

# Chapter 5

# Case Studies

## 5.1. Philippi Public Transport Interchange

The first most important aspect that is evident in this project and which we would like to replicate in the Gautrain Intermodal Transfer Station for Hatfield, is the community working together in response to the 'public' terrain.

It is of utmost importance that the site would also become vibrant to stimulate the local populace to make the created entities their own, thereby not only looking after the infrastructure, but also creating a sense of ownership.



figure 5.1.1

**Above** The vibrant market that was created.(The Digest Of South African Architecture:32)

In the Philippi Public Transport Interchange the formation of collective spaces off the streets and street corners, encrusted the sidewalks with diverse trade activities.

The focus from the city of Cape Town, Urban Design services Branch has been the reinforcement of collective spatial patterns with key pieces of public investment that are intended to support the community needs within a public spatial framework.(The South African Digest of Architecture:29)



figure 5.1.2

**Above** Trader Stalls with red signage band overhead.(The Digest of South African Architecture:32)

## Urban Framework.

The focus was from the beginning to see what the natural response from the users was and to merely formalise the built fabric to support the pattern this is much the same way the settlements in Europe evolved over time to create the streetscapes we now use as models for successful urban living.

Over the years the response by the traders has been to establish a 200-metre by 70-metre outdoor space as an urban forecourt to the station.

The main objective here was to reinforce the scale of the urban space as to support the variety of activities that take place at the station.

The proportion of the urban rooms was thus retained.

The only important aspect from formal sector was to fill the forecourt with a vast amount of trees to cope with the wind in the region.

An urban veranda was created to define the space more by means of a colonnade.

The design of the interchange focussed on the outdoor areas where the opportunity for interactions was maximised, as the interchange wasn't merely the accommodation of taxi and bus requirements.

Because the outdoor space in its design is not prescribed in its use, the people have made the accoutrements their own, by appropriating the spaces for their own needs. This is a very important aspect to take into mind in the design of the Gautrain Intermodal Transfer Station.

*“The design intervention is underpinned by an understanding that the architect intervenes in a short time interval after which the space is layered and defined by a number of people over time. The challenge of such design opportunities is to provide a layer of urban legibility within which a number of readings and interpretations can occur.*

*Weeks after the formal handover of the project, the urban spaces and surfaces of the Philippi Interchange reflected a remarkable ability of communities to respond to space.*

*The first level of articulation relates to how people provide legibility or codes within a network of spaces. Various actors begin to claim turf and daily patterns of trade and meeting find logic within the site. One of the most evident aspects of making an urban expression is the extraordinary range of signs that surface the red panels which were explicitly designed to receive layering.*

*In addition, a range of shop fronts are being established behind the roller-shutter doors. The making of the shop front by the traders expresses a level of service, status and aspiration; an indication that the community has claimed ownership of the interchange project.”* (The Digest of South African Architecture:32)



Figure 5.1.3  
Above Informal Trader in front of formal Trader Stall.  
(The Digest of South African Architecture:32)

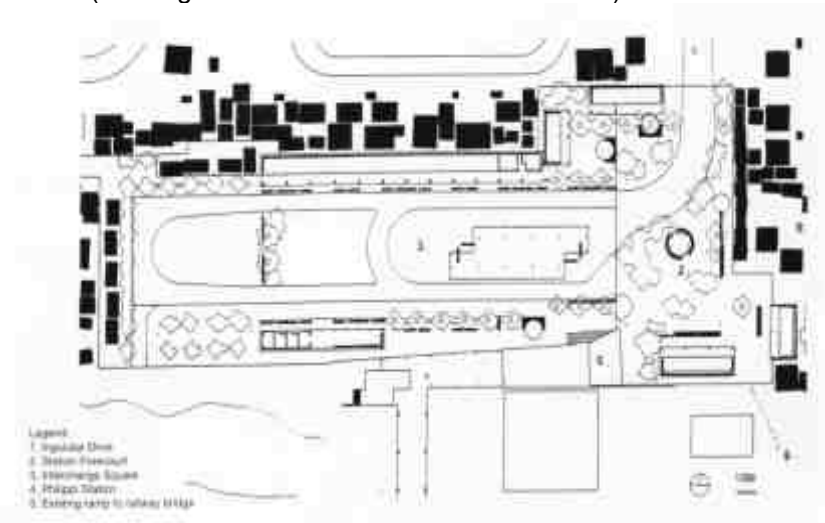


Figure 5.1.4  
Above Ground Figure of the Interchange.(The  
Digest of South African Architecture:30)

## 5.2 Metro Mall, Newtown Johannesburg

The Johannesburg City Council owns the land parcel on which the new Metro Mall, Intermodal Transportation Hub, was built.

Since 1995 the Johannesburg Development Association employed Urban Solutions to design and develop the spatial framework for Newtown. From this departure the Metro Mall project were conceived.

The facility is in fact a nodal interchange for busses and taxis.

The brief was developed with consultation with the site users much the same course of action must be taken with the Gautrain Intermodal Transfer Station in Hatfield, with the only difference that with the Metro Mall project the site was already used for much the same purpose, whereas the Hatfield site is derelict land. Here the process would entail looking for the interested and affected parties to deliver their input to what from an urban design perspective would be desirable for the proposed new building.

Important in this building to incorporate into the Gautrain Intermodal Transfer Station is the use made of the site topography, with each vehicle type having direct access to pedestrians. The use of material in the Metro Mall is also to be commended, as the robustness and practicality of the

surfaces are what is called for in such a building type, where undue decoration is undesirable. Thus brick, concrete (unpainted rough cast) and steel should be the choices made to facilitate a building of long lifespan, without undue maintenance to decorative surfaces.

As with the architecture of the building, the Metro Mall same as with the proposed Gautrain Intermodal Transfer Station, is layered away from the street edge inwards in a clear demarcation of the zones and their functions (trading as opposed to travelling).

The design has market orientation in its essence, with small stalls created with varying degrees of servicing to facilitate trade in the building. With the street character of Johannesburg taken into account it was decided to rather demarcate the trading areas away from the sidewalk area, and rather move the focus of informal trade inward to the traffic areas and the resultant "feet" it would create. (figure 5.2.1)

This is the most important difference between the Metro Mall and the Proposed new Gautrain Intermodal Transfer Station, where the Gautrain building will enhance trade throughout its surface area to varying degrees.

The Metro Mall building does have more formal trading Shops to the street edge, but these do not entail the provisions for informal traders in front of their shop fronts.

In the Metro Mall the generation of enterprise is an ongoing theme, with even the public toilets run as a business.

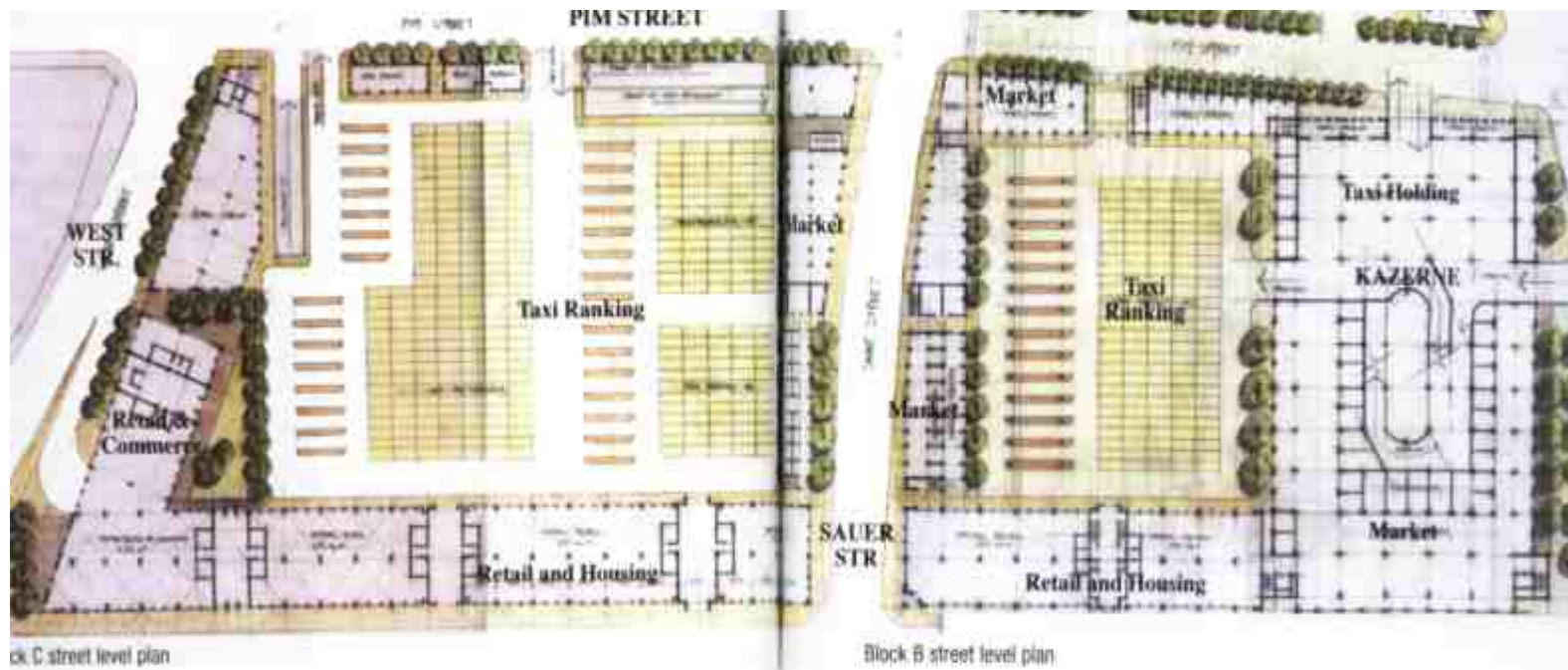
A very ingenious aspect of the Metro Mall is the use of urban art by the community to liven up the built fabric, which because of its limited palette can become dull and sombre. (figure 5.2.4) What immediately springs to mind, is the beautiful underground train stations commissioned in the Soviet era for the cities of St. Petersburg and Moscow. The latter became the defining elements of a days travel to and from the grim soviet oppressive system where the ones commissioned for the Metro Mall has the opposite effect, to celebrate a nation's liberation from exactly such a fate.



As a point of interest to also take into account with the possible commissioning of artists in the Gautrain Intermodal Transfer Station, is that the artists were managed along the lines of selected sub-contractors. A system by which the performance of the artist should be closely monitored by the primary agent (architect).

Important architectural elements incorporated into the building are the towers demarcating the entrances to the building. These are a staple for the design firm Urban Solutions as the new Constitutional Court being erected has much the same elements used in its design

Also the monumentality of the built form, with high open spaces and almost cathedral like interiors, are to be incorporated into the Gautrain building as these can inspire people to use a building long after the intended purpose have been eclipsed. The example of Grand Central Railway Station in New York City can also be called to mind in the type of interior envisaged for the Gautrain Intermodal Transfer Station.(Leading Architecture:41-44)



**Figure 5.2.1** Shows the street level plan of block C(Soweto bound transport and block B(Lenasia bound transport) as well as the demarcation of retail, transport, housing areas etcetera.(Leading Architecture:42-43)



figure 5.2.2.  
**Above** Internal arcade Pim Street, Metro Mall, Newton, Johannesburg.(Leading Architecture:41)



figure 5.2.4.  
An example of the mosaic art work found in block C, Metromall, Newton, Johannesburg. (Leading



figure 5.2.3  
**Above** Block C West Street entrance tower of Metro Mall, Newton, Johannesburg.(Leading Architecture:43)



figure 5.2.5  
West street facade,Metro Mall ,Newton, Johannesburg.(Leading Architecture:41)

### 5.3. Mapocho Station, Santiago, Chile.

In designing the proposed new Gautrain Intermodal Transfer Station to be erected in Hatfield one must ask oneself the important question of how long would the building remain in its current role, and is there scope for change?

Due to the character of technological change in the world, nothing can be seen as an absolute and set in stone. Even the rock of Gibraltar, a British protectorate, have seen the mother country make moves to return control back to Spain after 400 years of control.

For this reason one cannot see the built form to be erected as absolute. Precisely for this reason the re-invigorated station building of Mapocho Station in Santiago Chile has been selected to serve as a case study to show that the built form must lean itself to being reused into another function, long after the original function has been forgotten.

#### History of the building

The Mapocho Station building was imported in kit form from Belgium and designed by the architect of *Museo de Bellas Artes*, Emilio Jequier 1910-1913 in celebration of the centennial anniversary of Independence from Spanish rule.

*“The irony of this “independence” is that, as in the north of Chile where there are churches by the French engineer, Eiffel, the pre-fabricated structural frame of the Mapocho station was shipped from Belgium. The turn of the century Chileans believed that imported “European” culture was more important than the context in which a building sat.”* (World Architecture July/August 1996:57)

As is normally the case with transplanted organisms and architectural building styles, the finer nuances of the site's influences isn't taken into consideration, which often leads to problems not foreseen in the mother country cropping up and making the built fabric unsuitable to the conditions.

What happened with Mapocho Station is that the Belgium Steel wasn't forged to meet the conditions encountered in Chile, with its tectonic plate movement. The result was that the building became too weak for its intended purpose when the earthquakes regularly experienced in Chile weakened the frame. Only after it became a political set piece did the government of Chile decide to use the building in fostering national pride. The new government also sought to re-emphasise the need for public, rather than private spending.

The building was then re-evaluated and the community was contacted to lead in the re-development of the building. It was then decided to make a national Monument out of the building by making it a national cultural centre, aimed at restoring confidence in the state.

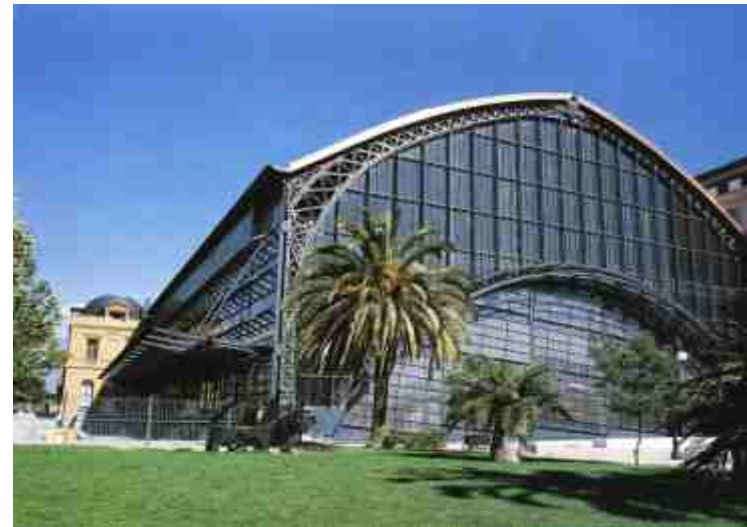


figure 5.3.1.

**Above** The track area at the back of the station has been transformed into a new city park. The main arched frame dates from the early 1900s. In contrast to its regular geometry, the angle of the horizontal cross bars of the semi-circular door provides a modern dynamic, and, for the first time, relates this important building to its site by echoing the gradient of the land on which Santiago was built. (World Architecture July/August 1996:56)



In other words, transforming a foreign functionless building into a popular space for the arts.

This was done by using glass and metal facades in the entrance hall and the sides of the station. These three storey spaces are available for rent. The main nave is split into two levels. Under the entrance hall is an auditorium where shows, concerts and exhibitions take place

Adjacent to the building, lies the Mapocho river and the “*Parc de les Reyes*”

The masonry wall on this side of the building was replaced by a glass facade allowing natural light in, as well as for heat control.

The challenge, when the Gautrain Intermodal Transfer Station should ever become redundant in its function would not be to have a “foreign” building get a new lease of life, but to have the motifs for such a building be more sincere as what were evident in the Mapocho Station building. Where the dictates of the state, even ones so surreptitious as were employed here can only lead to a building not viable in its new function in the future.

The challenge then for the designers of the whole precinct would be to have the public on board from the beginning.

The new building should have intrinsically in its design the ability to morph into a new function not only for future, but also medium term changes, bound to take place.



figure 5.3.2. The glass river façade with louvred wall to control heating.(World Architecture July/August 1996:57)



figure 5.3.3. Interior showing the new glass doors.(World Architecture July/August 1996:57)





figure 5.3.4

**Above** The original station entrance with the glass portico showing. (World Architecture July/August 1996:57)

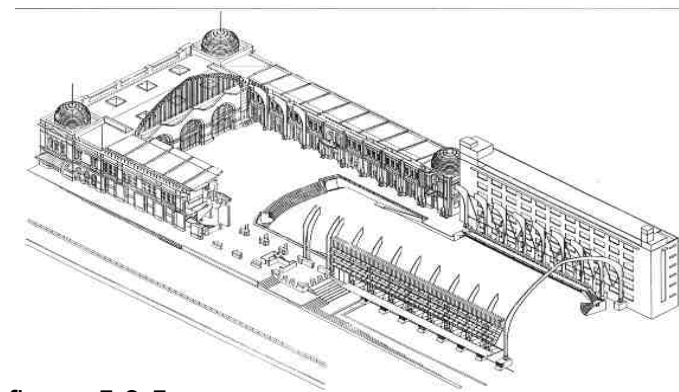


figure 5.3.5.

**Above** A cut-away axonometric showing the removed wall of the river façade to increase the amount of natural light into the building. (World Architecture July/August 1996:58)



figure 5.3.6.

**Above** Interior space showing the split passenger / train levels now used to define the auditorium and stage with entrance to the first floor offices in the far corner and commercial space under the arches. (World Architecture July/August 1996:57)

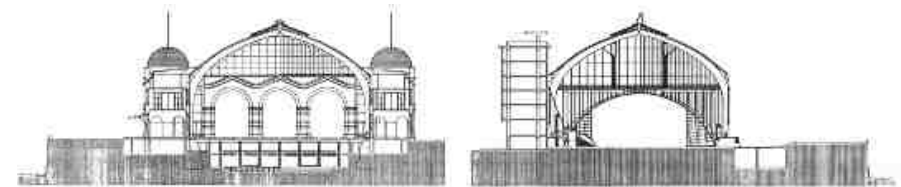


figure 5.3.7.

**Above** Sections of the building (World Architecture July/August 1996:58)

## 5.4. Bilbao Metro Railway System Bilbao, Spain

When it comes to a case study closest in its applicability, this one with its public participation and industry support is the epiphany of what the Gauteng Provincial Government envisages for its Gautrain Rapid Rail network and more specifically the Different Station Concessionaires.

Basque country, much like South Africa is a place where years of strife often led to people pouring their creative impulses into civic projects.

What immediately springs to mind is the great masterpieces of Antonio Gaudi in Barcelona, capital of Catalonia. For precisely this civic-minded reason the building of this Metro Railway System in Bilbao were underpinned by the local community, with local industry cooperating with product suppliers and contractors.

Foster and Partners were the architects and primary agents on the scheme, where the Basque Government sought to invest in the regional infrastructure as they did earlier in Barcelona.

The Metro, existing out of eleven stations, links the coastal villages, industrial zone, city centre and suburbs, serving the one million population of greater Bilbao, and connecting to an existing above ground railway system.

The street level glass enclosures are endearingly referred to as “Fosteritos” for the smaller curved canopies, and “Fosterazos” refer to the large canopy at Sarriko Station.

The type of design of the steel mezzanines used in the station platforms will be adopted in the design of the-proposed new Gautrain Station at Hatfield as they give a full appreciation of the volumes in the train movement areas crucial in the new station.

What the designers employed here, was to have the steel reinforced platforms (mezzanines) rather than supported from below by columns, and ultimately clogging up the free space, hang from the

*“The mezzanines are suspended by stainless steel hangers over the tracks, and are kept short to allow full appreciation of the volume of the space from platform level” (World Architecture July/August 1996:130)*

This would also enhance legibility from the tourist perspective, as the paths to be followed can now be more clearly demarcated.



figure 5.4.1  
One of the “Fosteritos”, the curved glass and steel entrances to nine of the eleven stations.(World Architecture July/August 1996:130)





Figure 5.4.2

Interior view of typical station showing the steel mezzanine suspended over the tracks by stainless steel bars.(World Architecture July/August 1996:130)



Figure 5.4.3.

Interior view of one of the stations.(World Architecture July/August 1996:130)

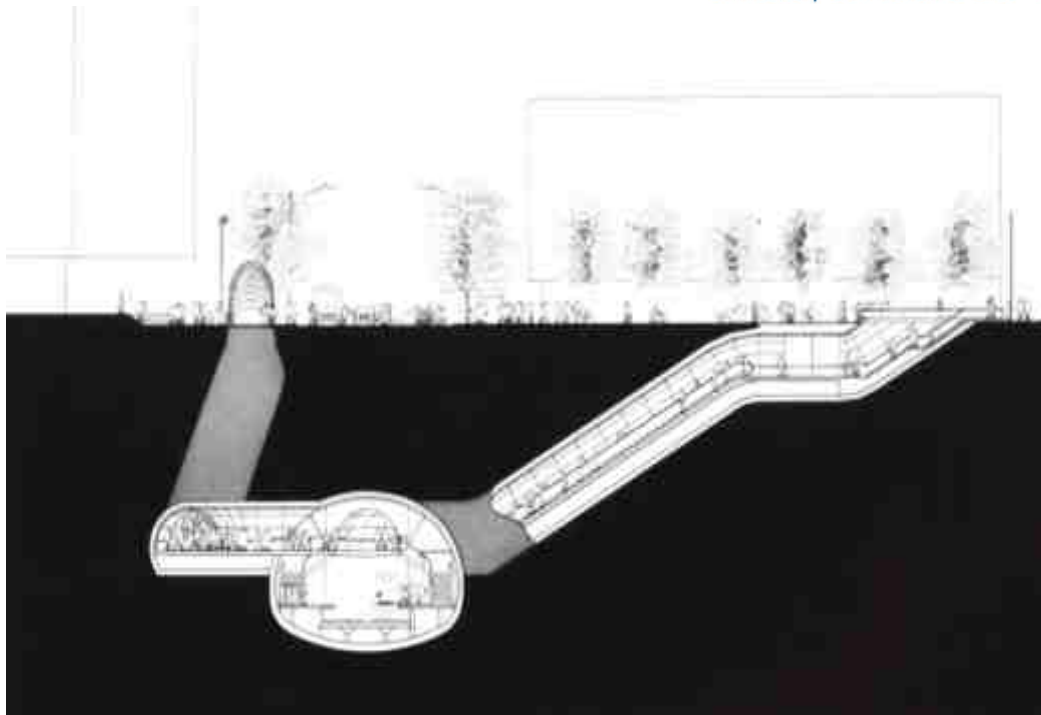


Figure 5.4.4.  
Above Section of a typical Station.(World Architecture July/August

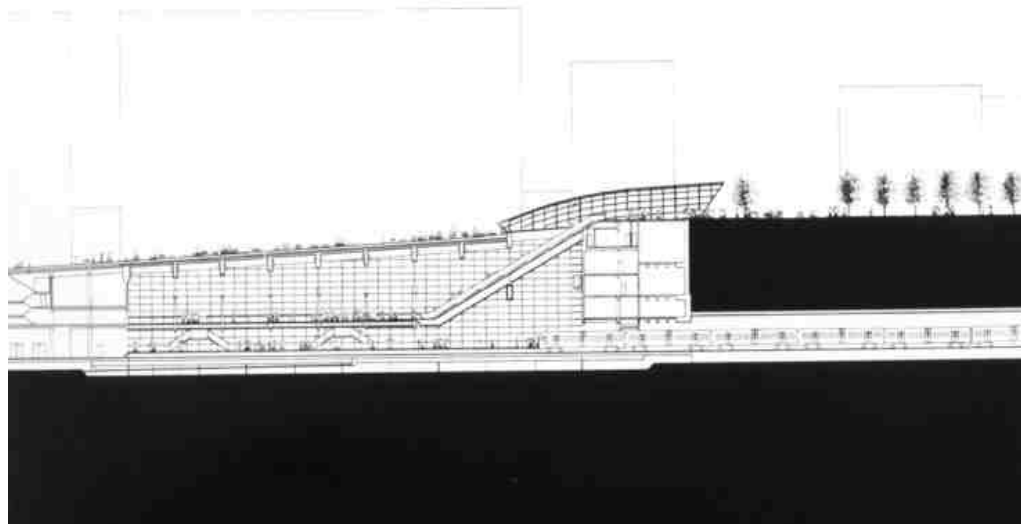


figure 5.4.5.  
Section of Sarriko Station(World Architecture  
July/August 1996:131)



## 5.5 Brisbane International Airport Queensland, Australia

This airport is a good example of a new generation of international airports that break away from the norm; unfathomable and non-legible passenger routes leading to distant departure points.

It is modular, spacious, open plan and expandable.

Architects Blair Voller are responsible for Brisbane's new international terminal, which opened in 1995.

Important in this design, also applicable in the Gautrain Station in Hatfield is the legibility factor and the use of local cultural, horticultural and climactic characteristics.

Also applicable in the proposed building for the Gautrain Station, Hatfield, is the people moving mechanisms employed in the Airport terminal building. Passengers are moved between levels on escalators and lifts for the disabled, from a centrally easily legible transition space roofed over with a roof light and water features to calm the weary business travellers' nerves.

The "ugly" of the building namely parking, maintenance, services and baggage circulation areas are tucked away at semi-basement level.

In the proposed new Gautrain Intermodal transfer Station the only service tacitly excluded from the building, is the handling of baggage but as the scope of the traveller profile would show, these services would have to be incorporated into the building at some stage.

Arboreal references are seen in the white columns supporting the roof. These columns drive up through the floors and then fan out, representing the branches of trees. These elements are accentuated by the presence of real trees and palms, which constitute part of the extensive landscaping scheme throughout the upper floors.

Elements of nature will also be used to soften the harshness of travel in the design of the Gautrain station, Hatfield.

Also commendable from the brief of the Airport building is the express challenge not to have too much signage, but rather have the structural devices denote the route to be taken, the passenger should find his / her circulation simple.

Another important aspect addressed in this project also pertinent to the Gautrain Station, would be the visual clarity of the interior, with integrated artificial and daylight design. (World Architecture July/August 1996:128-129)



figure 5.5.1.  
Above View of the full height glazed walls and white colorbond roof. (World Architecture July/August 1996:128)



Figure 5.5.2.  
**Above** The lighting as designed by Design Partnership, with artificial and natural lighting combined.(World Architecture July/August 1996:129)



Figure 5.5.4.  
**Above** Passenger circulation was an important element of the design brief; minimal signage was the chosen method the yellow portals indicate passport / security areas for outward passengers.(World Architecture July/August 1996:129)



Figure 5.5.3.  
**Above** The Terminal Building by day(World Architecture July/August 1996:129)

## 5.6 Holyhead Ferry Terminal

Holyhead, United Kingdom

As the centre of the industrial revolution, the British Midlands is familiar with innovation; bringing products to port have been a pre-occupation with transport engineers and architects in the region for many years.

In this light the Stena Line have commissioned the father and son Firm of Architects, Manser Associates to design the new port housing their high-speed sea service ferry between Dublin and Holyhead.

The project was completed within a very tight budget at a nominal cost of £550 per m<sup>2</sup>.

This extraordinary “value-for-money” design was achieved By creating a generic design. This “ likeness” entails the use of curved roofs and sinusoidal profiled aluminium cladding in a silver colour.

The order that this curved rhythm created in this design, lends coherence to the terminal building, freight check, car and coach check and amenity centre, even though his buildings have disparate functions.

The reason this case study has been included in this report had been precisely this, value for money by building type employed.

The same approach should be followed by the design of the terminal and related buildings on the Gautrain Intermodal Transfer Station Precinct. Not necessarily the re-invention of the wheel, but the creation of a whole by the building types employed.

The route from arrival to embarkation is quite straightforward. However, despite their functional approach, the architects adopted the luxury of airline travel with proper embarkation lounges, cafes, duty free shops. Connection from the embarkation lounge to the ship happens directly via a walkway bridge.

This it is not a landmark project, but the fact that it is a well-thought out design built on a low budget in a limited amount of time, make it a relevant case study to be referred to in the design of the proposed new Gautrain Intermodal Transfer Station in Hatfield.(World Architecture July/August 1996:126)



Figure 5.6.1.

**Above** Exterior view of the main terminal Building. (World Architecture July/August 1996:126)



Figure 5.6.2.

**Above** Curving roofs create a feeling of movement. Inside the space is articulated to lead passengers through the terminal towards the ferry(World Architecture July/August 1996:127)





Figure 5.6.3 The interior Passenger Waiting Area showing how inventive use of natural light and simple materials can create the atmosphere of luxury travel in the manner of an airport lounge rather than a draughty seaport.(World Architecture July/August 1996:126)



Figure 5.6.4.  
**Above** Curving roofs create a feeling of movement. Inside the space is articulated to lead passengers through the terminal towards the ferry.(World Architecture July/August 1996:126)



Figure 5.6.5  
Left Aerial view of Holyhead Ferry Terminal, the disparate buildings seem homogenous due to similarity of design. Manster Associates have attempted to create a “corporate” image for Stena Sealink throughout their ports in the UK.(World Architecture July/August 1996:127)



## 5.7. Kowloon Station

Hong Kong

University of Pretoria etd - Du Plessis, A (2003)

The importance of this building designed by Terry Farrell & Company for the revitalisation of the Hong Kong District of Kowloon is that, the same as with our proposed new Gautrain Station it would serve as a focus for the re-development of the city district in which it would be situated. The building also has to tie in with the new rail link to Foster and Partners' new airport at Chep Lap Kok.

The Kowloon Station is a dramatic structure, with the above ground section consisting of two flat arches separated by an open concourse, housing ticketing and transport interchange areas.(Edwards 1997:143)

The station is not alone standing, but forms a part of a master plan consisting of 11 million square feet of mixed hotel, residential, retail and office space. This complex is planned around three public squares, providing open spaces as well as gardens, bringing natural elements into the design.(World Architecture, July/August1996:124)

Below ground, baggage-handling- and check-in facilities are housed, with two platforms below these.

The problem statements for Kowloon Airport Station and the Proposed Gautrain Station, Hatfield are remarkably the same in the sense that the volume of passengers to be handled over the course of the building's lifetime can be seen as the reason for its existence, and also the problem factor it would then be bound to handle.

The proposed Gautrain Station at Hatfield will be similar to Kowloon Station in that a major part of the building will be situated below ground.

The immediate question that springs to mind, is how the lighting aspect of such a building will be handled. At Kowloon Station light is taken to the catacombs of the lower levels by diagonal paths of deflected light.

Deflected light is harvested from the curved glazed walls of the office section.

At the Gautrain Station, natural light will enter lower levels through vehicular and pedestrian entrances, while the above ground areas will incorporate large areas of glass in aluminium window frames.

Another striking similarity between Kowloon Station and the proposed Gautrain station, Hatfield, is the fact that both embodies great functional complexity, even though the Gautrain Station will be of smaller, though significant scale.



Figure 5.7.1

**Above** Model of Phase 1 of Kowloon Station(World Architecture, July/August1996:124)

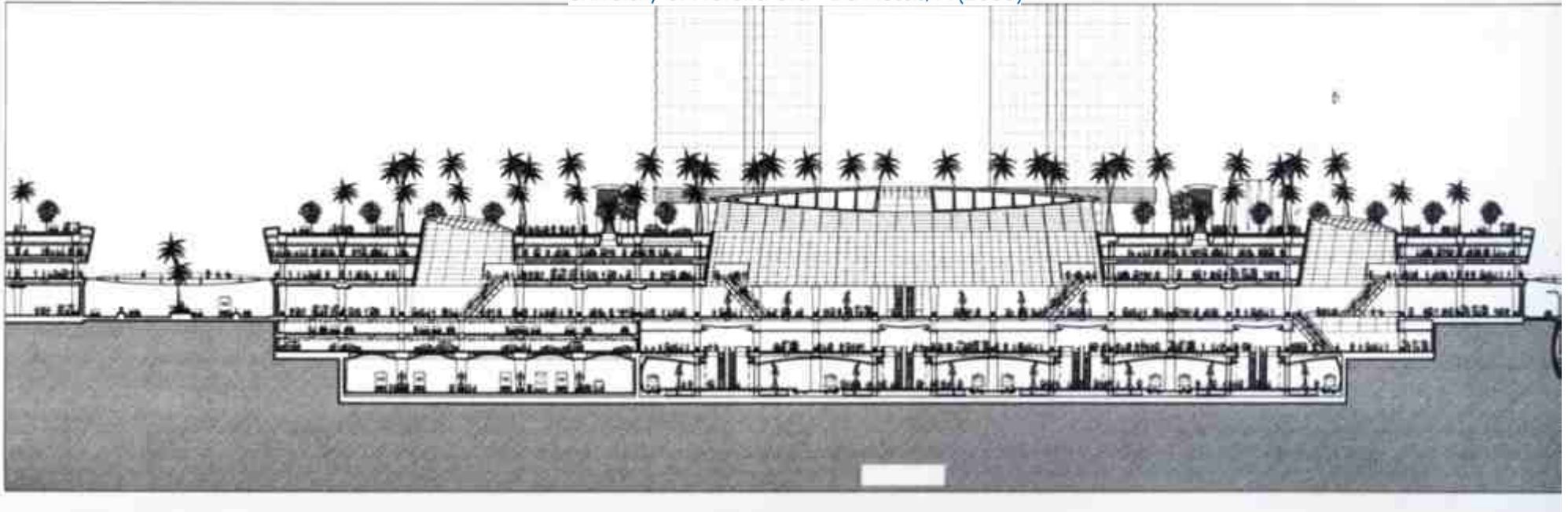


Figure 5.7.2.  
Above Section through the master plan showing the hotel.(World Architecture, July/August1996:125)

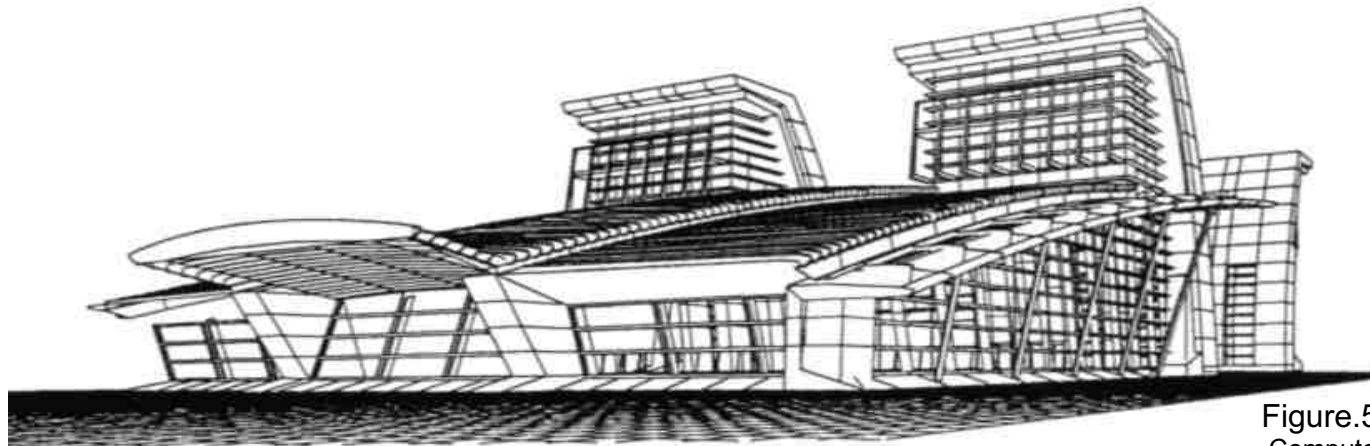


Figure.5.7.3.  
Computer Rendering of the building shape(World Architecture, July/August1996:124)

## 5.8 Stratford Market Maintenance Depot, London 1998

Designed by the architects in association with Acer Consultants Ltd structural engineers, this building provides maintenance facilities to the Jubilee Line underground trains.

Much the same as with the Gautrain Intermodal Transfer Station, the design restrictions and compromises springs from the physical realities of the running stock employed on the new jubilee line the coaches and safety mechanisms on the new line does not conform with the existing London underground trains. A direct similarity can thus be drawn even here between the two projects.

*“The plan of the building is in the shape of a parallelogram, 180meters long and 100 metres wide. This shape arose from the necessity for straight tracks inside the building coupled with the minimum curve radius permitted on the multi-track approach outside it. The result was a 28 degree splay which was increased to 30 degrees in order to permit a diagonal grid on plan.”* (World Architecture, April 1996:110)

The shape of the building was thus not a mere whim on the side of the designer, but a logical and beautiful response to the problem at hand.

Light distribution in this building was obtained by full width rooflights, crossing the roof at 90 degrees to the sidewalls in order for natural light to pour into the building.

The north elevation is fully glazed in order to harvest as much natural light as possible, while a translucent fibreglass panel wall is used in the southern elevation to diffuse direct natural light.

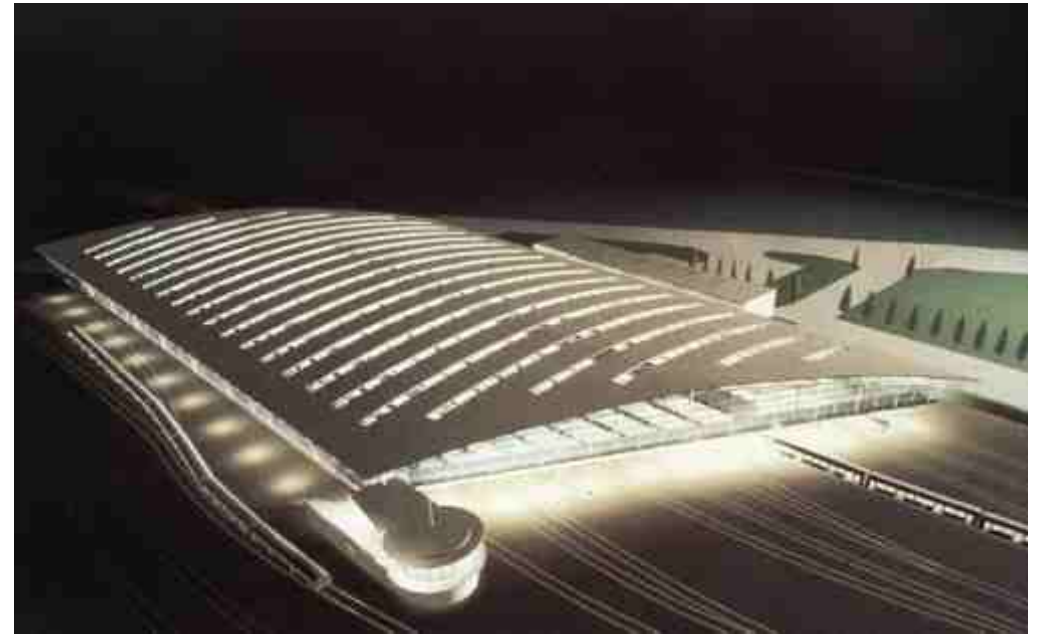


Figure 5.8.1  
Above Computer image of completed depot. (World

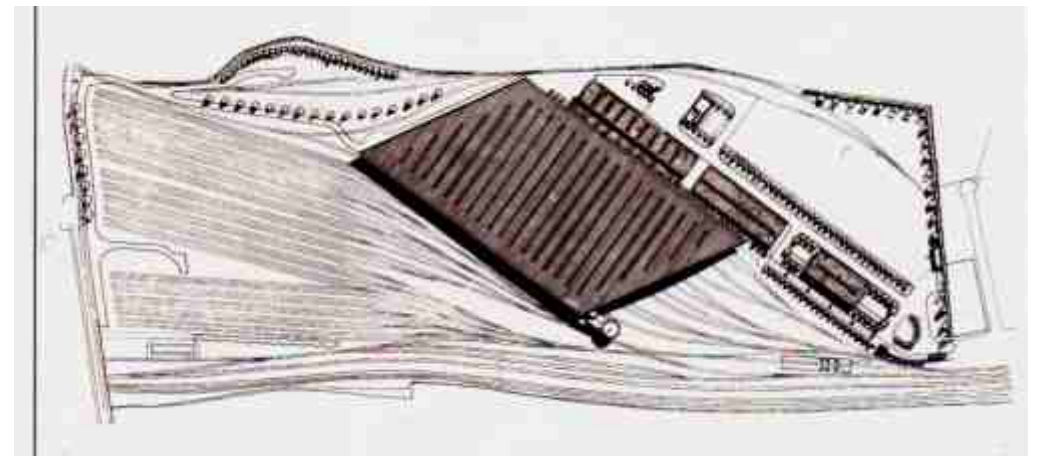


Fig 5.8.2  
Above Ground plan and site plan showing approach tracks. (World



The sidewalls are constructed of PVF22 silver-coated horizontal-profiled sheeting. Clerestory glazing are used between the overhanging trusses, also allowing natural light into the building. (World Architecture, April 1996:110)

The use of these special materials should be taken into consideration in the roofing of the Gautrain Station, as the mere use of unsustainable building materials cannot be justified. The building material should in conjunction of being a covering material also serve another function such as being a energy producing element (Photovoltaic Cells) or at the least be translucent to eliminate the use of too much electrical power in the lighting of the proposed building.

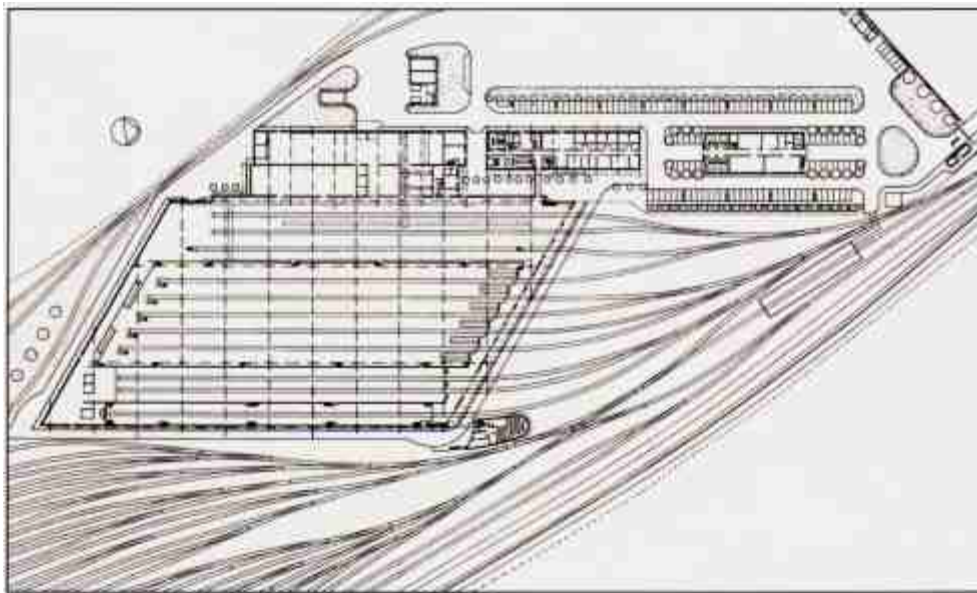


Figure 5.8.3  
Above Ground plan  
(World Architecture, April 1996:111)



Figure 5.10.4.  
Above Section showing piling and column trees supporting space frame trusses. (World Architecture, April 1996:111)8



Figure 5.8.5.  
Above Elevation of the building. (World Architecture, April 1996:111)



## 5.9. Stratford Market Station Redevelopment London 1998

This building designed by Chris Wilkinson Architects in 1994, also serves the Jubilee Line Extension of the London underground. Completion was only in 1998, this in itself is testimony of how complex the whole project was.

Same as with the Gautrain Station the design is also problematic in the sense that the East-west Cross Rail link will tie in with it in the future. The Guatrain would have to extend in the future from its current stop and turnaround station in Hatfield to the eastern suburbs of Pretoria.

The building itself represents only 5% of the cost of the infrastructural work on the entire project.

The Gautrain Station building will also present a relatively low percentage of the total infrastructural costs

The walls of the building were constructed from glass to maximise daylighting and provide clear views.(World Architecture, April1996:112)

With sustainability of the built fabric taken into account as one of the most important pillars of the proposed new Gautrain Station, Hatfield, the solution in the Stratford Market Station is commendable.

Natural light is allowed into the building due to the shape of the roof. This double skin roof also provides solar assisted ventilation by means of the stack effect ; hot, stale air will be drawn through the voids in the roof, and expelled at the highest point in the roof. Computer simulations were made of aerodynamic and thermal conditions and the design were done according to these findings in order to ensure comfortable conditions in the building even in mid summer

During night time the concourse is illuminated by high efficiency lighting and by day the daylight is supplemented by the use of low-voltage down lighters.(World Architecture, April1996:112)

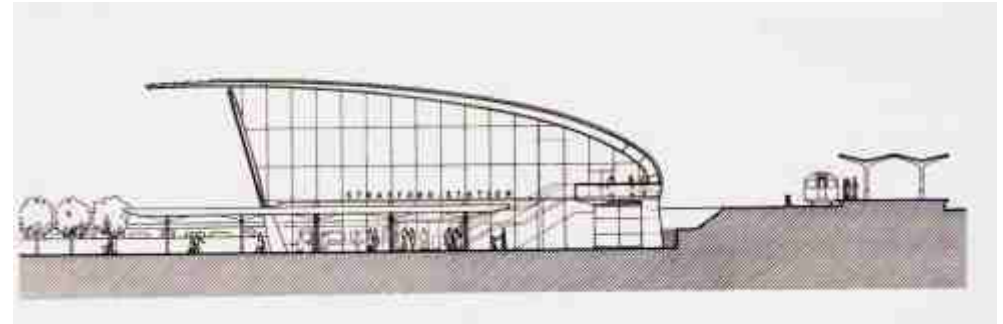


Figure 5.9.1  
**Above** Side elevation of the building. (World Architecture, April1996:113)



Figure 5.9.2.  
**Above** Section through station, Jubilee Line to the left and main line to the right (World Architecture, April1996:113)

## 5.10 Liverpool Street Station Arcade Project 1992-1994

Commissioned in 1992 to provide a prominent gateway at the Liverpool Street end of the tunnelled section of the proposed CrossRail Line running east to west across London, is in its configuration much the same as the proposed new Gautrain Station in Hatfield. The original Liverpool Street Arcade was upgraded by the construction of a low level CrossRail Concourse, linking other railway lines and the Liverpool Street main line station itself.

The rail reserve with its restrictions on the built form carries on its top the residential and office components that needs to be created in the Gautrain project.

The problem with this project and the Gautrain project is the accommodation to be carried structurally overhead and the widely dispersed column spacing that the rail tracks would entail. The Gautrain project not only caters for the Rapid Rail Line, but also in its reserve the Metrorail double lines need to be accommodated.(World Architecture, April1996:114)

Another striking similarity is that both the Liverpool Street Station arcade as well as the proposed Gautrain Station at Hatfield is not alone standing stations. Both are situated in close proximity of other built form. The presence of the Liverpool Street arcade

*“Railways bring broad advantages to corridors of towns and also more immediate benefits to those nearby . The redirecting of pedestrian flows at station entrance, for example, to take people past new shopping arcades”*(Edwards 1997:15)

It is evident from this case study that the proposed Gautrain Station will not only function as a successful station in this context, but will also play a role in the economic stimulation in the area it serves.



Figure 5.10.1

**Above** Artists impression of arcade.(World Architecture, April1996:114)



Figure 5.10.2  
General view from  
Liverpool Street

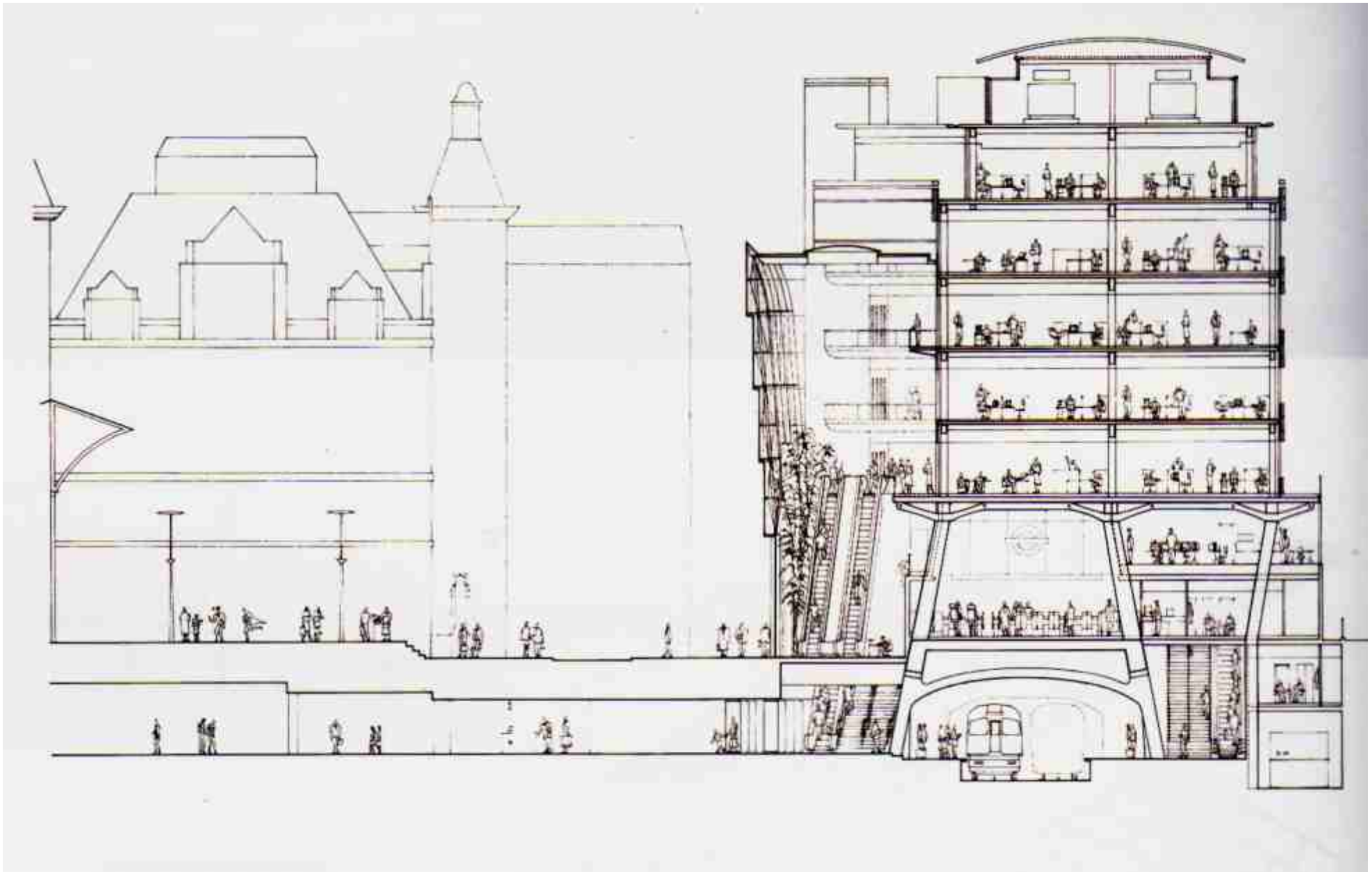


Figure 5.12.3 Section through development showing splayed column structure(World Architecture, April1996:114)



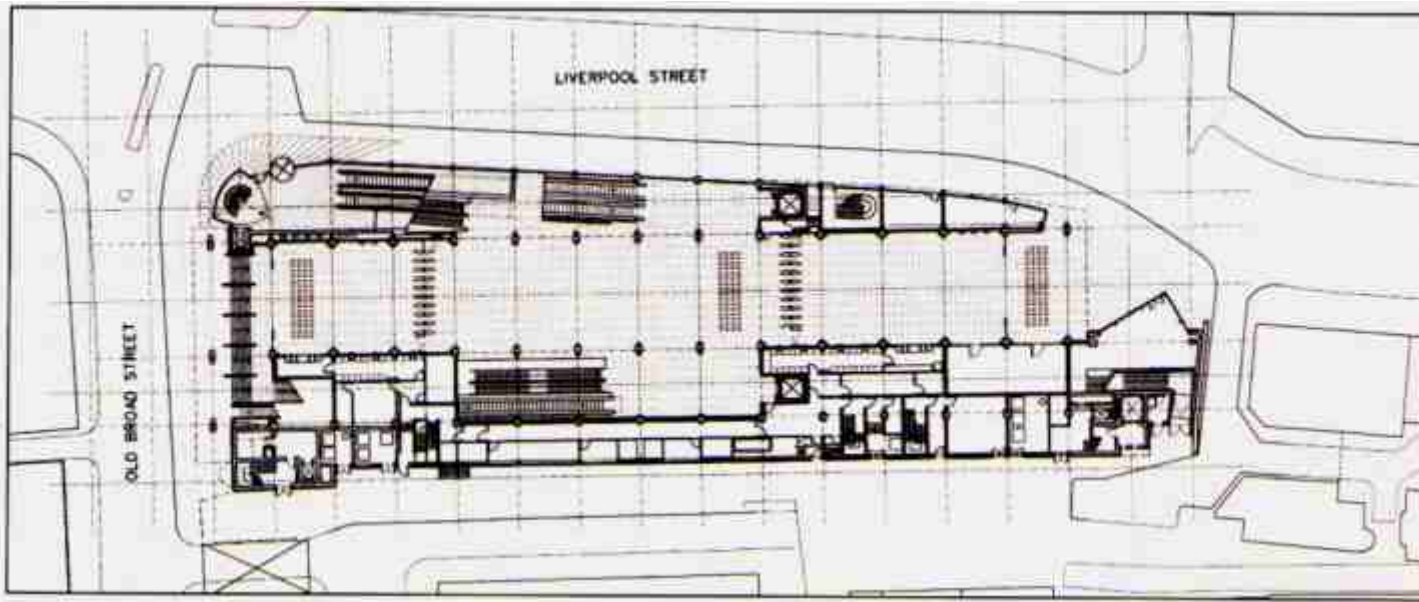
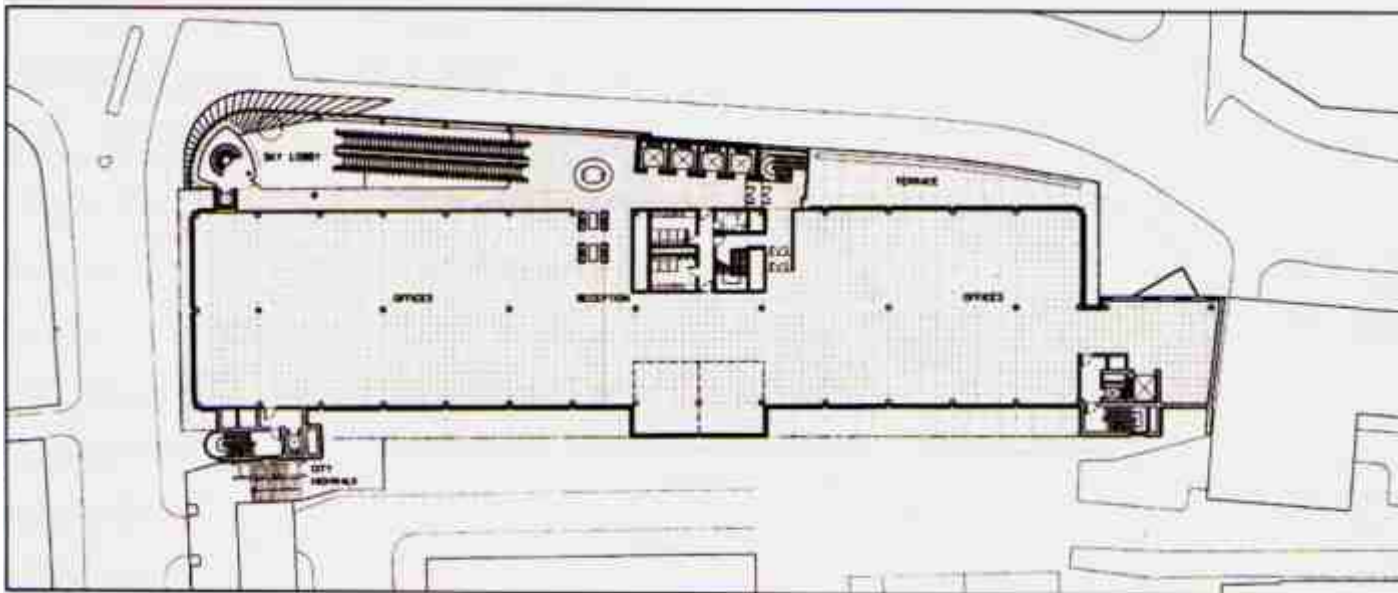


Figure 5.10.4.

**Above** New Ticket Hall and retail arcade plans.

**Below** Office floor level showing "sky lobby". (World Architecture, April 1996:114)



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Chapter 6: Design discourse

