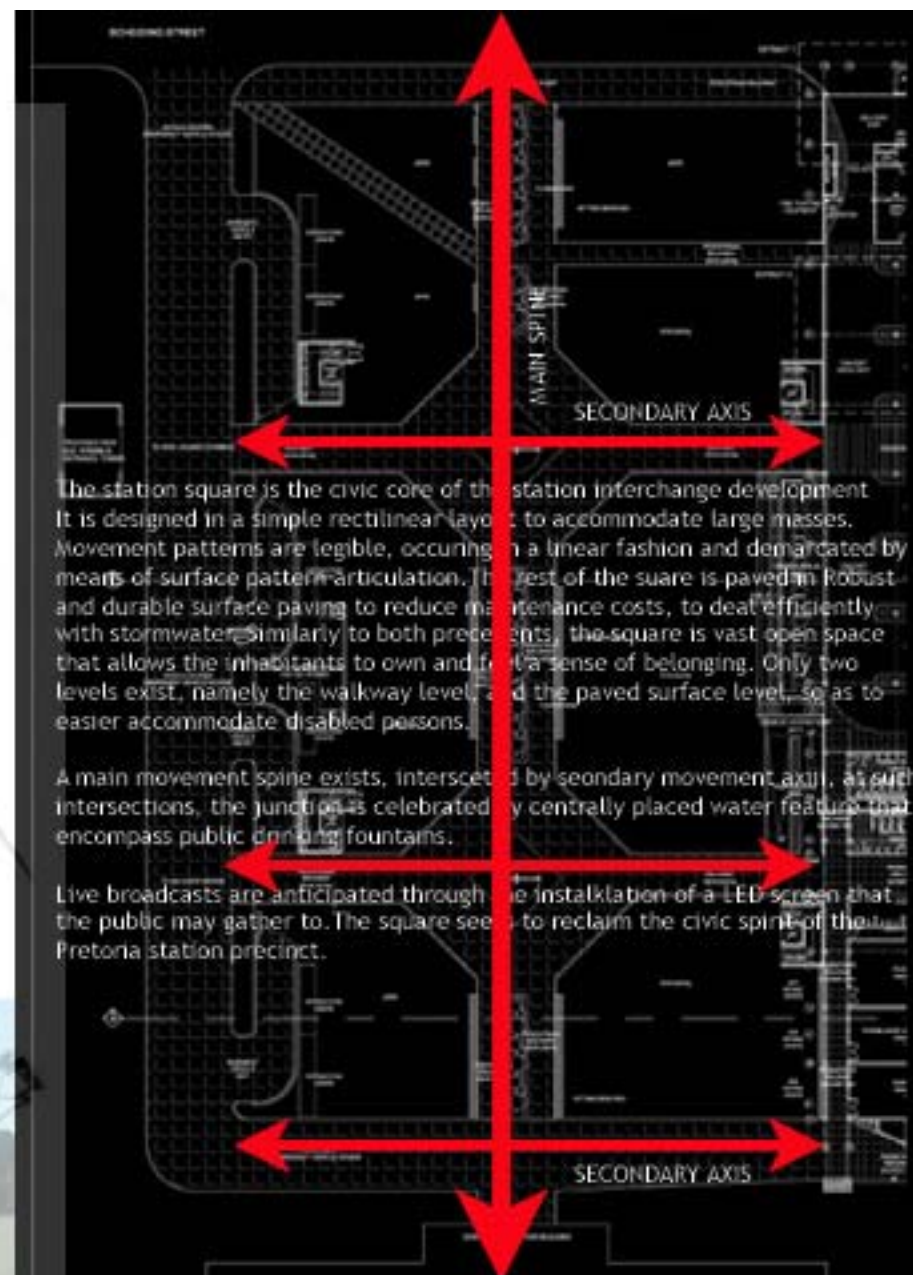
Similarly to The Federation square, Mary Fitzgerald square is designed to accommodate a large crowd of 50 000. The planning however is simple and rectilinear defined on the periphery by pedestrian walkways. The threshold between the square and the pedestrian walkways is subtly defined by carved woodwork sculptures placed on concrete bollards. The combination of street furniture and paving once again is aimed at being simple, functional yet robust.

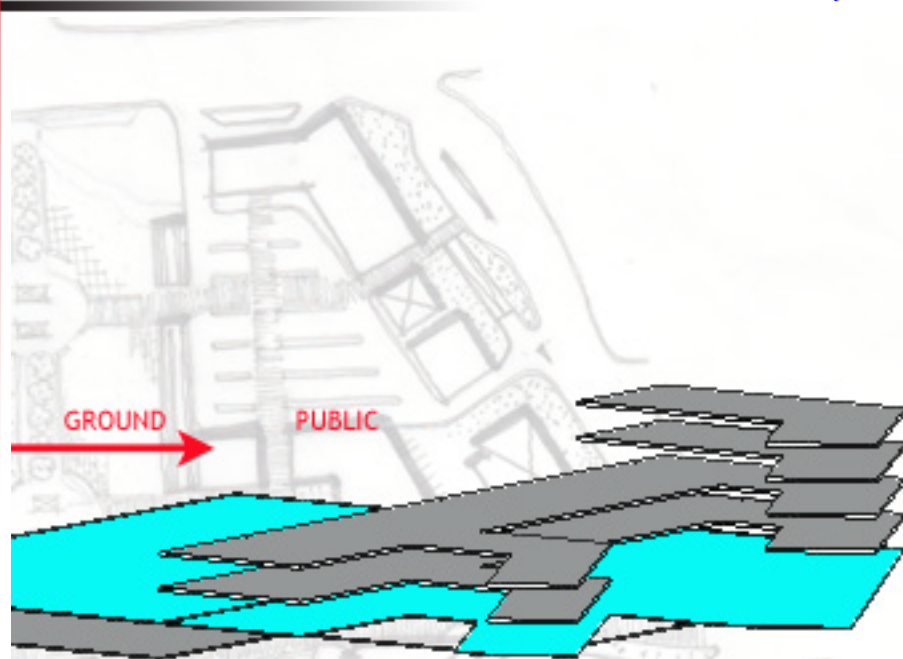


Paving pattern/texture



Robust paving materials

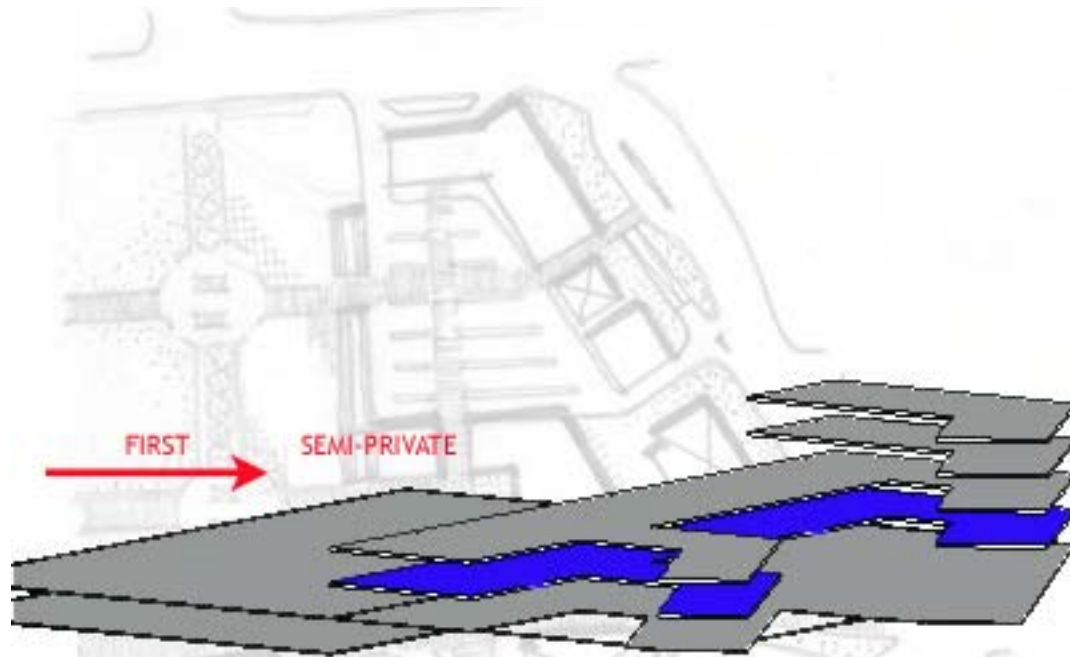




GROUND FLOOR

The public domain where most public traffic occurs. Retail activities, taxi rank, hawker stalls, ablutions, retail services and civic square located on this level. By virtue of its level, it is the most accessible part of the building to the public. The ground floor is openly accessible to the public thus encouraging civic activity as advocated by functionalist and humanist planning. The level at which the ground floor is open makes reference to a communal belonging and sharing in a manner that promotes the interrelation and interdependence of the various users, thus leaning towards *Ubuntu* principles.



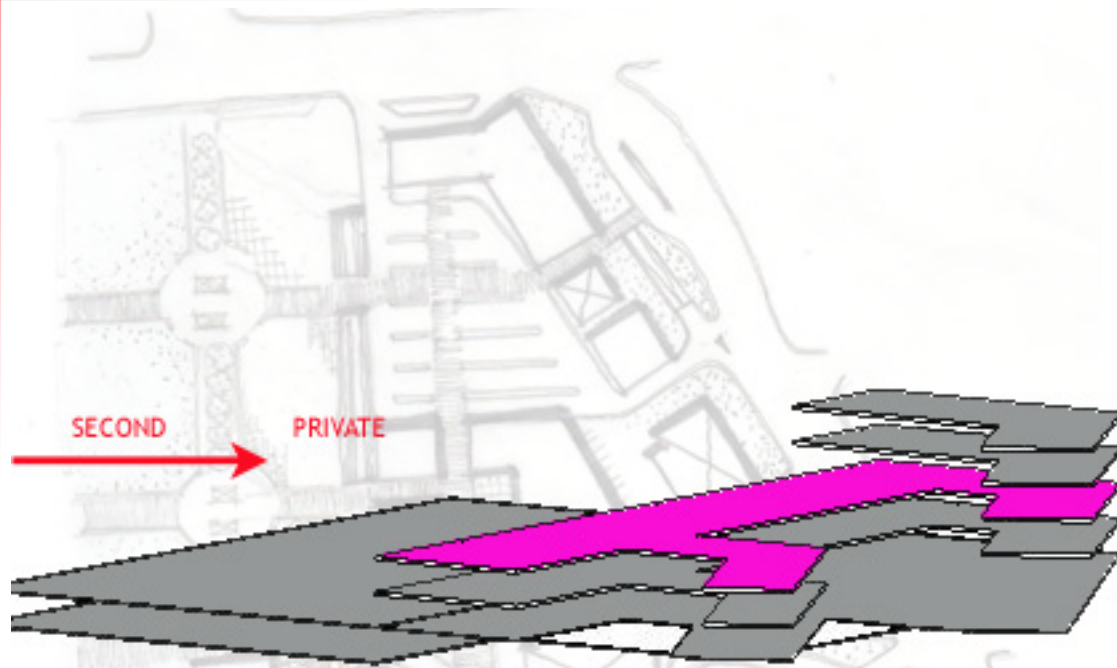


FIRST FLOOR

The first floor is regarded as the semi-private domain. The public activity is encouraged in the restaurant, pub, and open air gallery space.

The resource centre is also a semi private domain. Facilities available are the study area and reference books section, computer skills training centre, e-facilities centre, and a conference/meeting venue.





SECOND PRIVATE

SECOND FLOOR

This level is reserved for office space, and is regarded as private domain. The general public is restricted unless visiting by necessity.



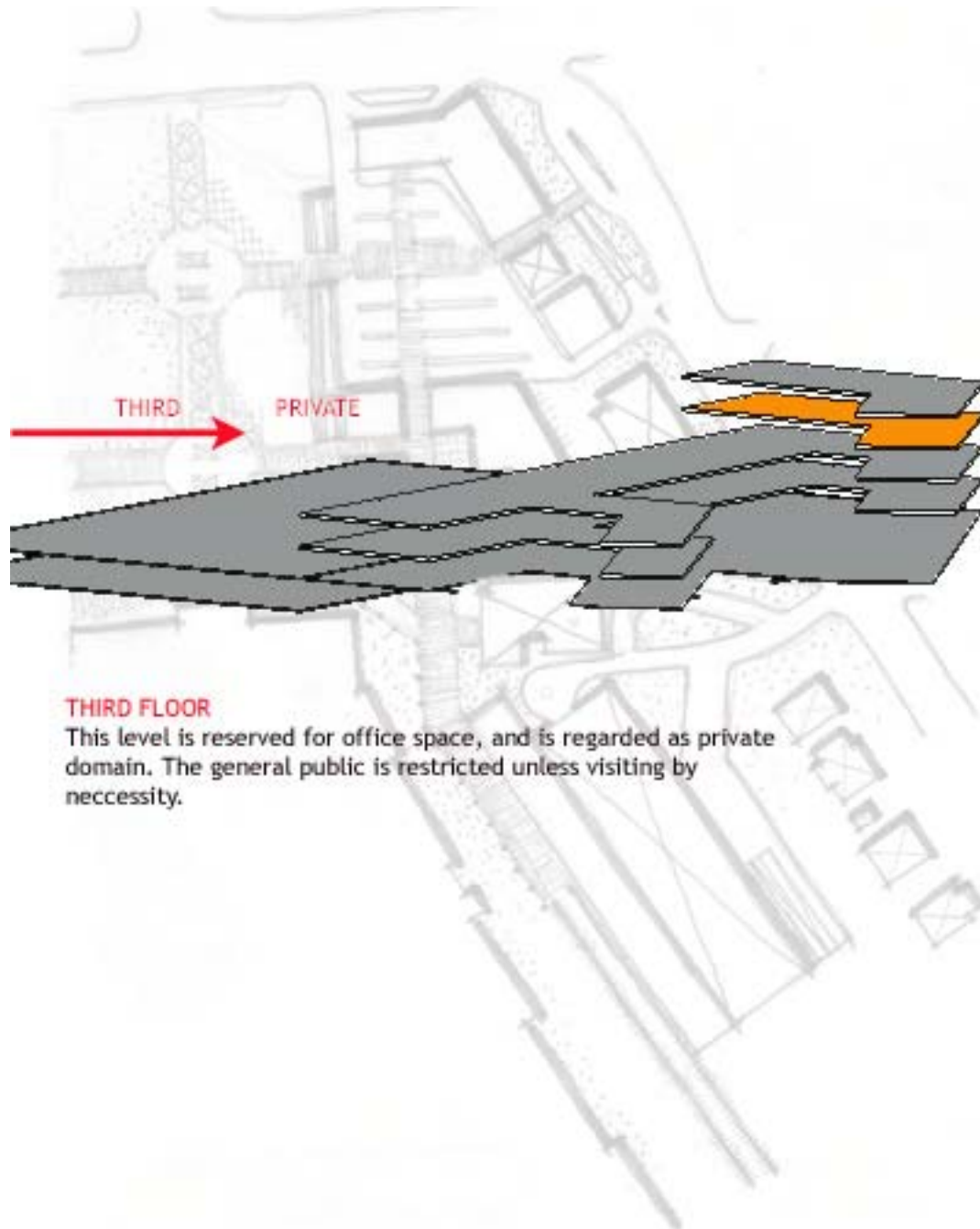
OFFICES

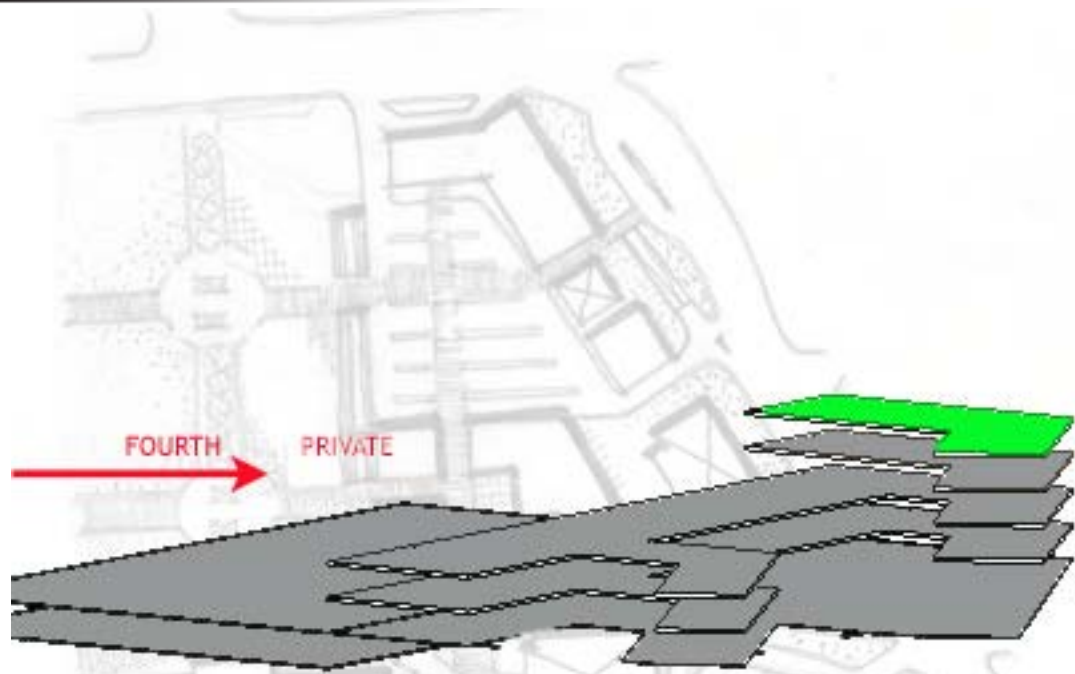
OFFICES

OFFICES

OFFICES

OFFICES





FOURTH FLOOR

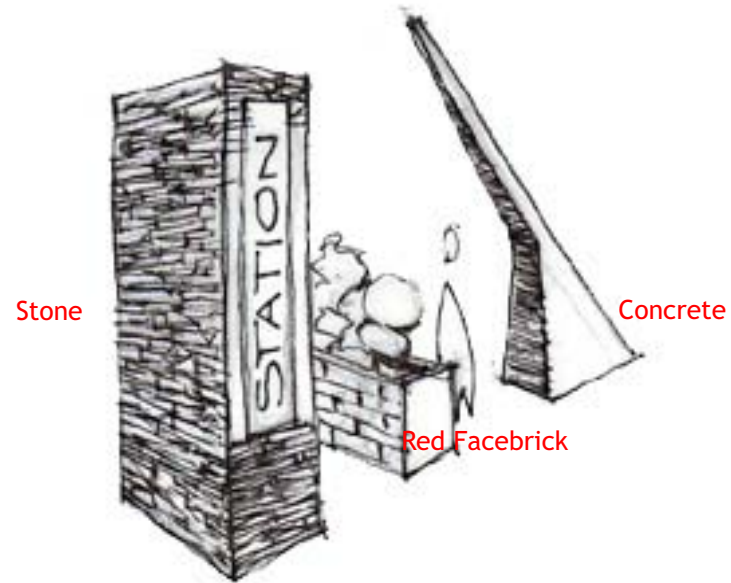
This level is reserved for office space, and is regarded as private domain. The general public is restricted unless visiting by necessity.

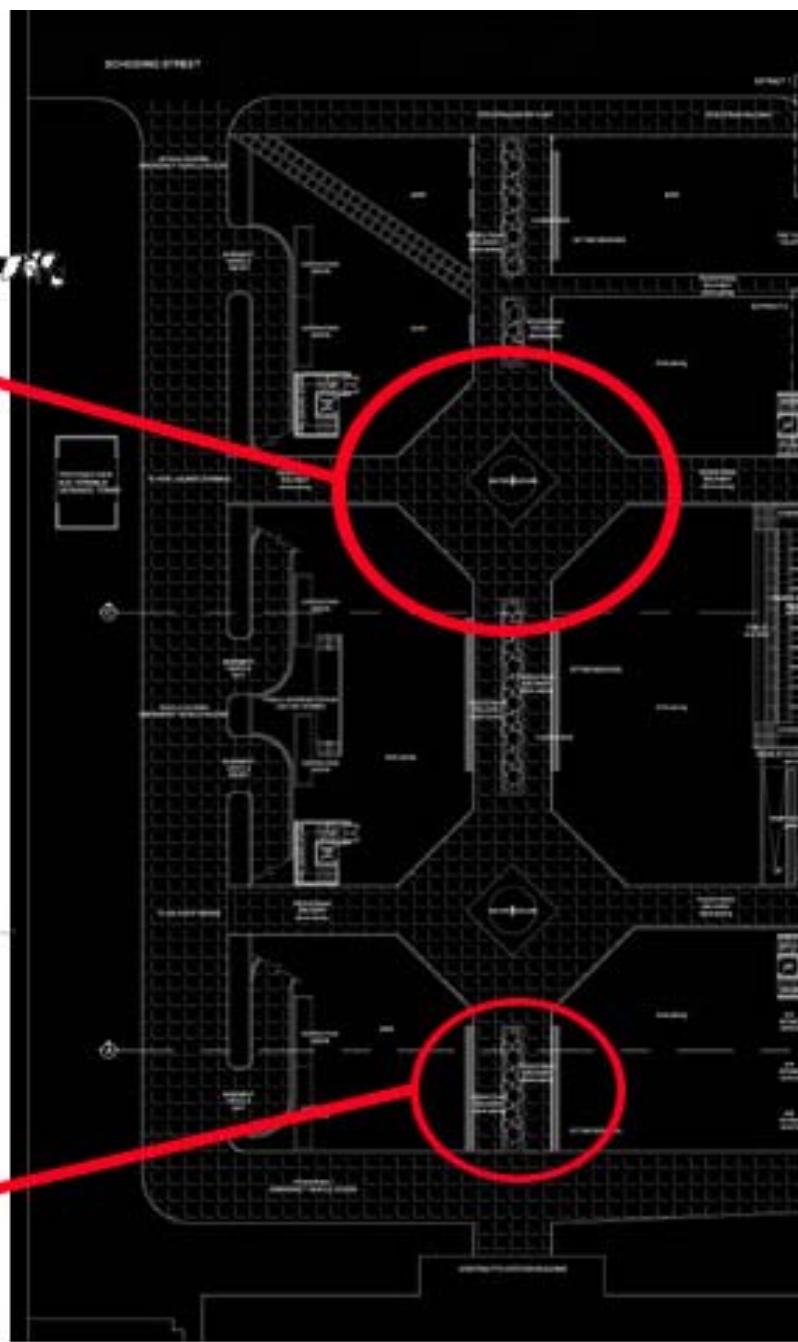
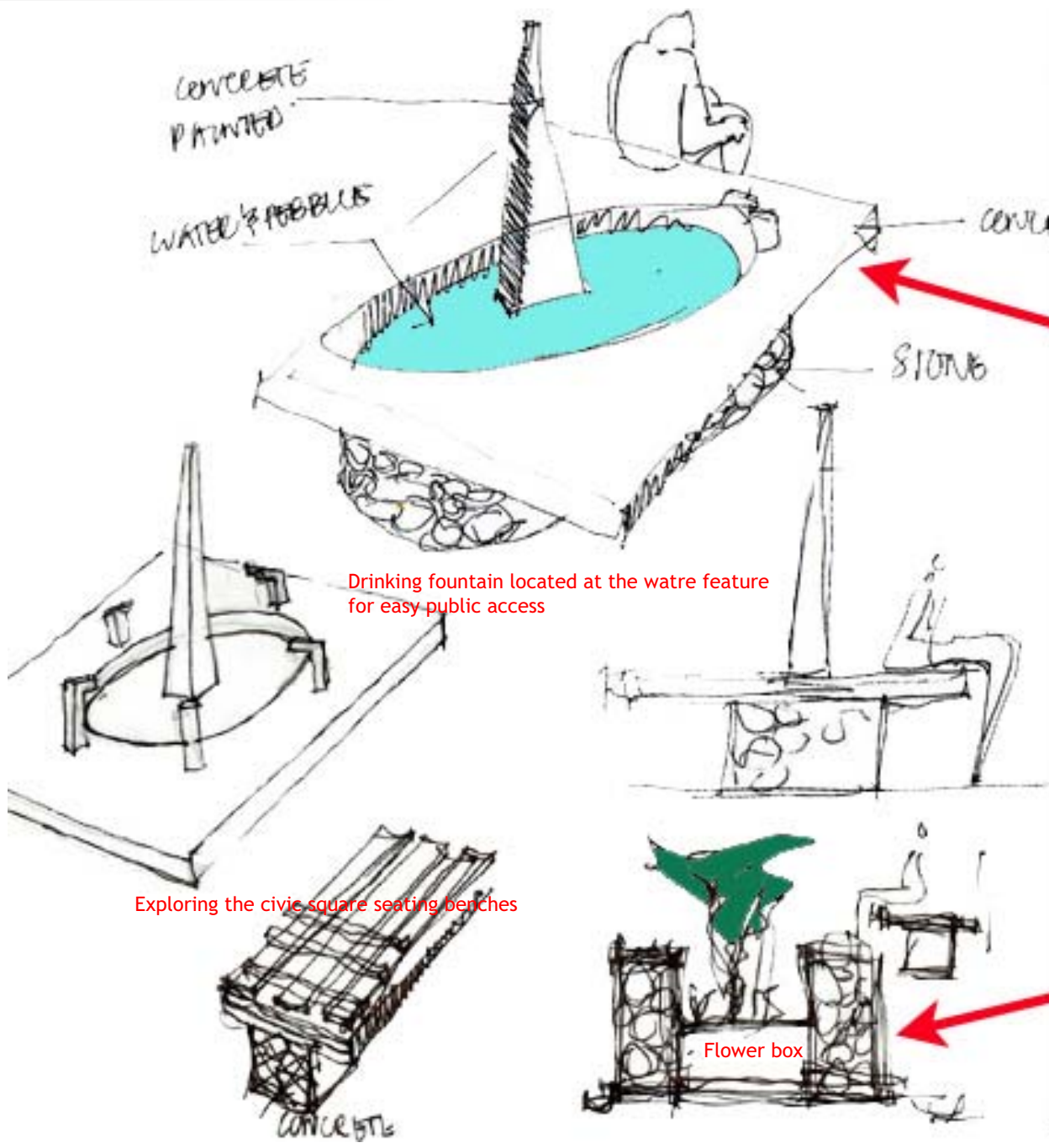




The station interchange thresholds are the points from which the commuters, workers, and visitors get their first impression of the place. Here it is important to articulate the entry points that demarcate the inside and outside of the development. However, since the station is a public place, such entrances need to be subtle yet visually appealing and also offer orientation.

The choice of materials is stone and concrete, in order to achieve a striking, almost monumental effect, yet retaining a modern feel.



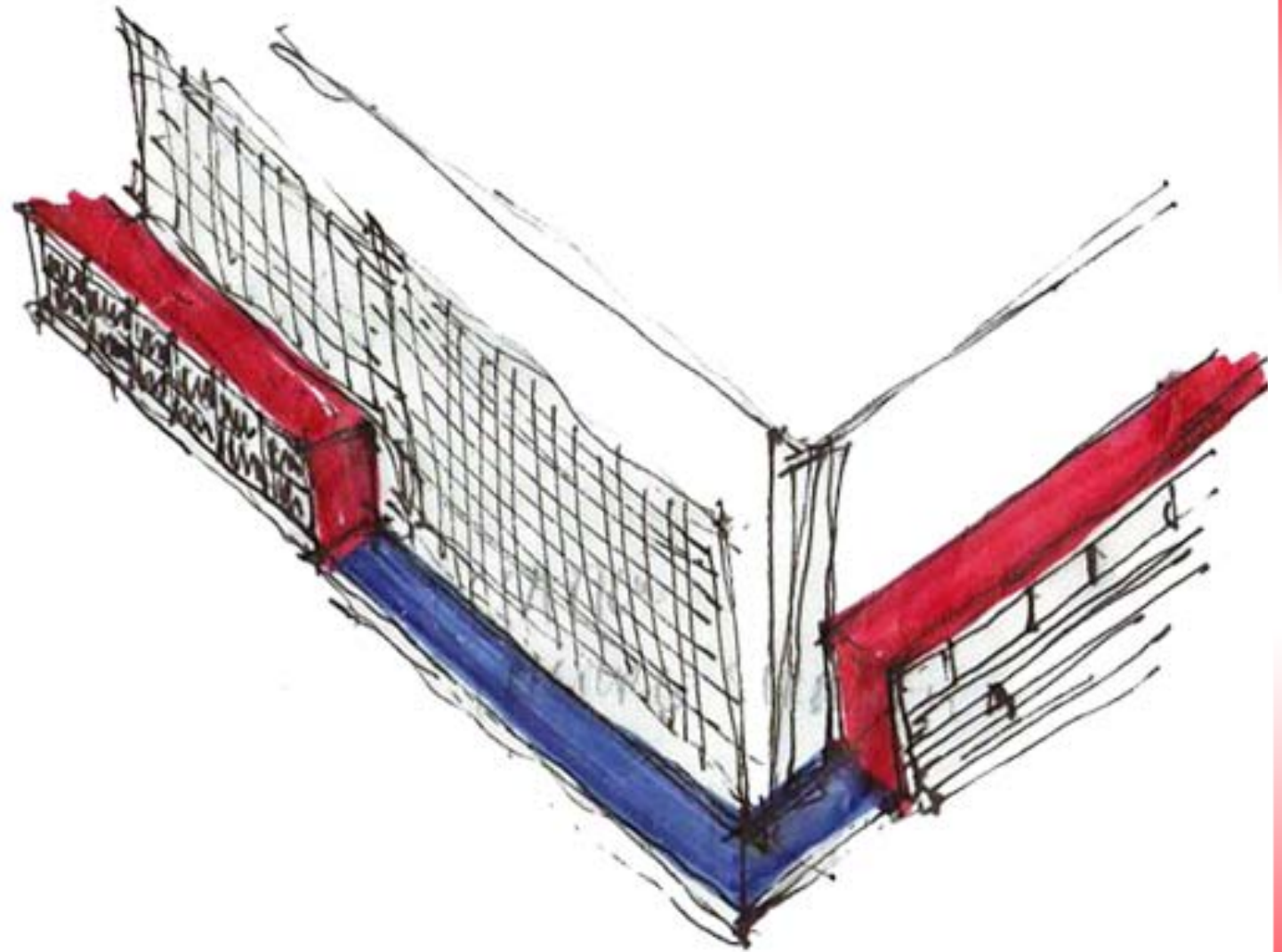




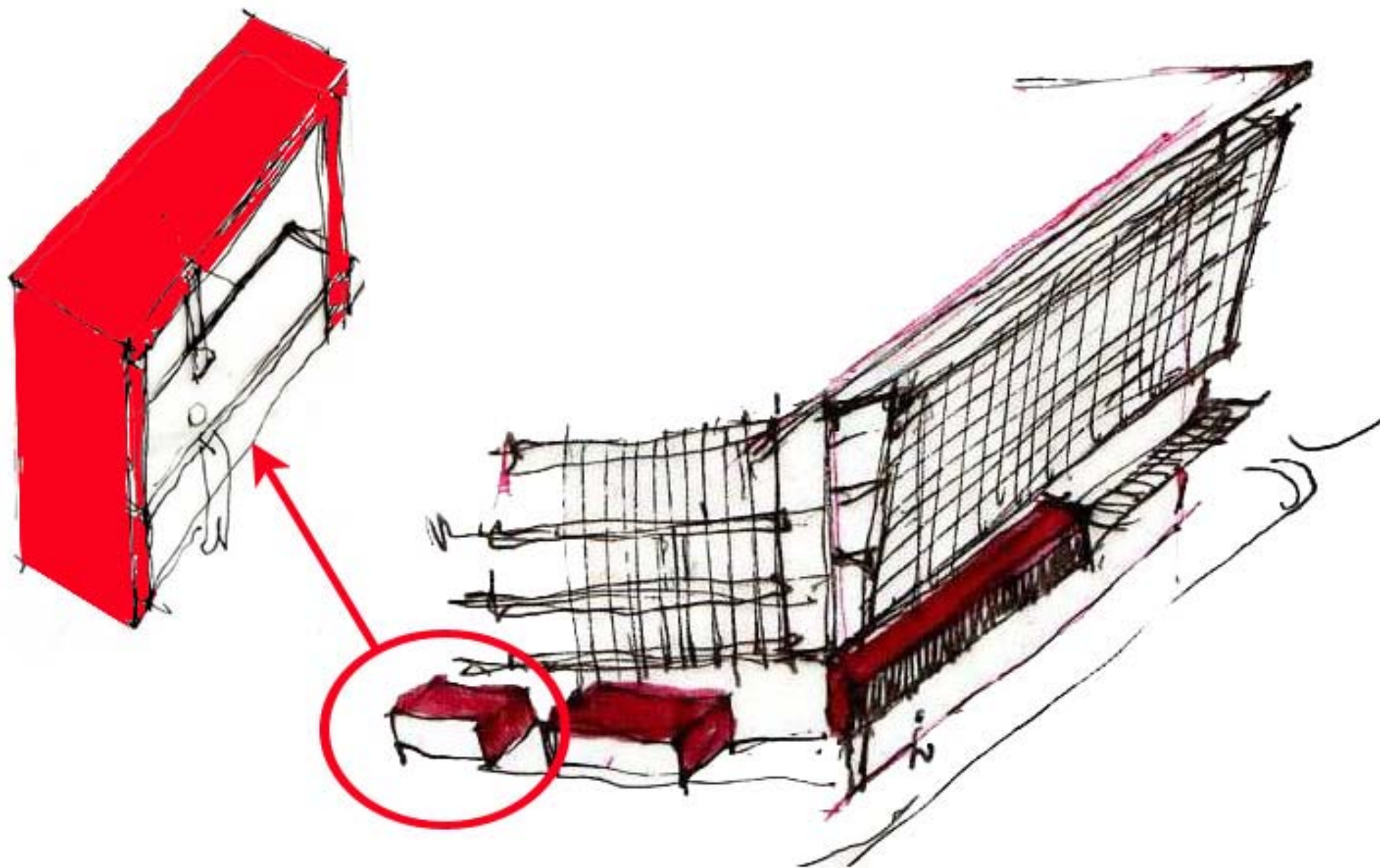
(Hoiting and Boer 2000:74)



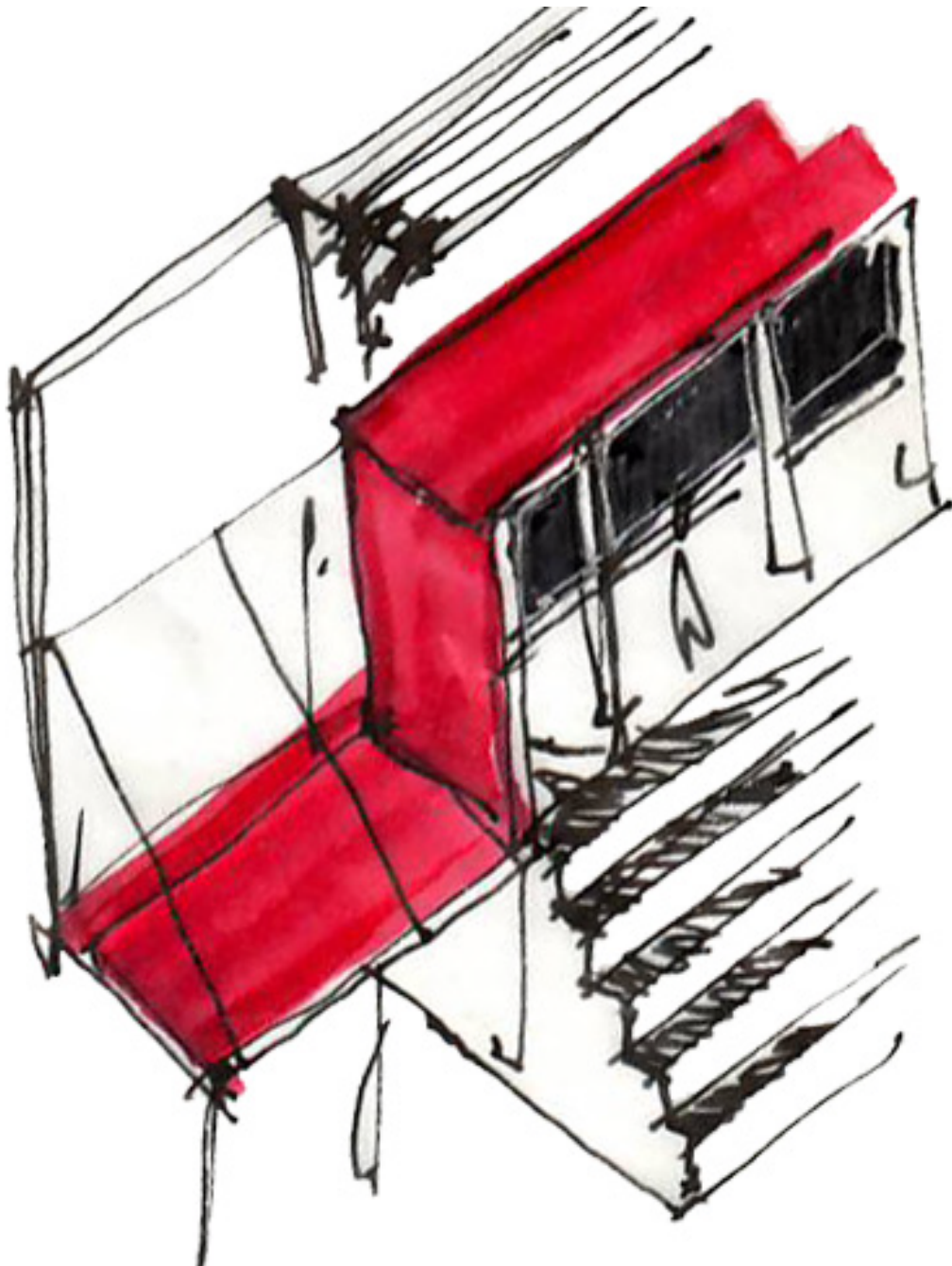
Screen mesh cladding



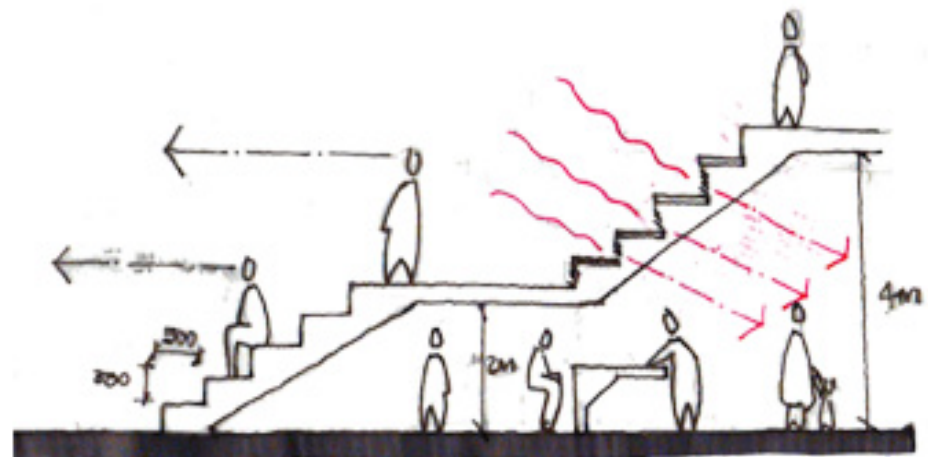
Exploring how screens can be both functional and aesthetic on the facades. The introduction of brightly coloured concrete elements assist in creating a lively experience.



The commercial edge is articulated by means of brightly coloured box-shaped hawker stalls. These attract the passer-by's attention and add character to the facade.

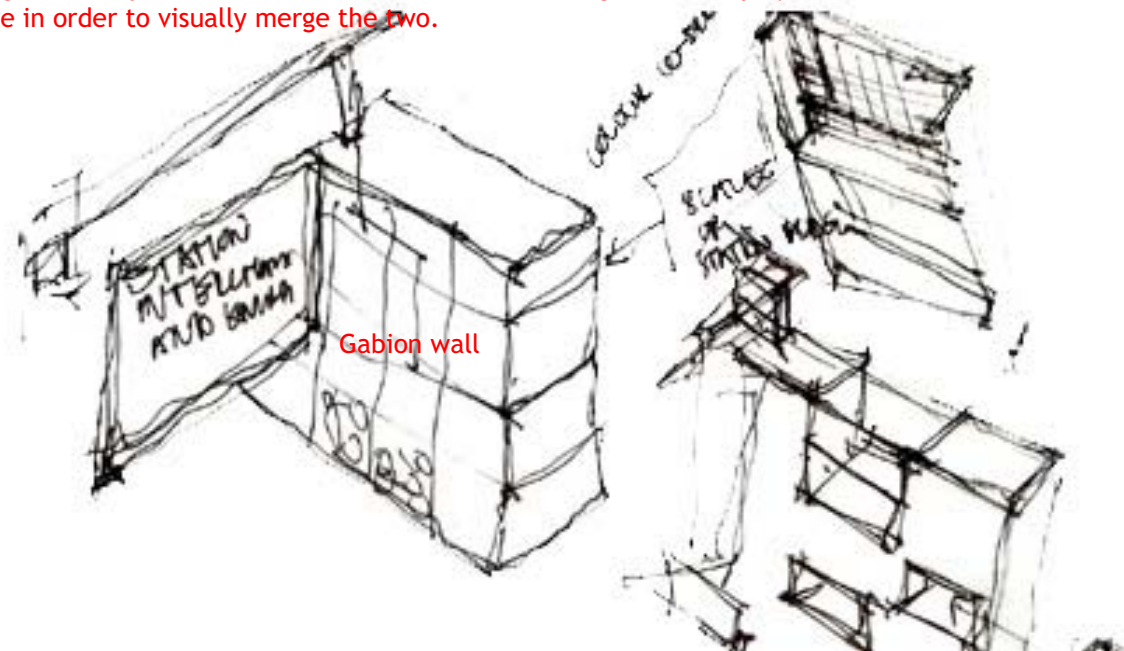


Means of creating seating overlooking the civic square, by creating deep riser and wide tread stairs. The underside of these stairs become hawker stalls facing the taxi rank. Ideas of allowing light to penetrate into the taxi rank area are explored

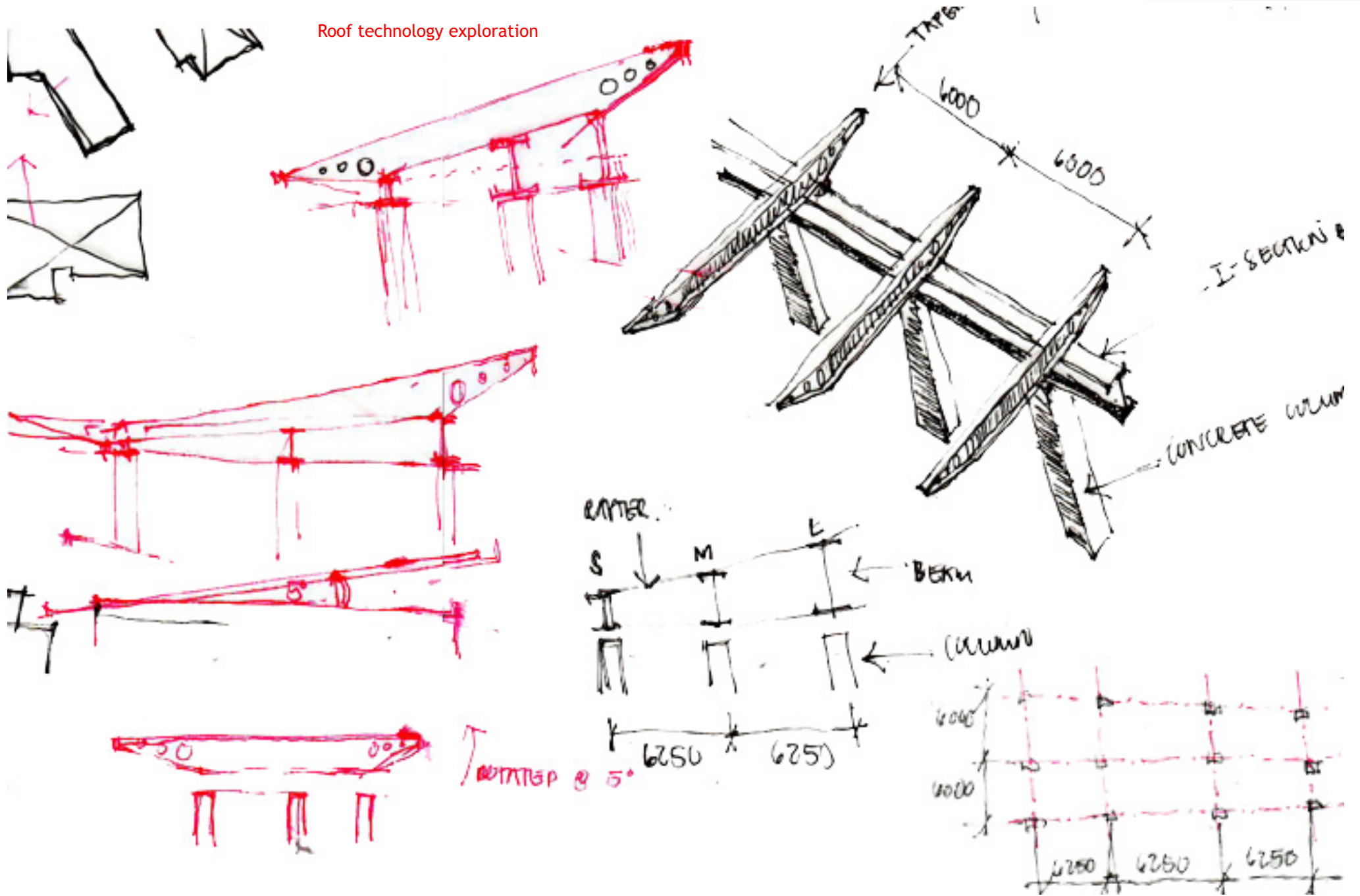




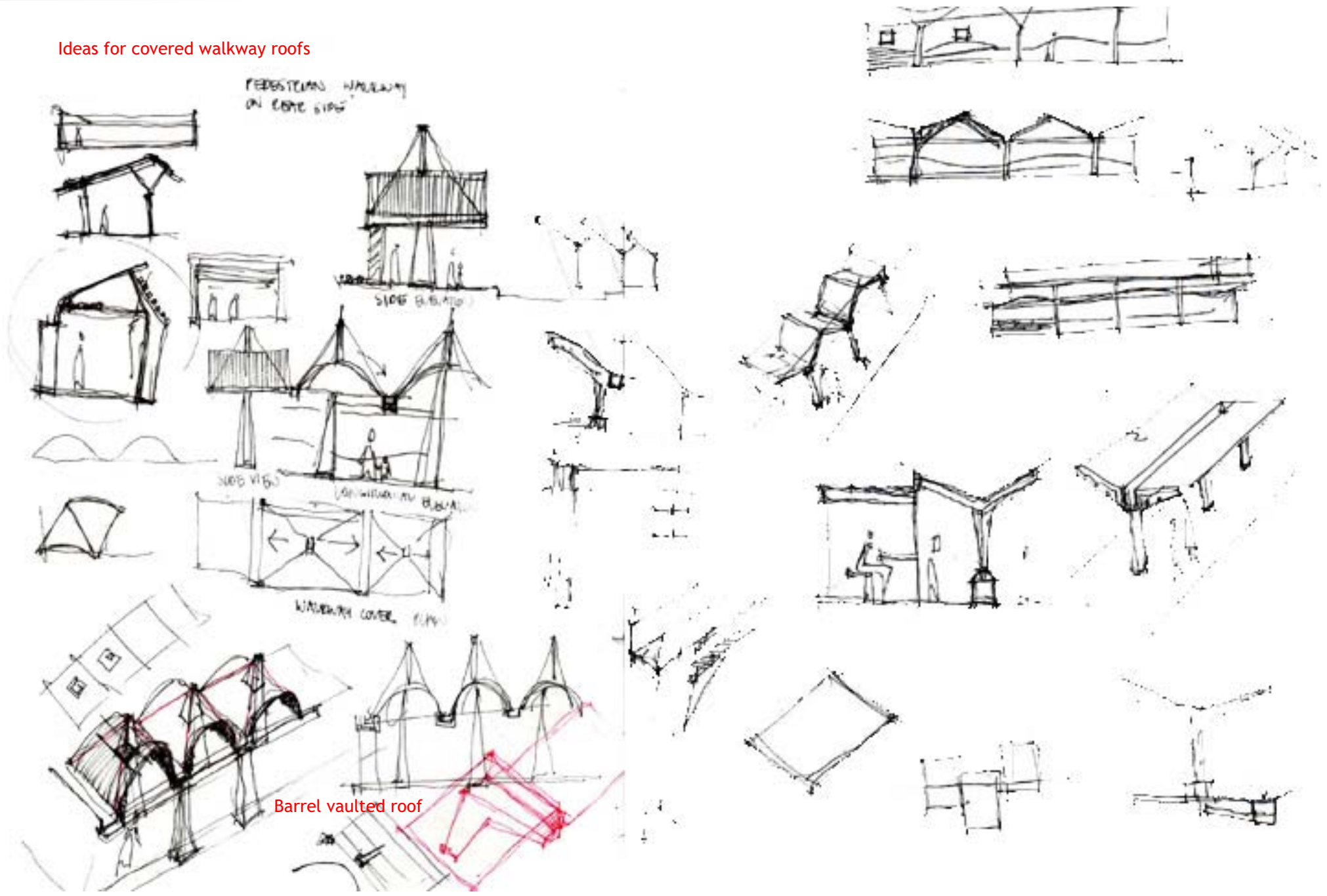
Dealing with the junction of the old and the new, looking at how to play with colour and texture in order to visually merge the two.

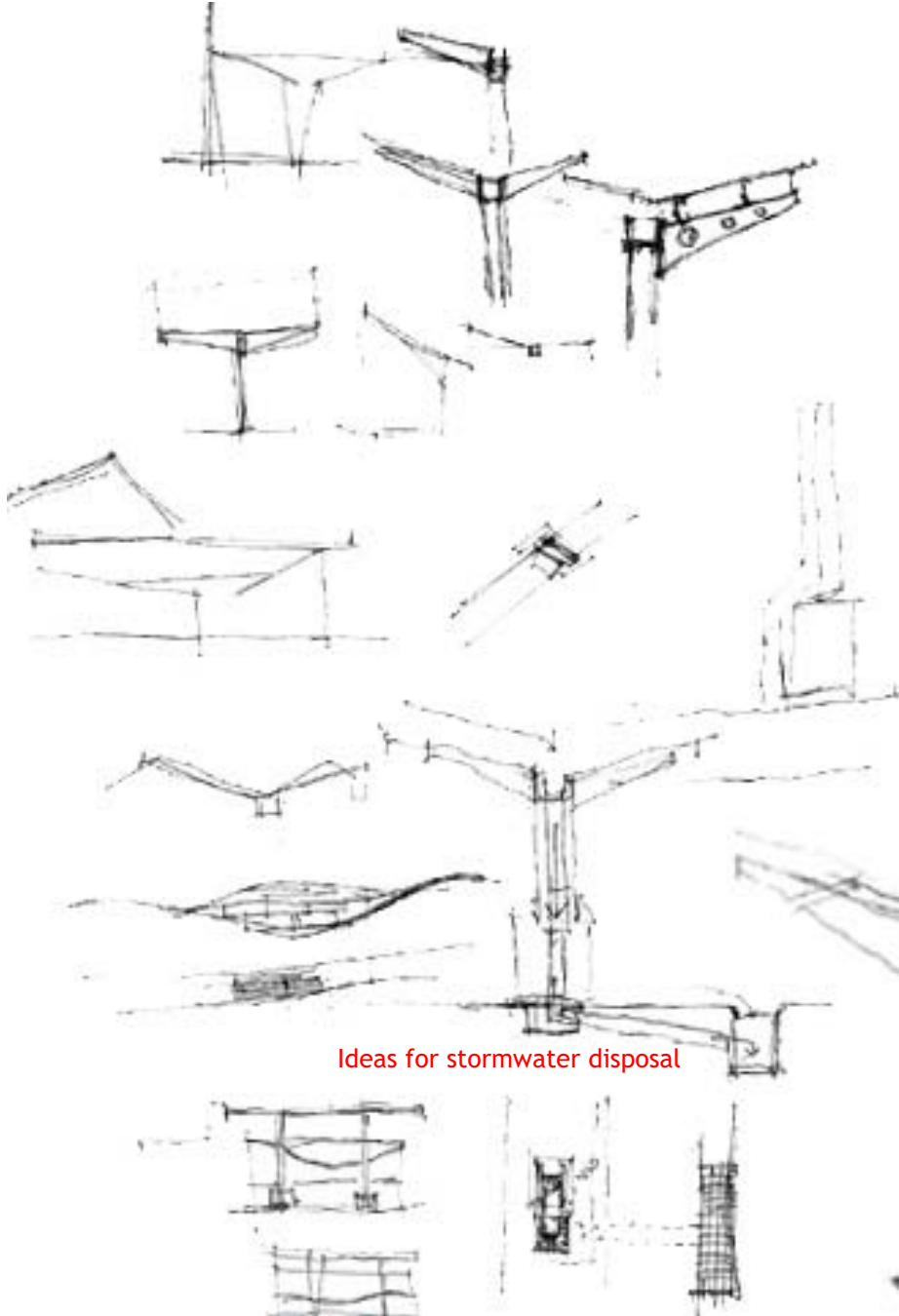


Roof technology exploration

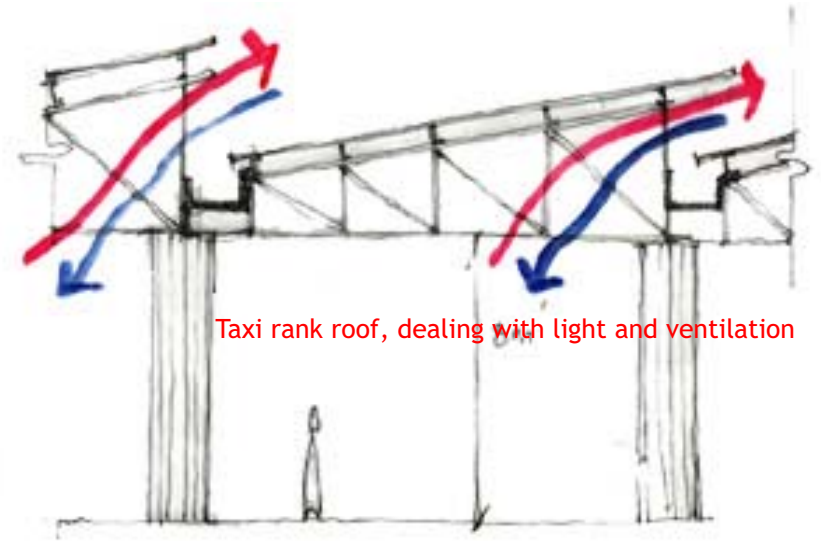


Ideas for covered walkway roofs

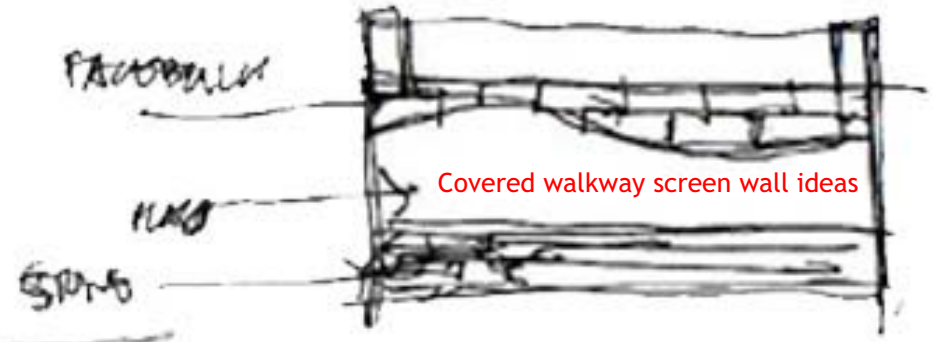




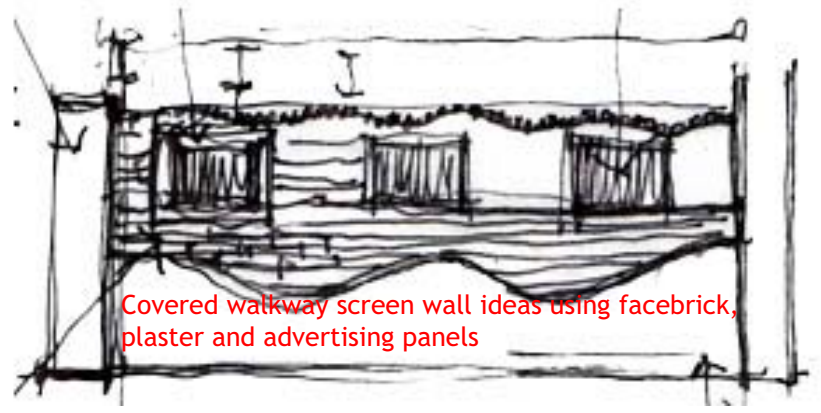
Ideas for stormwater disposal



Taxi rank roof, dealing with light and ventilation

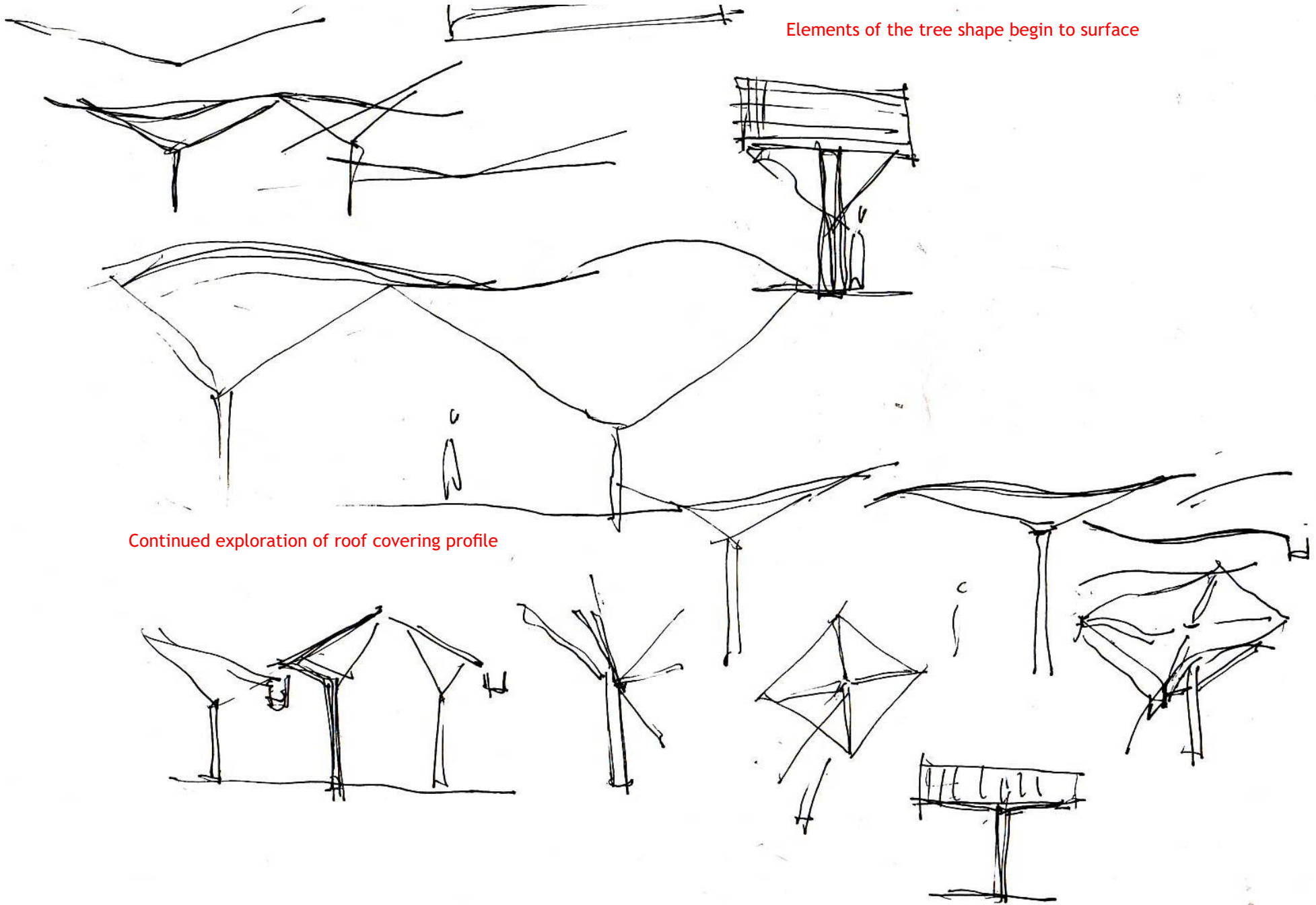


Covered walkway screen wall ideas



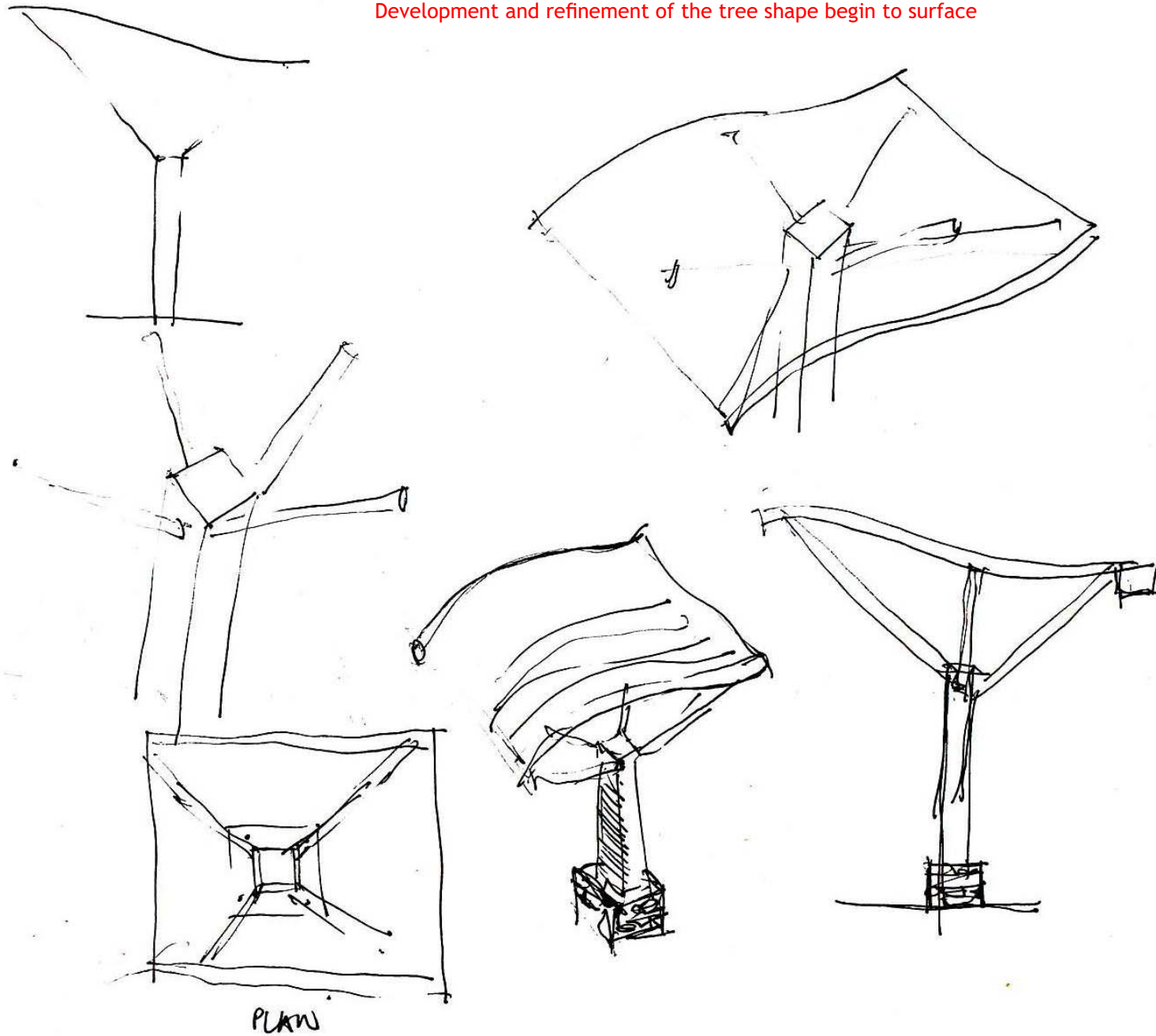
Covered walkway screen wall ideas using facebrick, plaster and advertising panels

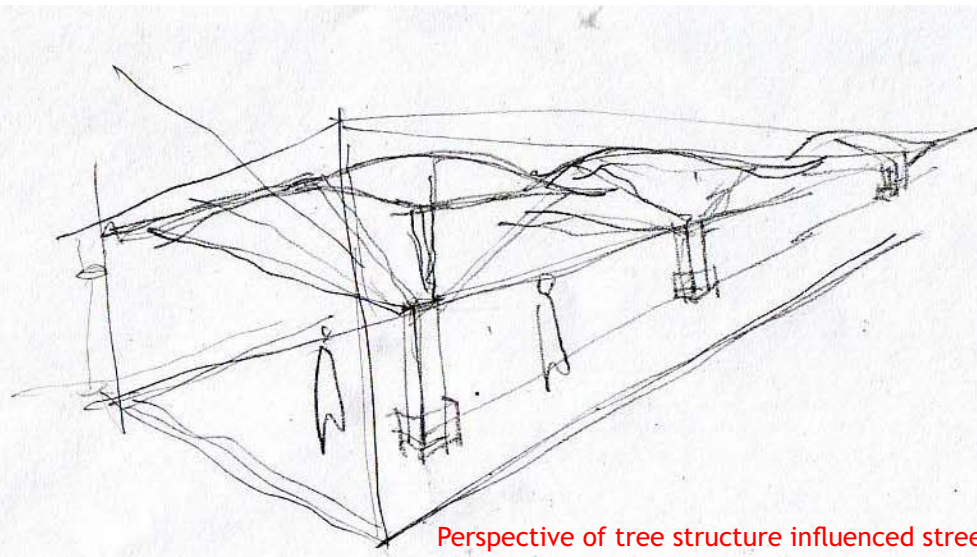
Elements of the tree shape begin to surface



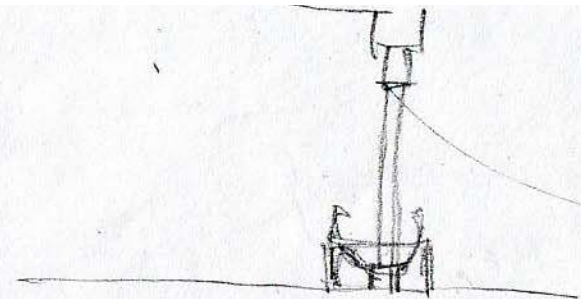
Continued exploration of roof covering profile

Development and refinement of the tree shape begin to surface

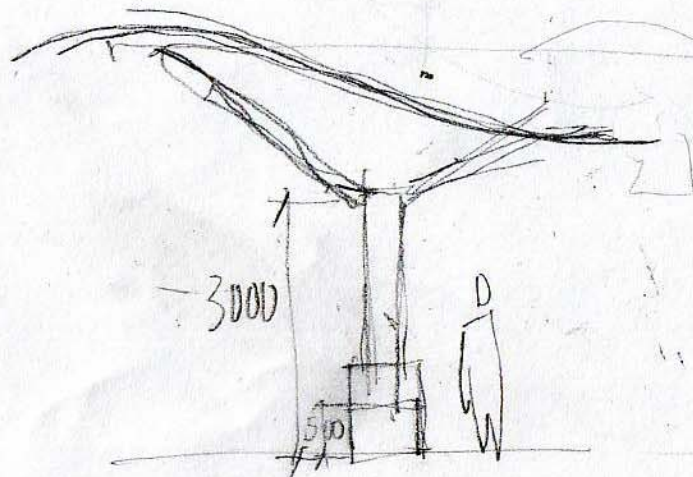




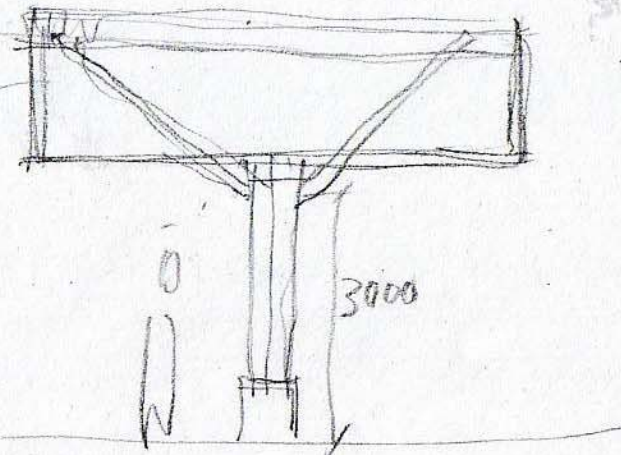
Perspective of tree structure influenced street walkway roof covering



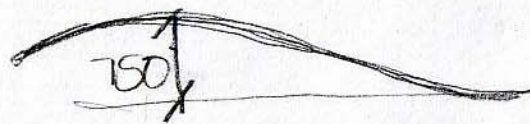
Stormwater treatment

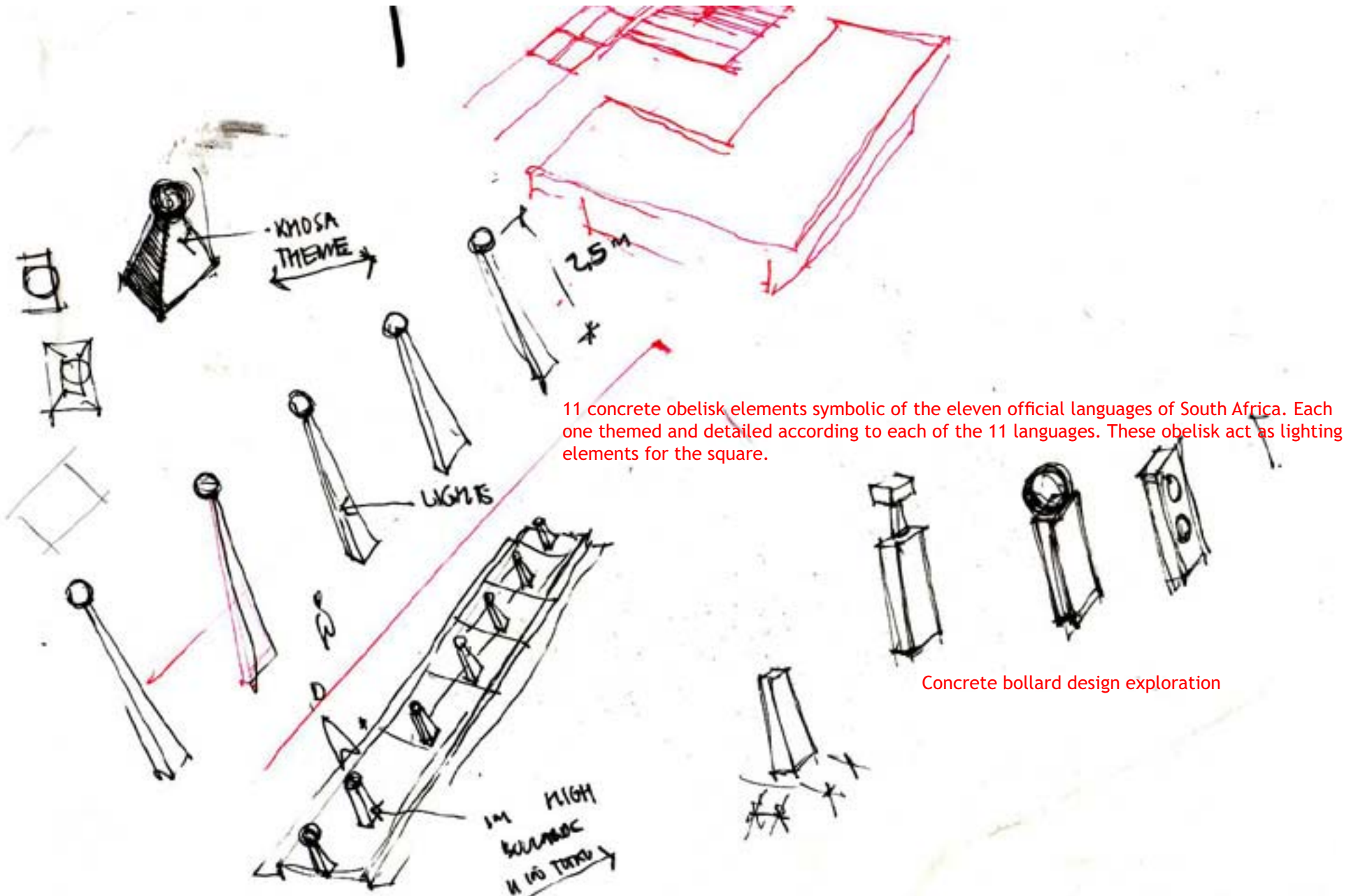


Side profile walkway sketch



Cross section of tree structure walkway



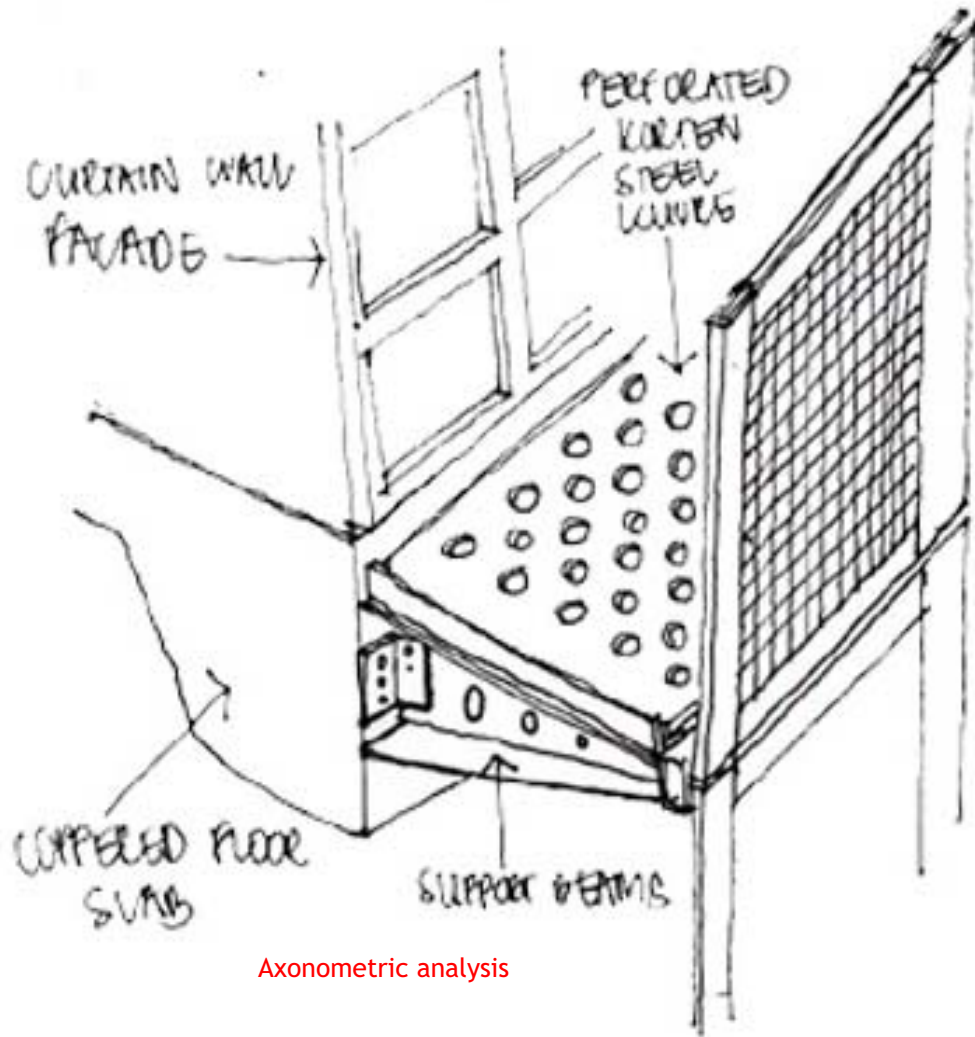


11 concrete obelisk elements symbolic of the eleven official languages of South Africa. Each one themed and detailed according to each of the 11 languages. These obelisk act as lighting elements for the square.

Concrete bollard design exploration

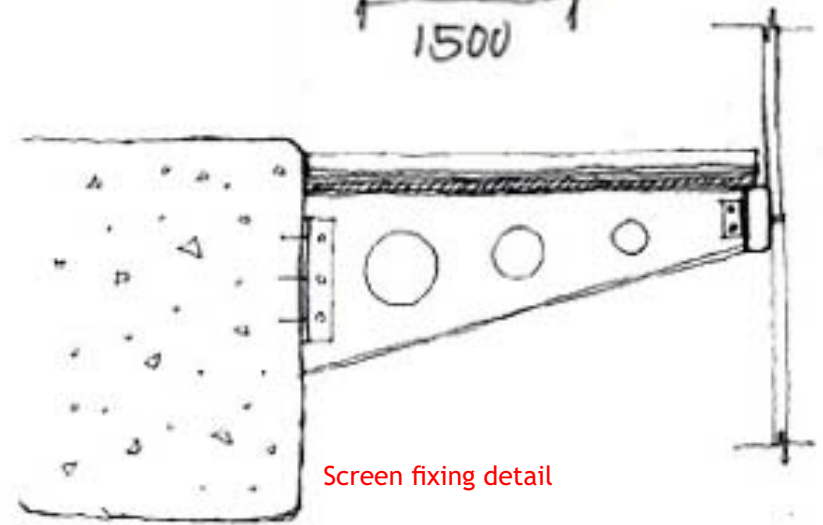
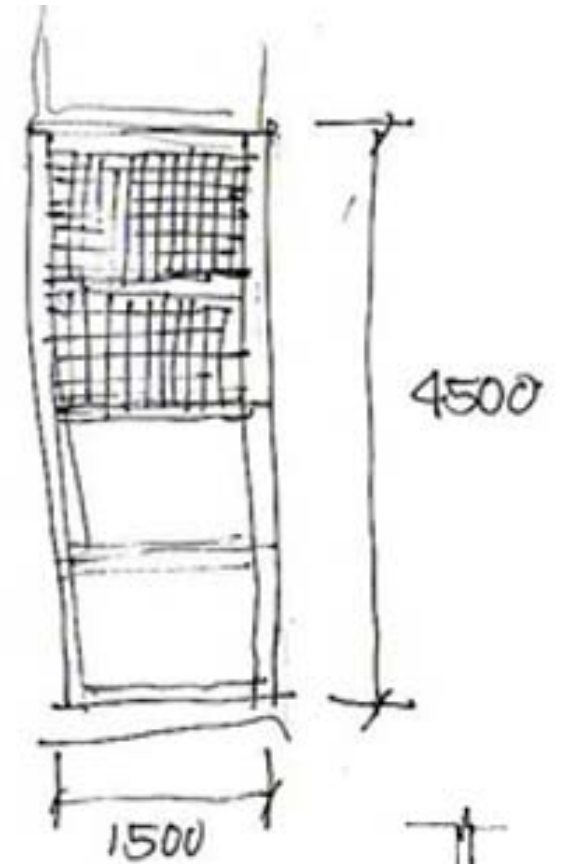
Concrete bollard to demarcate the boundary of the square, while offering a visually aesthetic means of enclosure

Exploration of solar protection on the north facade



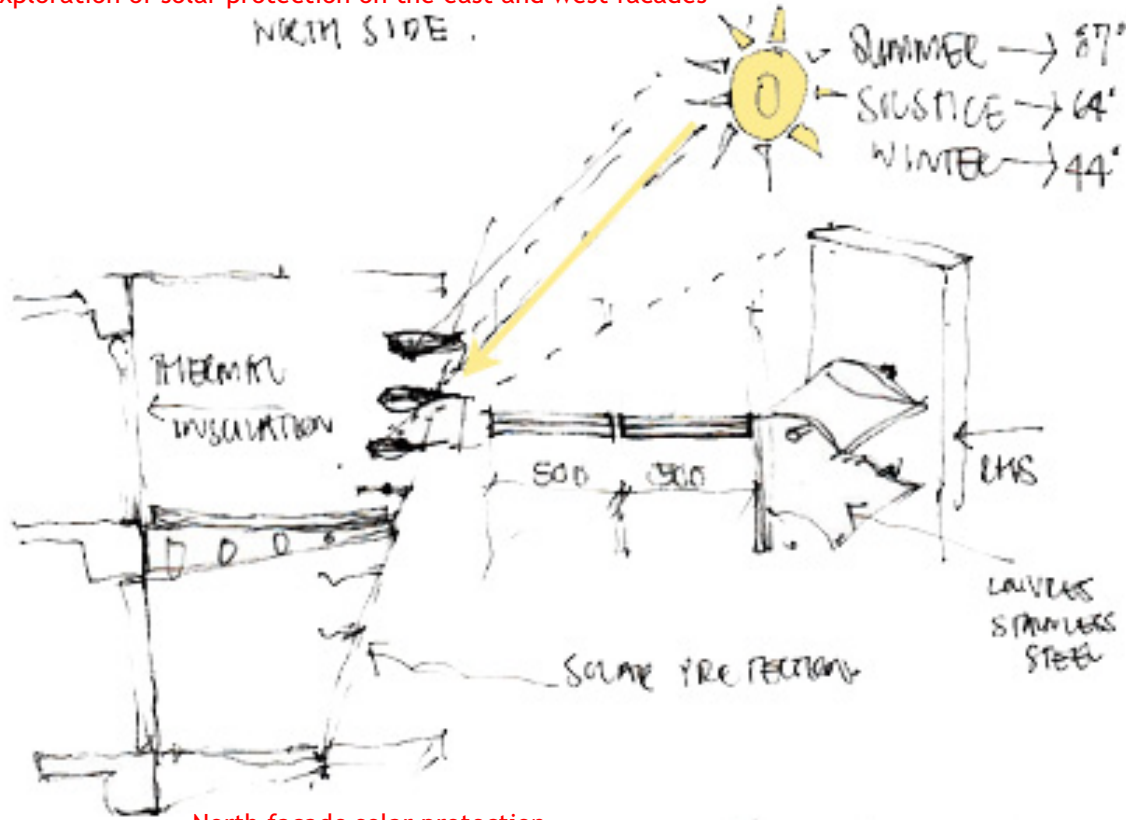
Axonometric analysis

STAINLESS STEEL FINE GRIDDED MESH IN A STEEL FRAME.

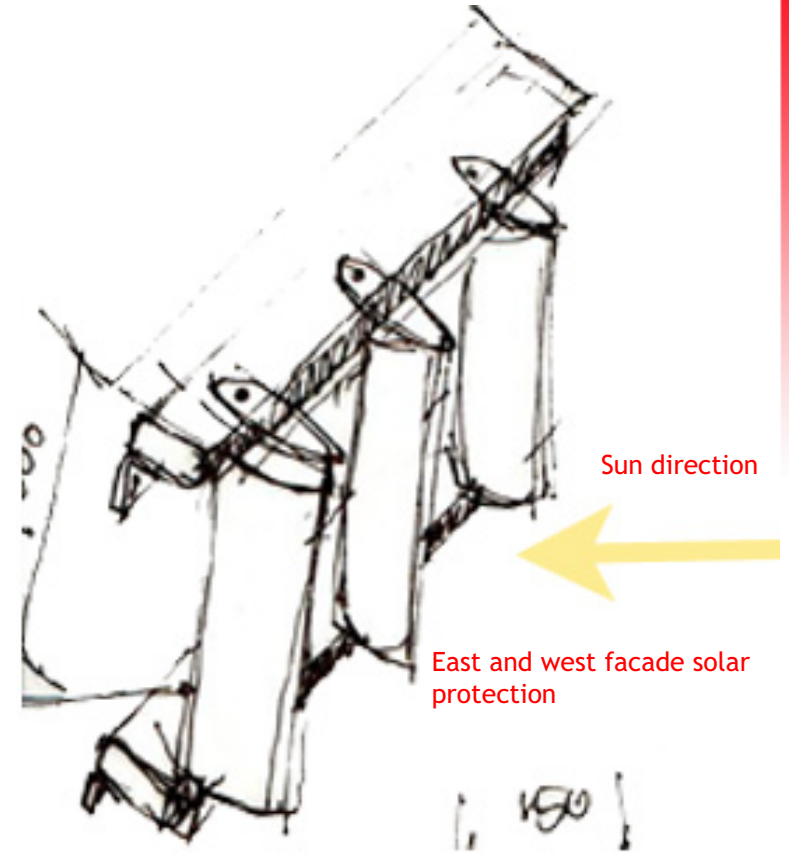


Screen fixing detail

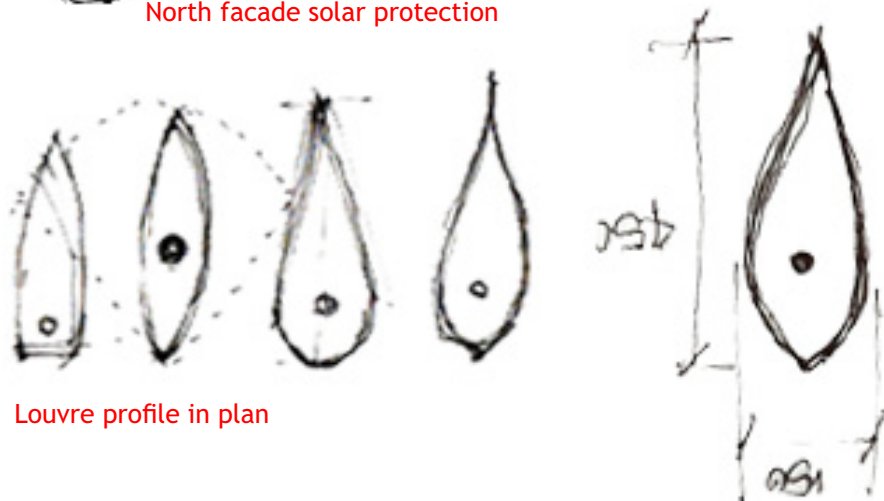
Exploration of solar protection on the east and west facades



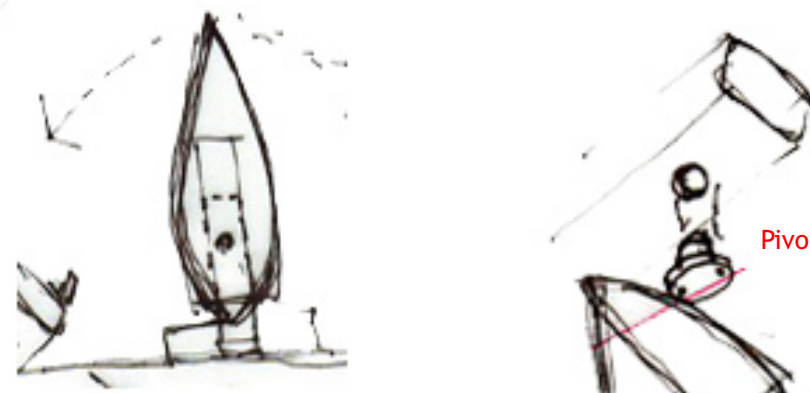
North facade solar protection



East and west facade solar protection



Louvre profile in plan



Pivot detail