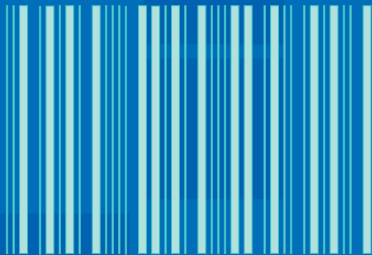


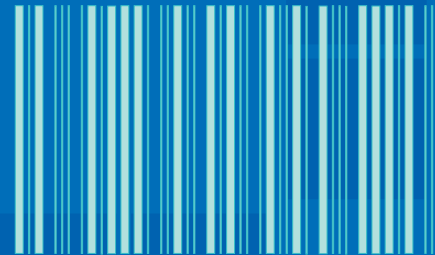
>A digital media school in pretoria_



DIGITAL



MEDIA



EXCHANGE

>RaFeeq Osman/26394121_





Rafeeq Osman_
Two.six.three.nine.four.one.two.one_

Submitted in partial fulfilment of part of the requirements for the degree of Masters in Architecture
(MArch.Prof), in the Faculty of Engineering, Built Environment and Information Technology_
The University of Pretoria_
Pretoria, South Africa_

Mentor: Jacques Laubscher_
Nicholas Clarke
2008_

[all work by author except where otherwise indicated_]



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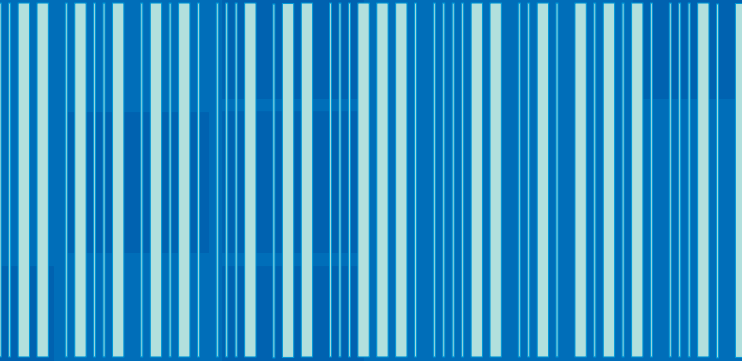
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001

TRODUCTION

Introduction

- > The idea_
- > Goal_





"We must continue the fight for liberation against poverty, against under-development, against marginalisation and ...information and communication technology ...is a critically important tool in that struggle."

Thabo Mbeki, Department of Education, 2003.



>The Idea_

This thesis aims at establishing a centre to showcase digital media and associated technologies. The project should be strongly connected to present digital media, information and communication, and the possibilities that they hold for the future.



The proposed site is located at the corner of Prinsloo and Struben Streets. The design has to form part of a larger network proposal (of diverse interventions) in order to be appropriate. This proposal attempts to add to the urban domain and renewal of the city by enhancing diversity and choice in the Central Business District of Pretoria.

The group urban framework identified the area in the north eastern quadrant of the city along the historical city edge with the potential to become a media and cultural hub for the city. This hub should establish a symbiotic relationship with the city and the facilities around it. Within this content, the hub would be reinforced by the city, with the media and cultural aspects becoming the focus of the chosen area.

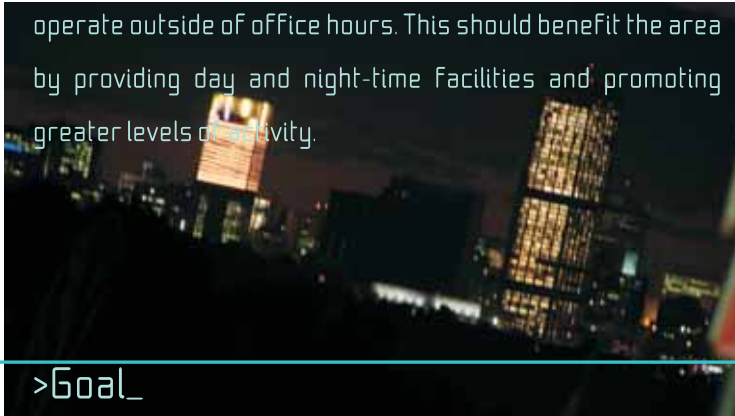
Within the aforementioned boundaries, a group Framework was developed to guide future interventions in an attempt to create an urban environment where the whole represents more than the sum of the individual projects.





The Digital Media Exchange should be accessible to the public, students from the Tshwane University of Technology and business. Possibly anyone interested in digital media. By catering for such a large target market, the building would

operate outside of office hours. This should benefit the area by providing day and night-time facilities and promoting greater levels of activity.



>Goal_

The Digital Media Exchange aims to facilitate communication by exposing digital media and technology. It should allow for interaction in an accessible environment. A large number of South Africans do not own personal computing devices, the centre could provide a platform for education in these technologies. The project further aims to increase South Africa's level of interaction within the context of a global village.



>Problem Statement_

To showcase Information Technology in an adaptive environment that could be intelligently manipulated, and where users can be educated.

>Aspects of study_

1. Exhibition
2. Adaptive/intelligent building
3. Education

>Sub-Problems_

1. Precedents of exhibition spaces, especially for digital media
2. Building systems that can control themselves or are sustainable/self-reliant
3. Spaces where the public can be taught that have an appropriate interface with the street

>Keywords_

1. Adaptive
2. Information
3. Education
4. Technology
5. Digital
6. Showcase
7. Integration
8. Innovation

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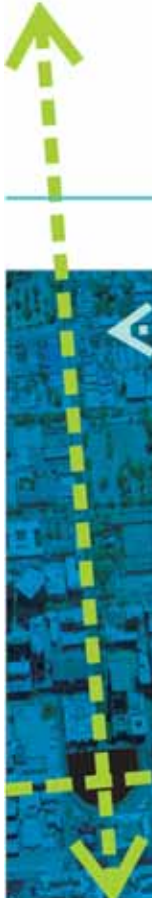
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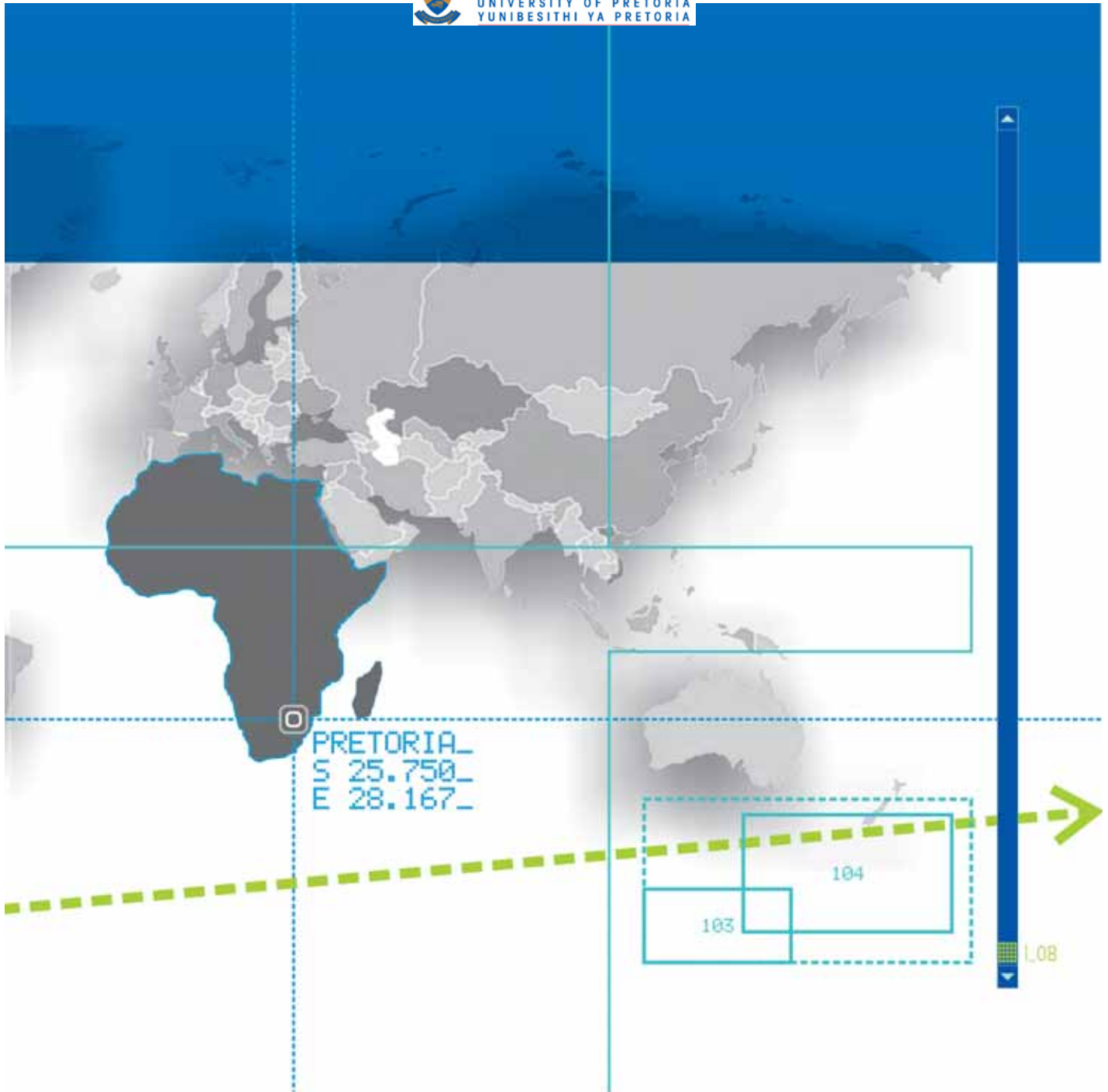


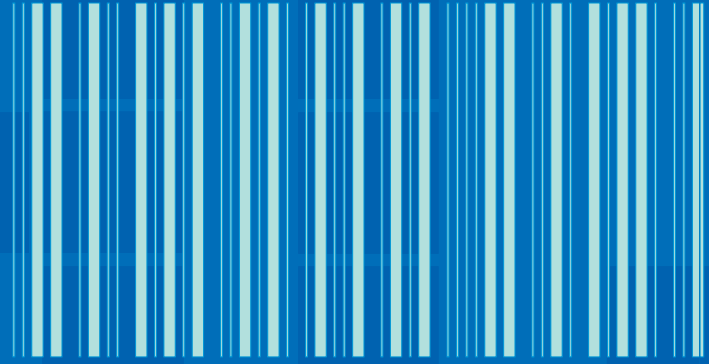
PROGRAM OUTLINE_ _A new Digital Media (Exchange)

LOCATION_ _c/o Prinsloo and Struben Streets
Pretoria CBD
South Africa
S 25° 44.489'
E 28° 11.719'

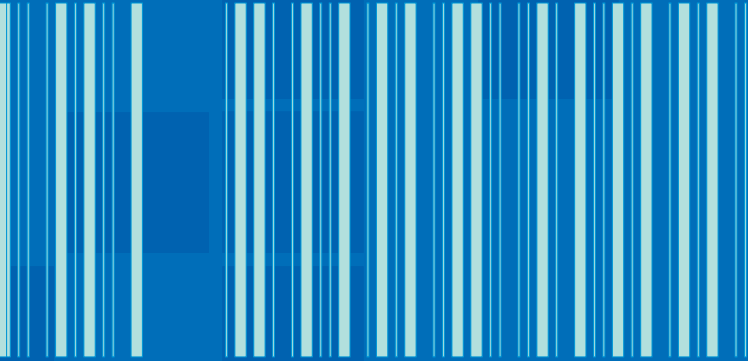
CATALYSTS_ _Multimedia school
_Digital media exhibition centre
_Retail
_Offices
_Public square







THEORETICAL



002

THEORETICAL PREMISE

Urban Regeneration

- > Cities can be designed_
- > A Manifesto for Change_



Digital technology represents the leading industry of our times. Computers and the internet are all the outcome of developments in digital technology. Existing forms and boundaries of media genres have fused through the development of this technology. Multimedia emerged. The prevalence of multimedia is also changing and intermingling the entertainment industry as well as the visual arts. New industry, new technology and new visual arts are developing at an ever increasing pace. The primary role of the proposed cultural precinct is to facilitate contact and interaction between its users. Exhibition venues throughout the city should enable this. Various projects are proposed (within the Group Framework) throughout the city to act as multimedia platforms.

With the ever-accelerating development of information and media technologies, there is an unfolding of the *terra incognita* (Tschumi, 1990:88), the emergence of the digital world with all its unknowns and potentials. Pretoria, like many other contemporary South African cities, suffer repercussions of rapid urban development and economic growth of the last three decades. The city now has to confront these resultant issues. (Bothma, 2004:1).



The functioning of a city as a system relies on urban design and planning, whereby the city is broken down into smaller systems which need to function in conjunction with each other and involve multiple levels of connection and communication.

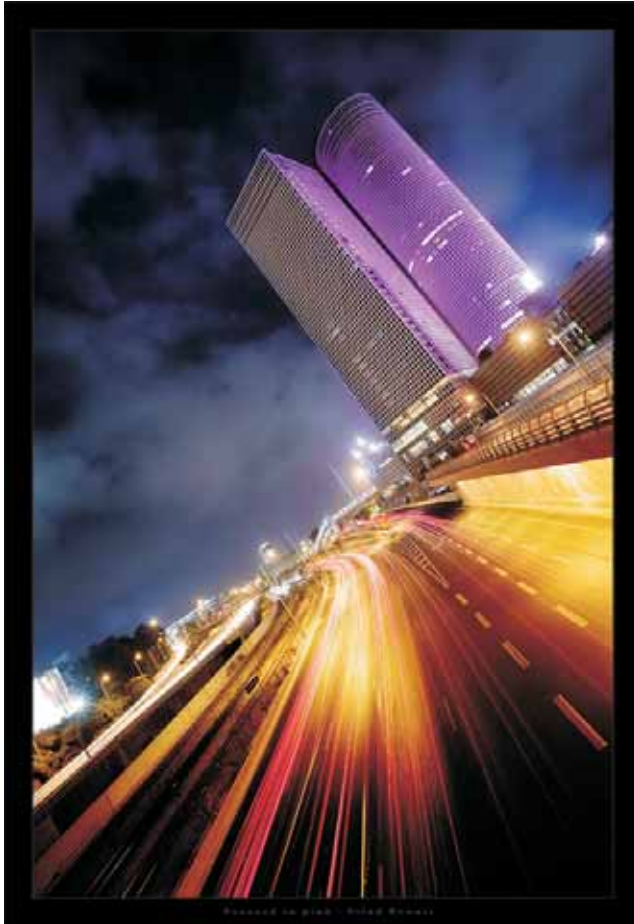
One can compare a city to the functioning of a computer, in essence it is a network consisting of multiple components working together. It has various elements for the multitude of functions which need to exchange information and electrical current in the form of 0's and 1's. The faster and more fluid the exchange of information, the more efficient the system becomes, be it computer or city. Thus ease of movement becomes an important phenomenon in the functioning of a city, and involves people changing location and interacting with different elements of the city, such as solids and voids. It could be argued that humans in the network of the city are the 0's and 1's which are carried from one element to another and flow through the system and form part of the city fabric.

This thesis, entitled "Digital Media (Exchange)", explores media in all its diverse forms as an extension of current events occurring in Pretoria.

Definition: Urban design

"Urban design is the generally accepted name for the process of giving physical design direction to urban growth, conservation and change. It is understood to include landscape as well as buildings, both preservation and new construction, and rural areas as well as cities" (Barnett, 1982:12).





"A city is far more complex than even the most complicated building, but there are ways of introducing... coherence and beauty that are the products of design." (Barnett, 1982:7)

In the publication "An Introduction to Urban Design", Barnett proposes that cities can be designed, but the distribution of funds when rebuilding cities and developing the countryside are misguided. Countryside developments have strong connotations with images of sprawling suburban subdivisions, highway strip developments, billboards, shopping centres and the like. We have been conditioned to think of these as a 'blight on the landscape' (Barnett, 1982:3). The convenience of developments of a retail or investment nature have become such a necessity that we overlook their 'aesthetic liability'. Barnett notes that with "A little forethought, a little coordination.... It could all have been different".

It is the lack of connections between developments in the city, which ultimately creates problems. There exists a need to design (or rather redesign) the relationships between buildings and spaces in the city fabric. Often, a lack of resources is cited as an excuse for poorly designed components of the city.



Barnett poses the question "...as a society we are getting what we asked for, why cant we ask for something better?" He suggests that a redesign is perhaps more beneficial, as this could add to the design value of a city. (Barnett, 1982:5)

Making better use of the resources allocated to development and the environment will not alleviate the problem of social failures and inequities in our society and in our cities. For major improvements to be possible in our environments, a methodology to deal with the accelerated pace of change is required.

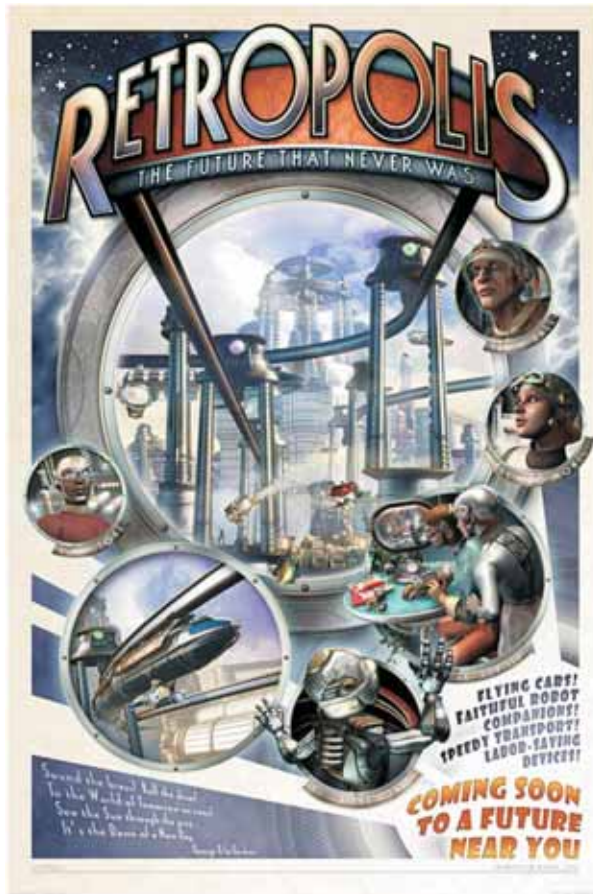
"... The urban crisis is last years problem" (Barnett, 1982:6).

In South Africa, we are faced with major infrastructural problems, the most recent being the energy and fuel crisis, although these are also global problems. These newer and more 'conspicuous' problems have overshadowed the older and sometimes forgotten ones, although they haven't disappeared or solved themselves. They still exist.

Pretoria has experienced rapid urban growth and development in the last thirty years. This (in addition to the failure of the Modern) has forced the city to operate with a post-modern consciousness, which erases the clear boundaries and singular identities that typified the modern project.

"Design is a methodology that... can help solve some of the problems of misallocated resources, misused land and the unnecessary destruction of historic buildings" (Barnett, 1982:7).





The task designers are faced with today, is to decide how to respond to the way societies work. The process of physical improvement in cities is closely linked to the social and power structures within the city.

"Today's city is not an accident. Its form is usually unintentional, but it is not accidental" (Barnett, 1982:9).

The key players in the design of cities are usually engineers, surveyors, planners, lawyers and investors, each making individual decisions in the planning process, with design and designers being added to the process at a later stage. Decisions on development and planning are usually made in isolation, without the inter-relationships and side-effects being fully understood or considered.

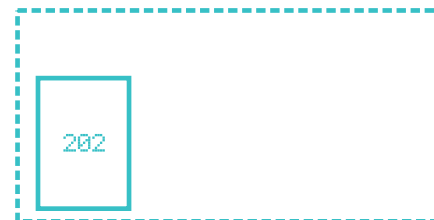


Professionals within the built environment need to have appropriate visions to play an active role in the development of the city. Especially, if they want to influence change in the city. With this in mind, a group urban framework of the proposed study area was created. The framework encouraged appropriate contribution to the built environment, both collectively and individually.

The Group Framework encompasses a set of guidelines to shape the proposed development site, establishing a process whereby the framework can be modified as times and needs might change.

Problems that need to be addressed in the Framework:

- The design of networks (cities) must include the design of individual components (buildings or spaces) as the components are vital for the network to function properly.
- Developmental controls need to find a middle ground. If rules are architecturally explicit, they will fail. If too general, they will also fail.
- A public open space plan must integrate indoor and outdoor spaces for public use. Streets must not be considered leftover spaces, but should be seen as the basis for the design of many components.



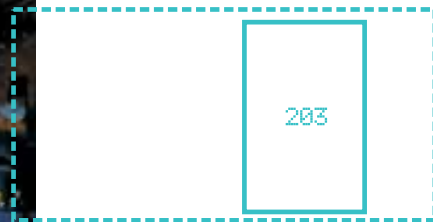
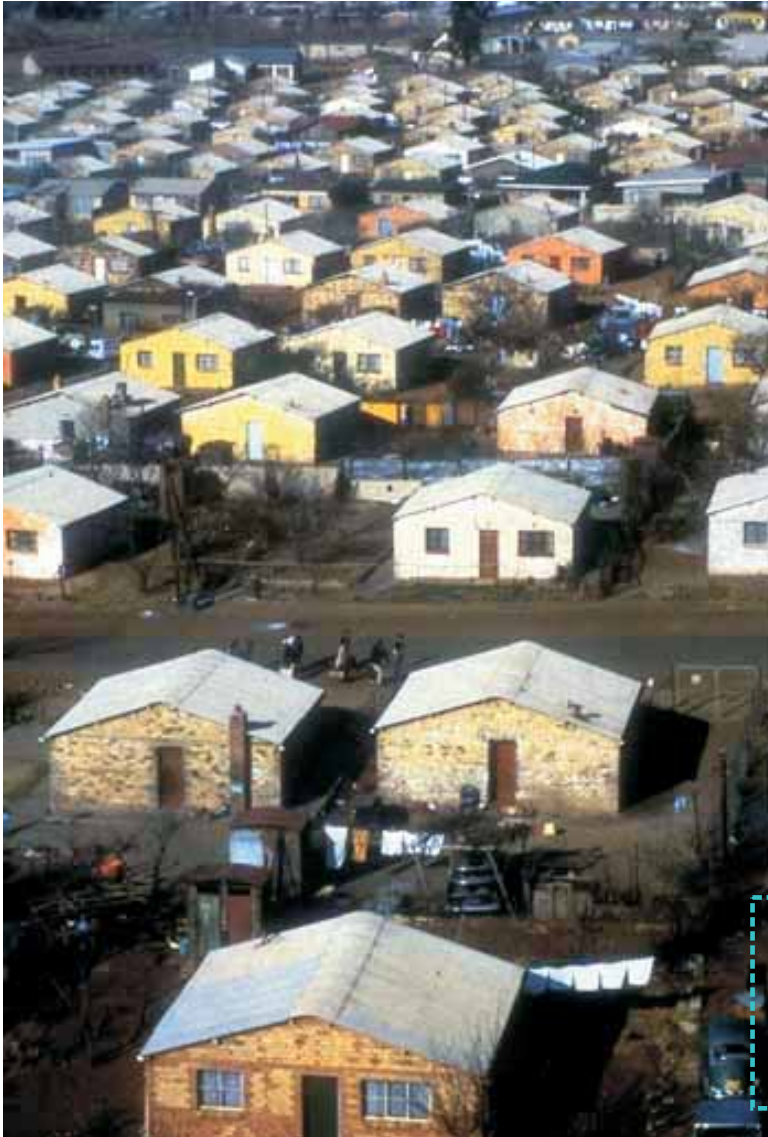
The possibility that the development of the environment is driven purely by motives of profit raises concern. The majority of buildings will continue to be initiated by private enterprise, even though it has not been successful in creating satisfactory cities, or in conserving the natural landscape.

What is needed is an "...underlying coherence in the plan itself" (Barnett, 1982:60). The design implications of the Frameworks provided by the municipal agencies are inadequate where the city is concerned. The vision of the Group Framework is to overcome these inadequacies by ensuring coherency in the overall planning and by permitting projects to have an individual identity within the proposed framework.

"Little boxes on the hillside,
Little boxes made of ticky-tacky,
Little boxes, little boxes,
Little boxes, all the same.
There's a green one and a pink one
And a blue one and a yellow one
And they're all made out of ticky-tacky
And they all look just the same."

(Malvina Reynolds, 1962)

The above song, entitled "Little boxes" (repopularised by the television show 'Weeds'), lampoons the development of suburbia and what many consider to be its bourgeois conformist values (http://en.wikipedia.org/wiki/Little_Boxes).



2.10



In the publication "South African Cities: A Manifesto for Change" by David Dewar and Roelof Uytenbogaardt, the concept of Integrated Urban Design is applied to a South African context. A strong focus is placed on the principle of access and connection to opportunities and events in a city. They recommend a well connected and evenly distributed system, with the pedestrian mode of movement seen as the lowest common denominator when interacting with the city, and thus the starting point of all design (Blanche, 2006:29).

Providing access to opportunities in South Africa is vital in alleviating all forms of poverty.

"Places of greatest interaction in cities" are invariably "places with of greatest opportunity" (Dewar + Uytenboogaardt 1991:17).

'Urban Performance' is quantified by the creation of opportunity as proposed by Dewar and Uytenboogaardt. They also state how 'Structural Configurations' can generate greater opportunities which can enhance urban living. The aim is to create people friendly environments and definite 'space experiences'. The complexity of the environment can contribute to the richness of the human experience and it is in the making of these environments that cultural expression can be reflected (Dewar + Uytenboogaardt 1991:17).



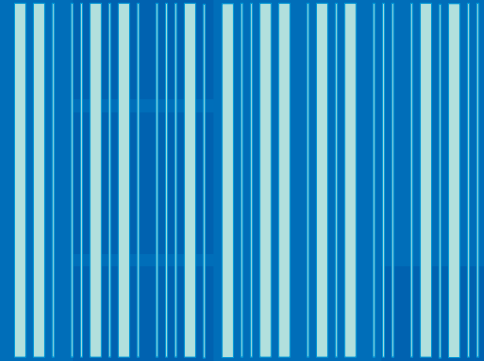
Dewar and Uytendboogaardt outline strategies for the enhancement of cities, that can be applied in the case of the proposed Digital Media (Exchange) in Pretoria:

Needs

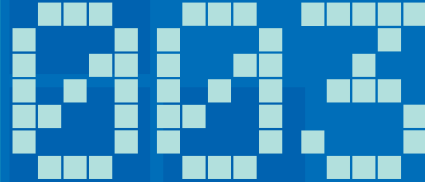
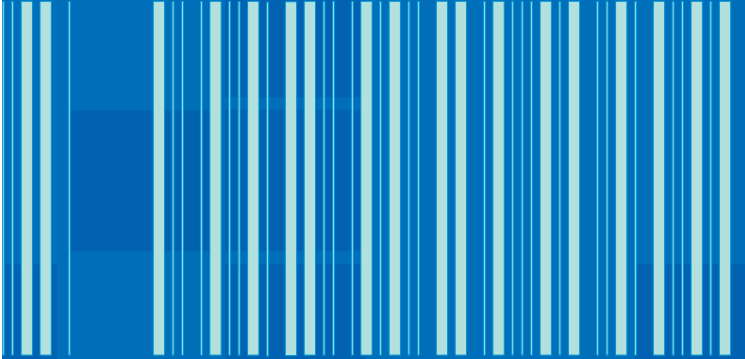
- Urban generation
- Access
- Promotion of the collective
- Individual needs

Programme

- Balance
- Freedom
- Equity
- Intensity, diversity and complexity
- Integration
- Community



CONTEXT

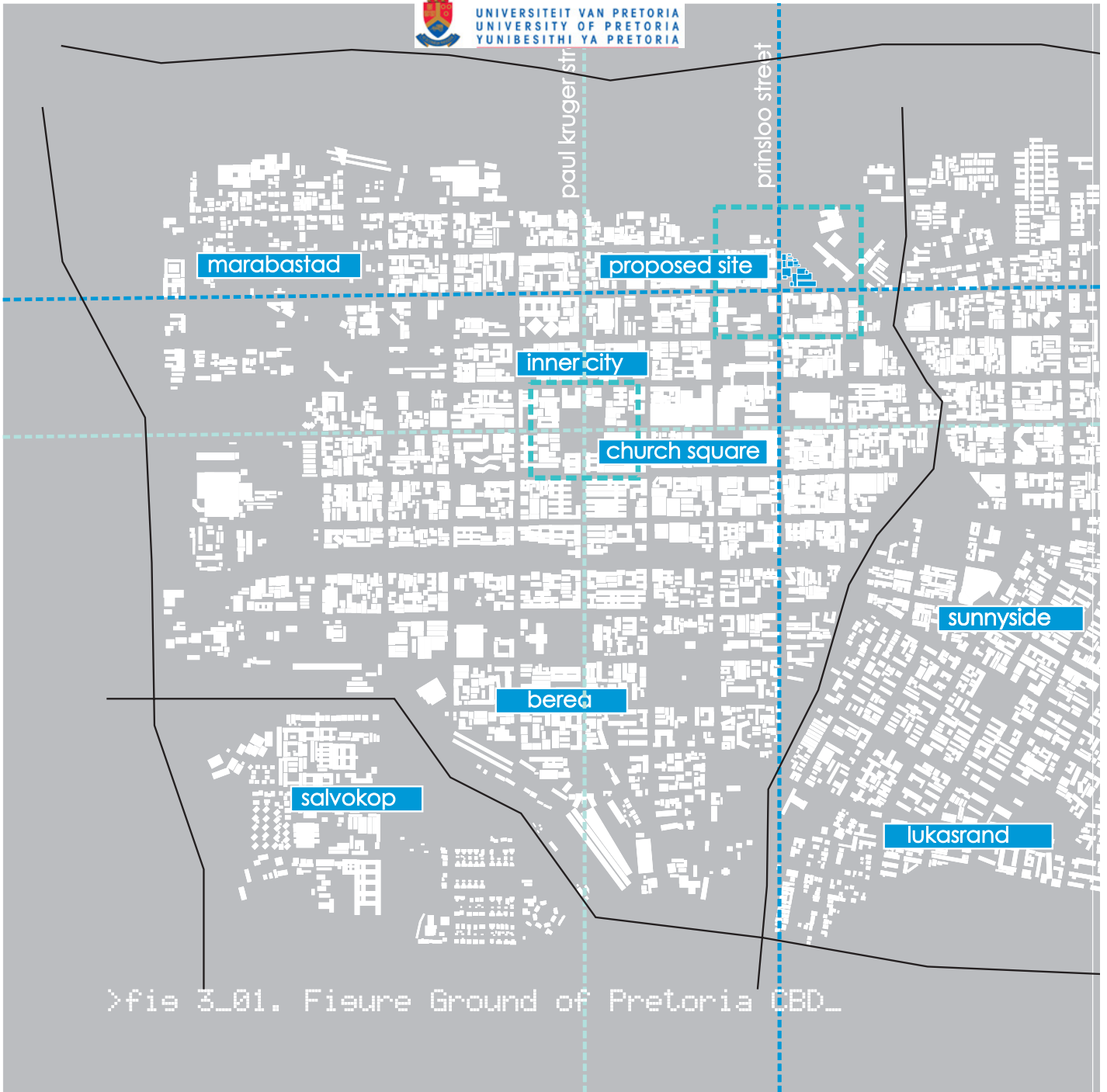


T ANALYSIS

Urban and Contextual Framework

- > Macro Scale_
- > Meso Scale_
- > Micro Scale_





>fig 3_01. Figure Ground of Pretoria CBD



meintjieskop



struben street

union buildings



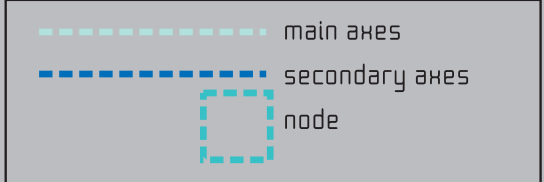
church street

>Figure Ground of the Pretoria CBD_

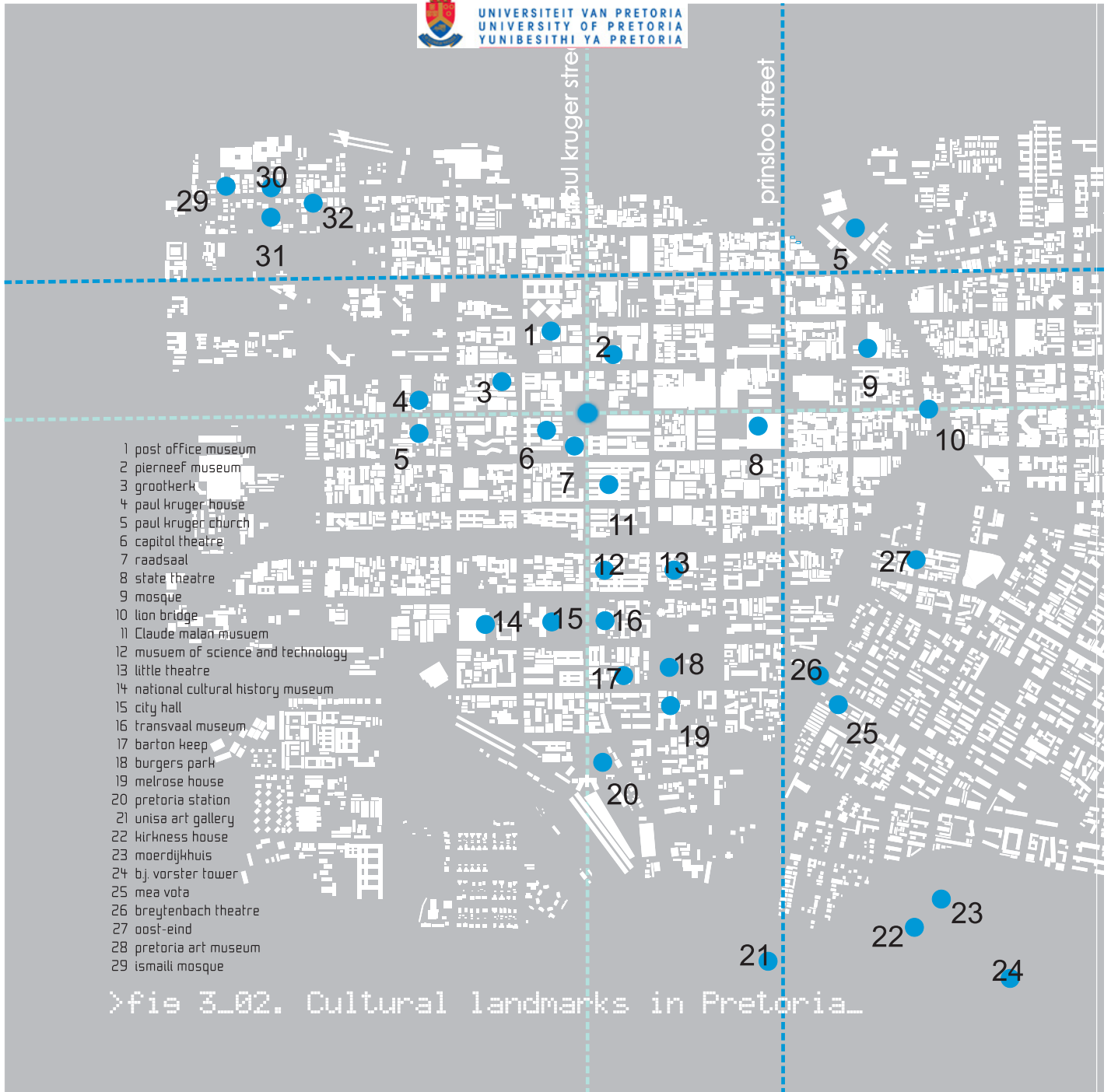
3_04

The two central axes in Pretoria* are dominant visual and spatial features, and the grid system creates a strong visual hierarchy. Natural features shape the form of the city. To the west and east the Hennops and Apies Rivers form the historic city edges, while to the north and the south the city is contained by parallel ridges, the Magaliesberg and Salvokop ridges. Church Square, in the city centre, is a vital node and can be considered the heart of Pretoria.

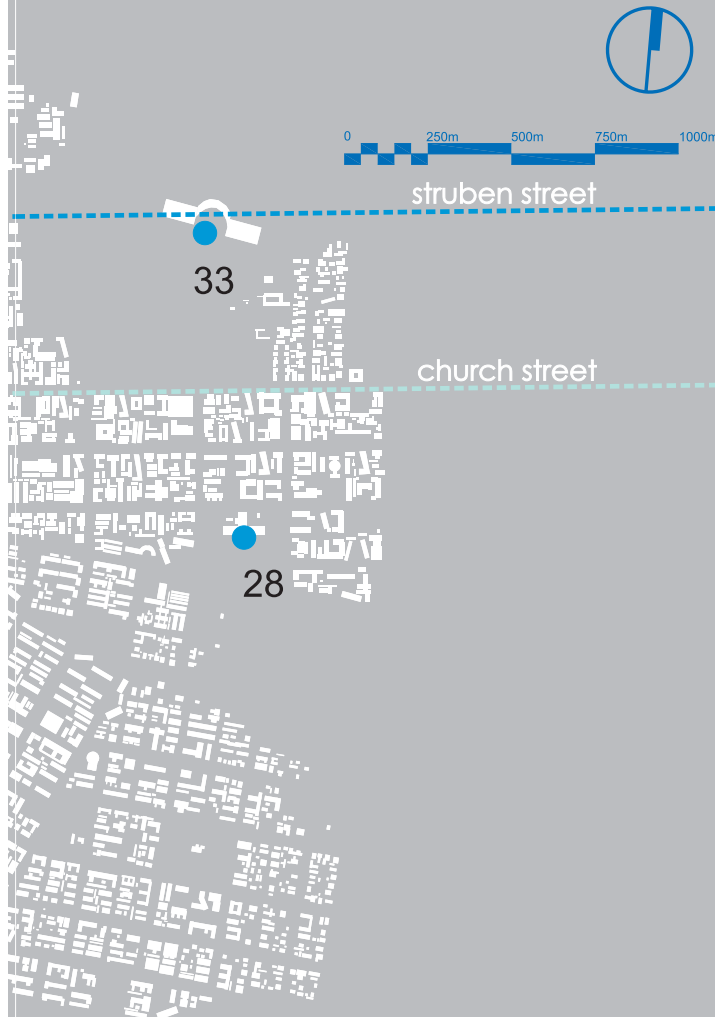
The proposed site is located in the north-eastern quadrant of the city, on the historical edge. It can similarly be defined as a node with vertical and horizontal axes formed by the pedestrian and vehicular movement patterns.



* The city is referred to as Pretoria which forms part of the Tshwane Metropolitan area.



>fie 3_02. Cultural landmarks in Pretoria



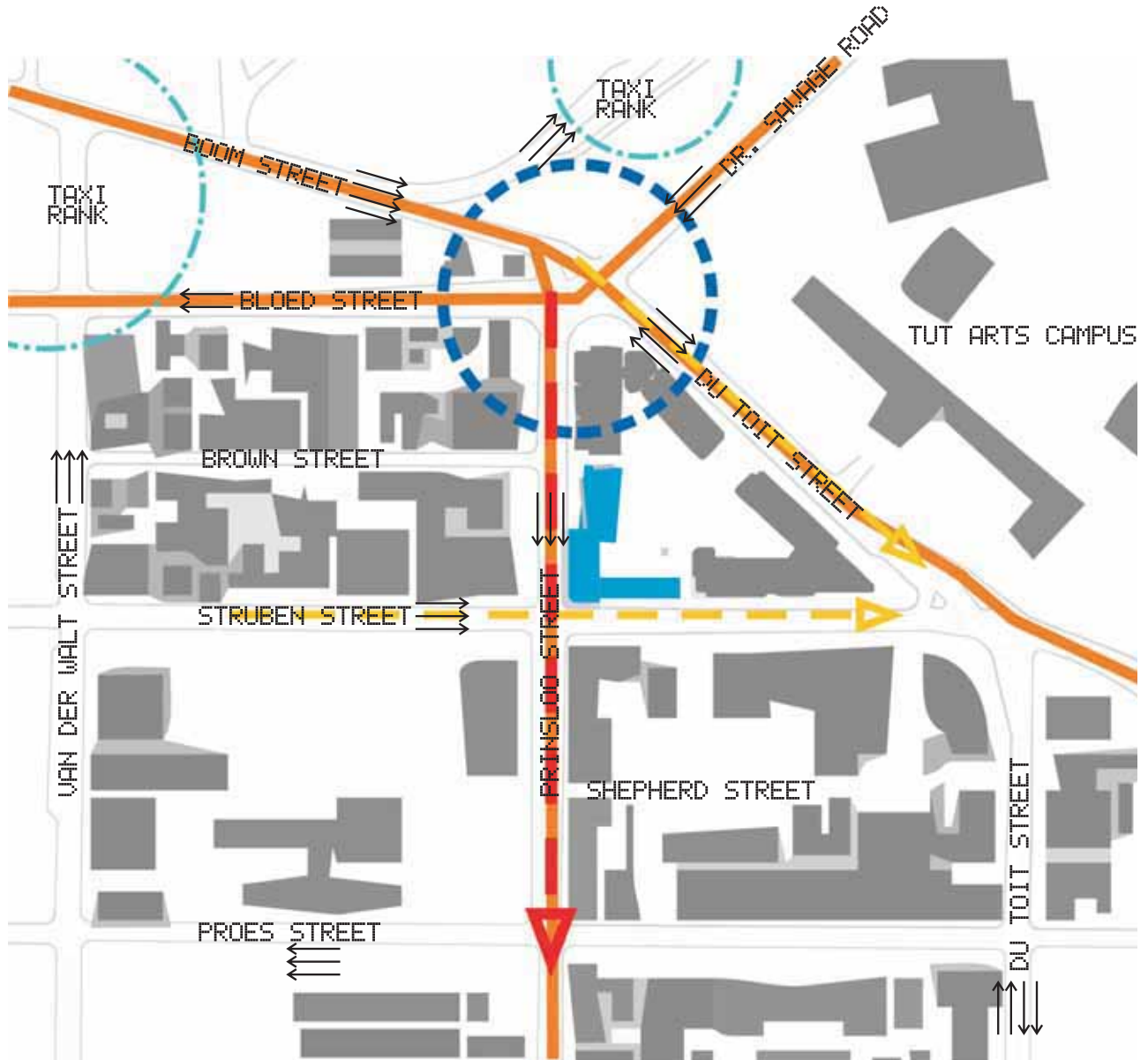
> The Cultural Network

According to the guidelines set out in the Tshwane Inner City Development and Regeneration Strategy (2005: building block 2), Tshwane should be developed as the Cultural Capital of Africa. This idea is vital for shaping the identity of Tshwane.

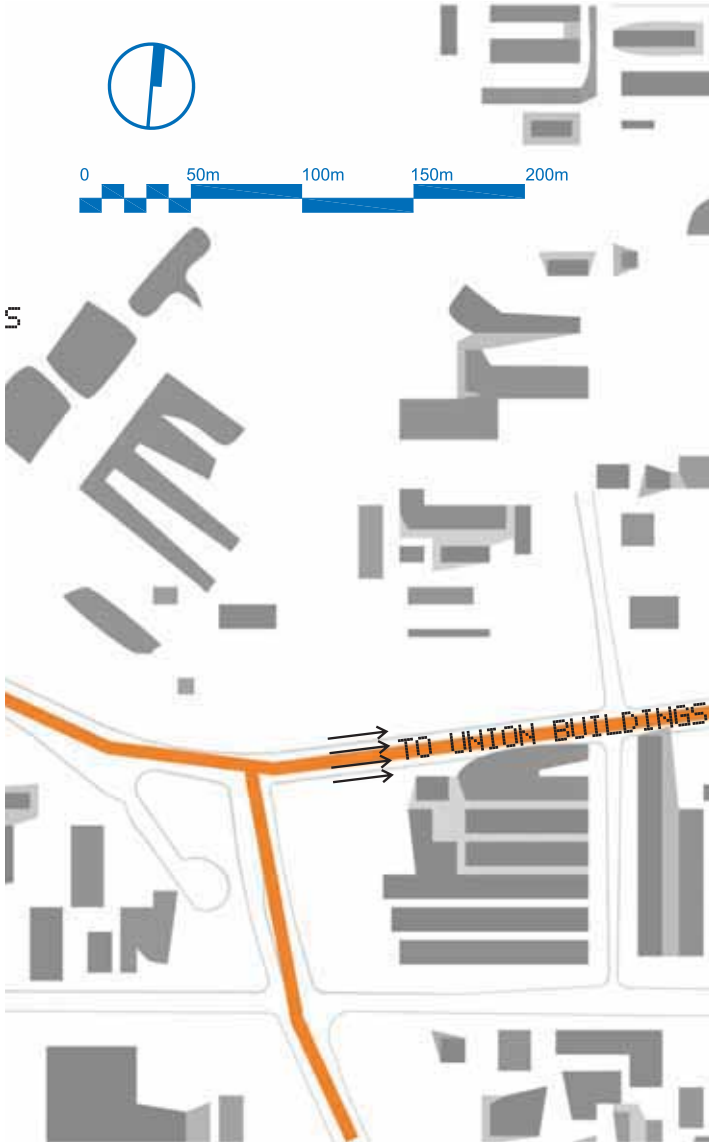
As part of the context analysis, existing cultural landmarks were identified and mapped (Fig. 3_02). These include, amongst others, historical buildings, museums, theatres, galleries and tourism nodes.

From this analysis it is clear that there is a rich mixture of existing cultural landmarks. However, there is a lack of linkages between them, especially to and from the TUT Arts Campus. Although these landmarks are in close proximity to one another, they remain fragmented.

If the Tshwane Framework is to be realised, the cultural landmarks can not function in isolation, but must be linked within a network where they strengthen and support one another.

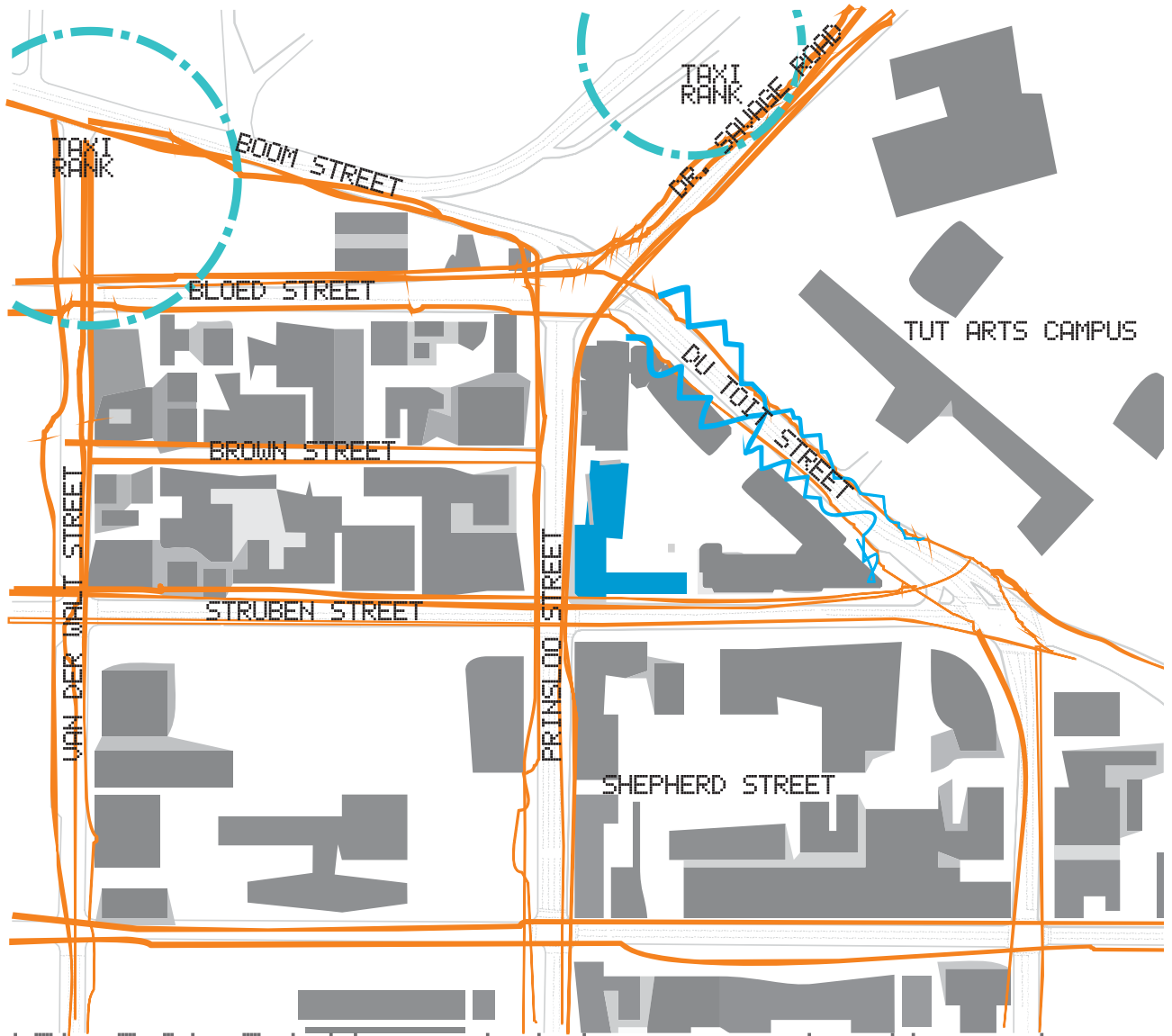


>Fig 3_03. Existing vehicular movement patterns in the vicinity of the study area.

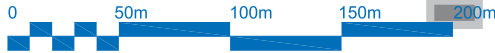


>Vehicular movement patterns_

The Dr. Savage Road gateway into the north-eastern area of Pretoria is currently undefined. Prinsloo Street, west of the proposed site, is a one-way street leading into the city centre. Struben Street, a quiet street with sporadic activity, is a one-way street leading to the Union Buildings that forms part of the Government Boulevard.

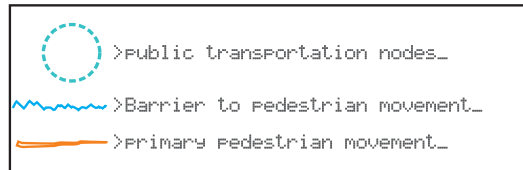


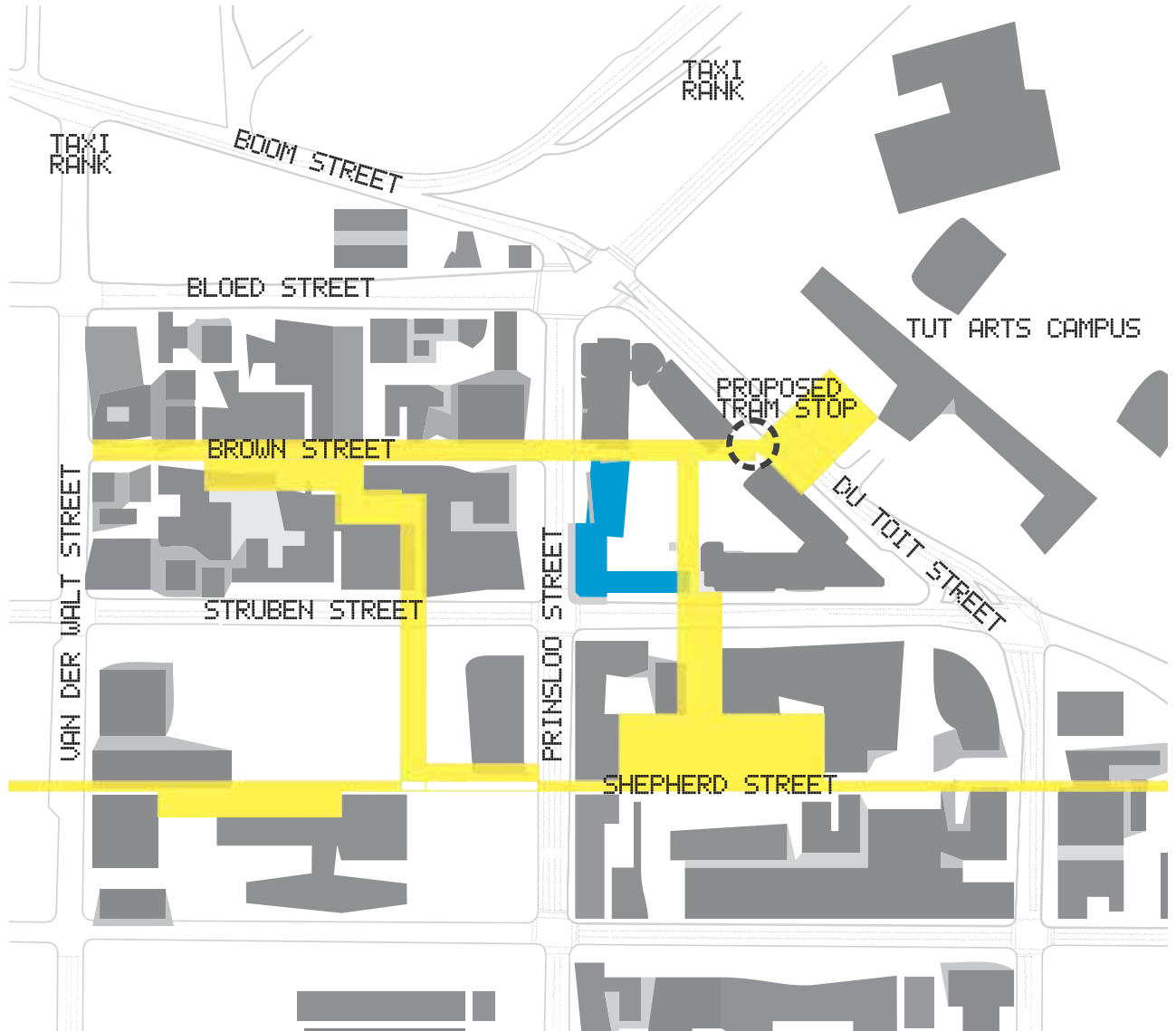
>Fig 3_04. Existing pedestrian movement patterns in the vicinity of the study area.



>Pedestrian movement patterns_

The formal taxi rank in Bloed Street together with the informal taxi rank in Dr. Savage Road service the study area. Pedestrian activity occurs mainly around those transportation nodes. The primary pedestrian movement routes flow along Van der Walt and Prinsloo Streets, to the west of the proposed site. It is difficult to negotiate the sidewalks in Du Toit Street, as they are blocked by cars from the workshops as well as the taxis which use the area as informal parking rank. This situation has a negative effect as most pedestrians avoid the area.





>fie 3_05. Proposed new links as per Group Framework*_



>Proposed new links_

The proposed new pedestrian network aims to connect the new and existing open spaces with the city fabric. There are three proposed new routes that serve the site from the west, south and the north-east. The route from the North-East will incorporate the isolated TUT Arts Campus with the city. It should also open up the large green space of the Apies River. A tram stop on the proposed site also forms part of the proposal.

3.12



>proposed tram stop_



>new links_

* Refer to Group Framework Proposal - addendum to document.



>Fig 3_06. Existine buildines of historical sienificance



>Heritase value_

The existing built fabric was investigated and listed according to the following criteria:

•Building construction type

Buildings were grouped as of either brick and concrete structure (traditional load bearing) or steel-frame structure

•Building condition

Condition of the existing fabric was evaluated and placed in one of three categories -

excellent - well maintained and structurally sound
average - minor repairs and maintenance required
poor - bad state of repair, not structurally sound

•Heritage value

Various sources were used to assign a heritage value of low, average or high to buildings. See Group Framework addendum.

B	>brick and concrete structure_
S	>steel frame_
●●●	>poor condition_
●●	>average condition_
●	>excellent condition_
	>low heritase value_
	>average heritase value_
	>high heritase value_

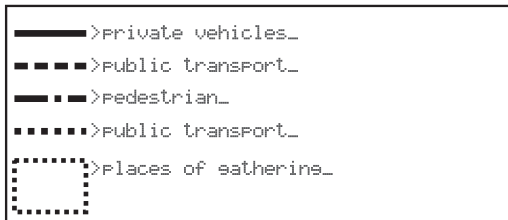


>fig 3_07. Combination of existins movement patterns_



>Movement patterns and areas of congregation

The existing movement patterns of private vehicles, public transport and pedestrians were combined and overlaid with the various areas of congregation. High traffic volumes occur at the intersections of Prinsloo and Struben Streets, places of gathering which are usually densely populated. Opportunities for informal trade and public transport pick-up/drop-off zones were identified at these points. Areas of congregation which have a low traffic volume generally act as rest/pause areas. These usually occur in side streets, in shaded or semi-enclosed spaces, as in for instance Shepherd Street.



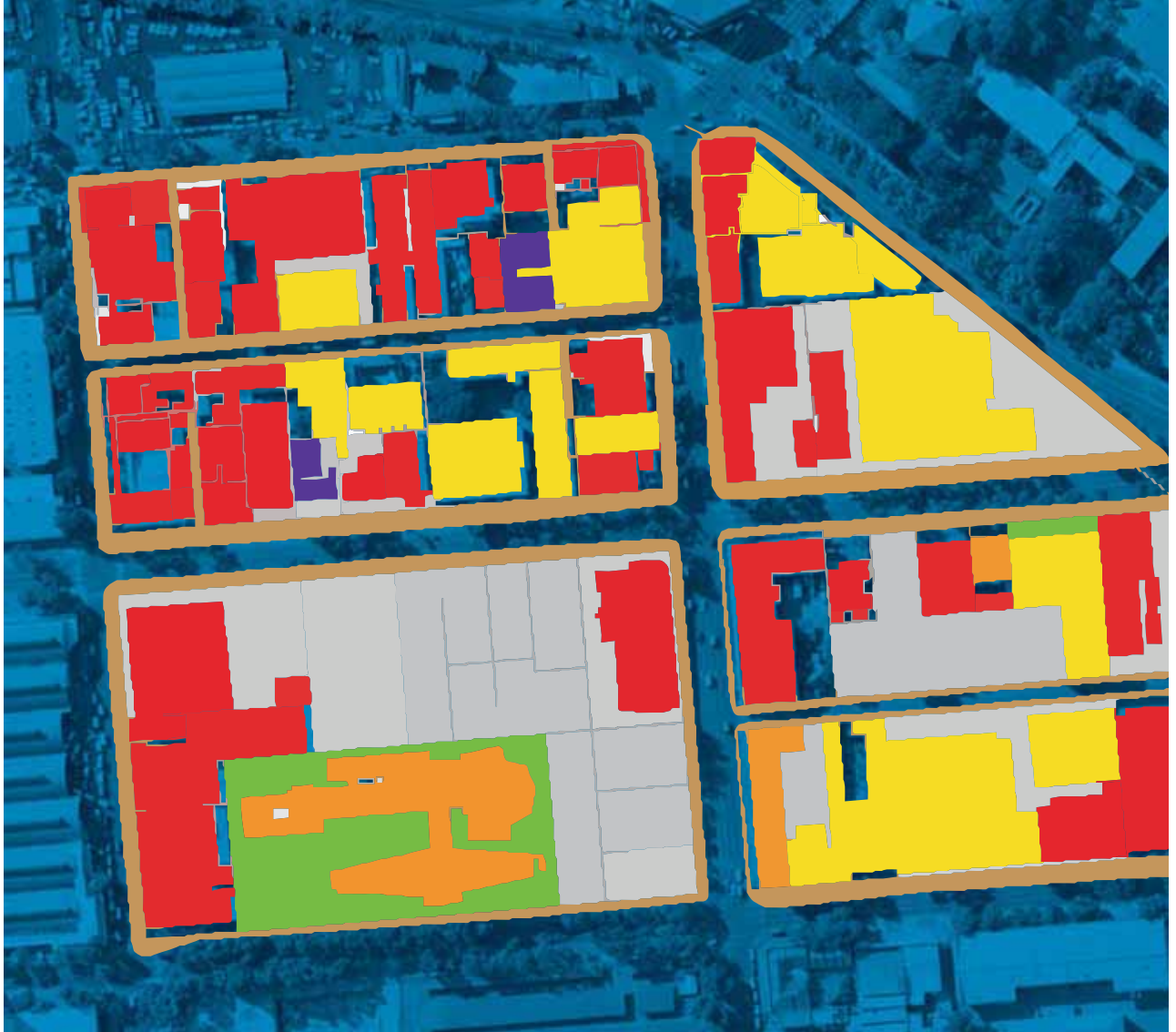


>fig 3_08. Existine areas of coneresation for city dwellers_



>Areas of congregation

Interaction was witnessed at street intersections where pedestrians pause before continuing their journey or changing direction. These places create opportunities for informal trade to occur. In quieter areas, the pace slows down and pedestrians gather to seek refuge from the primary routes.



>file 3_09. Existine buildine use_

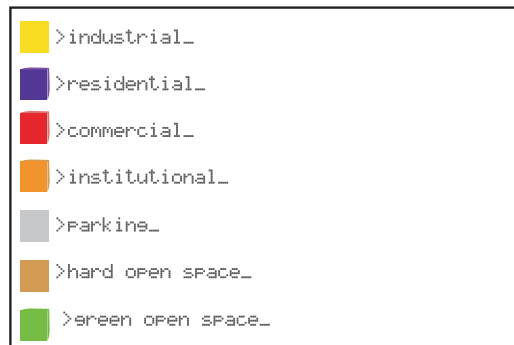


>Existene Buildine use_

A large portion of the proposed context is commercial, in keeping with the current uses in the Pretoria CBD. The proposed site is located on the edge of the CBD.

The proposed site hosts a strong mix of commercial and light industrial activities, with a few residential and institutional buildings scattered in between. Vehicular parking facilities on hard open spaces, tend to be cut off from the general public, mainly for security reasons.

The ground floor areas of buildings are mostly used for commercial activities. Covered sidewalks cater for pedestrian movement and informal trade. Residential buildings in the area cater mostly for students.





>fig 3_10. SWOT analysis_



>SWOT analysis_

>Strengths

- Tree-lined walkways
- Presence of buildings with heritage and cultural value
- Zones of tranquility and energy
- Few derelict areas
- Existing infrastructure moderate to good
- Roads, electricity, water, sewage, waste disposal
- Formal and informal economic activity
- Informal economic activity along walkways
- High volume of pedestrian movement along van der Wall and Bloed streets
- Variety of commercial, institutional and residential activities
- Presence of taxi rank in Bloed Street
- High volume of taxi buses in streets

>Weaknesses

- Lack of public green space and public buildings
- High ratio of hard to soft space
- Presence of derelict spaces, especially in Brown and Shepherd Streets
- Derelict state of buildings with heritage value
- Irregular build to lines in van der Walt and Bloed Streets
- Perimeter movement around blocks, limited permeability
- Tension between formal and informal traders
- Restricted activities after 7 in evening due to taxi rank closure at 19:30

>Opportunities

- Open and green space converted into public spaces
- Wide hard-surface walkways covered with trees
- Integration of formal and informal trading
- Diversity of spaces and activities
- Increase pedestrian movement along walkways
- Use arcades to increase permeability of blocks
- Densify designated area
- Increase residential density and activities
- Attractiveness and ease of taxi and bus transport
- Increased economic activity due to taxi passengers
- Taxi rank in Bloed Street

>Threats

- Derelict open spaces with garbage pile-up
- Lack of public green space
- General security is low with little police presence
- Specific market conditions due to low-income group clientele
- Illegal trade
- Disruption and tension between formal and informal traders
- Low maintenance of infrastructure and services
- Temporary removal of taxi rank for upgrading purposes
- High-risk investment conditions

>Strengths_

>Weaknesses_

>Opportunities_

>Threats_



--->DR. SAVAGE ROAD GATEWAY

--->PROPOSED MUSIC STUDIO



--->PROPOSED SITE

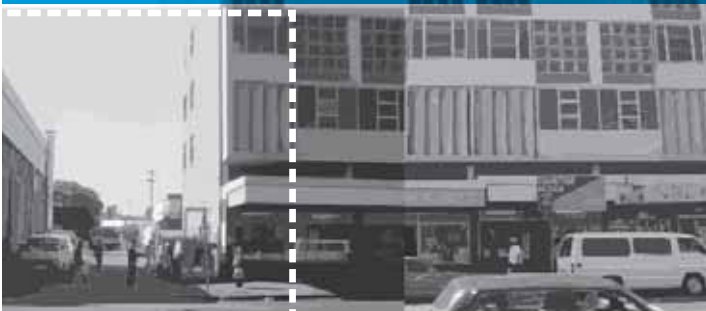




PHOTO BY M. JOOSTE



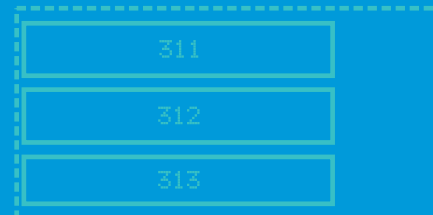
>STRUBEN STREET



>SHEPHERD STREET

>Prinsloo Street

The proposed new pedestrian network aims to connect the existing open spaces within the city with each other. Three new proposed routes will serve the site from the west, south and the north-east. The route from the north-east would act as a link between the isolated TUT Arts Campus and the city. It should also open up the large, under-utilised green space of the Apies River. A tram stop on the site forms part of the proposed Group Framework.*





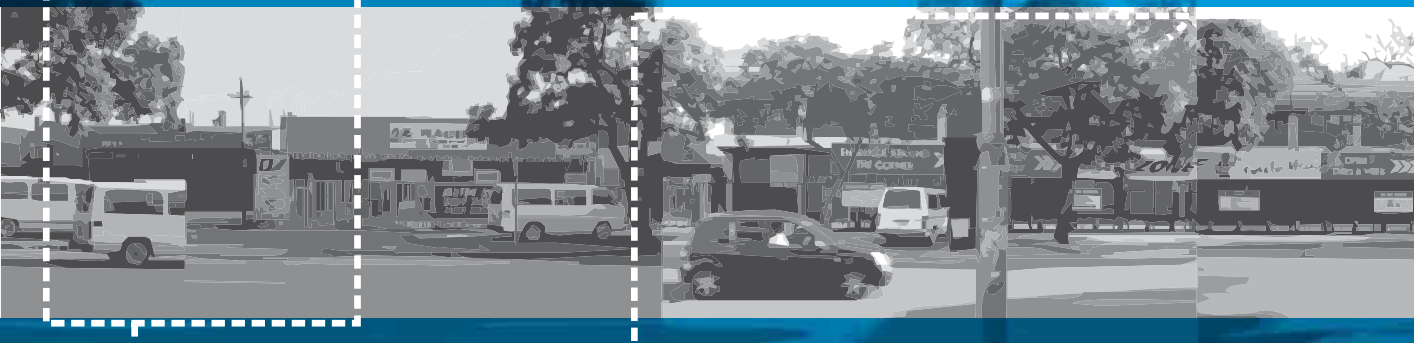
> WATERFALL TOMBSTONES

> AUTO DEALERSHIPS



> IACARANDA TREE

> STRUBEN/PRINSLOO INTERSECTION



> PEARLS SPORTS BAR

> AUTOZONE AND PROPO



> Struben Street

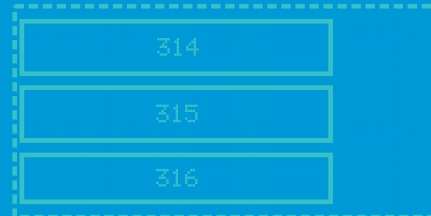
Struben Street is a relatively quiet one-way street connecting the city and the Union Buildings. Apart from late afternoon rush hour traffic leaving the city, only sporadic vehicular traffic passes the proposed site.

The sidewalks are pedestrian unfriendly and uncomfortable. Buildings have inactive street frontages and open space is fenced off with palisades.



The proposed site is currently dominated by Autozone*. Motor repairs spill out onto the sidewalk. Palisade fencing acts as a barrier on the prominent corner, which also acts as a refuse collection area.

Jacaranda trees (*Jacaranda mimosifolia*) line Struben Street. They provide an 'avenue-like' quality to the street and can help extend a colonnade effect similar to the one on Prinsloo Street.





>PROPOSED DANCE STUDIO BY A. SMOOK



>AUTOZONE AND PROPOSED SITE BY M. JOOSTE



>MAIN ENTRANCE
TO TUT CAMPOS



>INFORMAL
RESTAURANTS



→ PROPOSED MUSIC STUDIO BY M. JOOSTE



→ DR. SOGA STREET INTERSECTION

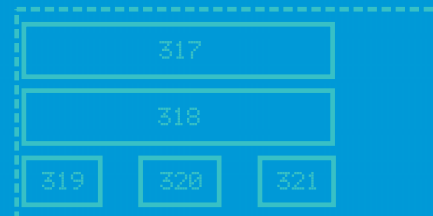


→ PRECAST CONCRETE WALL

>Du Toit Street

Du Toit Street, lined with London Plane trees (*Platanus acerifolia*), is a busy two-way street defining the north-east city edge. There is a positive visual link between the proposed site and the street, especially at the intersection with Prinsloo Street.

The main entrance of the TUT Arts Campus is situated on Du Toit Street. However, the existing precast concrete perimeter wall acts as a visual barrier.





>fig 3_22. Aerial view of proposed site.



>The Proposed Site

The proposed site is located on the main access route to the city from the north-eastern areas of Tshwane, and is situated on the north-eastern edge of the CBD. Its boundaries are formed by Prinsloo Street to the west, Struben Street to the south and Du Toit Street to the north-east.

To insert a permeable scheme into the city, new links must be incorporated with the existing links through the site from the surrounding areas.

The proposed site is within easy walking distance of the currently being upgraded taxi rank in Bloed Street, and the informal taxi rank in Dr. Savage Road. Furthermore, the site functions as an entrance or threshold for visitors arriving by private transport.

Pedestrian activities occur mainly on Prinsloo Street to the west of the site, to and from the taxi ranks. Current light industrial activities on the site have a negative effect on how the city is perceived. The existing buildings and workshops have limited interaction with the sidewalk, and are generally avoided by pedestrians.

Proposed new links include a new pedestrian network and the new tram system. A new tram stop is envisioned on the Du Toit Street boundary of the site. The new pedestrian network aims to connect the isolated TUT Arts Campus with the city, allowing the site to act as a transition zone. Within this zone, the green belt of the Apies River should also become accessible to the city, and the city should also become accessible to the students.





URBAN

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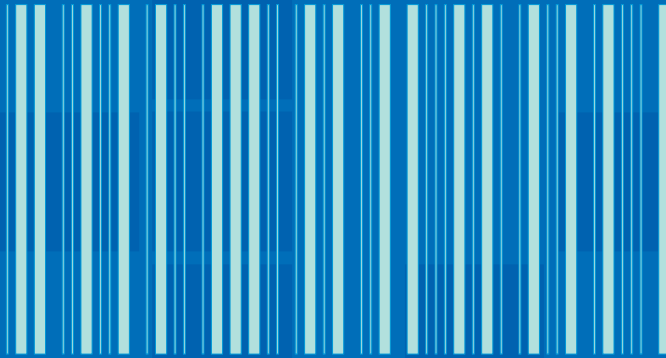
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FRAMEWORK

Tshwane Vision_

- > Inner City Development_
- > Group Framework_

4_02

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>Inner City Development Framework_

The vision for the Inner City is derived from the Tshwane Vision*, the ideals of which were translated into tangible objectives for the future development of the Inner City,

"...the centre of culture in Africa, where all aspects of being (South) African can be celebrated" (Tshwane Inner City Development and Regeneration Strategy, 2005).

The Inner City already comprises a number of cultural and heritage assets. By enhancing and expanding these dormant resources, Tshwane could become a tourism destination, both nationally and internationally.

The term "culture" has many definitions, from the idea of culture 'as a way of life' to a description of art forms such as music or theatre. "Culture" in the context of this dissertation is in essence about people, their lives and the way in which they express themselves. The author is of the opinion that these aspects should be made prominent and celebrated in the Inner City.

Therefore, the Centre of Culture does not only relate to buildings, places, and the appearance of the environment in terms of vibrancy, colour and texture, but focuses on the way in which the Inner City lends itself to both formal occasions and events that celebrate humanity in everyday life.

In order to achieve the pinnacle of investment opportunities and create a truly exciting and sustainable inner city, the area needs to exude three important characteristics, namely

- confidence
- credibility
- Brand Essence and Brand Promise

*Tshwane Inner City Development and Regeneration Strategy, 2005.



In an attempt to ensure that the key principles are present in the Inner City, it is necessary that those areas or aspects of the Inner City that do not meet the necessary standards receive urgent attention. The following aspects have been identified as challenges (TCORS, 2005):

To achieve the above goals, the following key elements need to be present (TCORS, 2005):

- An unique story_
- Excellent management_
- A high-quality environment_
- Marketing and Facilitation_
- Convenience_
- Accessibility_
- Service infrastructure_

- The Inner City needs a clear and unique identity
- It is important to attract high profile developments to the Inner City
- The Inner City must make provision for a range of housing opportunities, and must not only cater for a single socio-economic group
- Sufficient residential support facilities must be provided to carry the increasing permanent residential population
- The Inner City must provide tourism, entertainment and recreational opportunities, for local Tshwane residents as well as visitors
- The Inner City must comprise a dedicated public transport system (an internal circulation system)
- The Inner City must be made pedestrian friendly
- The Inner City needs sufficient public spaces (soft and hard) in keeping with its desired image as a world-class capital city
- Safety must be one of the main priorities
- A dedicated management structure must be put in place

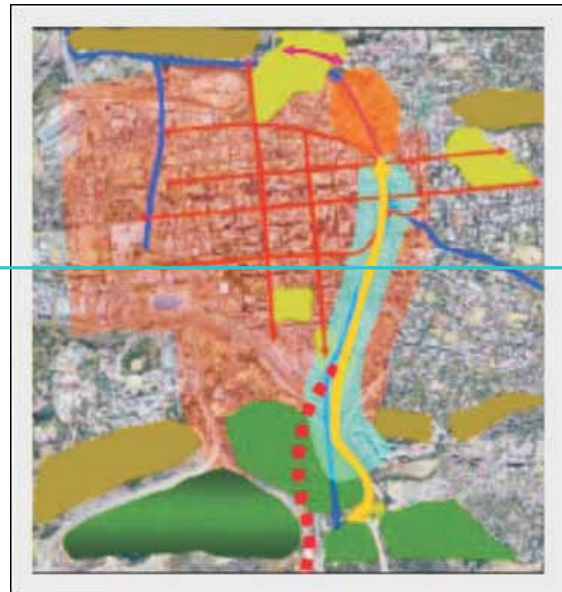


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According to the Tshwane Development Framework the Inner City should be regarded as a place of excellence. Drastic interventions are required to address the gaps that remain within the existing urban fabric.

The Inner City Development and Regeneration Strategy is based on an approach of "catalytic intervention", whereby specific strategic interventions are proposed to address challenges in order to attain the critical success factors. It proposes that public budget expenditure should be focused on an attempt to create stimuli for private sector investment. This is based on the 'ripple-effect approach', where one major



[The Mandela Development Corridor]

The Mandela Development Corridor is situated alongside Nelson Mandela Drive on the eastern edge of the inner city. According to the TICDRS, future development along the corridor should focus on the arts, culture, government, business, sports, entertainment and commercial development.

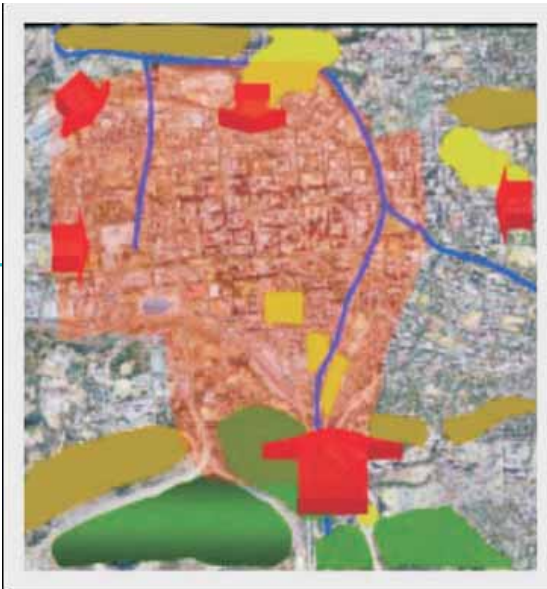
Adjoining land should be utilized for office and business developments, supported by high-income residential apartments. The environmental and spatial quality of the corridor should be of the highest standard, and should comprise the inner city's flagship developments [TICDRS, 2005].

[The Apies River Promenade]

The Apies River Promenade sparked the beginning of this city (TICDRS, 2005). Feasibility studies must be undertaken to determine the viability of changes to the river morphology. The open space system along the Apies River could cater for the active recreational needs of residents and employees in the area. Possible facilities include walking tracks, cycling routes and playgrounds.

Bridges crossing the Apies River should be designed to be clearly identifiable – the theme of the historic 'Leebrug' could be developed further. The land to the north of the proposed crossing along the

Apies River should be redeveloped for recreational and entertainment purposes. A link with the National Zoological Gardens to the eastern part of the Inner City should also be established. Developments could have a smaller scale than those to the south, which form part of the Nelson Mandela Corridor.



[Announcing the Destination]

The significance of the inner city as a destination should be announced in bold terms. This could be achieved through various gateways into the city. Within the civic scale, landmark buildings, fountains, bridges, etc., could be used to achieve better legibility for the user and visitor.



[The Cultural Circle]

In keeping with the vision that Tshwane and its inner city should be developed as the centre of culture in Africa, the main structuring component for the future development of the inner city is the proposed cultural circle.

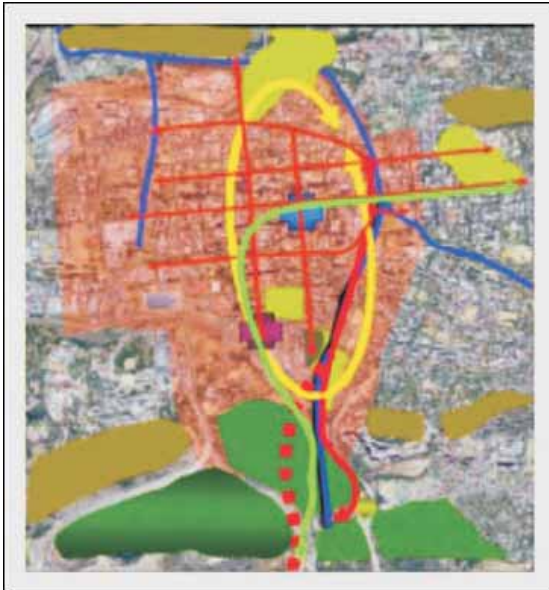
The cultural circle concept is based on the identification and enhancement of existing cultural landmarks and facilities, the development of new, contemporary cultural landmarks and the linking of these elements through a system of transport and pedestrian routes.

The cultural circle should be supported by a programme of events and festivals that can further enhance the vision of Tshwane as the Centre of Culture. The development of the concept of the cultural circle is vital for the branding and identity of the Tshwane Inner City as a unique and special place in the country.



[Movement and Accessibility]

The linking of strategic places is an important element of the Tshwane development framework. These linkages are functional but can also contribute to the experience of the inner city as a destination. Public transport will play a critical role; significant interventions and the establishment of a management framework is required to realize the concept.



The aim of establishing linkages is to make movement within the inner city as convenient as possible for all modes of transport (private vehicles, public transport, pedestrians and cyclists). Integrating the movement network with the major elements, districts and tourist destinations will ensure accessibility.

(Conclusion)

Site & programme selection for the proposed Digital Media (Exchange) were influenced by the existing inner city strategies as well as the theoretical analysis of:

>the nelson mandela corridor & apies river promenade_

The proposed site can be seen as an extension of the envisioned development of the Nelson Mandela Corridor and the Apies River Promenade.

>announcing the destination / movement and accessibility_

Dr. Savage Road is an important gateway into the city, and the project aims to be a vital node that could aid in the above concept.

>cultural circle_

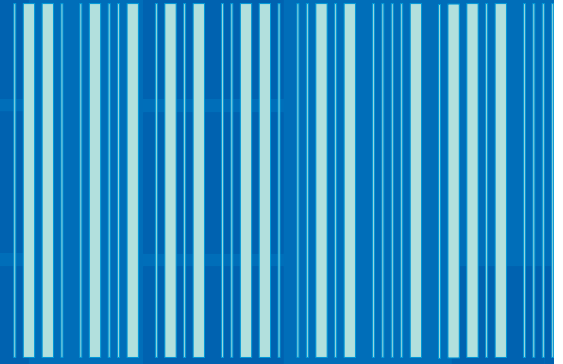
Located in one of the identified cultural nodes, the project aims to strengthen the cultural identity of the area.

The above strategies are all catered for by the proposal. The Digital Media (Exchange) aims to unify all groups within the inner city and introduce them to the art of digital media for the edification of all visitors and the enhancement Pretoria as a city.

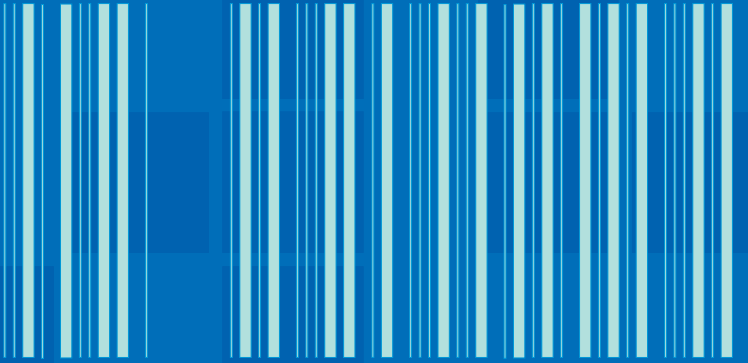




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PRECEDE



005

NT STUDIES

International H2 and Local H2

- > Idea Store
- > Laban Centre
- > Nelson Mandela Interpretation Centre
- > Velocity Films



PROJECT_ _Idea Store,
Community Library

LOCATION_ _Whitechapel
London
UK

ARCHITECTS_ _Adjaye and Associates

COMPLETED_ _2005

"I'm telling you, films like Minority Report, you know, with those interactive environments, where billboards know your name and you can play on those glass screens. They're coming."

David Adjaye

>Description_

The concept of the Idea Store is to make information accessible to the local community. The building is wrapped in glass, taking its scale from surrounding civic functions. Its colourful character is borrowed from the small shops and market stalls of Whitechapel Road, which anchor the building to its context.

The Idea Store is both civil and inclusive, iconic and contextual, but most of all it is loved by its users. The civic identity comes from its height and the boldness of the facade. It is situated in the heart of the community it serves.

Two entrances serve the ground floor, which also accommodates a video store, childrens library and café. The café extends to the first floor and serves to attract users to the other levels. A semi-enclosed escalator is sheltered behind the suspended glass facade and provides access to the first and second levels. The facade also protects the inner skin from overheating during summer, using vents to expel hot air.





Laminated timber beams stiffen the external walls, and support bookshelves, work surfaces and storage in a variety of positions throughout the building.

The Idea Store is a re-branding exercise of what a library essentially is. Mixed activities support its main function. These include, amongst others, a nursery, dance studio, seminar spaces, internet facilities, an external deck and physiotherapy classrooms.

>Influence on dissertation_

The context of informal market stalls underneath the awnings of existing buildings informs the proposed design, as well as the use of coloured translucent panels to reflect the existing surroundings.

A multi-functional approach aims to accommodate the widest possible range of users, without discarding the main function of the design. This is equally true for the precedent and the proposed new building. A cafeteria situated on the ground floor serves passers-by, thus acting as a destination for people from the street.



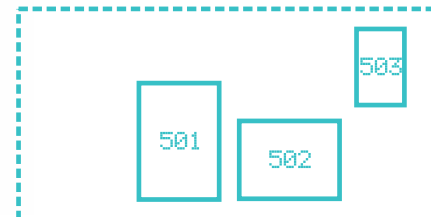
5.04



ground floor plan

>Materials_

- _Glazed interlayered panels
- _Steel members
- _Cast-in-situ concrete





PROJECT_ _Laban Centre,
Dance Studios

LOCATION_ _Lewisham
London

ARCHITECTS_ _Herzog & de Meuron

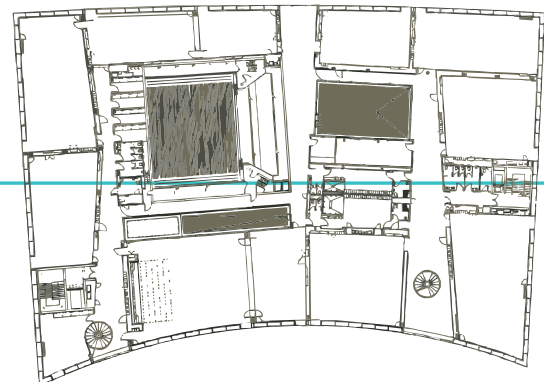
COMPLETED_ _2003

>Description_

The Laban Centre is located in a post-industrial landscape that is devoid of existing civic-scaled amenities. It is bleak suburbia found inside the city, inhabited by poor minorities and working class communities. In addition, the existing transport infrastructure is inadequate (Abache, L. 2003).

Herzog & de Meuron made use of the industrial heritage of the area to "...awaken a latent urbanity in an act where the 'Post-' could stand for transformation rather than... decay..." []. With its physical presence and committed programme, the new building becomes a catalyst for revitalisation, by attracting outside interest and investment to the area (Abache, L. 2003).

The building is organized around two parallel flanks. The main, public entrance is multi-levelled in a double volume space. The other is private for access to the dance studios and service spaces. The generic plan repeats itself three times on all levels of the building. At the heart of the building is the dance theatre which acts as an orientation point, while the dance studios are



ground floor plan

located on the upper levels.

The circulation layout is rather simplistic but varied, with areas of rest or acceleration. The two main staircases not only organize vertical circulation, but also define horizontal public and semi-public circulation routes. Their black granular surface treatment contrasts with that of other shiny wall surfaces and the multi-coloured facade (Abache, L. 2003).



The facade was a joint effort with local artist, Micheal Craig-Martin. The skin consists of transparent or translucent glass. Transparent polycarbonate panels are mounted in front of the glass as a protective

>Influence on dissertation_

The Laban Centre has served as a catalyst attracting interest to the surrounding area. The transparent facade allows outsiders to 'be inside' the building by exhibiting internal activities. The facade reflects its surroundings and is illuminated at times. The building's mass dematerialises in the process.



>Materials_

- _Steel structure
- _Glass panels
- _Corrugated polycarbonate sheeting

504

505

506



PROJECT_ _Nelson Mandela Interpretation Centre,
Community Museum Facility

LOCATION_ _Alexandra
Gauteng

ARCHITECTS_ _Peter Rich Architects

COMPLETED_ _In progress

>Description_

This community owned-museum Facility is situated in a high-density urban community. The raised first floor acts as both a bridge and a gateway. The centre aims to host jazz archives, internet cafés, a food court, and a youth centre with workshop areas.

The building is designed on both a civic and domestic scale through the use of materials and the manipulation of space. The language of the design reflects resourcefully selected materials, consisting of recycled and waste materials. Rural and urban materials are combined with a more sophisticated use of polycarbonate walling.

The visual and physical culture of Alexandra is celebrated by the loose-fit composition on the terrain, and by the views the building creates because of its open-air qualities.



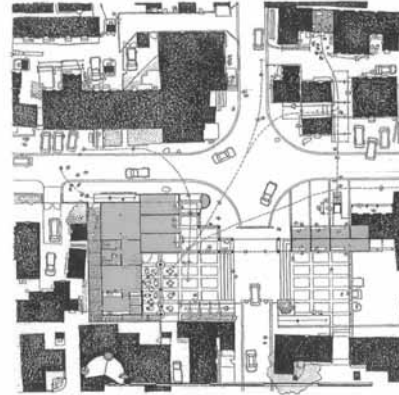


"The centre is dignified while being appropriately tough in a context of poverty and neglect."

(Deckler, Graupner, Rasmuss 2006:46-49)

>Influence on dissertation_

Within the urban scale it is important to define certain landmark buildings against a backdrop. Although the proposed design does not serve as the backdrop, it makes a contribution to civic life by being recognisable. Furthermore, the existing context is reinforced by the selective use of materials. These include, amongst others, a universal beam structure with infill masonry panels and polycarbonate sheeting.



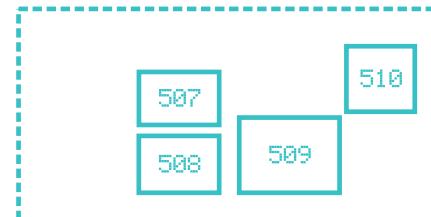
Site plan



>Materials_

- _Steel structure
- _Polycarbonate sheeting
- _Masonry units

5.08





PROJECT_ _Velocity Films,
Film Production Studio

LOCATION_ _Rivonia, Johannesburg
Gauteng

ARCHITECTS_ _Noero Wolff Architects

COMPLETED_ _1994

"We believe architecture is practical
and not a fine art and it is the
question of use which distinguishes
architecture from the other arts."

_Joe Noero

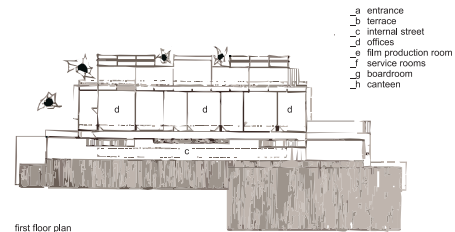
>Description_

The building houses a film production company and accommodates both the administrative and production facilities of the company. It had to reflect the creative and temporary nature of the company, and as such, has been designed as a "work in progress". There was a strong need for the building to have the ability to change and adapt, much like a film set, to the future requirements of the client.

The building is organized along a double-volume street designed as a social space where spontaneous encounters can occur. To maximize natural light the working spaces are arranged on the north-facing side, along the internal street which runs the entire length of the building. Areas that serve the work spaces are placed on the southern side. The internal street allows for natural light penetration from both sides and also assists in achieving adequate cross ventilation.



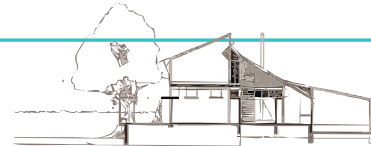
The selection of materials emphasizes the industrial nature of the building. The frame, rather than being clad, is revealed and the cladding materials are inserted into the frame. The building illustrates that, even by using conventional detailing and building components that can be purchased off the shelf, a contemporary South African architecture can still be realized.



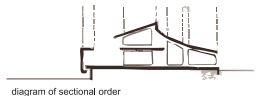
_first floor plan



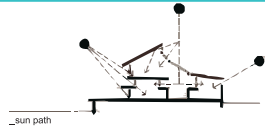
_ground floor plan [scale approx 1:1000]



_cross section



_diagram of sectional order



_sun path



_ventilation strategy

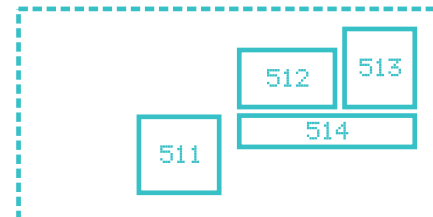
>Influence on dissertation_

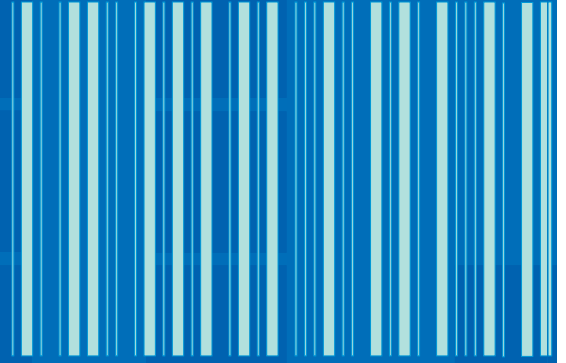
The double volumes of the proposed design mimic the internal street. Within these volumes spontaneous interactions are encouraged to stimulate creativity, by providing spaces where people can interact and react.

The proposed building focuses on similar principles of adaptability. The frame structure permits the "notion of the building as scaffolding or a framework for inhabitation" and reinforces the temporary nature of the building, where it and its uses will inevitably change over time.

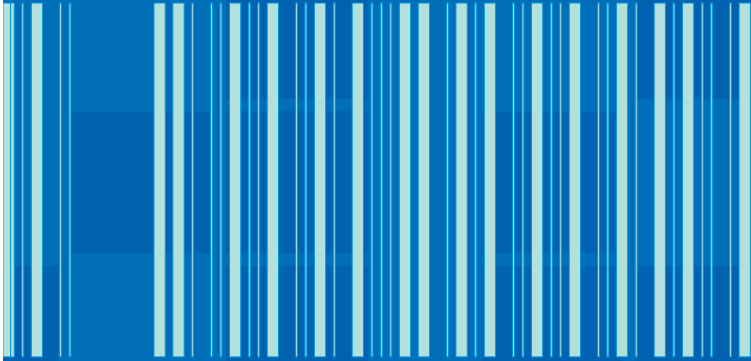
>Materials_

- _Steel frame
- _Corrugated steel
- _Cast-in-situ concrete
- _Masonry, timber and corrugated sheeting
- InFill panels





BASELINE



006

E CRITERIA

Enter text here

- > Problem statement_
- > Baseline criteria_



"...those interactive environments, where billboards know your name and you can play on those glass screens. They're coming..."

David Rdjaye

>Problem Statement_

To showcase technology in an adaptive environment that can be intelligently manipulated and where users can be educated. To effectively communicate new technologies and media to the average citizen of Pretoria. To provide a platform to showcase these technologies. How will the users identify with this platform? Will the resultant architecture act as a catalyst for the proposed area?



>Communication with the citizen_

Communication can take many forms and can range from the written or spoken word to music, art and visual imagery. In the current consumerist society there is an ever growing need to get the message across, quickly and to the largest possible audience. The current trend of bombarding the audience with a myriad of images is a way of delivering this message. The well worn phrase, 'a picture is worth a thousand words', applies.

The consumer has been educated in this method of communication and can relate to it. By using the idea of communicating via the image, the building and its function can be introduced to the passer-by. By accommodating a digital media school in the building the 'image' results from the programme. The intention is to create a building that displays images, whilst itself becoming an image.

>A catalyst for the area_

In an urban context there will always be a need for regeneration. As its boundaries extend, parts of the city will inevitably degrade and become neglected. This project is concerned with these parts or voids within the city fabric. The aim of the project is to reconnect the elements of a dislocated city.

The Group Framework has identified various existing and possible future networks within the city. The strength of these networks are of varying degrees and, in some cases, they have become disconnected. The Group Proposal for the site aspires to re-establish these broken links. In addition, any development on the proposed site is seen as one of many initiatives around the city that can act as activators for regeneration.

The Digital Media [Exchange] should consolidate this notion on a smaller scale, by creating new opportunities for the pedestrian and the inhabitants of the site.





>Baseline Criteria_

> Social Issues_

{Occupant comfort}

>Ventilation

Use of natural ventilation where possible. Equipment rooms and offices to be mechanically ventilated. (this should be energy efficient equipment and reliable).

>Thermal comfort

Human performance is greatly reduced when room temperatures are above 28 degrees Celsius or below 18 degrees Celsius. Occupants must find the temperature, humidity & air movement ideal.

>Hygienic comfort

Air quality in a room is rarely a problem in naturally ventilated areas. Natural ventilation must be promoted as stale air causes drowsiness and affects concentration. User interaction must be promoted in private areas, public areas must cater for the general public mechanically.

>Acoustic comfort

Can cause discomfort if unwanted noise infiltrates quiet zones. Insulation is to be used in these areas or placement of areas must be carefully considered after analysis of site conditions.

>Visual comFort

Views in or out of building to be maximized. Natural light is essential throughout public spaces and controlled where artificial light is desired. Visual link to exterior essential.

{Inclusive environments}

>Circulation

Building to promote continuous free flowing spaces across the site. Existing movement patterns to be considered as well as 100% paraplegic access to all areas.

>Public transport

Provision for taxi pick/up, drop/off zone to be catered for. All vehicular traffic to be kept off site i.e. Subterranean parking encouraged. Project to link easily with existing and proposed public transportation network.

>Access to Facilities

Existing facilities on site to be retained where possible or reintroduced within the new proposal. Access to these facilities to be non-discriminatory and available for



(Participation and control)

>Environmental control

Users of the building must have reasonable control over the environmental conditions, especially in private spaces.

>Social spaces

Users to be offered multiple choices for social interaction. these spaces are to be multi-Functional and program for spaces to be easily changed by the users & public.

>Amenities

Easy access to toilets for users inside and public outside.

>Local community

Spaces to be available to the public on request if not in use. Majority of spaces to have two or more uses.

>Social upliftment

The design process should incorporate purpose designed prefabricated elements to minimize wastage. Detailing and material selection that requires little or unskilled maintenance to be implemented if possible.

>Education

The centers vision is to cater for talented

and interested students to interact with one another, teach, view & exhibit digital media. The users will have diverse media forms to select from. Students will also be able to introduce the community to digital media.

>Safety

Due to the permeable nature of the proposed site development restricting the access would contradict the public nature of the building. With this aspect firmly established security will become an important aspect within the design. For the building, access control into private spaces will be implemented and public spaces will be closed after hours. For the general external public spaces, the building will have to provide sufficient lighting with no compromising alleys or problem areas.

>Heritage

The existing structure is in a state of bad repair and has a high heritage conservation rating. However, it is desirable to maintain existing parts of the structure.

The colonnade is an important characteristic of the existing building and the overall area. The colonnade must be maintained by either keeping the existing or reintroducing a new one to maintain the character of the site.





>Economic issues_

(Initial costs)

>Localeconomy

Local craftsmen and contractors to be favored for construction. Local trade to be used wherever possible in the construction process to ensure skills transfer and development. Local materials including existing on site material that can be used to decrease costs.

>Efficiency of use

In order to achieve a sustainable environment secondary uses for spaces need to be considered. A coordinator will be employed to achieve use around the spaces primary functions.

>Adaptability and Flexibility

Open planning should be a priority with moveable screens to be used opposed to permanent walls. 3m head room is favorable which will aid in naturally ventilating the spaces and allows for multiple uses of the space.

>Capitol costs

The project will have The TUT Arts Campus as its main lessee. Capital costs to be invested by various private and public corporations such as: The Department of

Art, Science and Culture, The Department of Education, The Department of Public Enterprises, Microsoft Bill Gates Foundation, Fuchs Foundation and Google.

(Ongoing costs)

>Maintenance

Materials with low maintenance requirements and high material/component life expectancy to be used to ensure building longevity.

>Security

This aspect will be a large contributor to the buildings ongoing cost. As previously discussed the building should provide security for its surrounding spaces i.e. all visual links to the outside spaces must be promoted. Self-surveillance of building and transparency of public areas to ensure visibility and to decrease cost of employing security. Also occupancy to be maximized to ensure that the building is always being used.



>Environmental issues

>Water

Storm water runoff to be reduced by the use of pervious or absorbent surfaces to maximize the replenishment of ground water.

>Rainwater

To be harvested in two ways:

- Storm water

- Rainwater on roof level

Water to be collected and stored for later use as grey water for watering landscape and toilet facilities.

>Water consumption

Devices that minimize water usage from main water supply to be used.

- Dual flush toilet systems (connected to grey water).

- Auto flow automatic taps in all bathrooms (this water to be reintroduced into grey water collection tank)

>Energy

As previously addressed, building are responsible for 42% of all energy produced.

"Conventional energy production is responsible for large contributions to environmental damage and nonrenewable resource depletion." (Gibberd, 2006; pg9)

>Passive environmental control

The design must respond to the micro climate of the site. Appropriate orientation must be prioritized, in the event that orientation cannot be achieved, shading devices should be incorporated. Due to Pretoria's high average temperatures airconditioning may be required. Shading devices not to conflict with views into and out of the building.

>Renewable energy

South Africa experiences very high levels of incident radiation from the sun. South Africa covers 41% of the land area on the globe where 6kwh of sunlight on a winters day can be harnessed. (Joubert, 2006; pg7)

This renewable resource must be harnessed to heat water or convert solar energy directly into electrical energy with the use of photovoltaic cells if within budget.

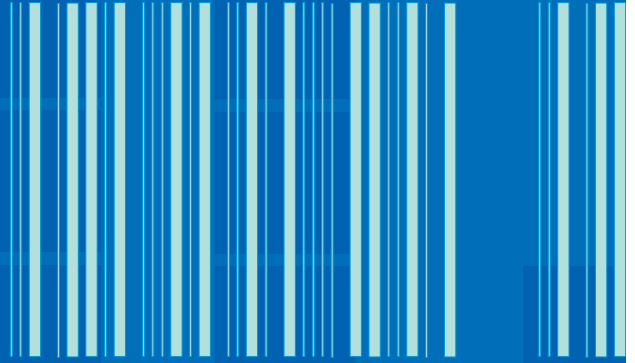
>Waste recycling

A policy must be implemented to sort, store and dispose of any materials to recycling plants within the area if such places exist. Design limits wastage if modular elements are kept to.





UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
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DESIGN D



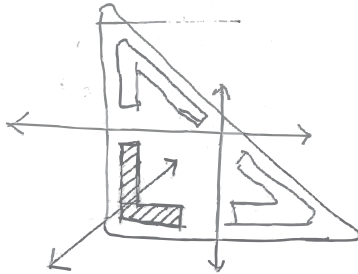
EVELOPMENT

Exploration of ideas, concepts and themes_

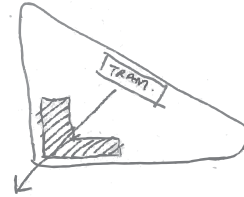
- > Urban relationships_
- > Design concepts + themes_
- > Development timeline_

>site Plan

- Integration with surrounding functions



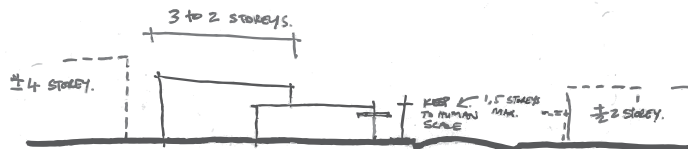
- Tram stop to increase pedestrian traffic on site



- ALLOW FOR ACCESS THROUGH BUILDING
- 1. CONVENIENCE
- 2. TRADE
- 3. AWARENESS

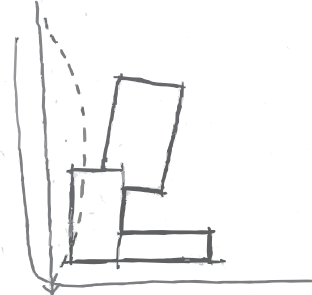
- CREATION OF PUBLIC SQUARE THAT LINKS TO OTHER ACCESS ROUTES SEE GRP FRMWRK.

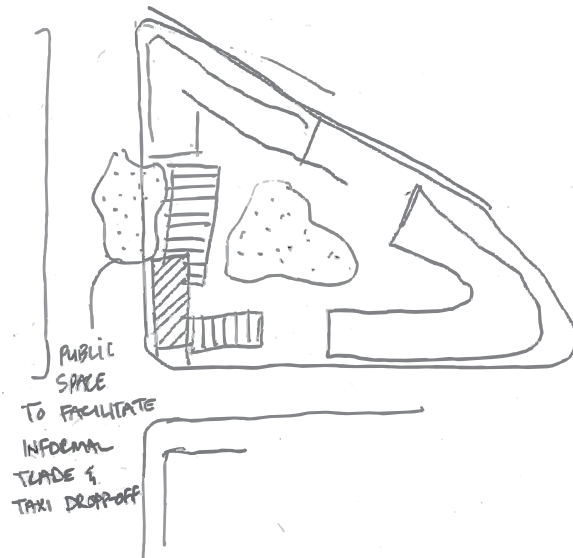
- Response to surrounding buildings



BRING DOWN THE SCALE OF BIG NEIGHBOURHOODS DOWN TO THAT OF EXISTING ON OPPOSITE CORNER.

- Continuation of pedestrian movement





>>Create a hierarchy of public spaces_

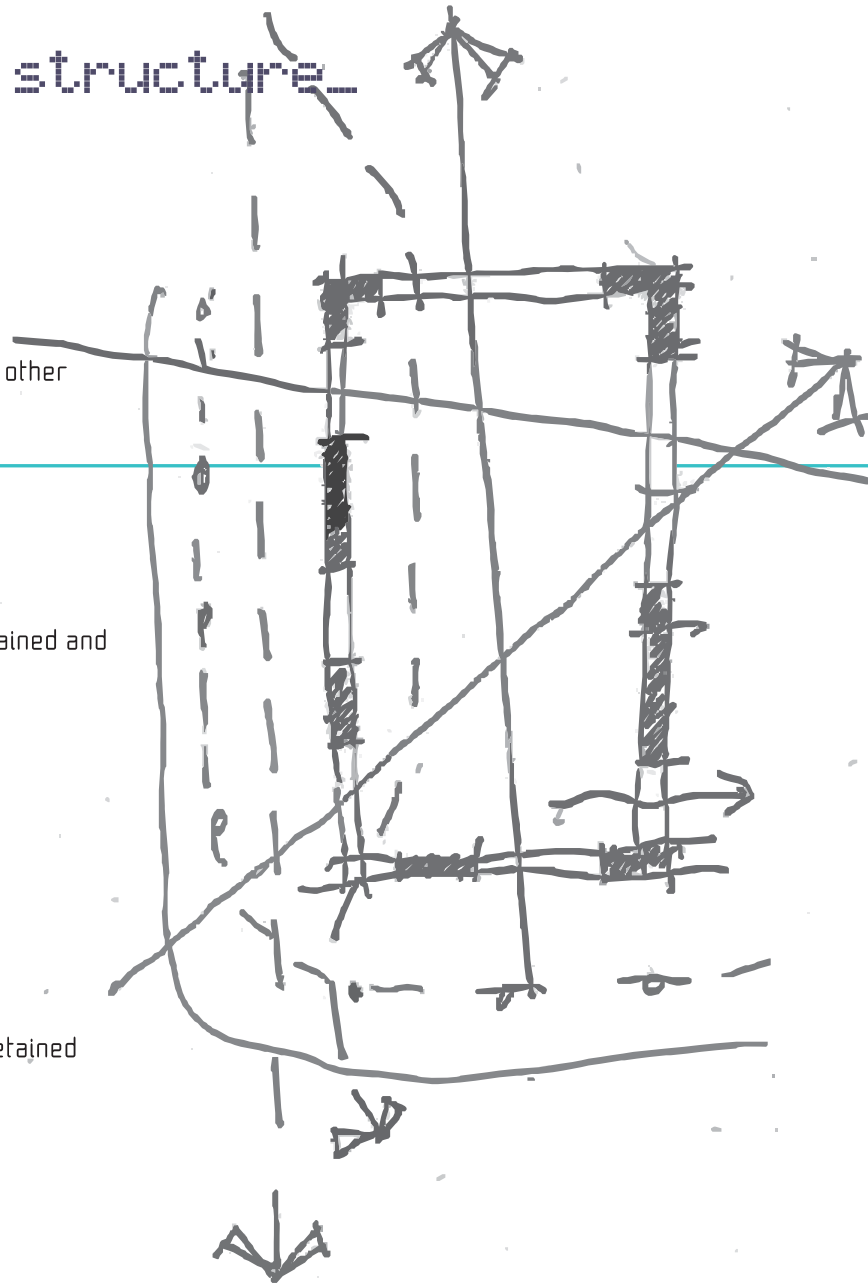
The design aims to create space that can be used by the public. The public square is the most obvious way of achieving this objective, and it opens up the site to pedestrian activity. On the square, changes in level and floor finishes are introduced to the user, and different views frame the development.

Along the west and south facades the design incorporates existing uses. An enlarged area for taxi pick-up and drop-off activities together with informal spaces for trade is, envisioned. These spaces are defined in such a manner so as to allow high levels of interaction with the street.



>existing structure_

- The existing generator for other programmes_
- The existing colonnade retained and extended into the design_
- The existing structure is retained wherever possible_





①

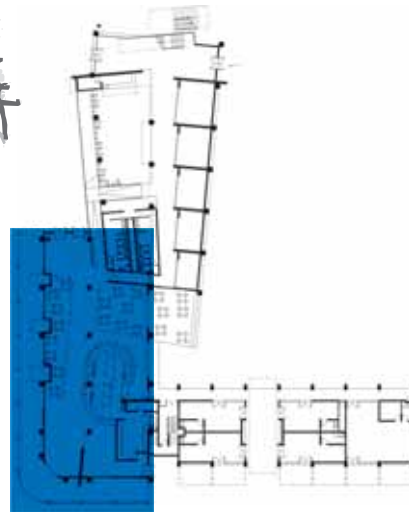
EXISTING
STRUCTURE

WALLS
&
PROFILES
UNCOVERED

- Expose shell and structure of existing building to communicate the structural order.

- Puncture existing walls with openings, to increase permeability.

PORTION OF
EXISTING STRUCTURE
BECOMES PART
OF PUBLIC SIDEWALK.

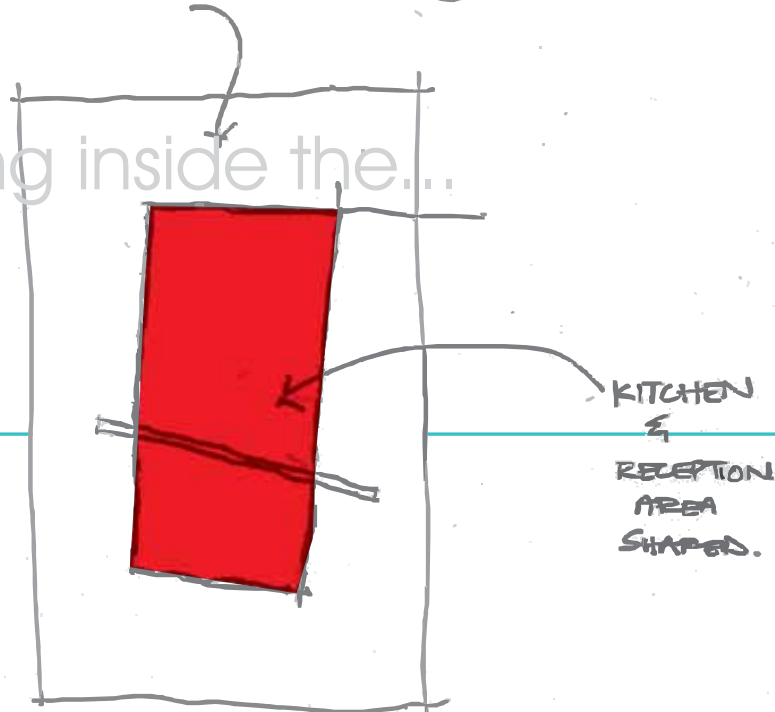




THINKING INSIDE THE BOX!

BOX IN A BOX. (2)

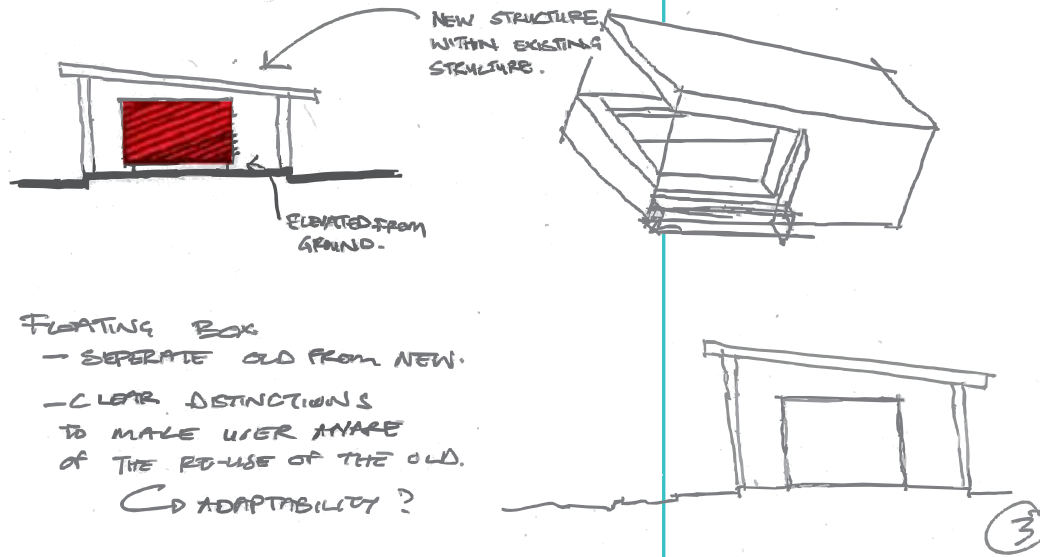
thinking inside the...



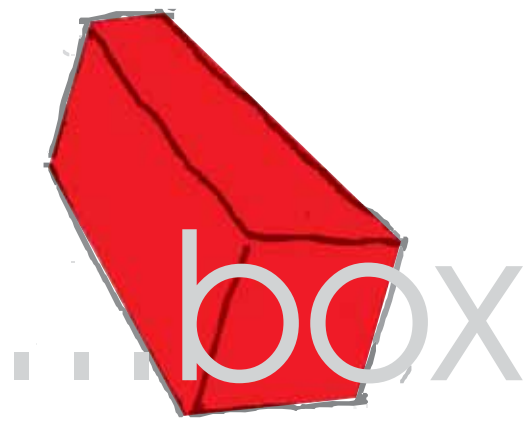
>Initial Programmatic ideas for the
existing building.

- Reception.
- Coffee shop/ bar/ etc.
- Public access from Prinsloo street
facade and into proposed square.

+ SEE INSTALLATION
TYPE BUILDINGS.
ASSAYE



FLLOATING BOX
- SEPERATE OLD FROM NEW.
- CLEAR DISTINCTIONS
TO MAKE USER AWARE
OF THE RE-USE OF THE OLD.
C/D ADAPTABILITY ?



>Materials_

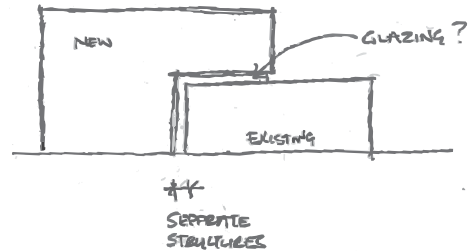
- Contemporary materials_
- Glass-reinforced plastics/
polycarbonate_
- Steel_
- Aluminium_
- Concrete_
- Existing materials are retained where
possible_



>digital media school and exhibition space_

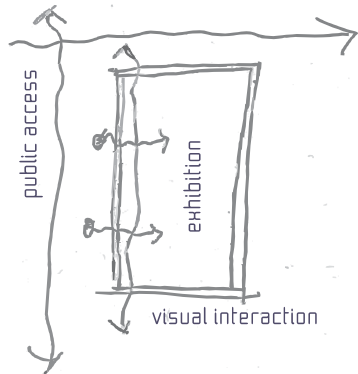
- .To showcase digital media and technology_
- .To promote awareness of technology_
- .To educate_
- .To involve_

.New to be separated from existing_

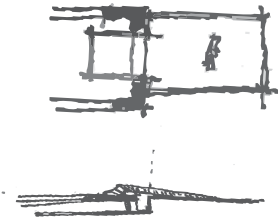


thinking outside the...

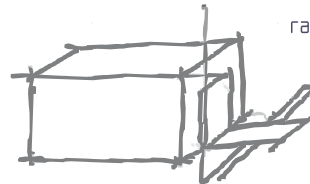
.Internet cafe and exhibition area to be integrated into one space to facilitate awareness of activities_



.Public accessibility and visibility from exterior_



ramp threshold overlaps and floats

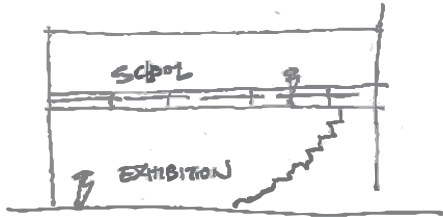


threshold from old to new

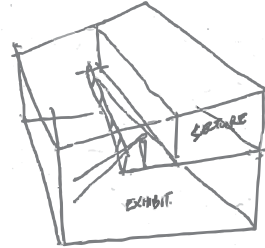
Lecture theatres as tv boxes
allowing visual interaction
from the outside



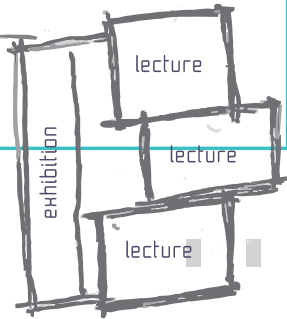
.School accommodation on upper floors_



.School to overlook exhibition area_

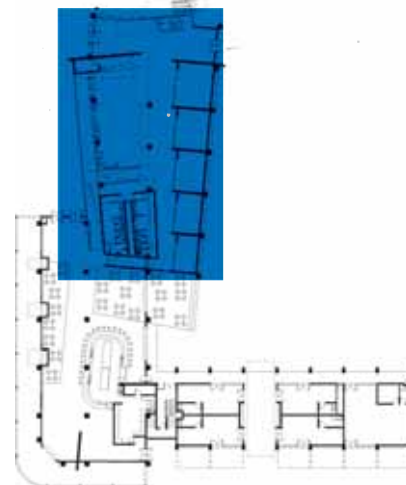
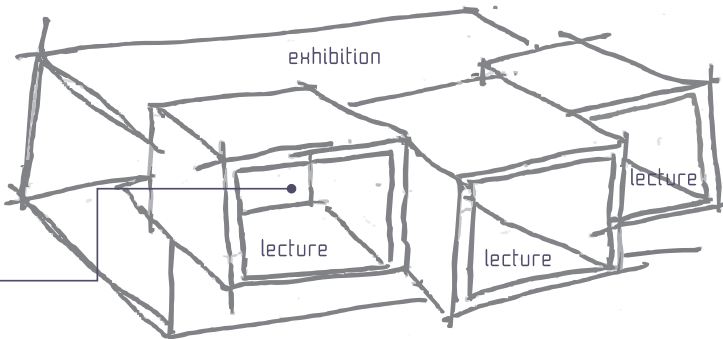


OUTSIDE OF THE BOX



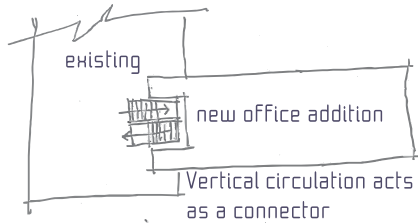
- 3-4 lecture/classrooms hosting 20-40 students each_
- A multi-functional approach, allowing spaces to be used as studios, labs, discussion areas, etc_

. . . box



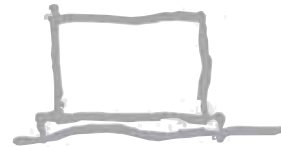
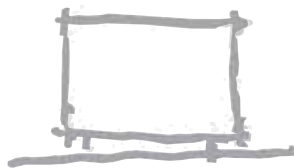
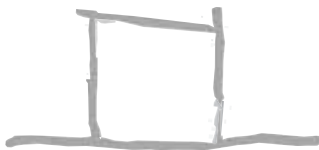
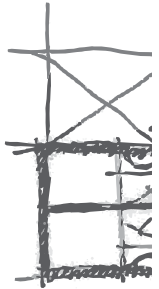
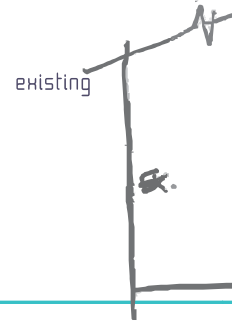


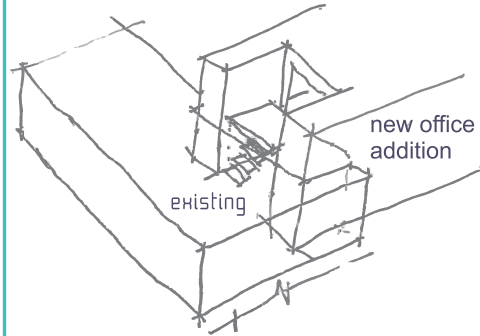
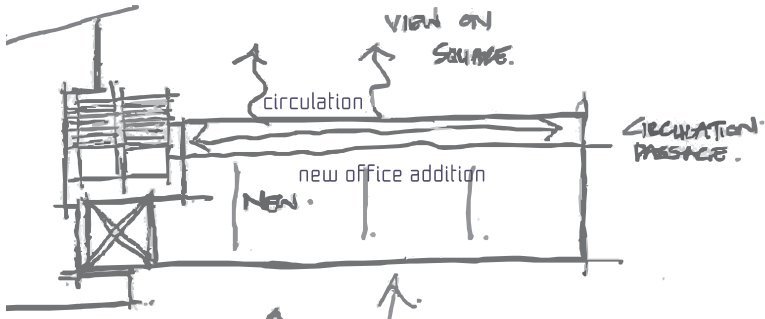
>offices and retail component_



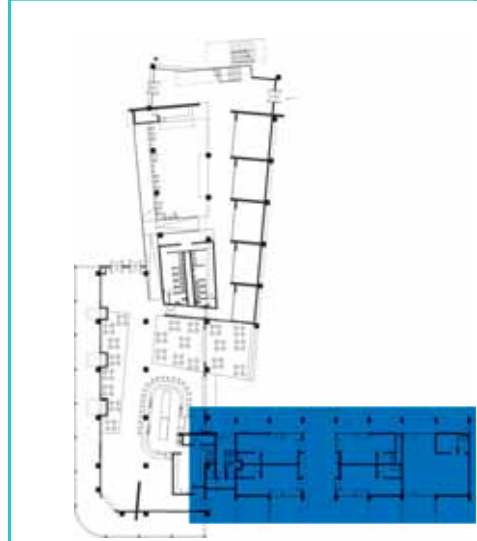
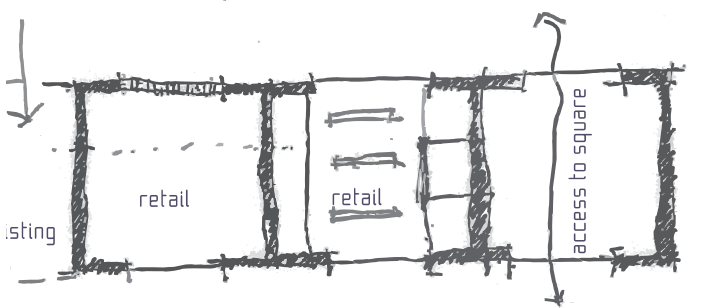
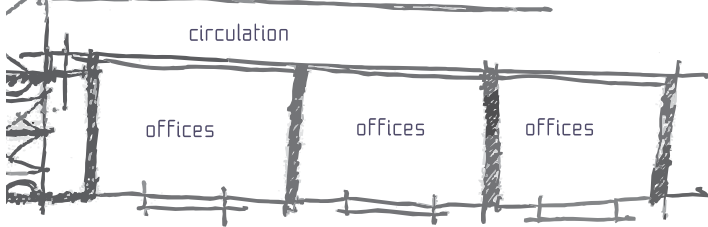
.Retail space on ground floor to accommodate existing retail functions_

.First floor to accommodate offices for school, as well as extra offices providing rental income_



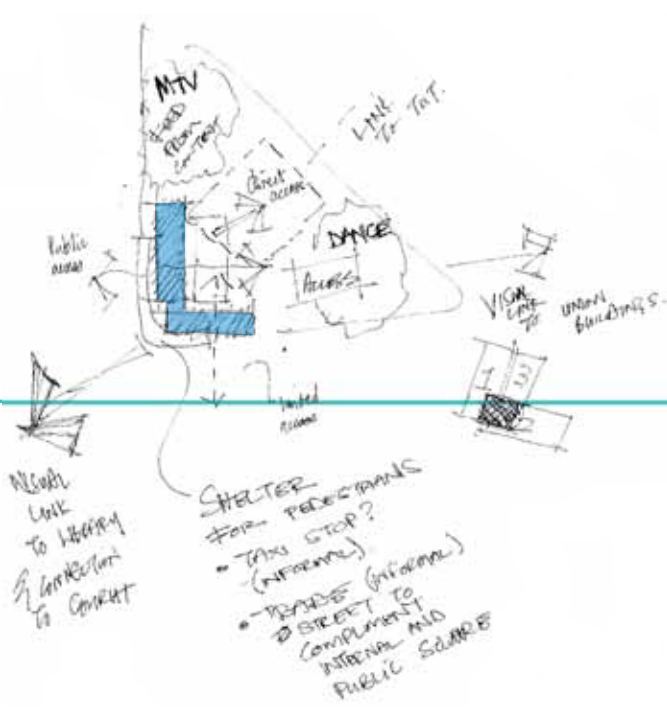


7.12



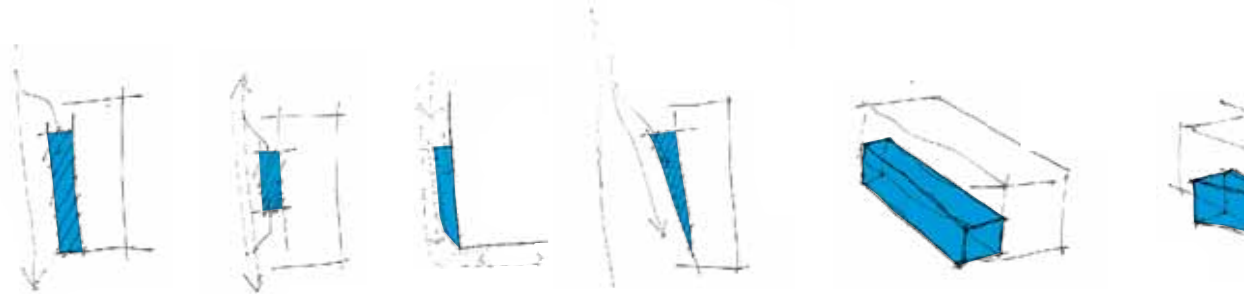
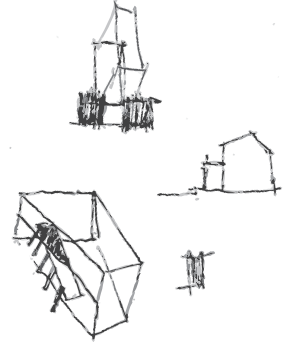


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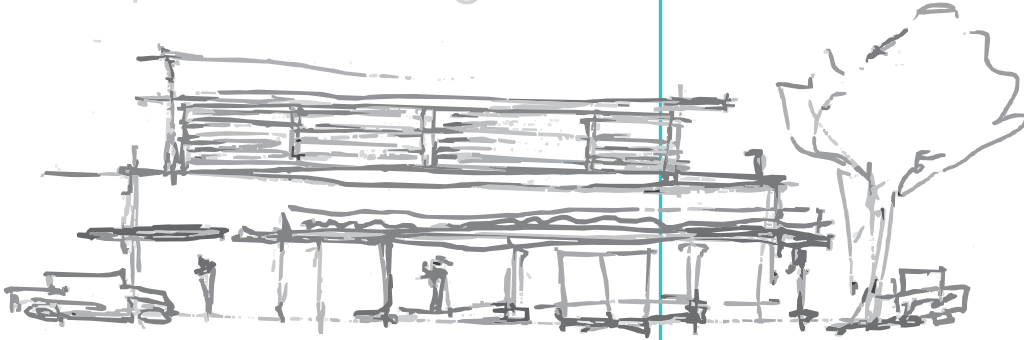
ALSO
LINK
TO LIBRARY
CONNECTION
TO CORNER

SHED
FOR PEDESTRIANS
- TAXI STOP
(INFORMAL)
- TRADE (informal)
TO STREET TO
COMPLEMENT AND
PUBLIC SQUARE



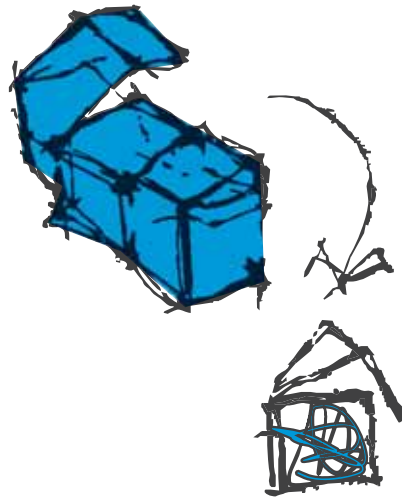
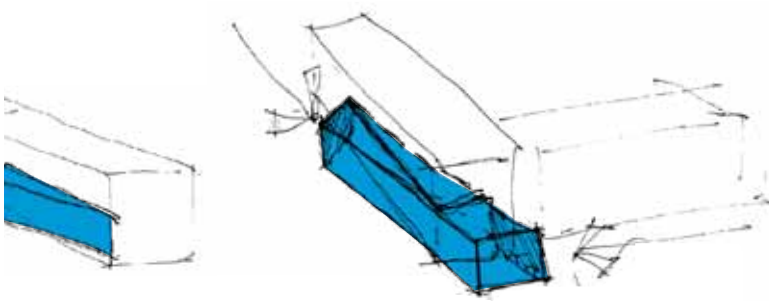


conceptual massing from Prinsloo street



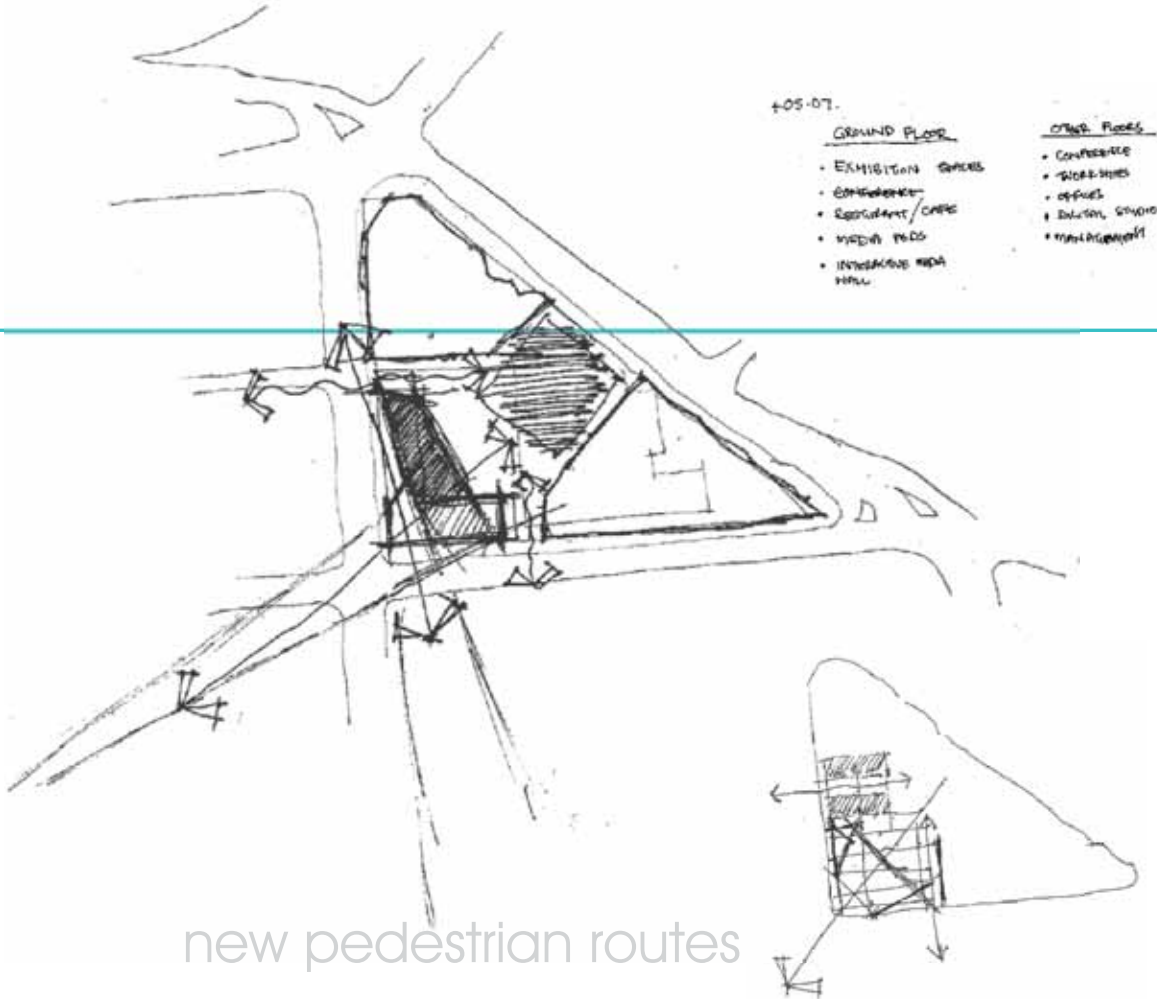
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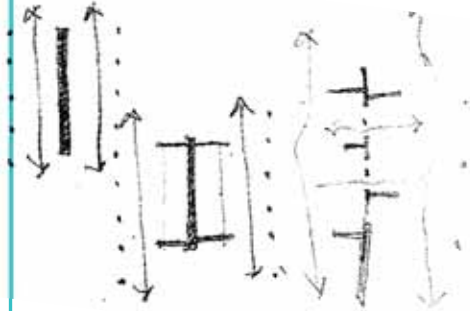
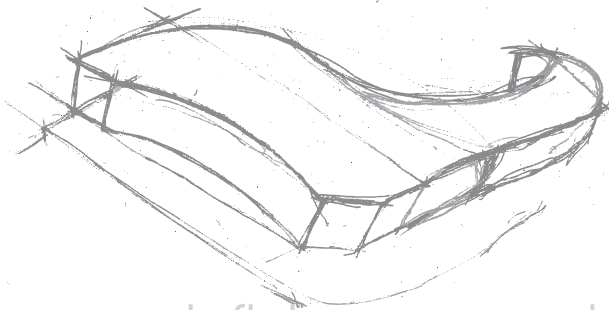
articulating pedestrian flow



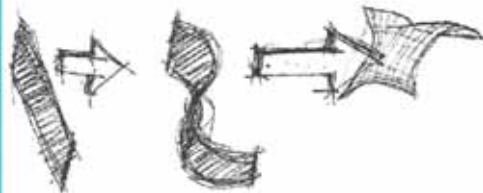
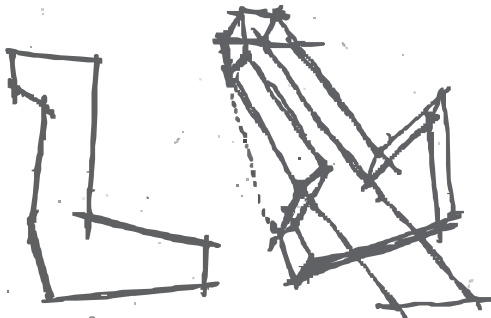
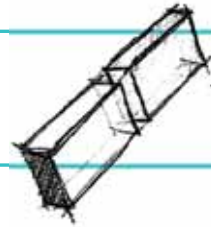
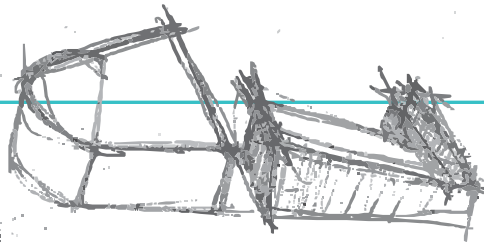


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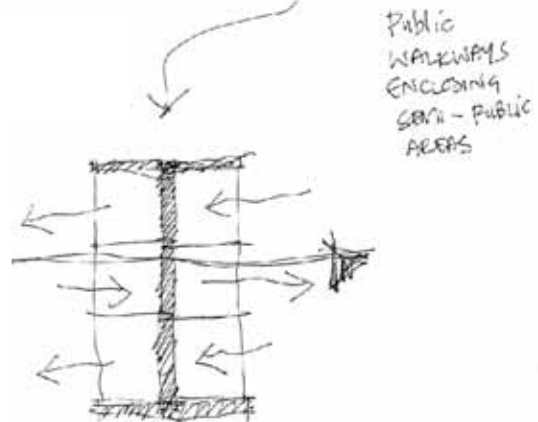
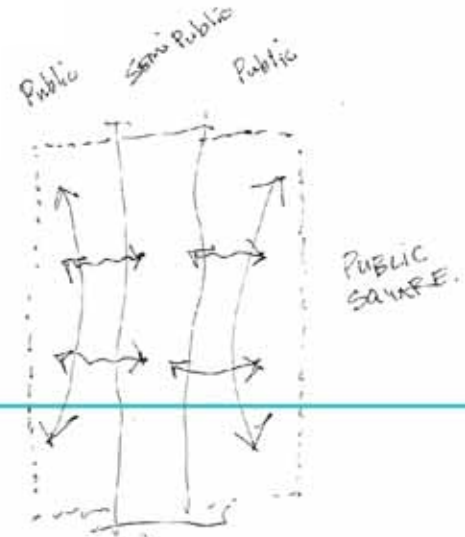
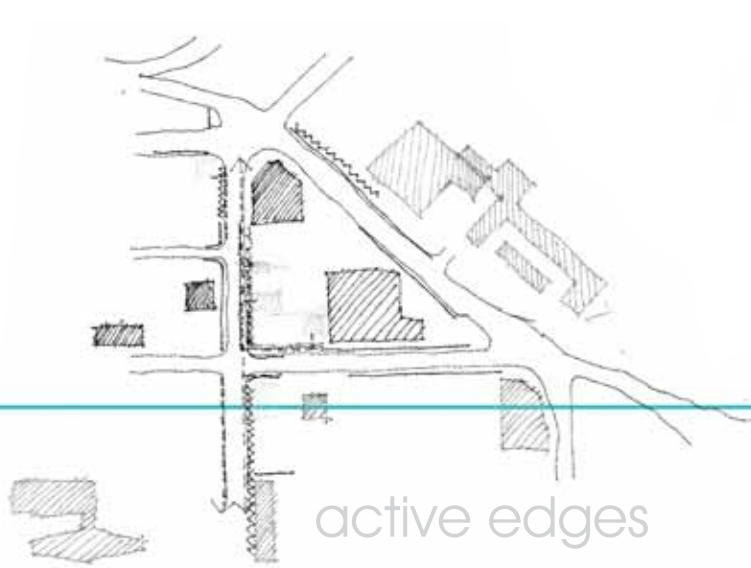


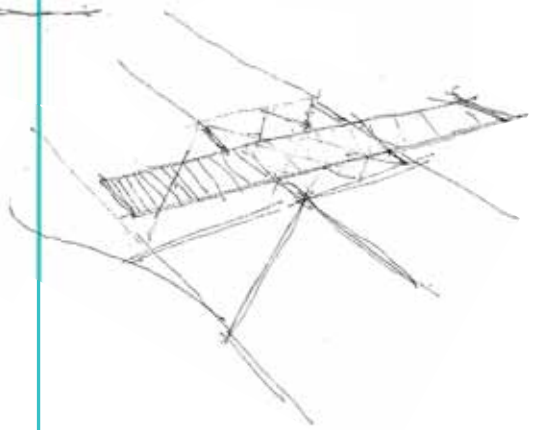
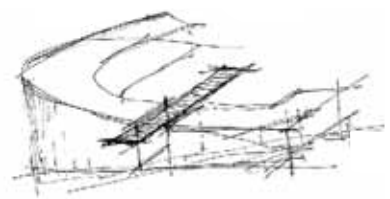
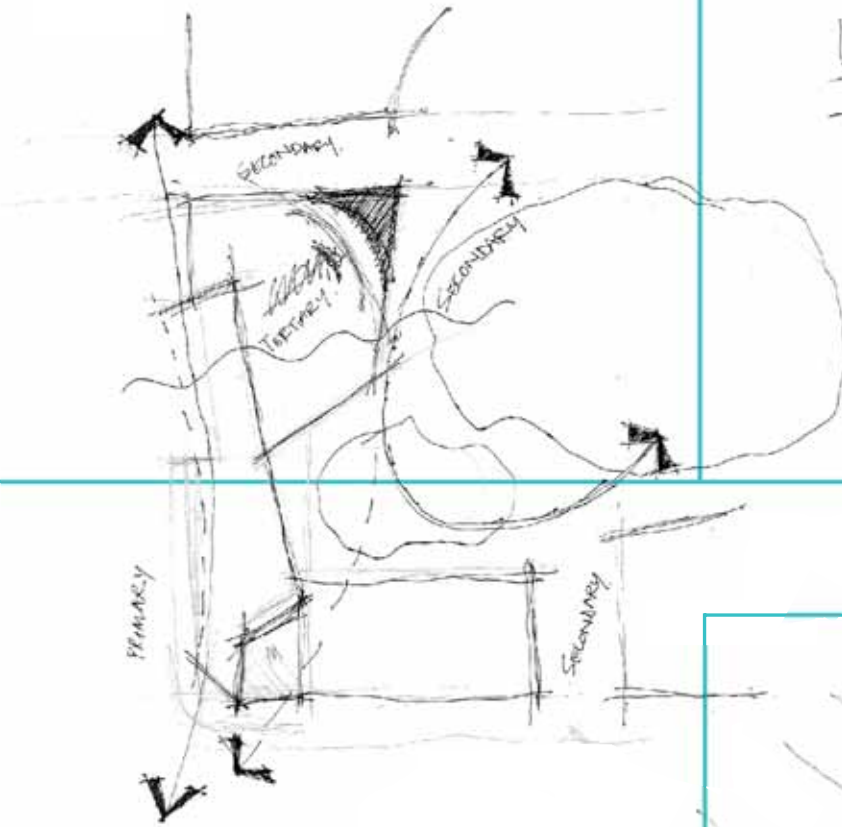
defining permeability through existing structure



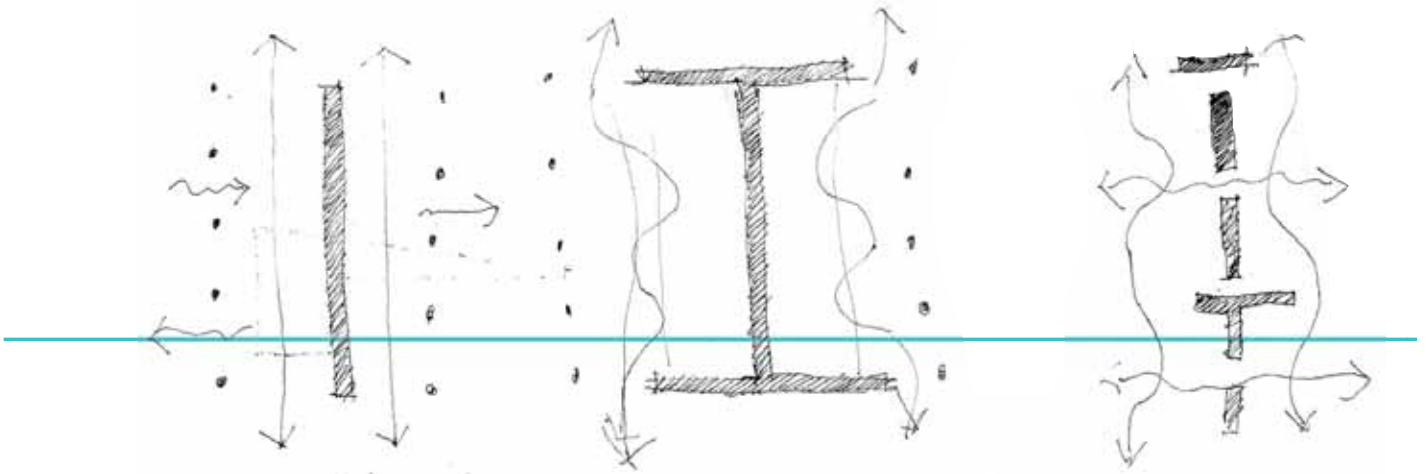


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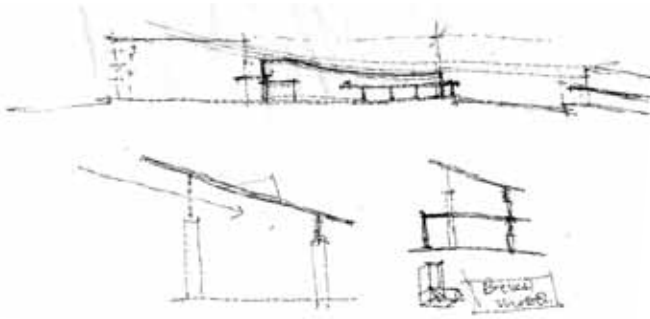
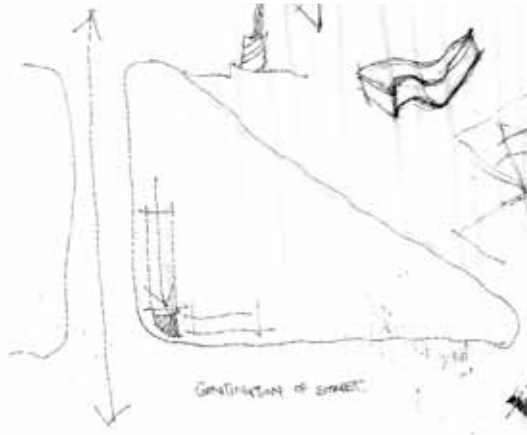


Building as public street.

Public on both
sides of building

Perforated edges
to allow access?

continuation of street.....



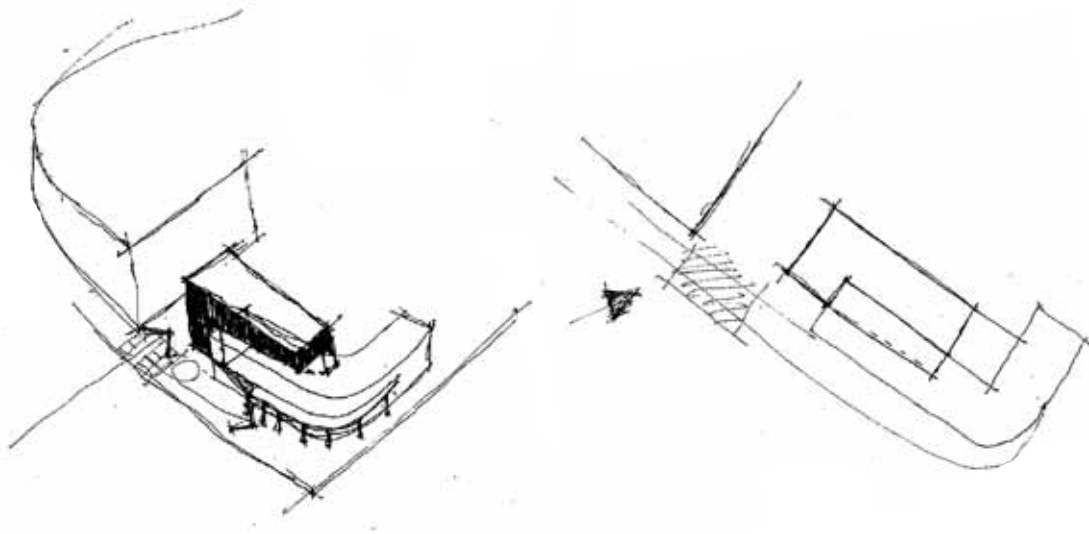
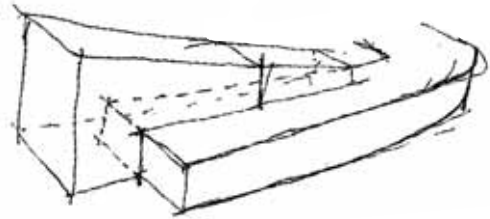
7.20

.....building as street

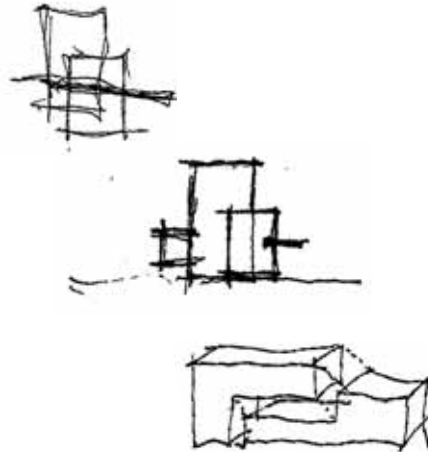
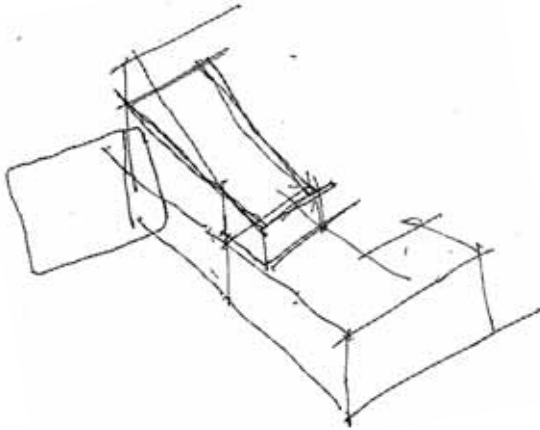
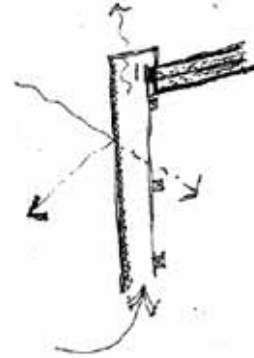
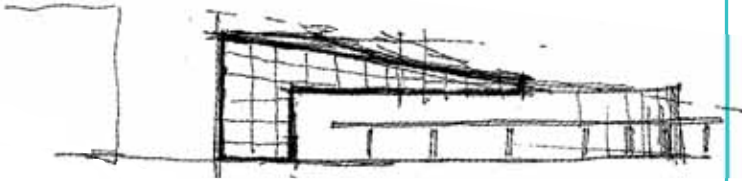


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facade treatment



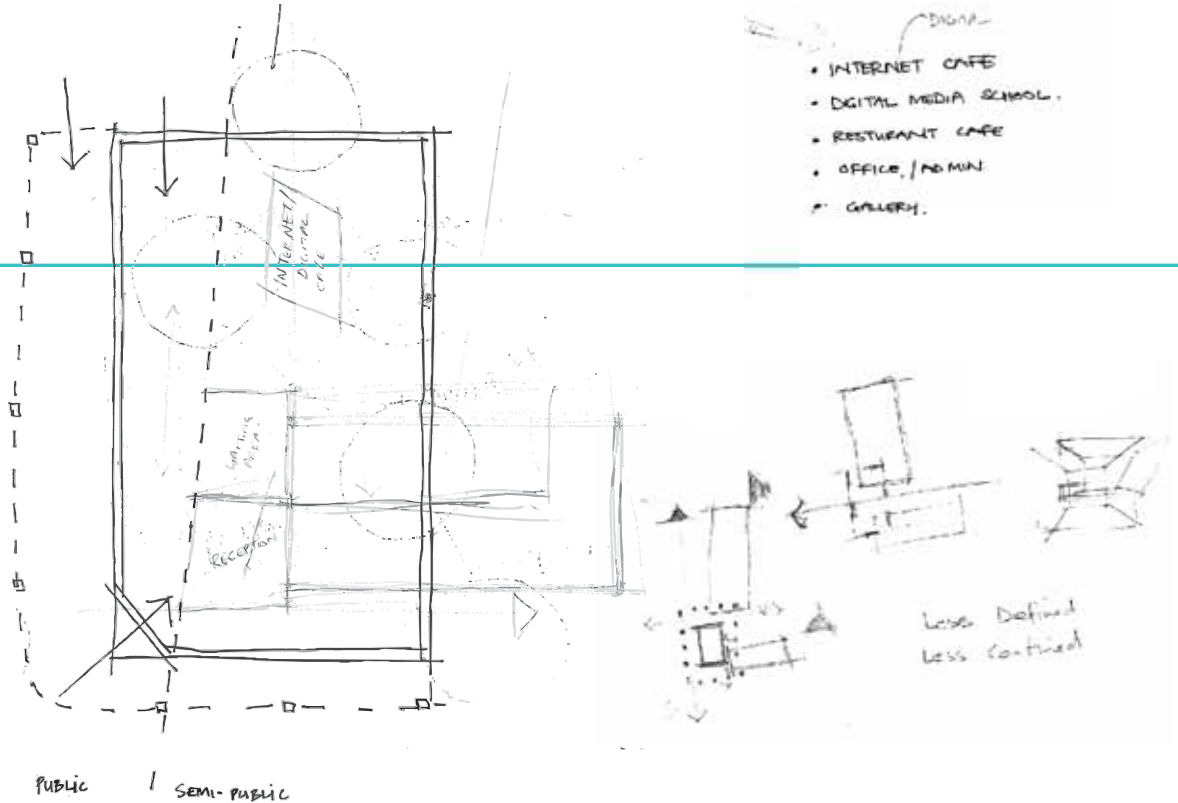
massing and volume



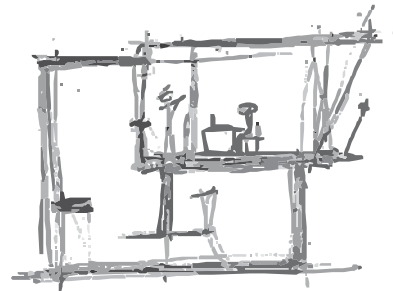
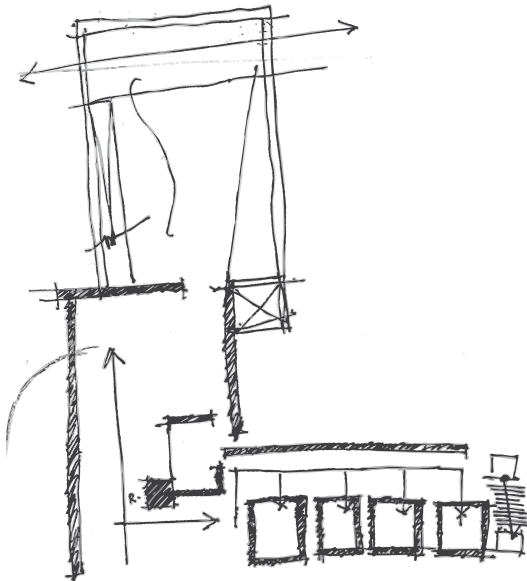
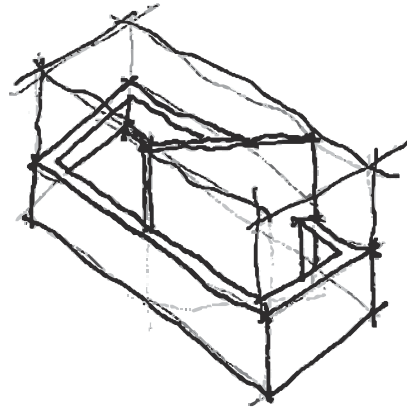
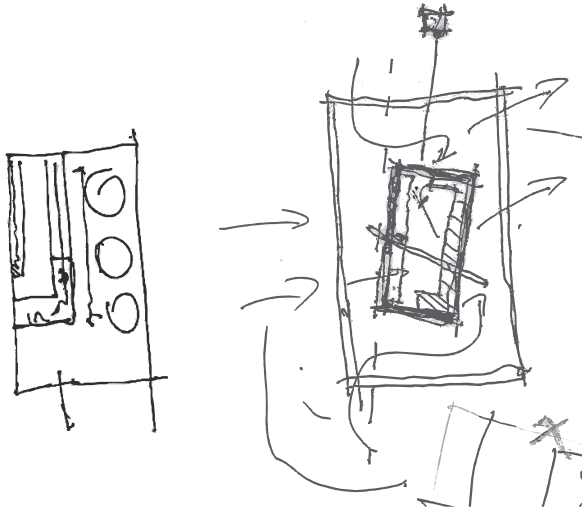


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continuation of street...

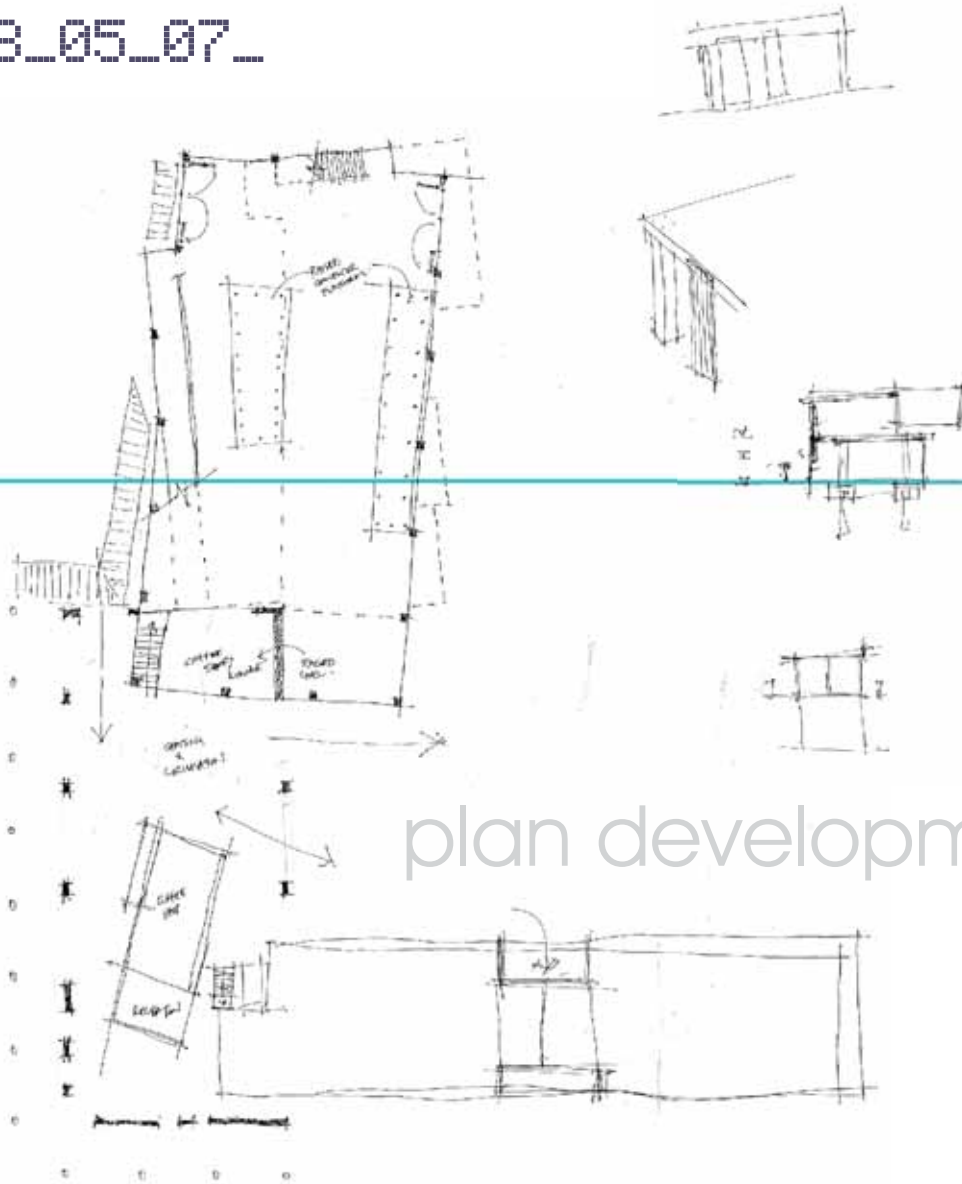


...public flow through
building

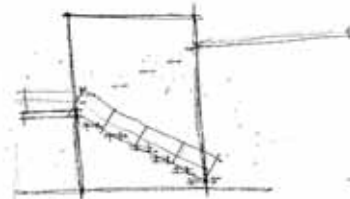
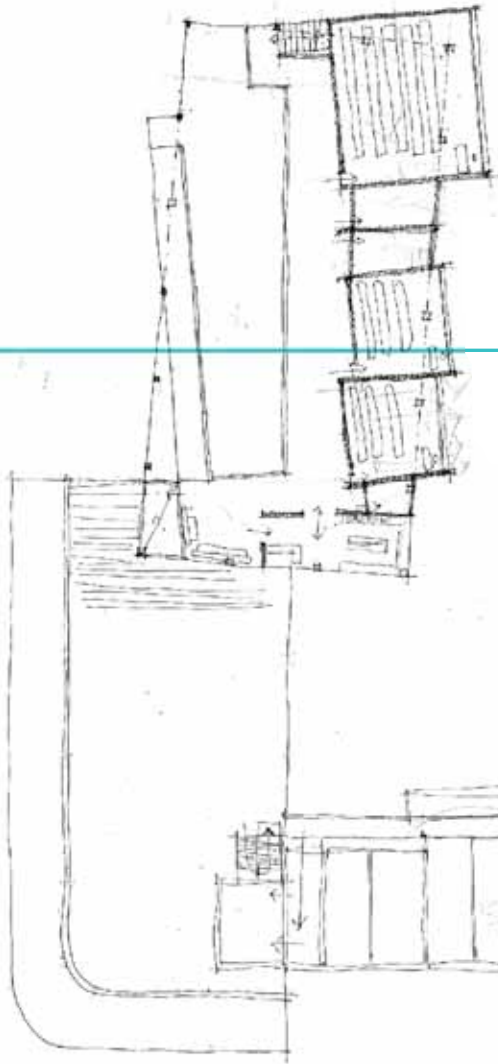
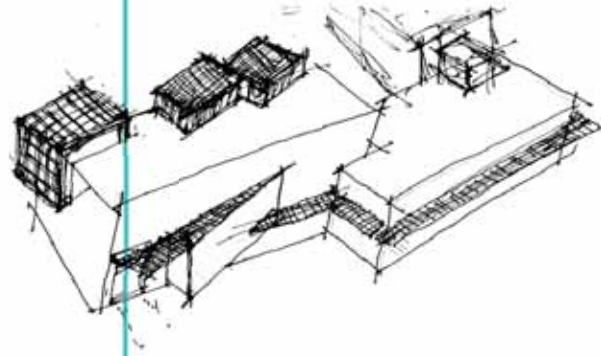




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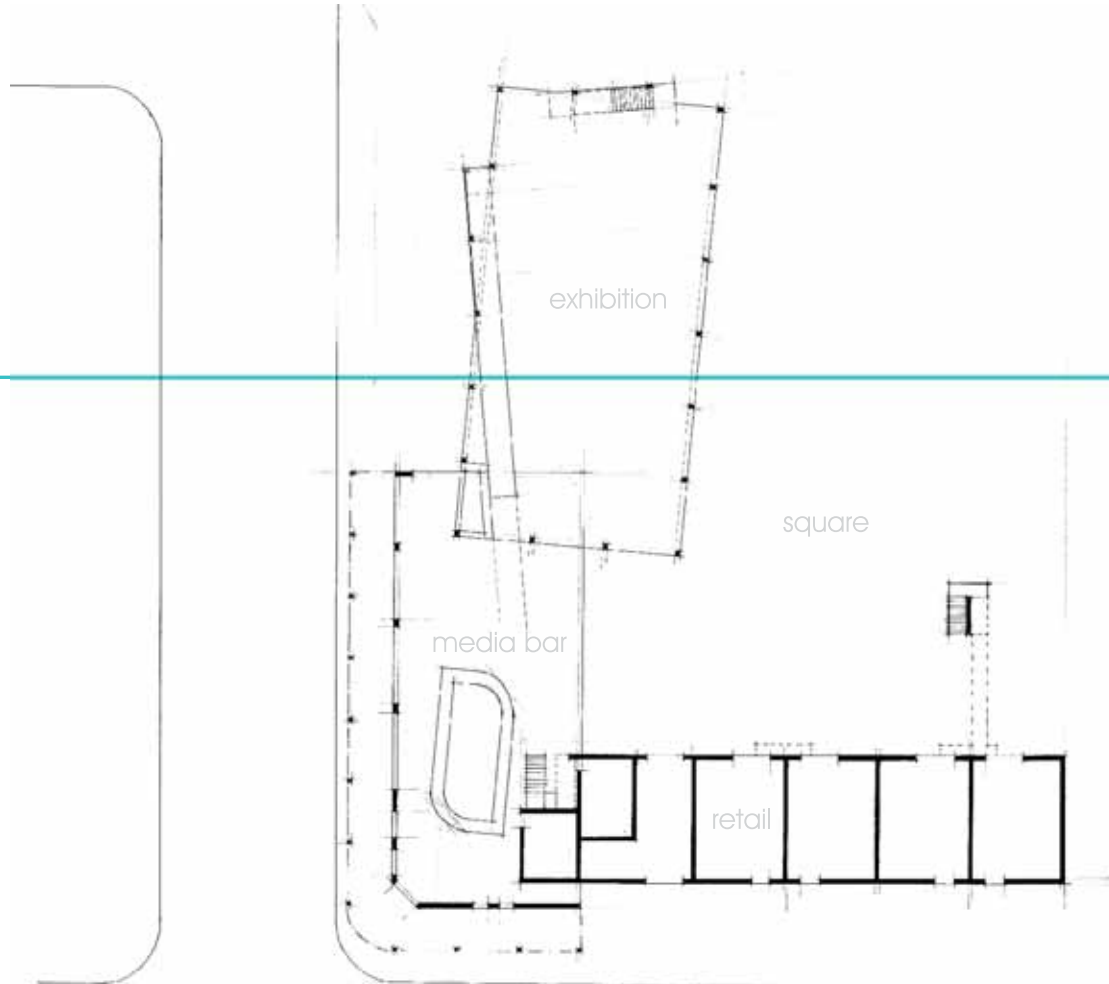
plan development



7.26



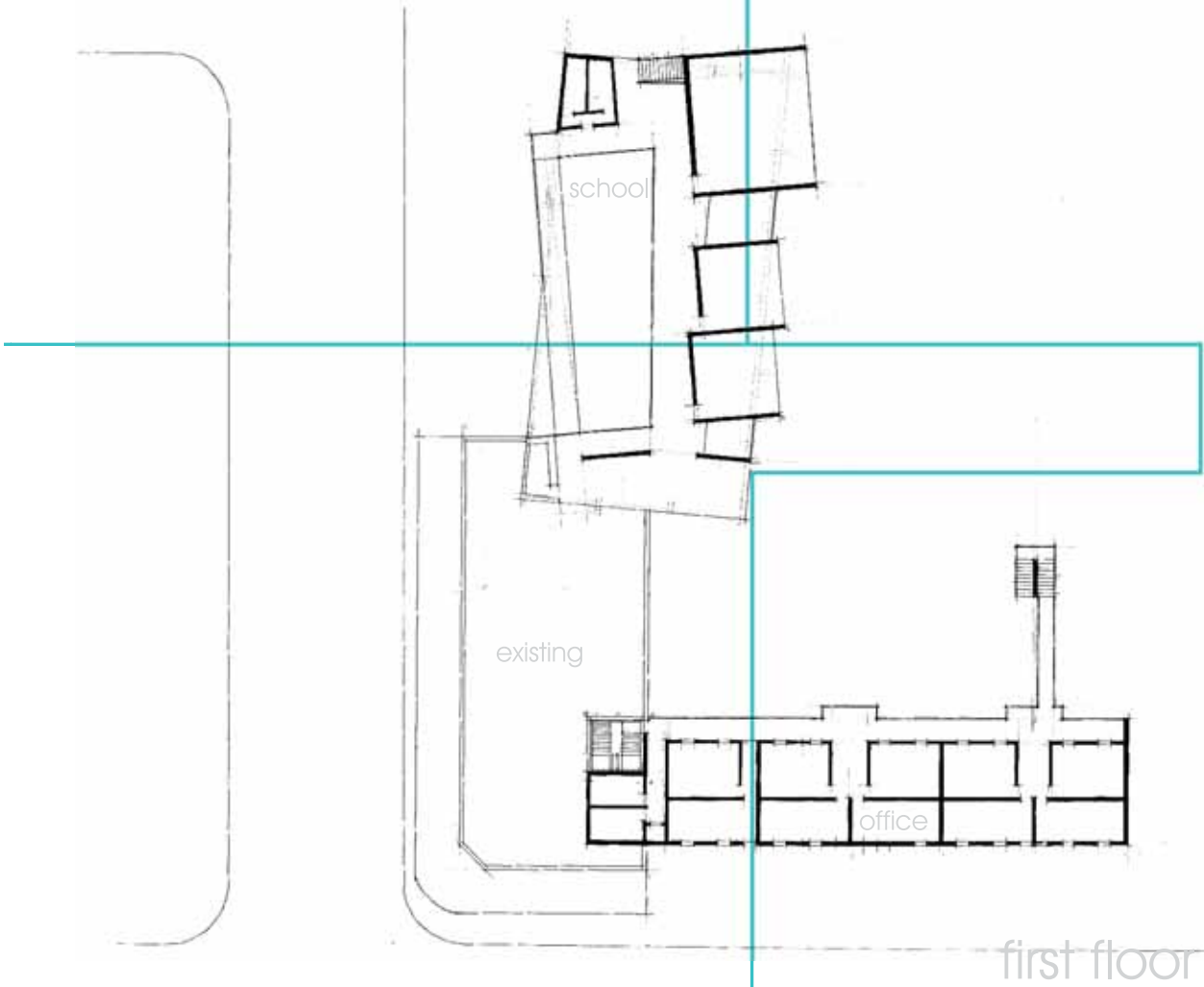
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ground floor



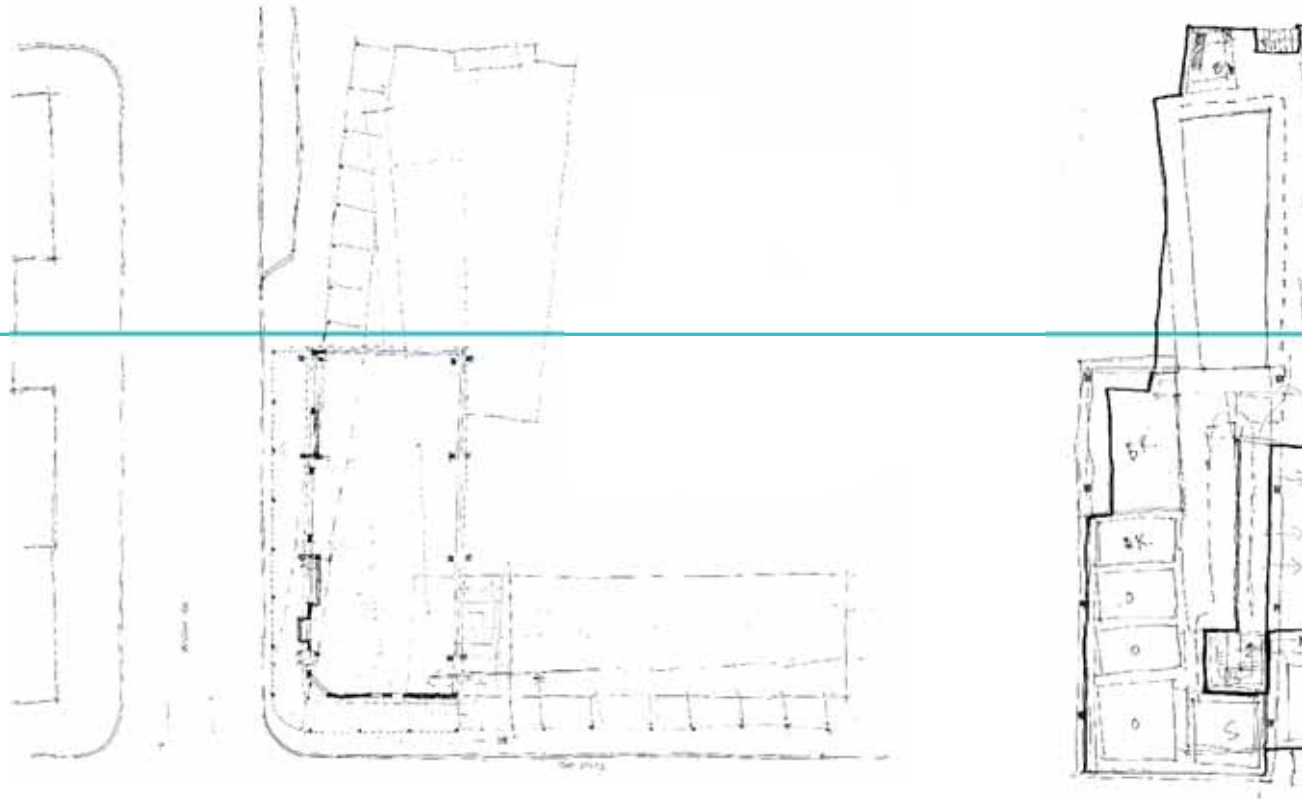
plan development



7.28



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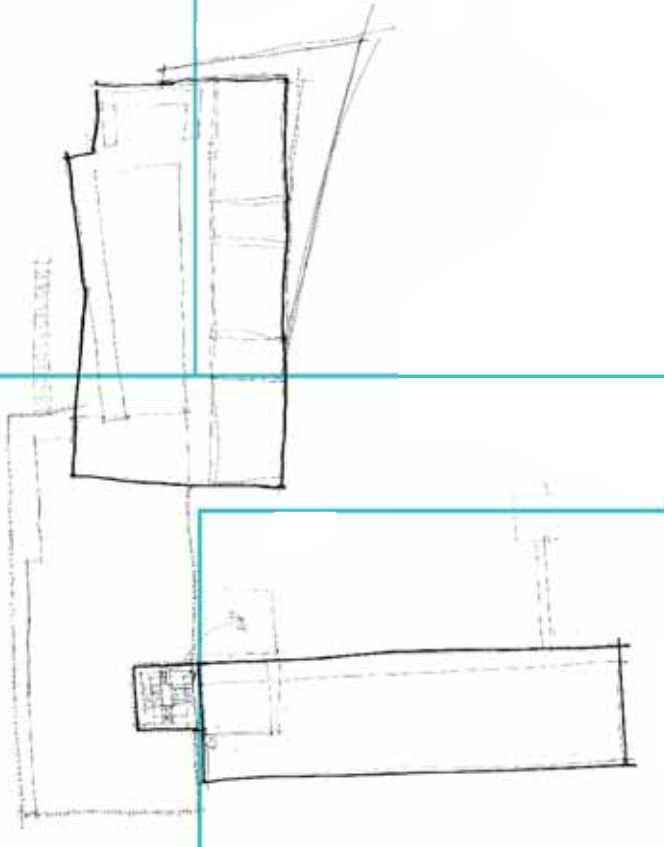


ground floor

plan development



first floor



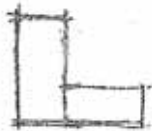
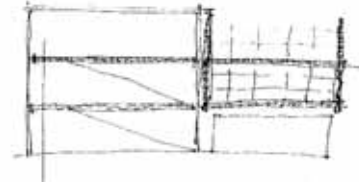
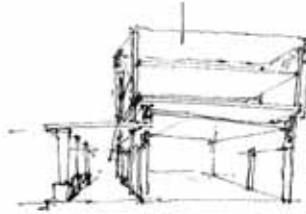
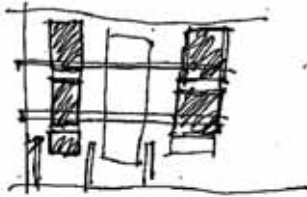
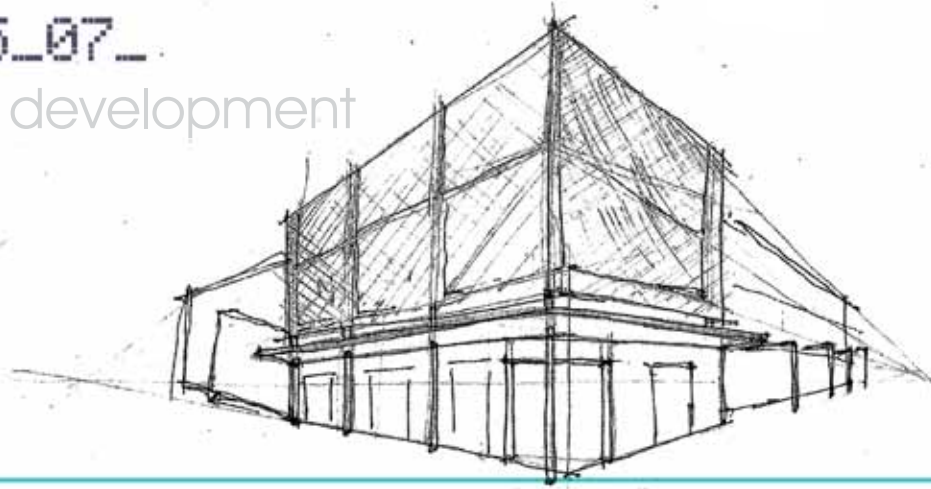
second floor



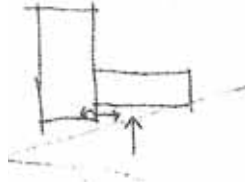


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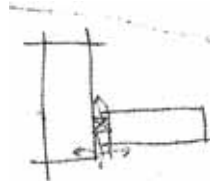
facade development



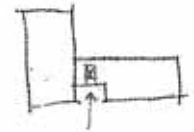
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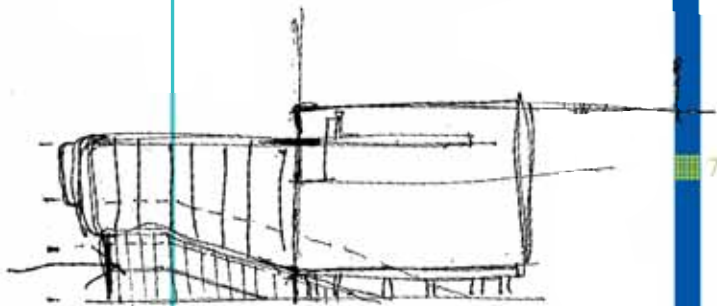
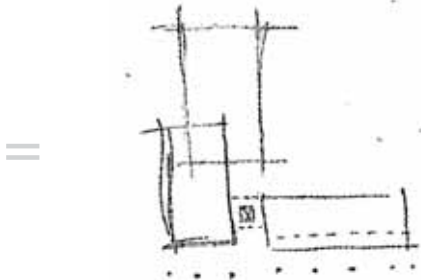
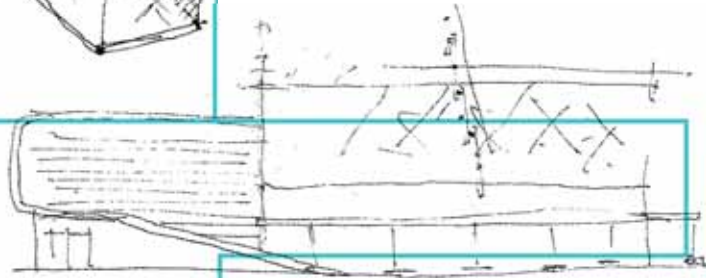
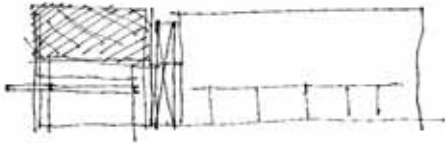
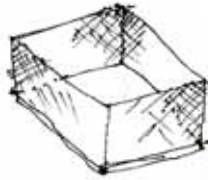
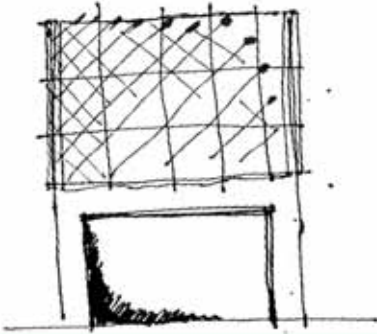
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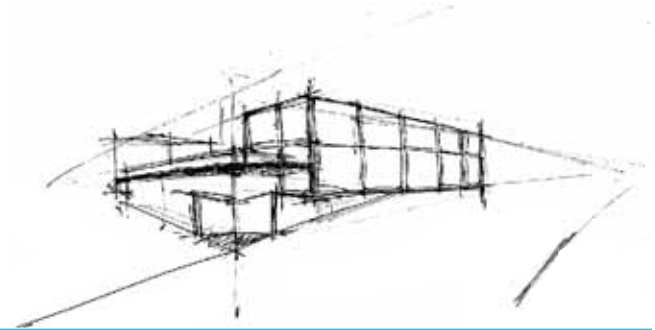
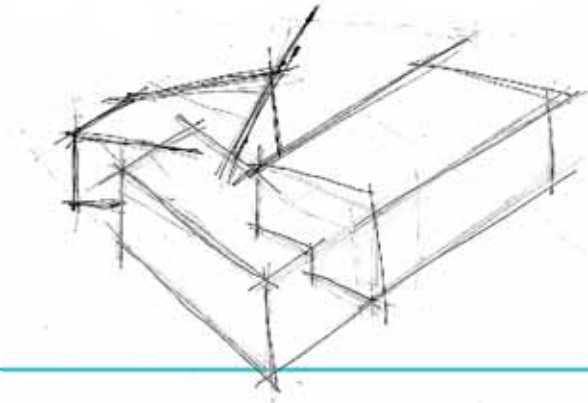


plan development

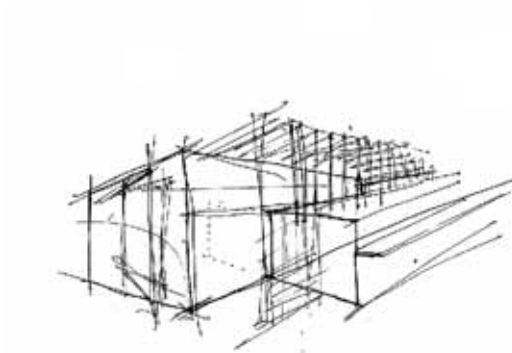
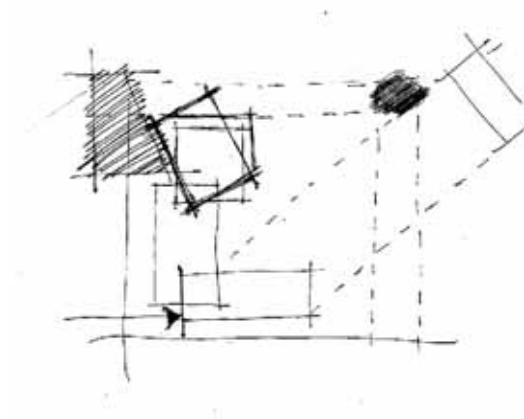




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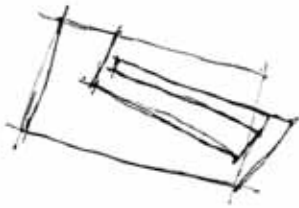
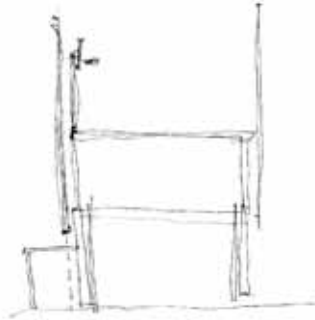
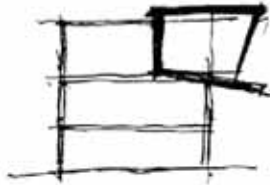
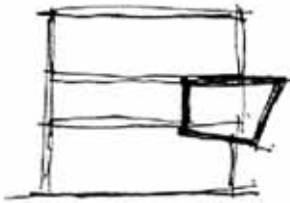


rotated axis

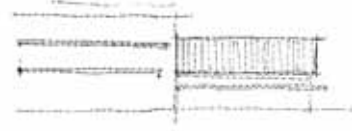
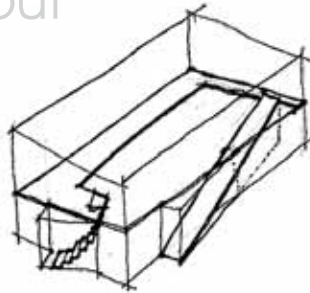
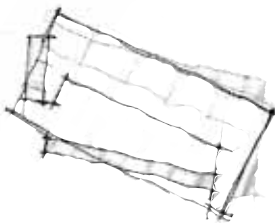




sectional layering

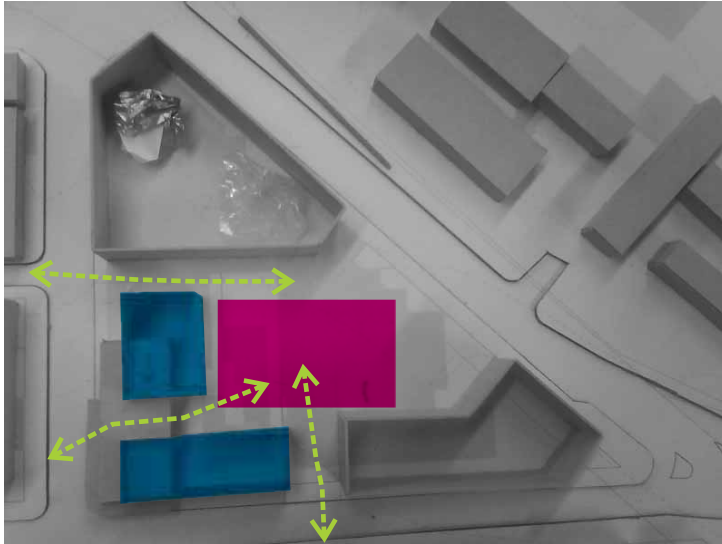


circulation layout

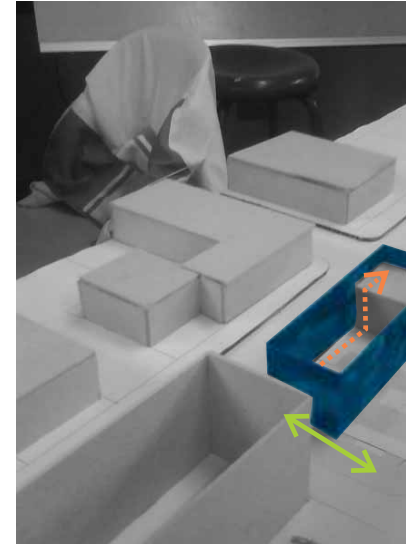


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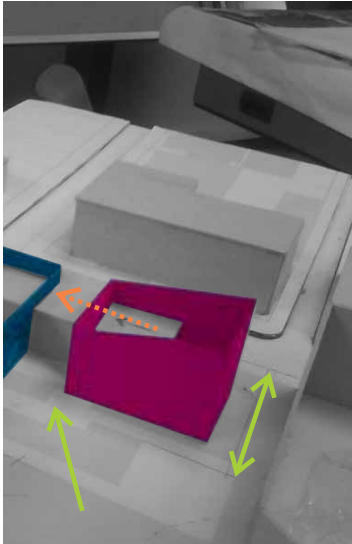
>concept model 001_



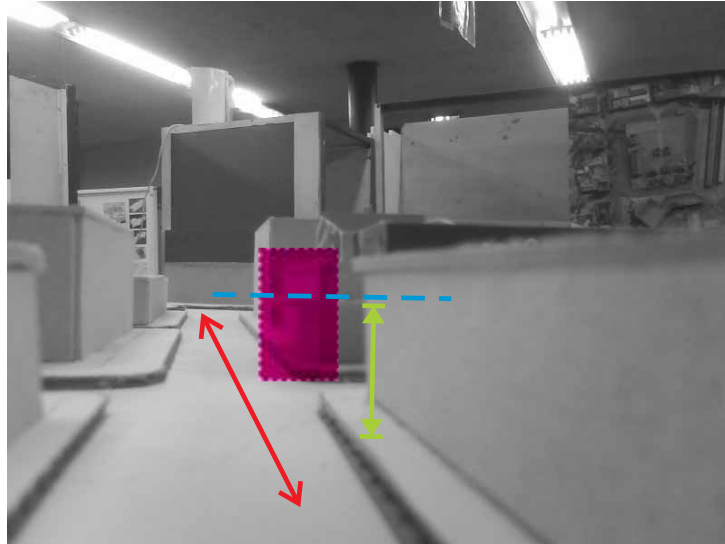
urban response



building connection



actions

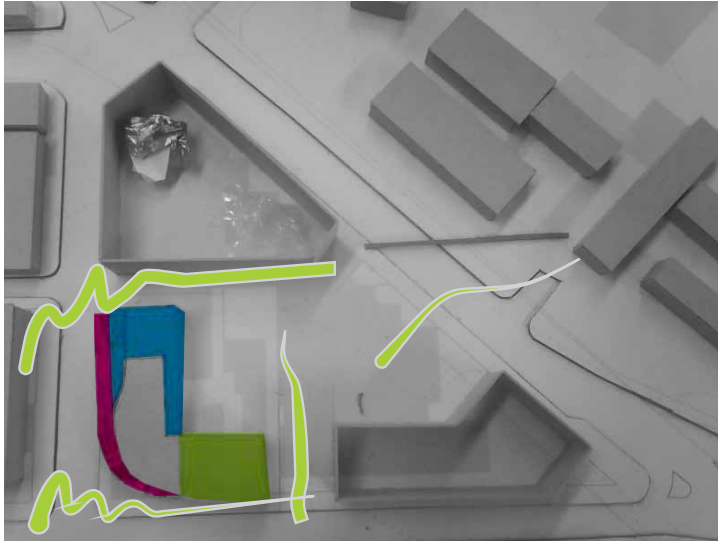


colonnade

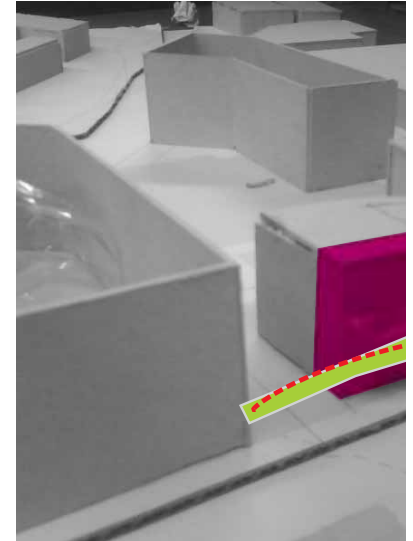




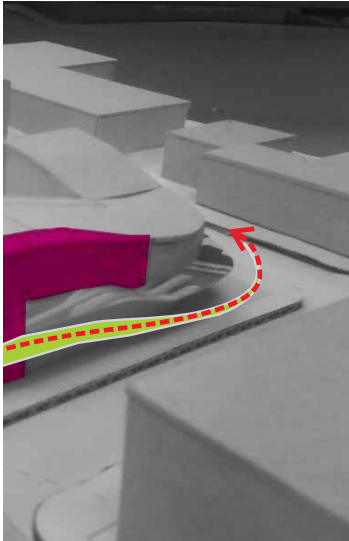
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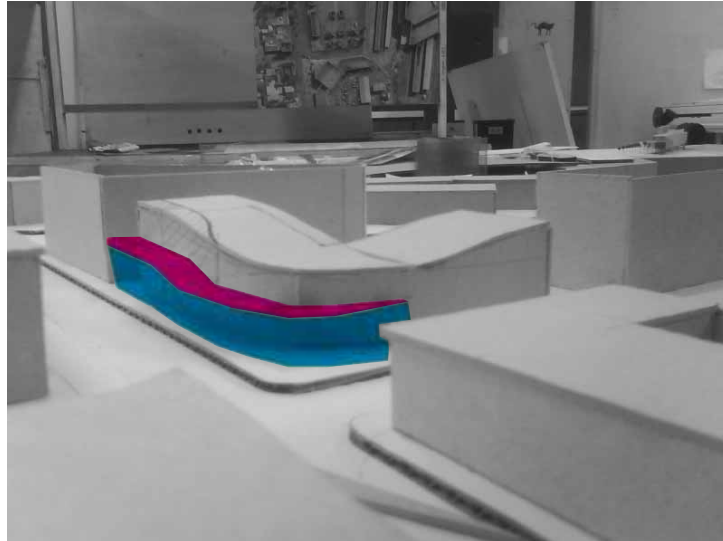
urban response



building set back
flow



ick to increase

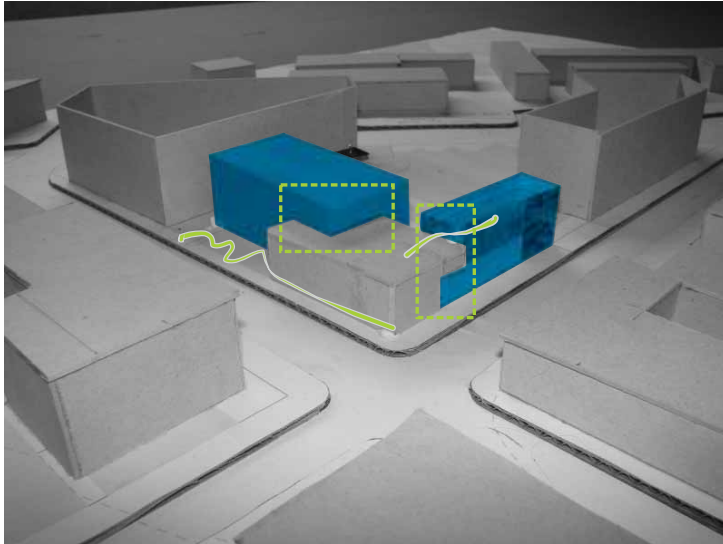


continuation of colonnade

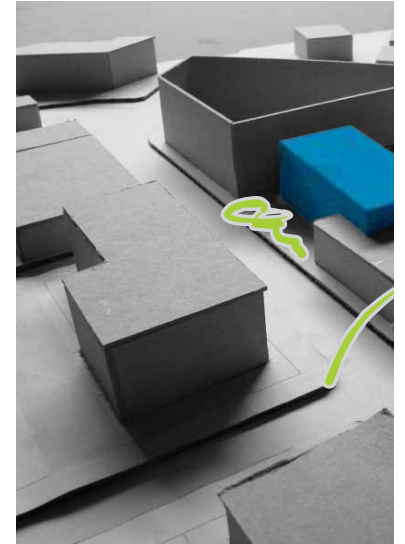




>concept model 003_



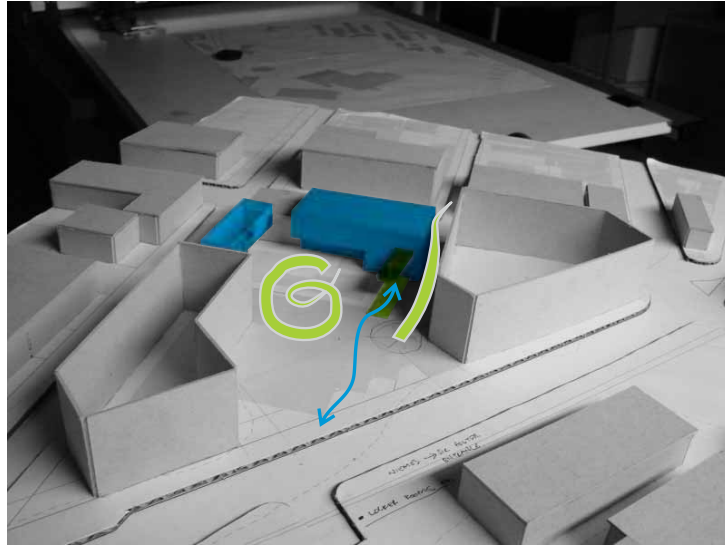
articulation of connections



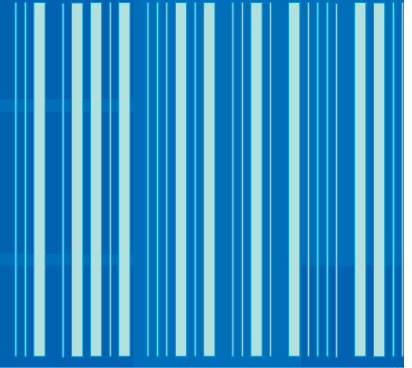
public space a



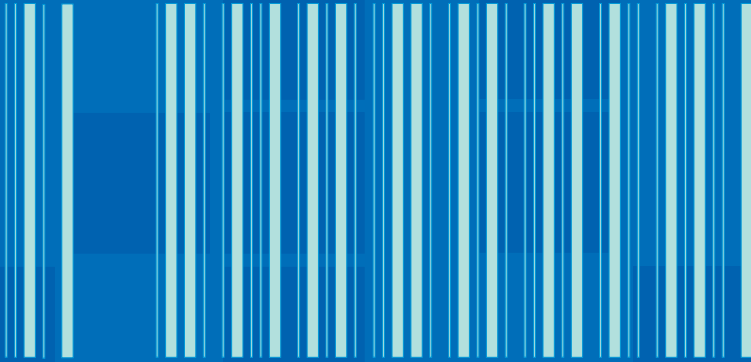
and routes



public square



DESIGN



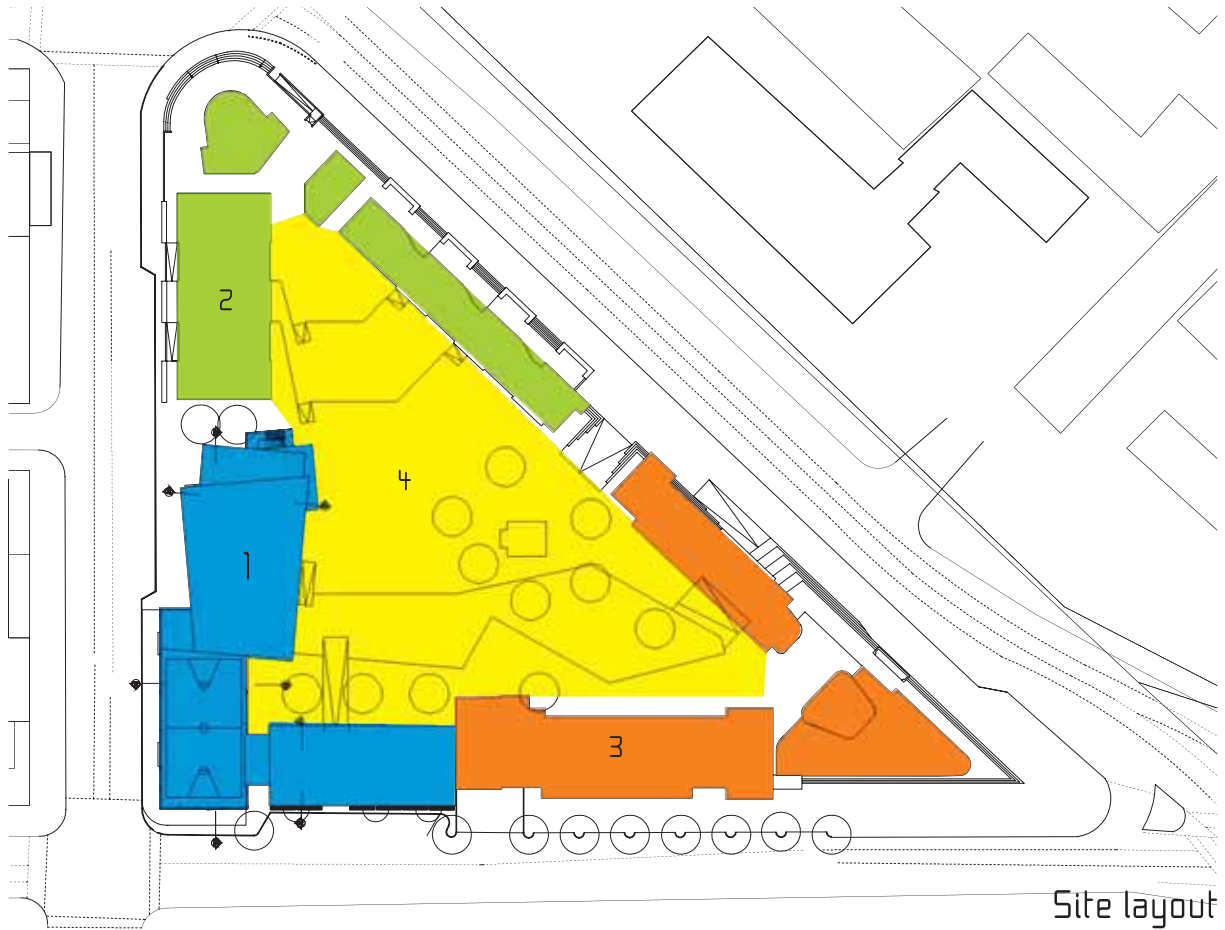
N PROPOSAL

Overview of design_

- > Site_
- > Existine structure_
- > The proposal_
- > Material selection_







>Site layout_



Site layout

The proposed site is located on the north-eastern quadrant of the city edge. Three individual projects are envisioned to be developed on one city block. The block is bounded by Prinsloo, Struben and Du Toit Streets, respectively.

-  >>1_Rafeeq Osman = Digital Media (exchange)
-  >>2_Marc Jooste = MTV Broadcasting Studio
-  >>3_Andrea Smook = Dance Studio
-  >>4_Public Square

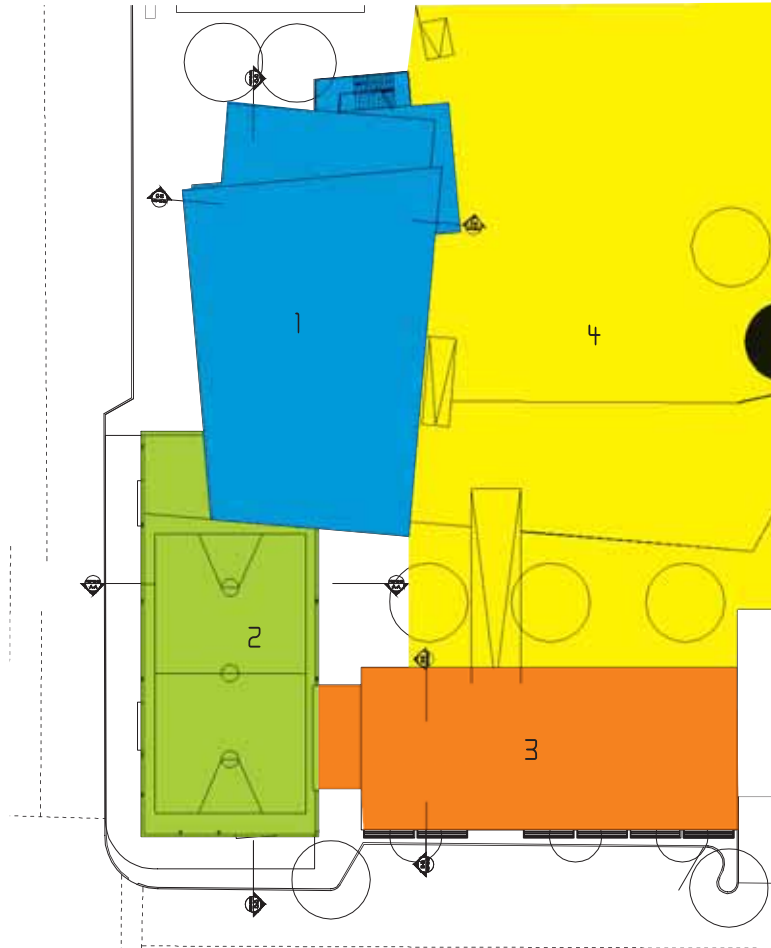
These individual projects aim to intergrate the city block into the existing urban fabric, further aiming was to merge individual programmes and to make a contribution to city life.

The rationale behind the collaboration is to increase the urban value of the area. The collective should add to the city's vision of defining a cultural precinct within Pretoria. These projects strive to support one another in their programming and in their relationship to the square and context. The individual and the collective should contribute to the overall coherency and legibility of the city.





>Urban Programme...



Building layout

>>1_Digital Media [exchange]

The Digital Media [exchange] forms the main component of the proposed design. It accommodates a Digital Media School with exhibition and public internet facilities. However, these facilities could provide venues to host events not affiliated with the Digital Media [exchange].

Located on the western edge of the site, it receives high volumes of pedestrian and vehicular traffic. The Digital Media [exchange] becomes the 'front' or 'face' of the proposed city-block redevelopment. The building should also form an edge to define the entrances into the public square.

>>2_Existing & New Mixed Use

The existing corner building has been incorporated into the design to preserve its heritage value. It accommodates a Media Bar on the ground floor which is both physically and visually permeable. The administration offices for the Digital Media [exchange] are located on the first floor with an outdoor events area on the second floor.

>>3_Retail & Offices

The commercial component of the design is located on the southern edge of the site and aims to accommodate existing retail activities. An office component is situated on the floors above the retail section. These facilities should provide the Digital Media [exchange] with a steady rental income.

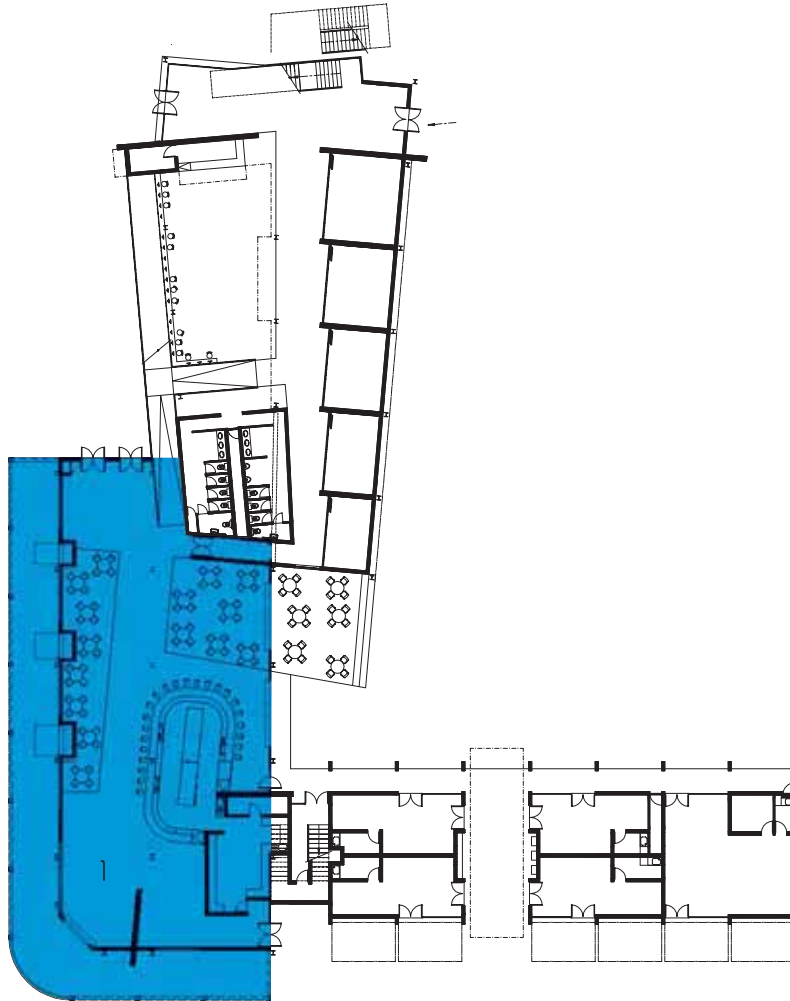
>>4_Public Square

The Public Square is framed by the proposed buildings and creates an urban recreation space in the city. The users of the square become the spectators of the events that occur in the surrounding buildings. The square is also an important movement axis which continues and strengthens the existing arcade system. Arcades are proposed throughout the city, reconnecting the TUT Arts Campus and the inner city. A proposed Tram Stop is located on the Du Toit Street edge.





>Existine Buildine_



Ground floor plan

>>]_The existing building incorporated into the design

The existing building is a single storey 'bazaar-type' building on the corner of Prinsloo and Struben Streets. On its street-facing facades it is defined by a covered sidewalk and a pre-cast concrete colonnade which wraps around the corner. The main structure consists of a traditional masonry load-bearing structure, with a timber roof structure and a lean-to roof covered with corrugated roof sheeting.

The existing building accommodates various retail facilities, with a small café located in the corner shop. The building is in dire need of restoration. Its location and the way it communicates with the street corner provides a valuable asset for strengthen the identity of the area.

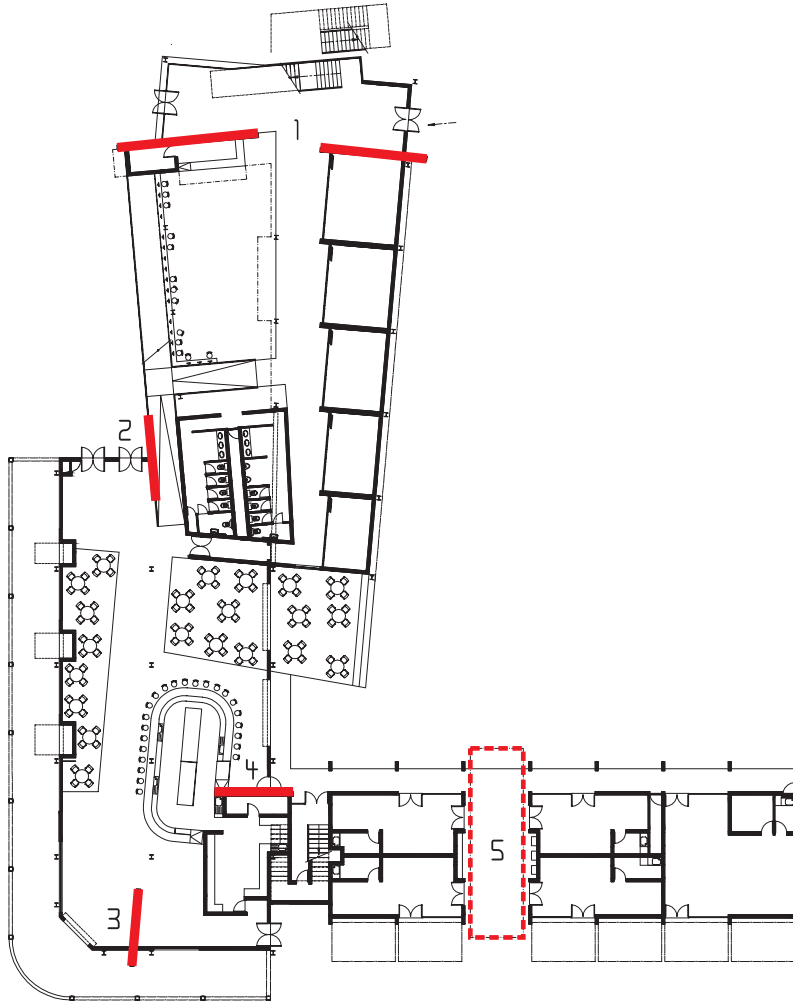
The existing structure and colonnade should be retained and restred where possible. The shopfronts will be removed, but the openings will remain. They will be incorporated as entrances or visual connections to the interior and to the square. The roof structure and sheeting will be removed.

Additions to the existing built fabric will be achieved through an independent steel structure which should form a frame for the existing building, whilst supporting new floors above. The steel structure above will be wrapped in a metal mesh, thus obscuring the view of the new addition and creating appropriate massing for the existing building within its context.





>General Access to the Buildings_



Ground floor plan

The main entrances to the building and the square are defined by 460mm thick walls, which will receive a red paint finish to differentiate them from the other walls. They serve as a guidance and orientation devices for the users of the proposed building. Where required, signage can be incorporated into these walls, with the aim of providing legibility to the project.

>>1_Digital Media (exchange)

To provide direct access to the school and exhibition areas. To act as the information/reception area for the Digital Media (exchange) and as a threshold between the street and the public square.

>>2_Digital Media (exchange) and Existing Building

To direct the flow of pedestrians along the Prinsloo Street edge and attract them to the Media Bar.

>>3_Existing Building main entrance

To direct the flow of users into the Media Bar and to define served and service areas.

>>4_Existing Building square entrance

To direct the flow of users into the Media Bar and to define served and service areas.

>>5_Retail entrance to the square

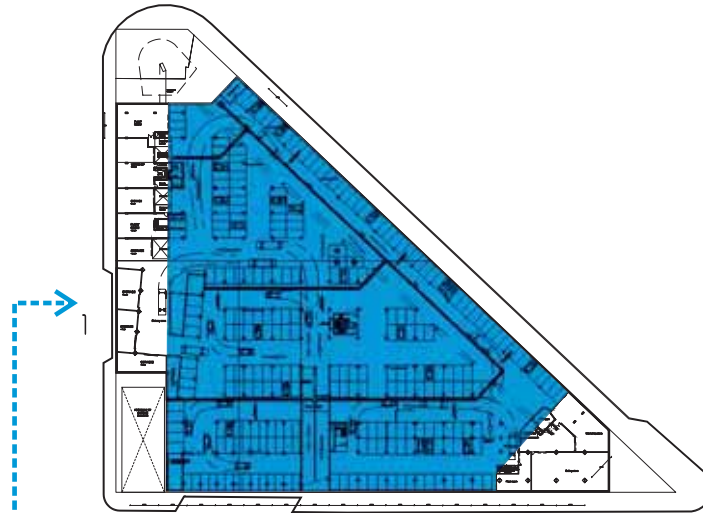
To direct the flow of users onto the square and to accommodate signage for the commercial component. A suspended ceiling wraps under the building and up onto the front facade creating an interesting feature on the elevation.



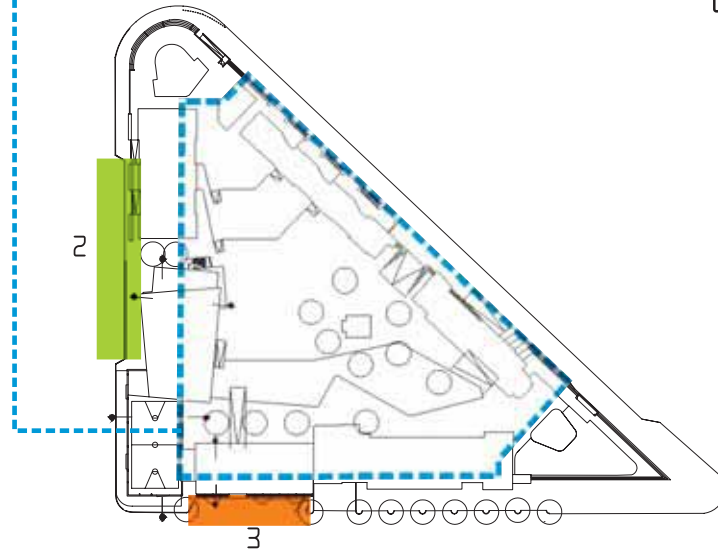
804



>Parkins_



Basement layout



Site layout

>>1_Basement parking

The basement is a shared facility that serves all three proposed projects. It accommodates various service and plant rooms, storage facilities and elevators. Ample parking is also provided for the users of the site and visitors of the city who prefer to park on the periphery of the city and use the proposed tram system to commute.

No. Of parking bays = 268

1/18m² of development

>>2_Taxi Drop-off and Pick-up points

A designated area for public transport is provided on the Prinsloo Street edge of the site. This will accommodate the existing taxis that serve the block. It also provides a transportation node at the entrance of the Digital Media (exchange).

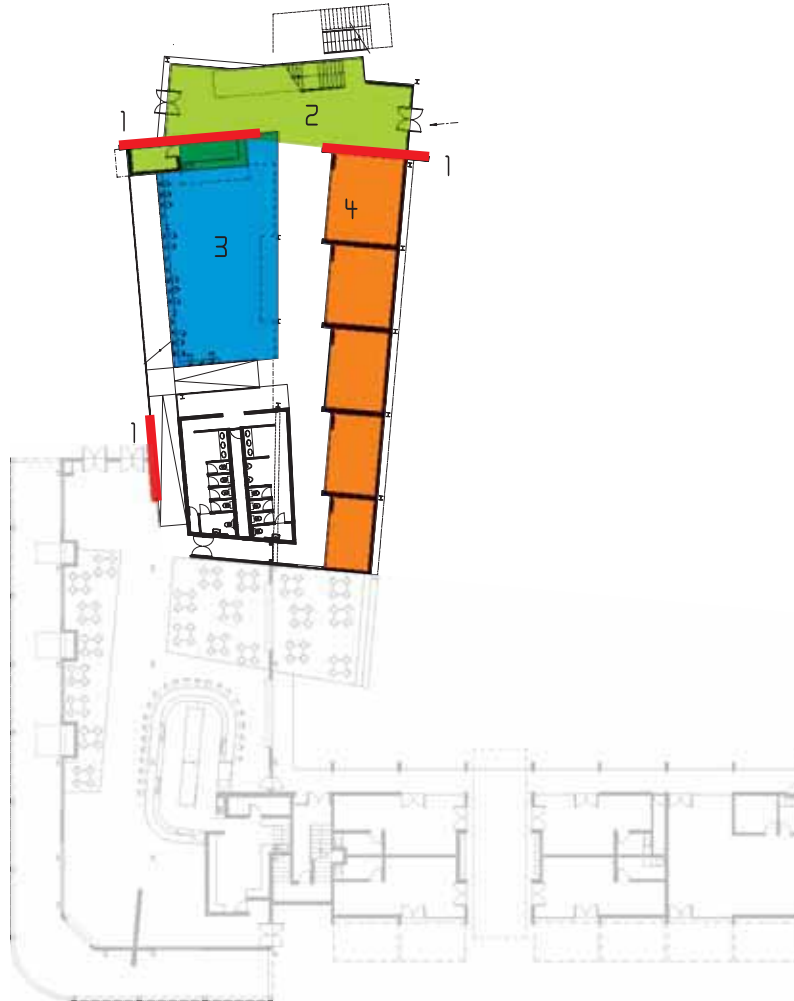
>>3_Off-street parking

At the Struben Street edge, off-street parking is provided for users who want to make a short stop at the site. A one-hour time limit will be imposed on these parking bays.





>Digital Media [exchange]_



Ground floor plan



>>1_Main Entrance Spine Walls

The red concrete spine walls in the main entrance aim to guide users to the main exhibition space and the media school. The walls define the circulation from the used spaces. The walls create an identity which is legible to the public. The spine wall at the main entrance on Prinsloo Street incorporates the information/reception kiosk.

>>2_Foyer

The foyer serves as a thoroughfare to the public square and a waiting area for the exhibition space and school. The internal staircase provides direct access to the first-floor auditorium. The information/reception kiosk is partially contained within the foyer.

>>3_Main Exhibition Space

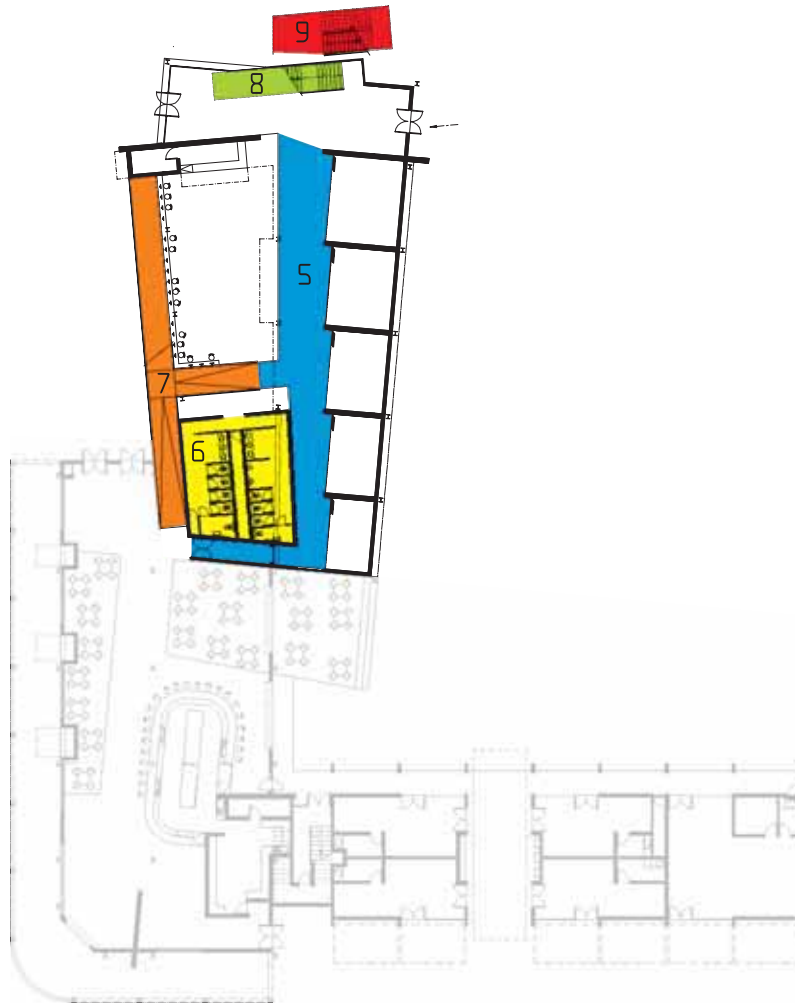
A communal triple-volume space caters for presentations. Various exhibitions by external clients can be hosted here. The space is framed by the surrounding circulation routes. Large projection screens are suspended from the floors above to aid users with presentations. These screens are visible from Prinsloo Street. The Main Exhibition Space will be used for shorter or temporary exhibitions, while more permanent exhibitions will be accommodated elsewhere. A Public Internet Facility is located on the street edge to involve and attract a great range of users. In addition, the public could become unwitting participants in the exhibitions at times. With the aim of raising awareness of digital media and as a continuation of the media school educational process.

>>4_Media Pods

These pods operate on a much smaller scale than the main exhibition space. They can accommodate smaller, more static exhibitions which could be separate from the events occurring in the main space. The Pods should be fully enclosed by electronically-controlled sliding screens to completely immerse the spectator in the exhibit. The user can participate in an interactive environment within the Pods. Individual touch screens are floor-mounted on a raised access floor which also defines it as separate from the circulation route. Video projectors are ceiling-mounted and can be electronically controlled to be retracted into the ceiling when not in use. Different-sized pods have been used to create a hierarchy of smaller exhibition areas which also cater for different exhibit needs. Floor sensors will electronically activate displays when users enter, as an interactive energy-saving feature.



>Digital Media [exchange]_



Ground floor plan



>>5_Circulation

The main circulation route is flanked by the exhibition areas and connects the Digital Media (exchange) to the Media Bar located in the existing building. It is clearly defined for easy movement and terminates in a large glazed opening which overlooks the outdoor seating of the media bar.

>>6_Ablution

A service core acts as a connecting device between the new and existing buildings and is repeated on the floors above. The ablution block will serve both the exhibition areas and the Media Bar.

>>7_Ramp

A ramp forms the main feature on the Prinsloo Street facade. It provides gradual vertical circulation to the upper floor and connects to the Media Bar. The ramp is extruded from the facade to create a visual link with the exhibition spaces. The black-painted concrete ramp is used as a visual ordering device and a heat sink to store heat when required. An electronically adjustable louvre system controls the amount of light entering the building from the western facade.

>>8_Stairs

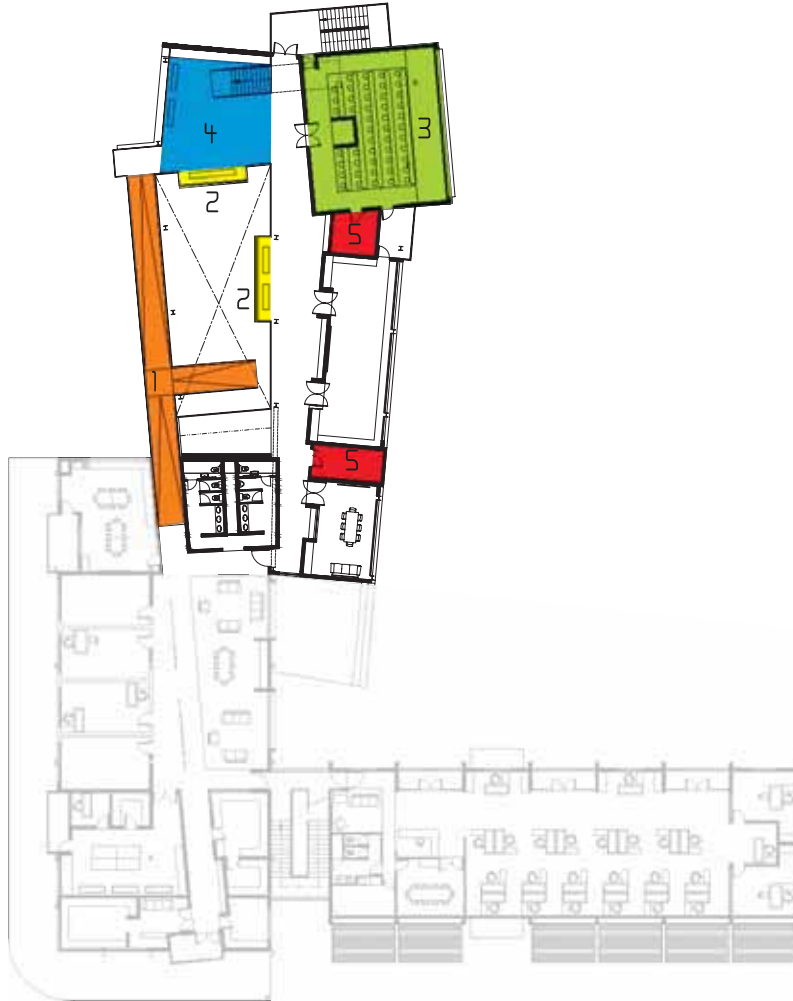
A steel staircase provides direct access to the auditorium and the educational components on the upper levels. The staircase is set against the northern curtain wall facade to filter the northern light, and it mirrors the external fire escape.

>>9_Fire Escape Stairs

An external steel fire escape staircase is located on the northern facade and provides escape routes for users of the accommodation on the upper floors. It clips onto the concrete facade and as a design element it serves to terminate the building.



>Digital Media [exchange]_



First floor plan



>>1_Ramp

The ramp continues to the first floor at which point the ramp itself serves as a viewing platform overlooking the main exhibition space. This allows for users to be constantly aware of the events taking place in the building.



>>2_Mesh Projection Screens and Balconies

Mesh projection screens are suspended from the balconies and tilted towards the exhibition space. When not in use they become static screens which differentiate the space in the triple volume. The large size of the screens make them clearly legible from the outside.



>>3_Auditorium

The auditorium serves the media school and can be used to host external events and screenings for the public. Its is differentiated by projecting from the building envelope and is rotated on the buildings axis towards the square. Information is displayed on its glass facade and can be viewed from the square. An adjustable louvre system prevents daylight from entering the facade and allows sight lines from the square below. The educational activities that occur in the building are showcased to the public. The projection image can be reversed to face the square and screenings can be held for the public when the auditorium is not in use.



>>4_Foyer

The foyer serves as a gathering and spill-out space for the auditorium and the main exhibition space below.



>>5_Storage

Storage facilities are located between the primary accommodation and the media school.





>Digital Media [exchange]_



First floor plan



>>6_Balconies

Balconies are located between the editing studio and the auditorium and at the Fire escape stairs. They provide viewing platforms for events that occur in the square and surrounding buildings.



>>7_Editing Studio

The editing studio is the main education space on the first floor. It is used for Final production of the digital media. The studio will has hot-desking, projection and storage Facilities. It also has views onto the public square.



>8_Design Studio

The design studio is the workshopping and brainstorming area of the school. It allows for smaller groups to interact and exchange ideas and is equipped with hot-desking, projection and storage facilities.



>9_Viewing Deck

A viewing deck functions as a spill-out area for the studios and as a platform to view exhibitions below. It has an elevated ground plane and separate roof and ceiling construction. It is equipped with hot-desking facilities and floor-mounted touch screen displays.



>10_Circulation

The main of the lower floors are repeated on the first floor. The studios have niches which provide seating areas for rest and discussion. The circulation leads to the administration offices of the media school.



>11_Ablution


The ground floor service core for ablution facilities is repeated on the first floor. It serves the media school and administration offices.



>Digital Media [exchange]_



Second floor plan



>>1_Ramp




>>2_Mesh Projection Screens and Balconies




>>3_Classrooms

Classrooms for formal theory lectures and discussions are positioned on the second floor. They are equipped with hot-desking and projection facilities, and have view onto the street onto the square. The classroom located on the west facade is fitted with privacy glass which can be electronically activated to filter harsh light. Spill-out areas provide seating in niches.




>>4_Workshop

The workshop area hosts model building or small-scale construction, as well as facilities for filming to be captured for animation and editing in the later production processes. Durable wall and floor surfaces to withstand high traffic volumes are essential. A separate storage facility is provided to house tools and equipment.



>>5_Storage



>>6_Balconies



>>7_Animation Studio

The animation studio is used for the initial capturing and modelling of digital media. The media is then processed until it can go to the editing studio below. Here hot-desking, projection and storage facilities allow the user to function optimally whilst enjoying views onto the square.



>>8_Design Studio





>Digital Media [exchange]_



Second floor plan



>>9_Circulation



>>10_Ablution



>>11_Outdoor Events Bar

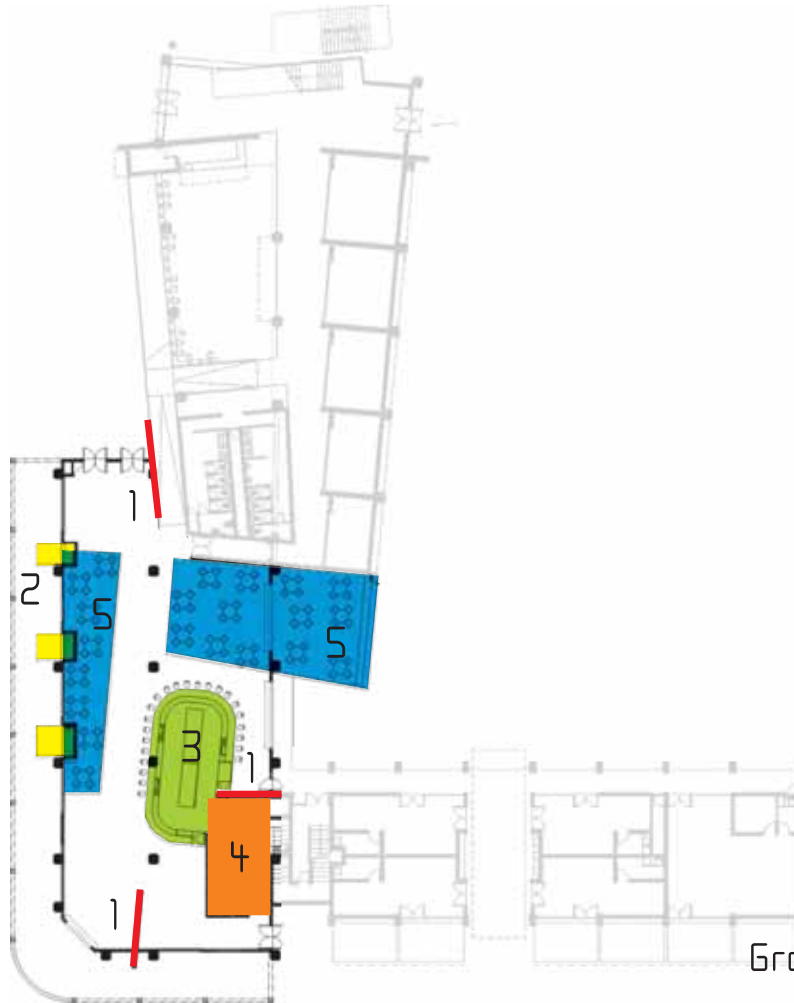
Serves the outdoor events area and acts as a small cafeteria for the media school. The sliding, folding glass doors can also be utilised as projection screens.

8_24





>Existene + New Addition_



Ground floor plan

>>1_Main Entrance Spine Walls

The red concrete spine walls in the main entrance aim to guide users through the Media Bar and into the Digital Media (exchange). The walls indicate entrances and define the circulation routes. The visibility of the walls create an identity which is legible to the public. The spine wall at the main entrance on Struben Street incorporates signage.

>>2_Informal Trade

Existing informal trade activities are incorporated into the design by creating niches in the existing wall which provide spaces for the traders to occupy and store their goods. Top-hung Mentis grid canopies lower the scale of the colonnade over the trade areas and also act as security gates when the traders close shop and store their equipment.

>>3_Media Bar

The Media Bar replaces the existing corner café and serves the whole development. It is accessible from the street as well as the square. Tables and seating will have touch screen displays where users can place orders, and these will be able to display media and information from the Digital Media (exchange). The existing shopfronts are replaced by Mentis grid infill panels to allow a visual connection to the street.

>>4_Kitchen and Storage

A kitchen to serve the media bar is located nearby at the Struben Street entrance. This position allows for ease of deliveries. Under-counter equipment and storage is provided, as well as a small store for consumables.

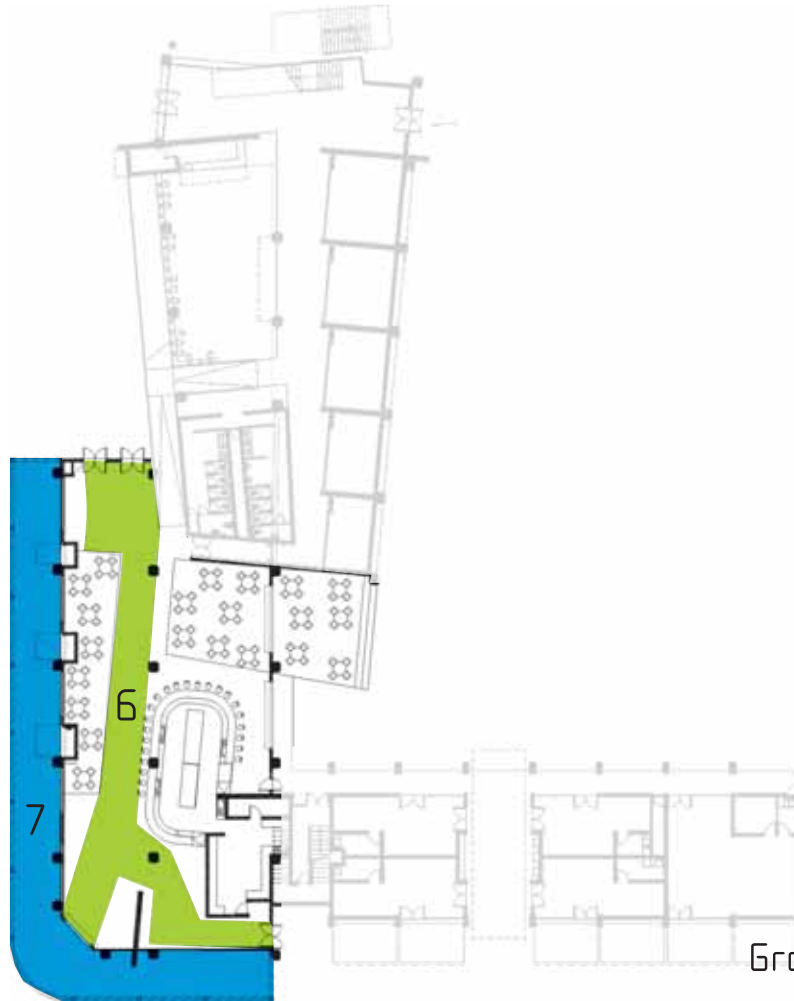
>>5_Raised Seating Area

A raised seating area defines the circulation route and provides legibility for the user. The seating area extends outside the building, and spills out onto the square.





>Existene + New Addition_



Ground floor plan



>>6_Circulation

The circulation route is clearly defined by the red spine walls at all the entrances to the building. The route aims to become part of the pedestrian circulation on the street edge and provide users with a choice of internal or external movement. From the corner entrance the circulation route leads to the Digital Media [exchange].

>>7_Existing Colonnade

The existing colonnade is to be retained as it gives the site a pedestrian scale and provides urban character. The new steel structure is placed along the existing walls and is juxtaposed with the colonnade by the use of different materials and a different rhythm.





>Existine + New Addition_



First floor plan



>>1_Reception

A reception office for the media school is located on the first floor to accommodate general enquiries and staff administration. It is the first of a series of offices that is located close to the school.

>>2_Offices

Staff offices are situated along the western edge of the site. Office spaces are large enough to be sub-divided for staff members. A translucent screen separates the offices from the main circulation space. The screen should be used as an interactive notice board.

>>3_Staff Room

The staff room for the Digital Media (exchange) is placed in the north-western corner of the building. The staff room is equipped with a small kitchenette and two meeting tables. Its windows frame views onto Prinsloo Street and to the north. It also has access to a balcony on the west facade.

>>4_Lounge

The lounge is positioned on the eastern edge of the building and frames views to the square. It is to be used by staff, students and visitors to the school. The lounge includes a small self-service coffee bar between the two large glazed openings.

>>5_Circulation

The main circulation route is a continuation of the ramp in the Digital Media (exchange) on the same axis, and terminates in a balcony.





>Existine + New Addition_



First floor plan

>>6_Balconies

The balconies of the administration block protrude through the mesh facade. These balconies are semi-enclosed by a solid wall with a slit and side openings to create interest on the facade.

>>7_Print Room

The print room serves the Digital Media (exchange), students from the school and the TUT Arts Campus and can be used by the public to generate income. It accommodates a small manager's office and a store for consumables. The layout provides space for three large-format printers and up to five A4-format printers. Access is provided to a balcony on the west facade.

>>8_Web Design Studio

A web design office that is run by graduate students of the school is positioned in the south-west corner of the building. It hosts a small lobby and a workspace for three students.

>>9_Server Room

A central server room is placed in the south east corner of the building. The server room controls all computer and network-related functions of the building.

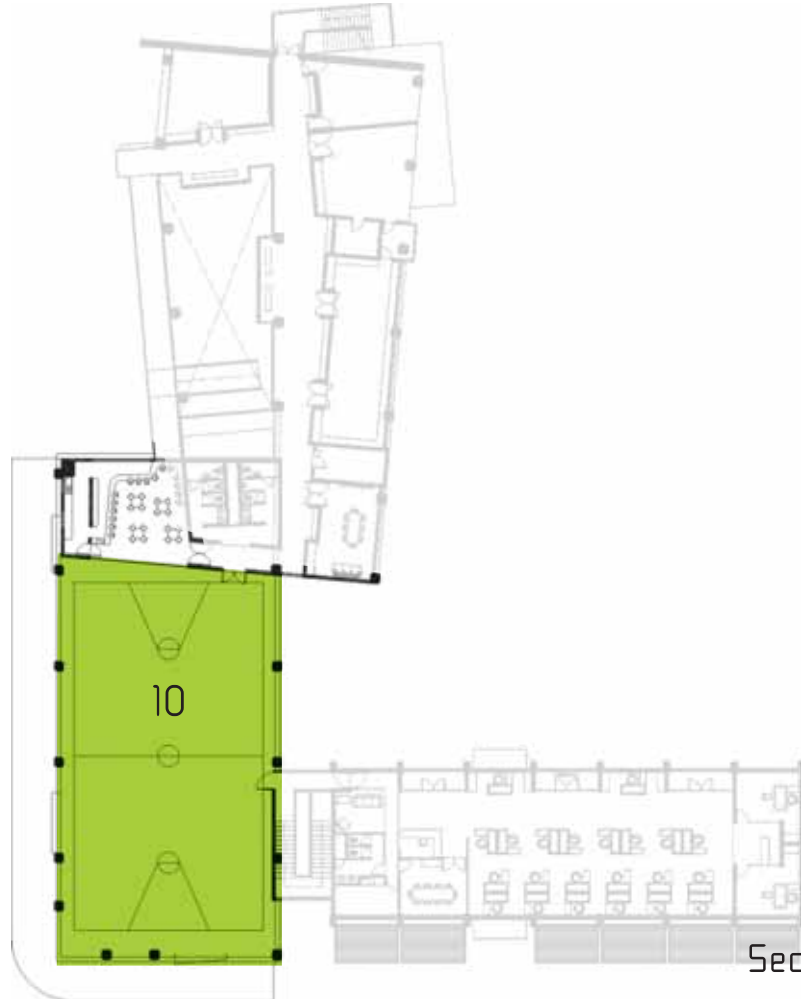
>>10_Internet Broadcasting Studio

The internet broadcasting studio is to be run by graduate students of the school. This facility is located at the east entrance of the administration block. It accommodates a work space for five students and a store.





>Existine + New Addition_



Second floor plan



>> Outdoor Events Area

The outdoor events area is located on the second floor. It is an open-air space that can be used by students and other users of the building. The wall of the outdoor events bar acts as a projection screen and screenings can be held in the evening. This functions to attract the public to the building and its facilities. Access to the area can be gained from the media school or the retail block. The events area is enclosed in a steel mesh that can be used for signage and video projections. It should be a multi-functional space to house various events.



8_34



>Commercial Component_



Ground floor plan

>>1_Entrance to the Square

The entrance to the square is indicated by a suspended ceiling which serves the same function as the red walls. On the south elevation the vertical part of the ceiling is used for signage.

>>2_Stairs

The staircase acts as a connector to the existing building, with a fully glazed opening on the south facade. Controlled access to the offices above is gained via key cards.

>>3_Retail Space

The retail component is located on the ground floor on the southern edge of the site and aims to accommodate existing retail activities. Four small retail units are provided with one larger unit located at the end of the block. Each unit is equipped with a kitchenette and a small store. These facilities should yet again provide the Digital Media [exchange] with a steady rental income.

>>4_Public Phones and Seating

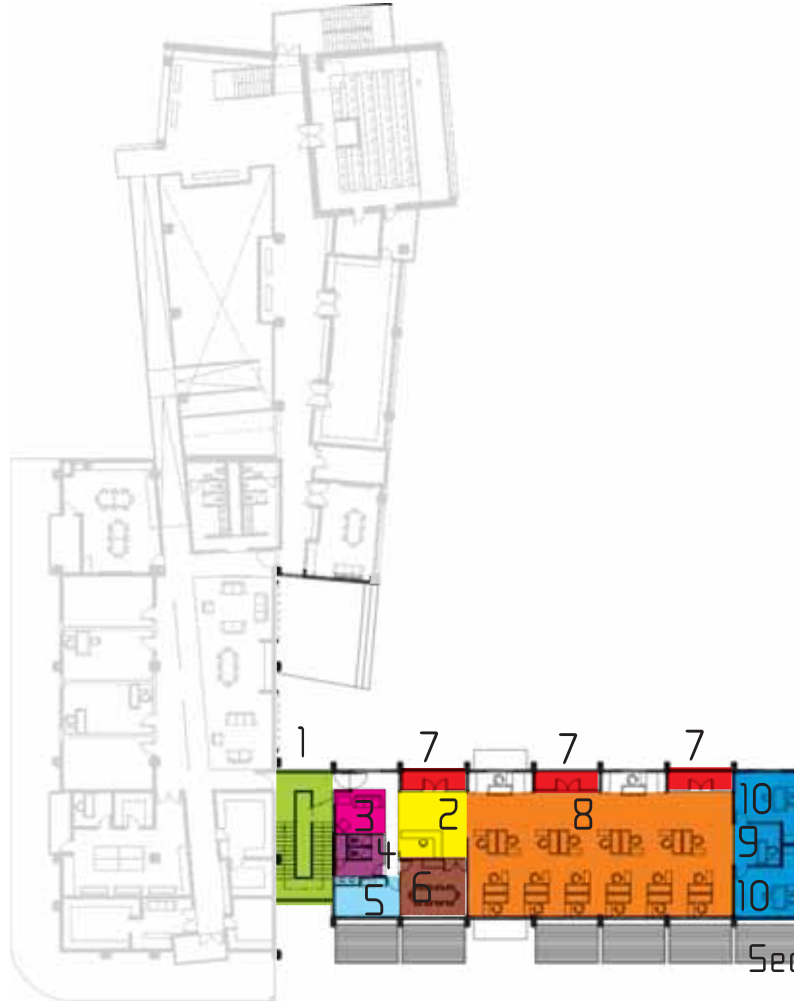
Public phones and seating are provided close to retail activities, where passive surveillance can occur.

>>5_New Colonnade

The idea of the colonnade of the existing building is continued in the retail component to introduce a pedestrian scale to Struben Street. The Mentis grid canopies create the horizontal plane and the row of trees create the vertical plane. When the retail units are closed, the top-hung canopies become security gates.



>Commercial Component_





>>1_Stairs



>>2_Reception

The reception area has a clear view of the entrance and the open plan office space. The receptionist also controls access to the boardroom and service areas.



>>3_Waiting Lounge



>>4_Ablution



>>5_Staff Room



>>6_Boardroom



>>7_Balconies



>>8_Open Plan Office

Rentable office space is provided that can be easily adjusted to the user's needs. Optimum natural daylight is achieved through large glazed openings on the south facade. The north facade is shaded by mesh screens. Services are positioned on the western edge of the building and are contained within a suspended ceiling.



>>9_Secretary



>>10_Private Offices



>Material Selection_



>Concrete_

Concrete is one of the primary structural materials used in the proposed design. Off-shutter concrete that can finishes ranging from smooth to rough should be used. Pre-cast floor slab system should be used over the existing structure.

- Good thermal storage
- Large spans
- Easily moulded to curves

- Sand and cement are non-renewable resources
- Not easily recycled



>Glass_

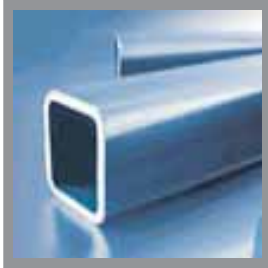
Allows for sufficient daylight to enter the building. Used to create transparency and a visual connection on the facades. Large areas of glazing create a sense of lightness in the massing of the proposed design. Shading devices on the appropriate elevations eliminate the disadvantages associated with glass. Used in a range of applications from balustrading to projection screens.



>Timber_

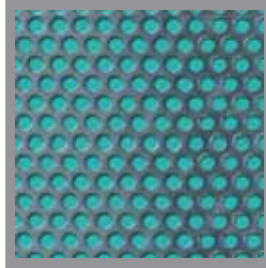
Timber is used sparingly in the proposed design to differentiate different areas of congregation. For instance, the raised seating area of the media bar and the viewing deck in the exhibition area.

Timber is a reference to nature and warmth in an otherwise cold and man-made environment.



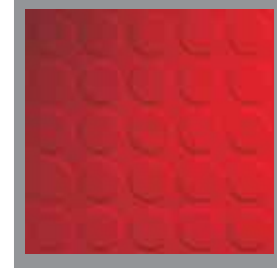
>Steel_

A steel framed structure is the main structural element of the Digital Media (exchange). It is used to differentiate materiality between the old and the new. It is more adaptable than concrete and additions are easily added.



>Perforated steel and mesh_

Perforated steel is used in various walls and the louvres on the west facade. The walls provide screening for different areas internally. The louvres are perforated to create interest and a play of light on the west facade. The mesh is used to filter sunlight that enters the building and to obscure views to the additions above the existing structure.



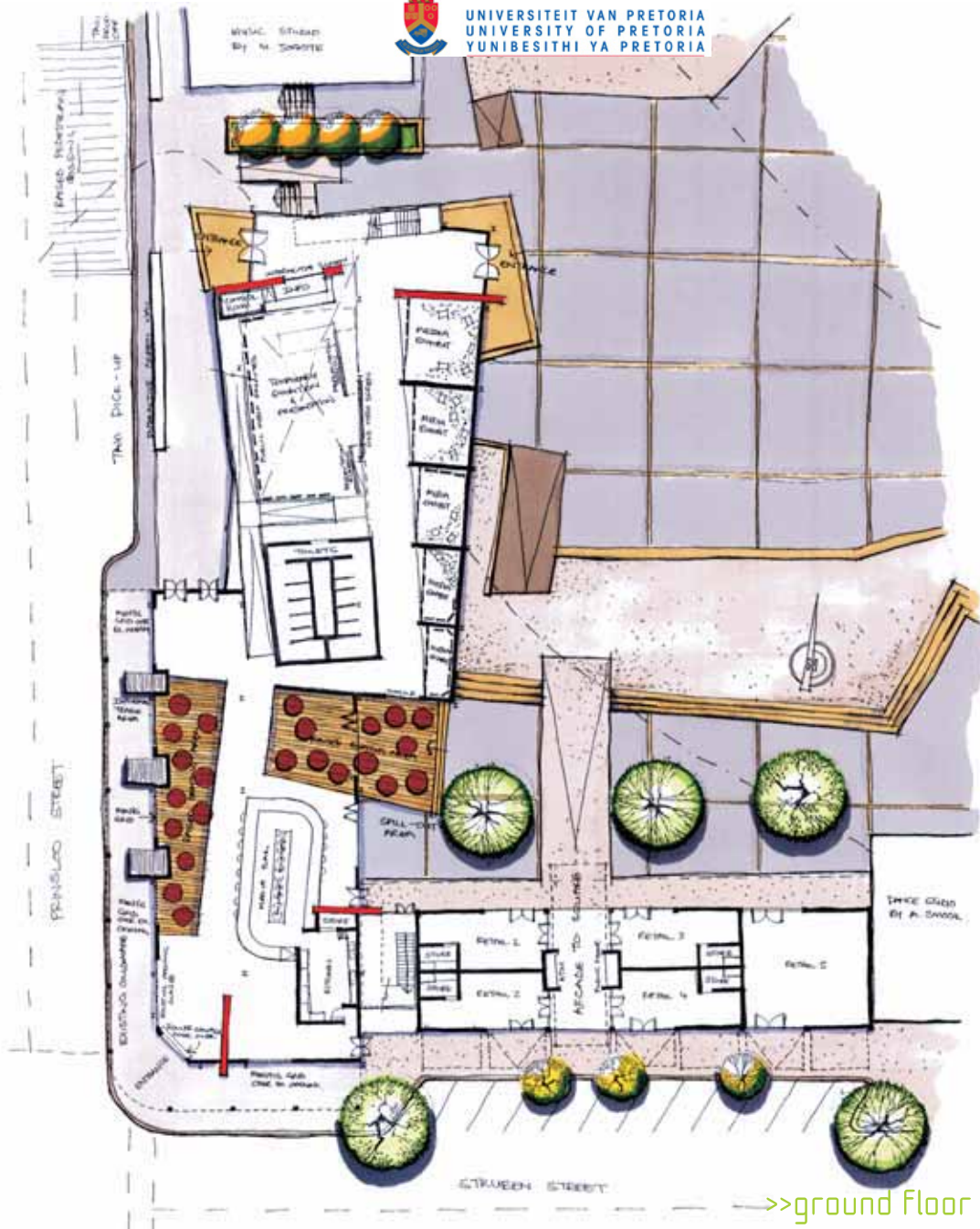
>Rubber flooring_

Rubber flooring is used in the main circulation routes and differentiates it from other spaces. It is also used in the educational spaces and places of high traffic volume.





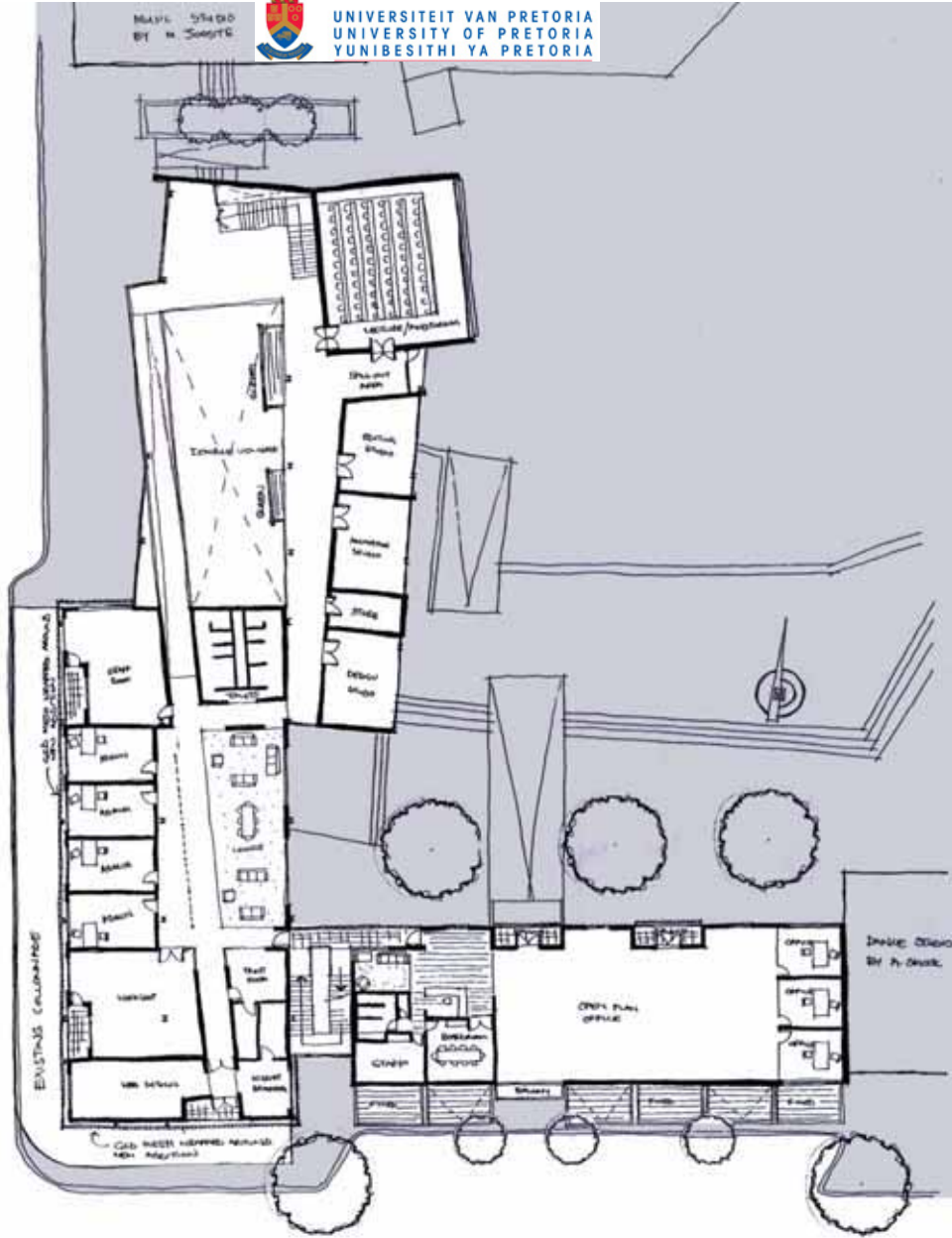
>>site layout
1:1500_



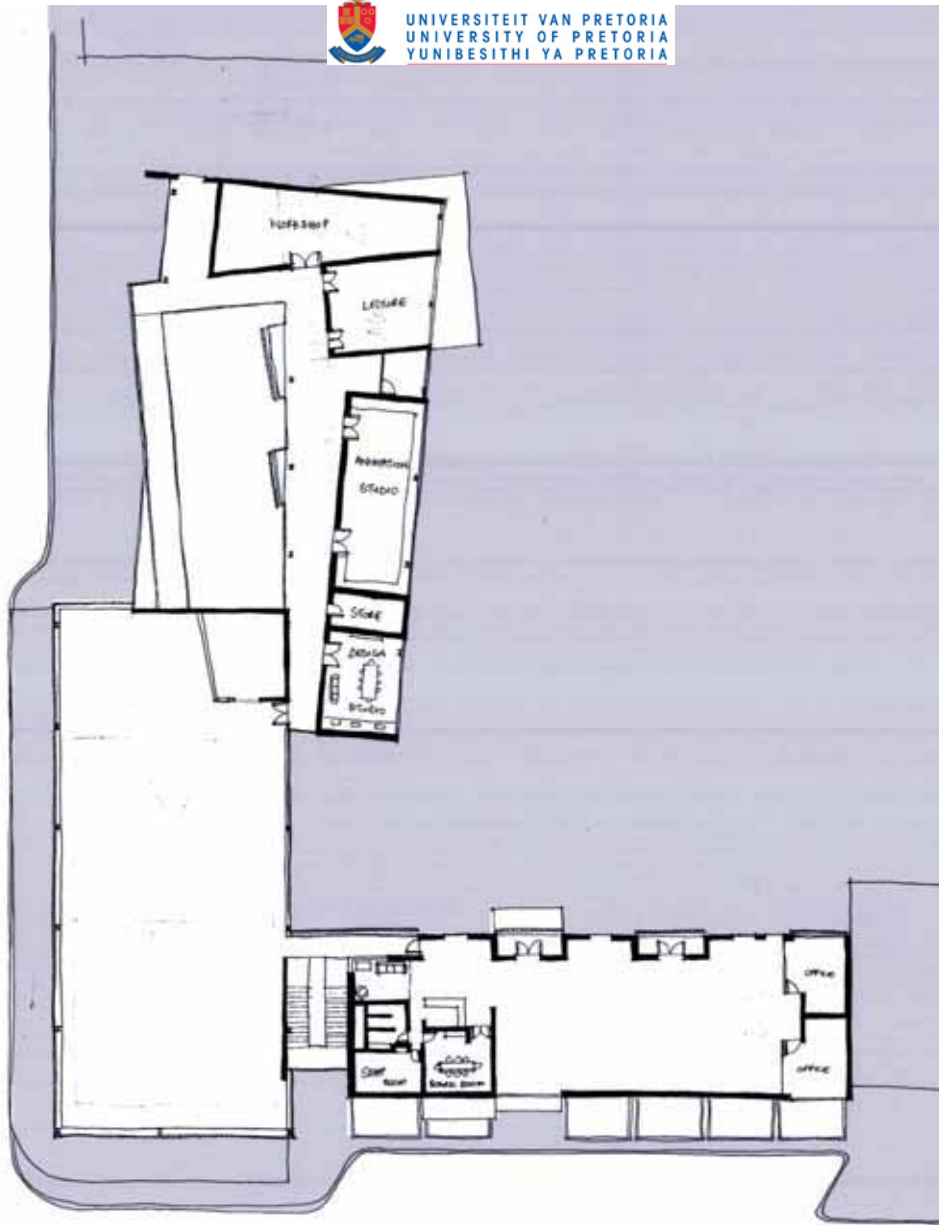
>>ground floor plan
1:500_



8.00



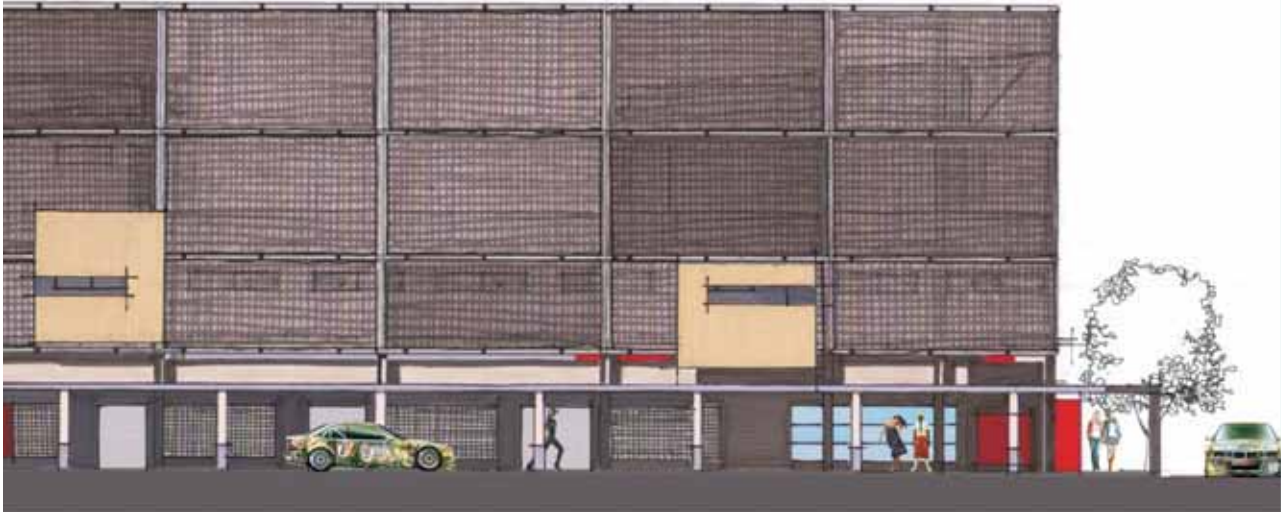
>>First Floor plan
1:500_



8.00

>>second floor plan
1:500_





>>west elevation
1:250_

8.00

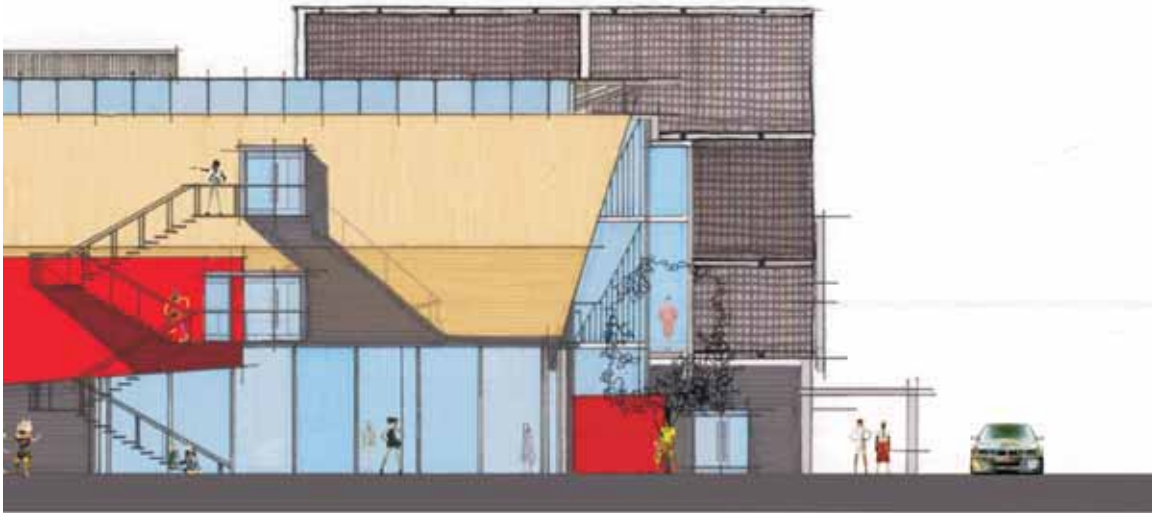




>>south elevation
1:250_

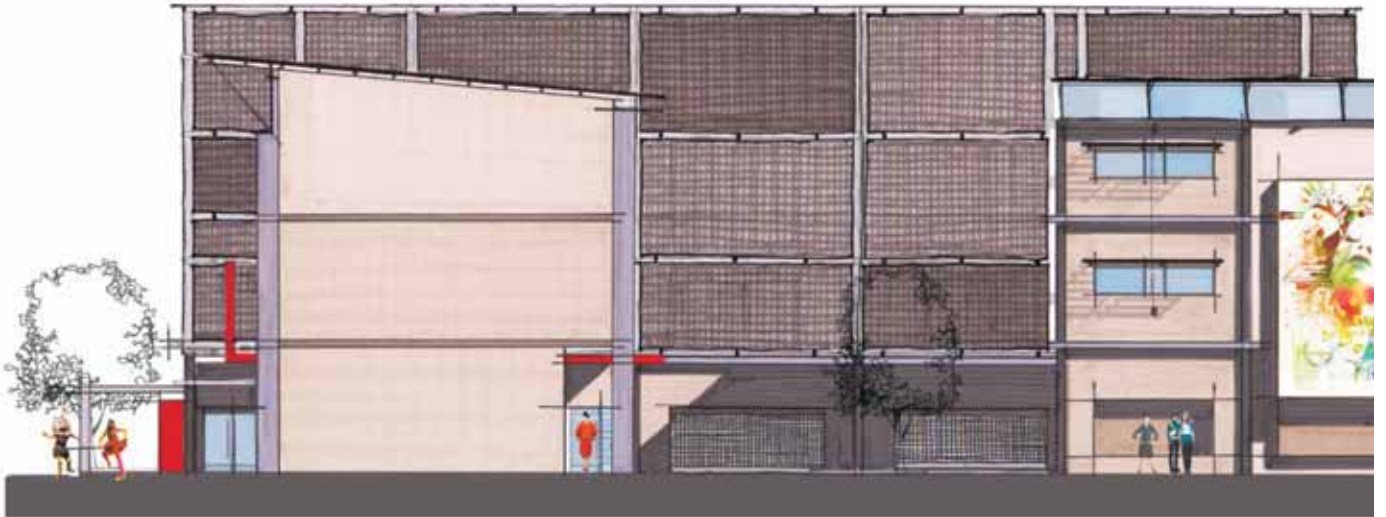
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>>north elevation
1:250_

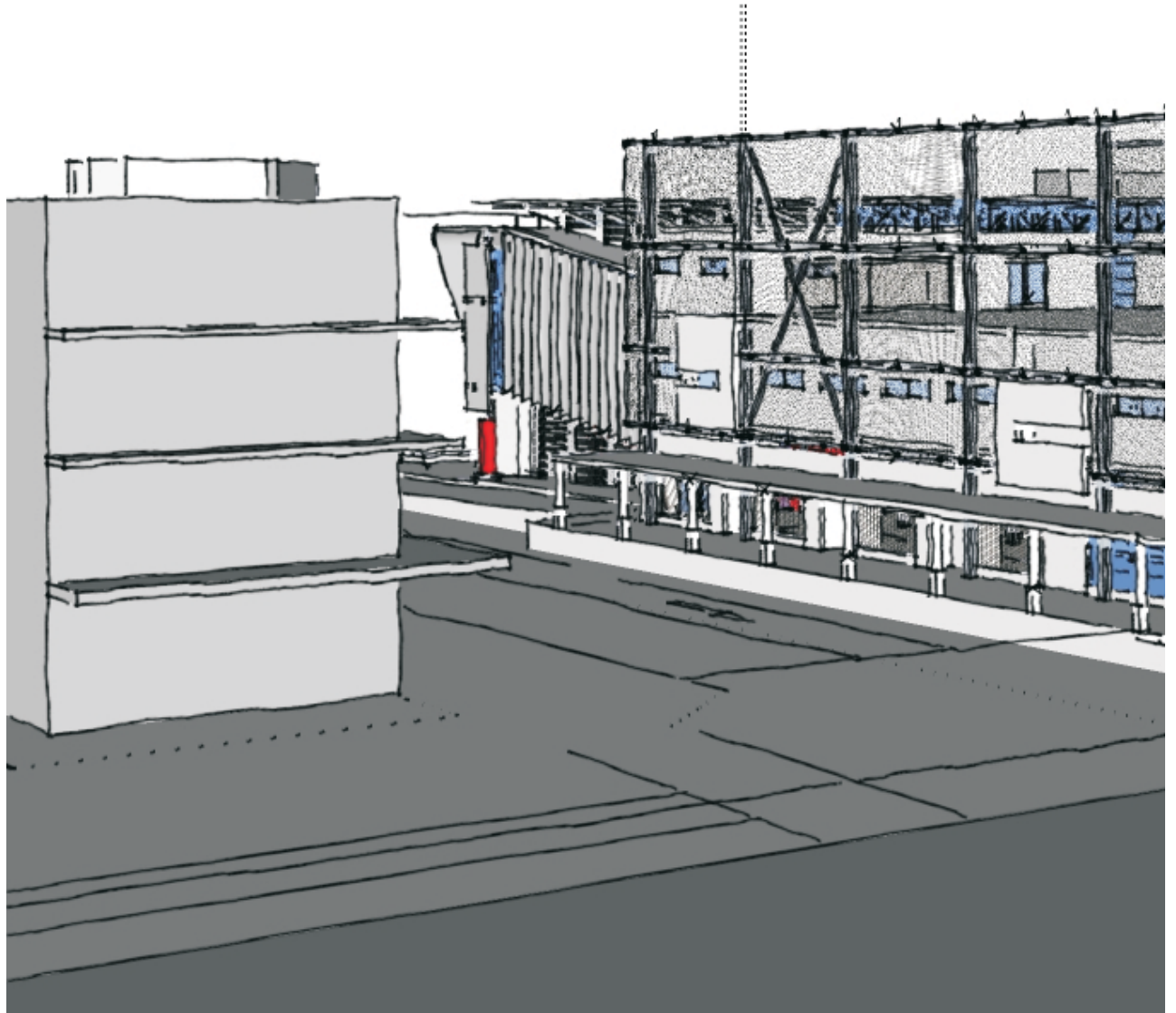
8.00





>>east elevation
1:250_

8.00

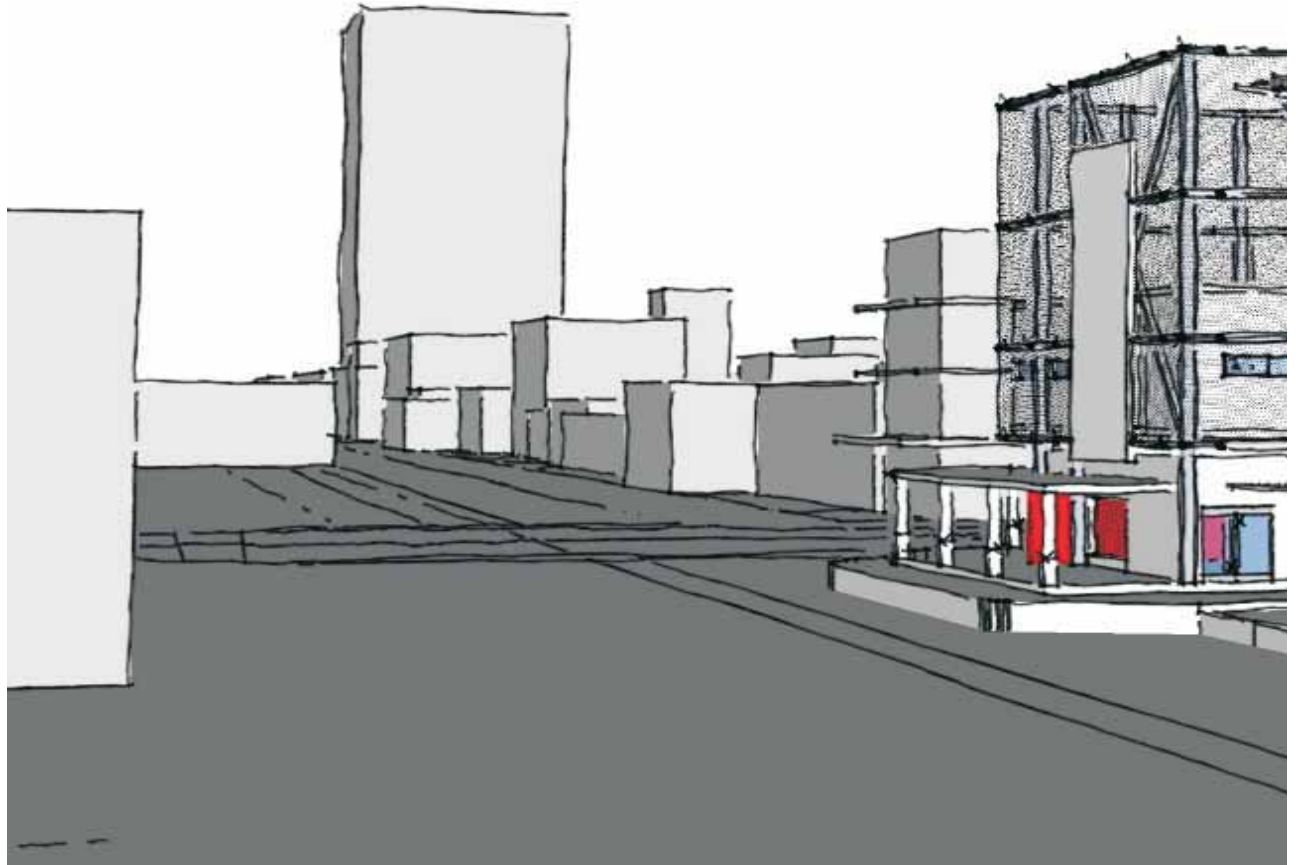






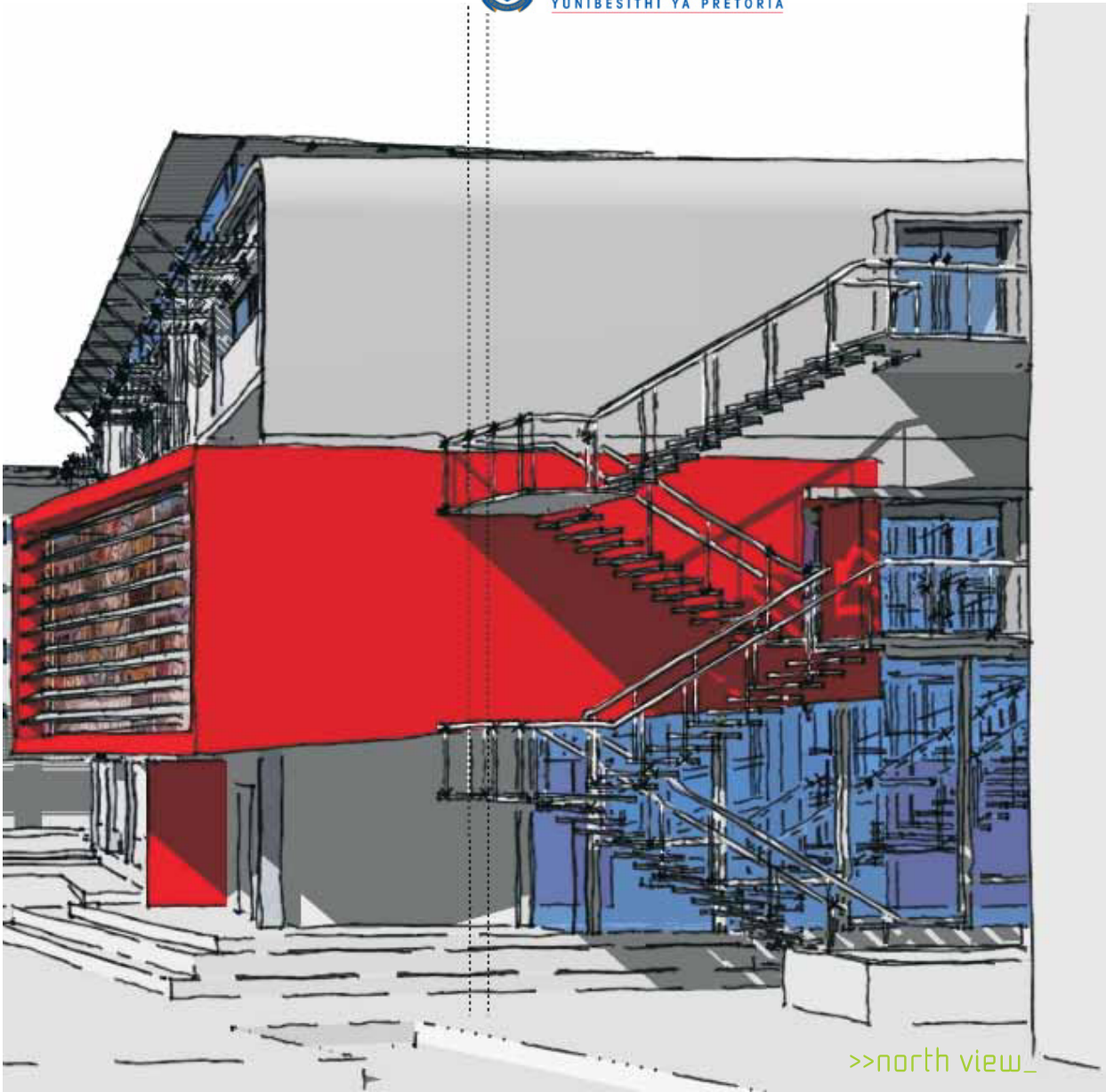


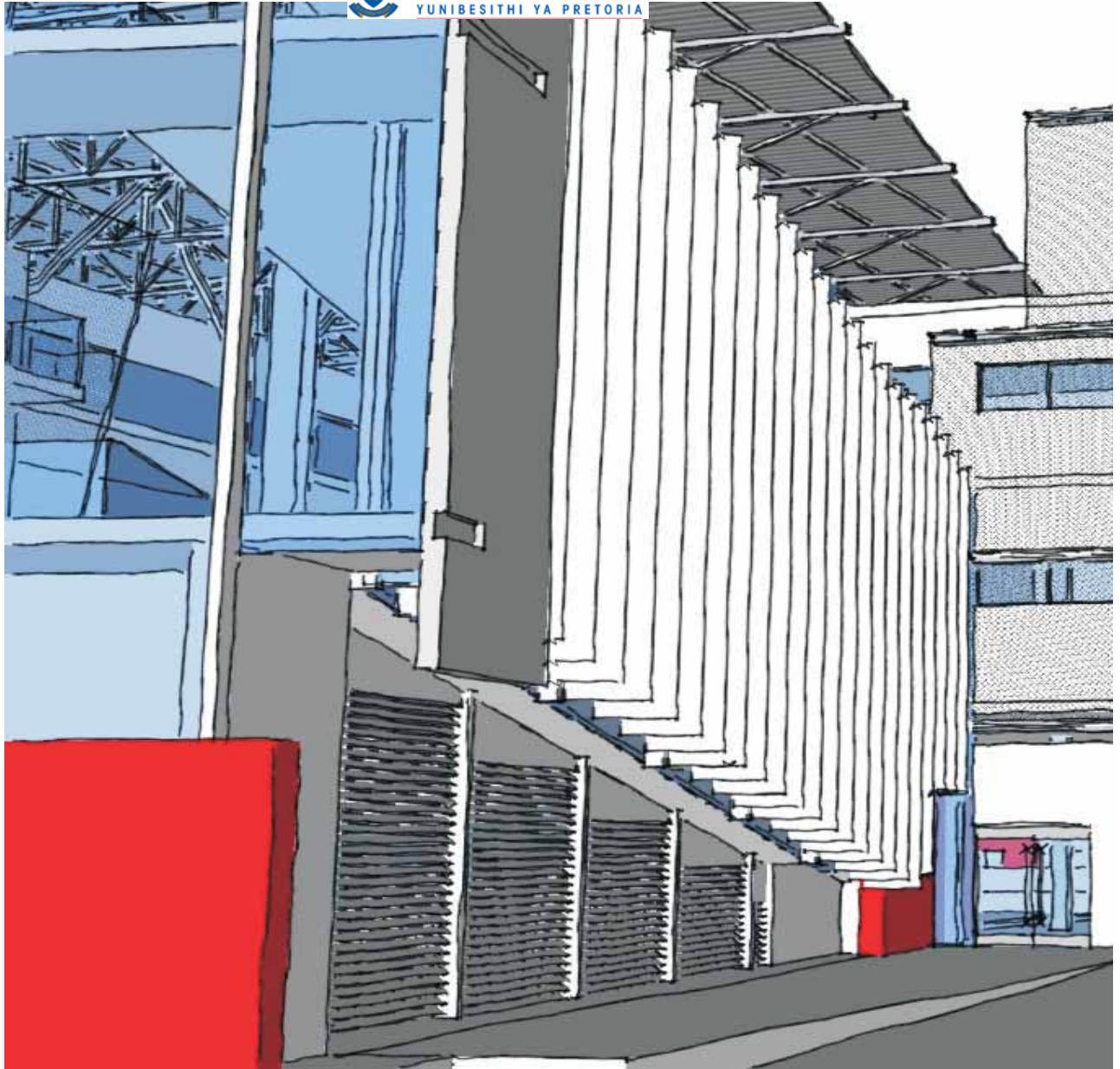
>>west view_



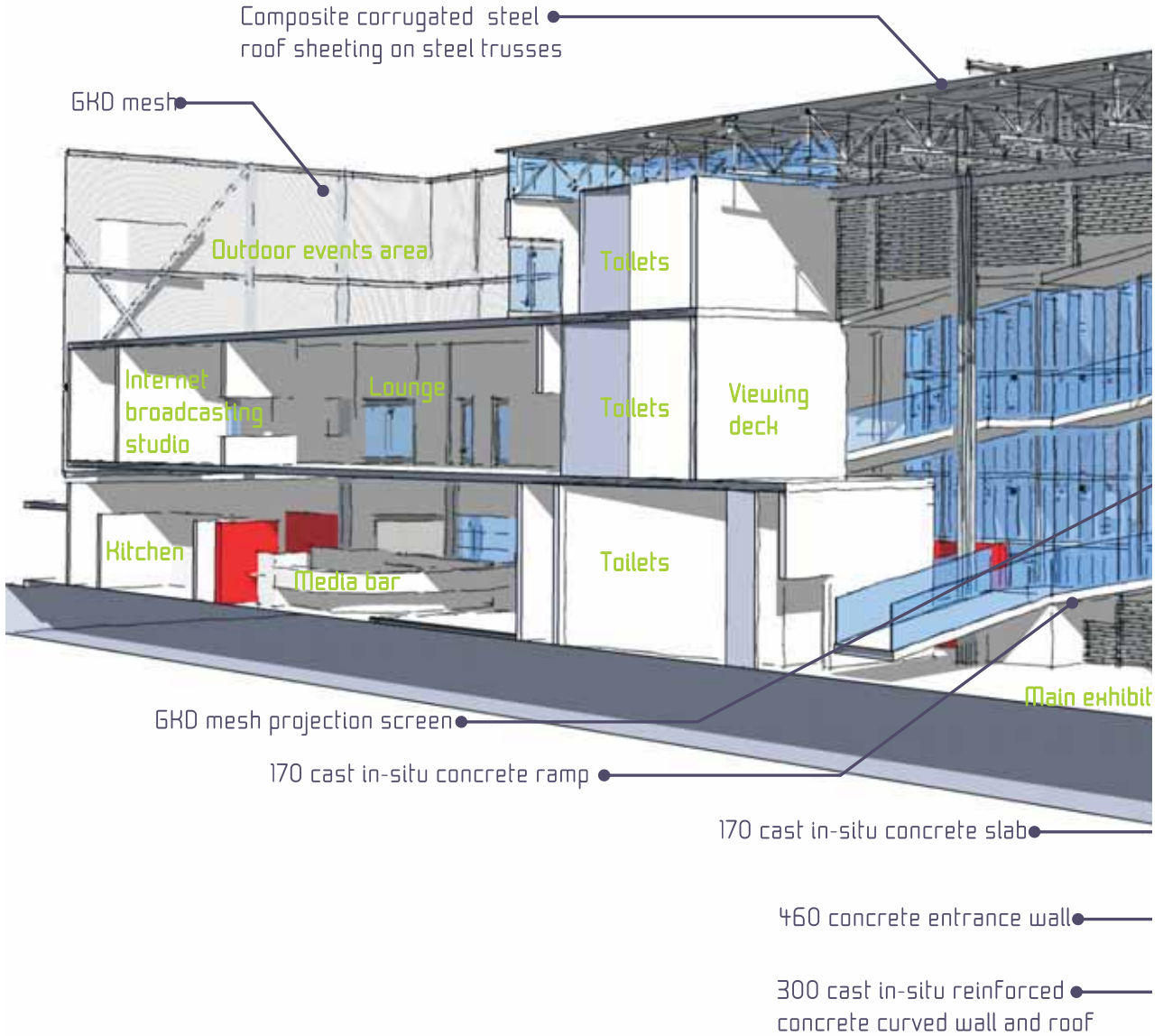


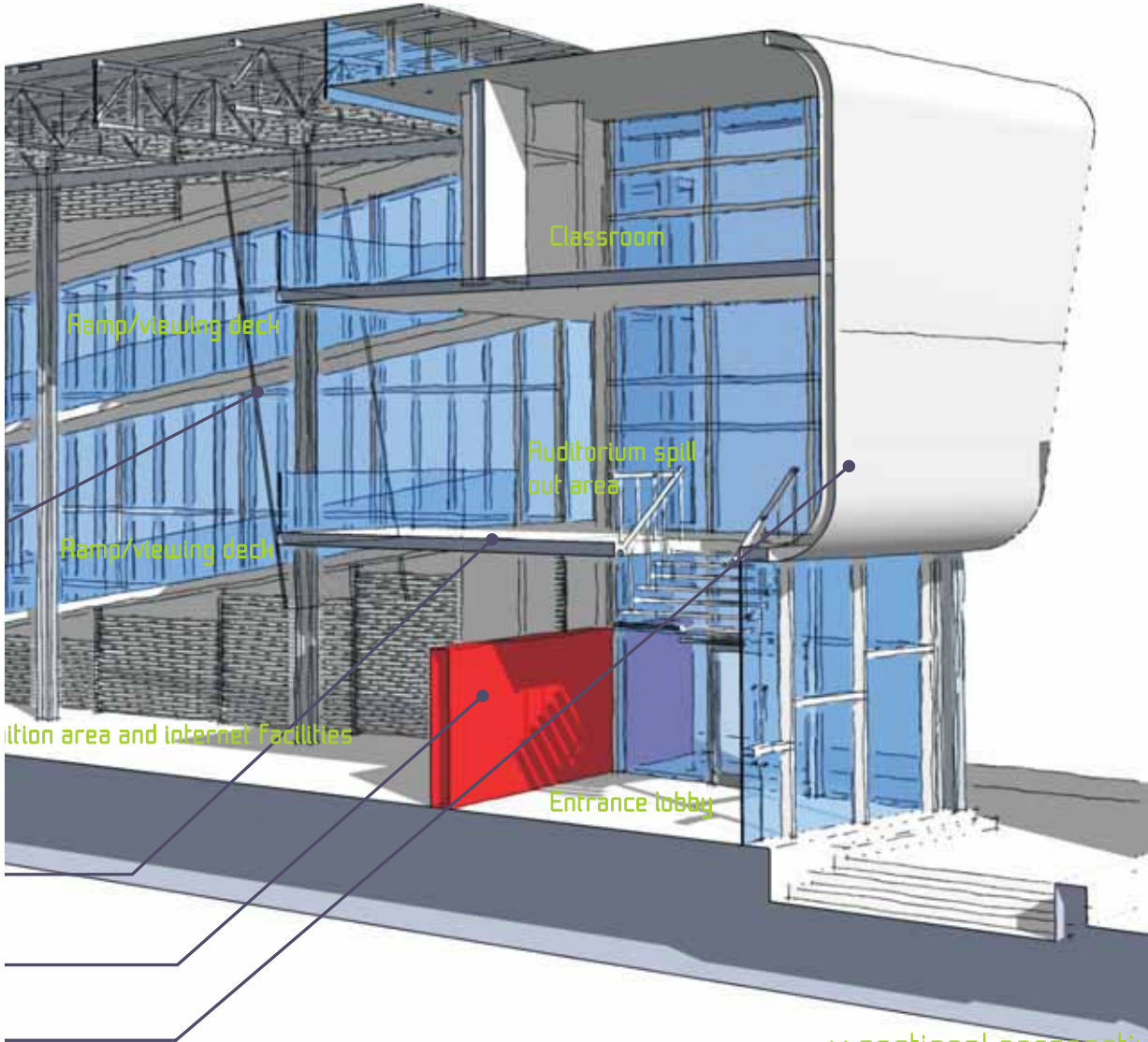












>>sectional perspective
existing structure media bar_



8.00





● Corrugated steel roof sheeting
on steel I-section rafters

● GKD mesh



● 170 cast in-situ concrete slab

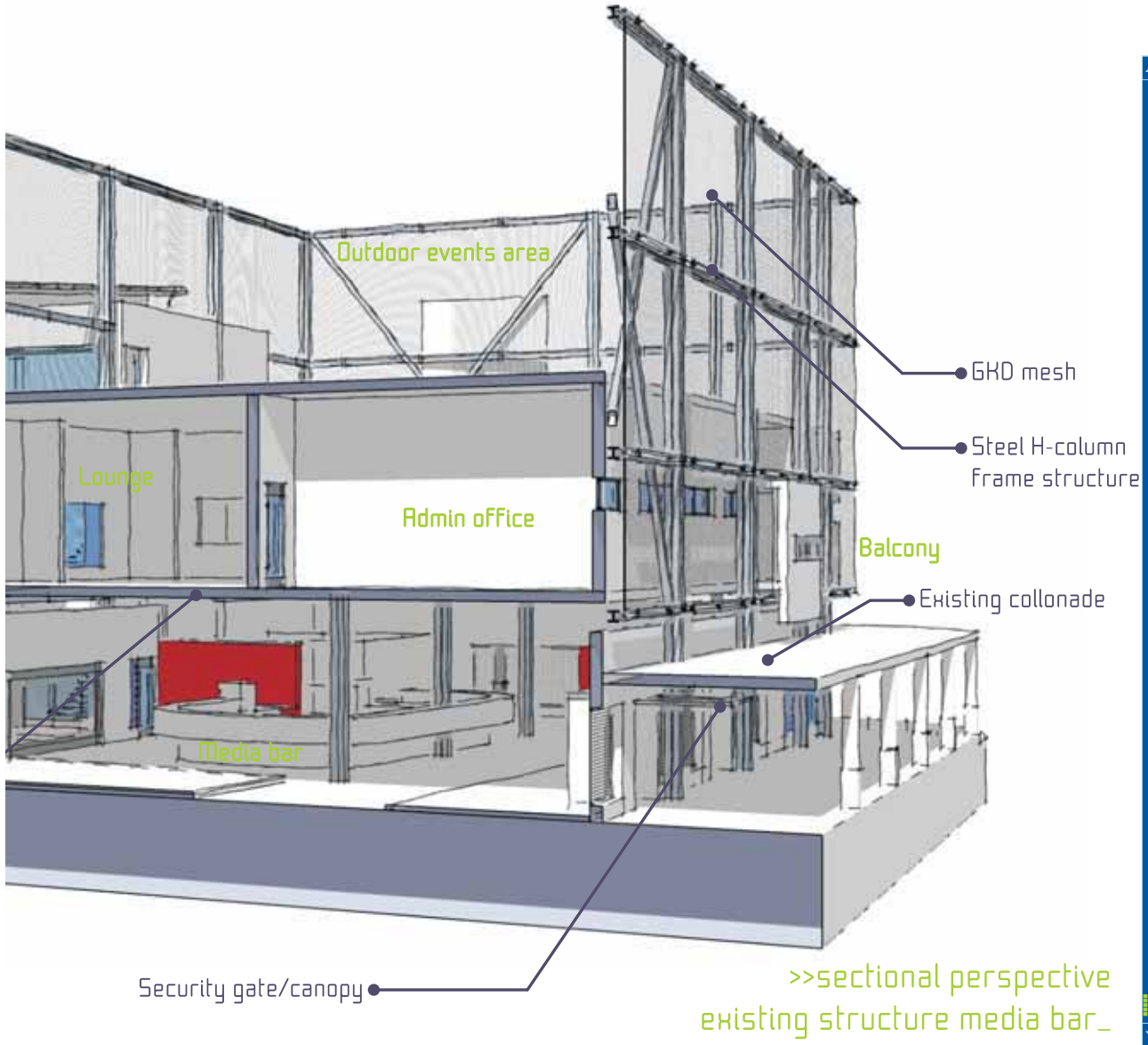
● 230 masonry dividing wall

>>sectional perspective
retail and open plan offices_



Roller shutter mesh door

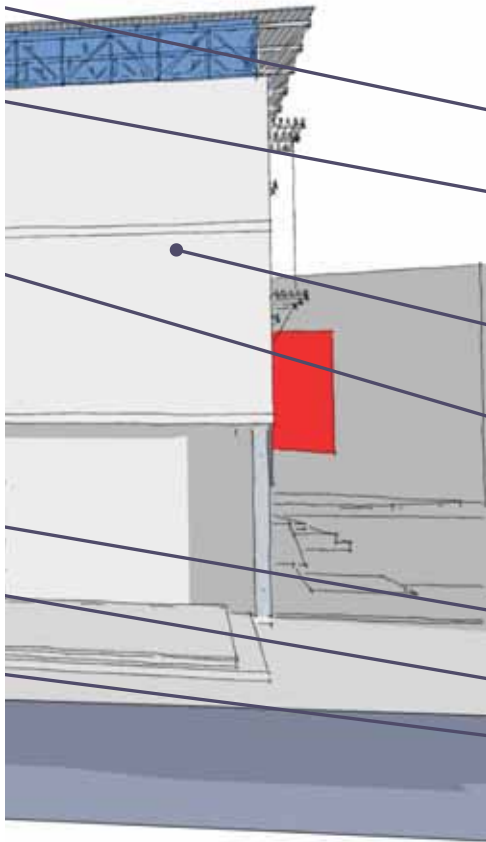
140 pre-cast concrete
decking system on open
web steel joists









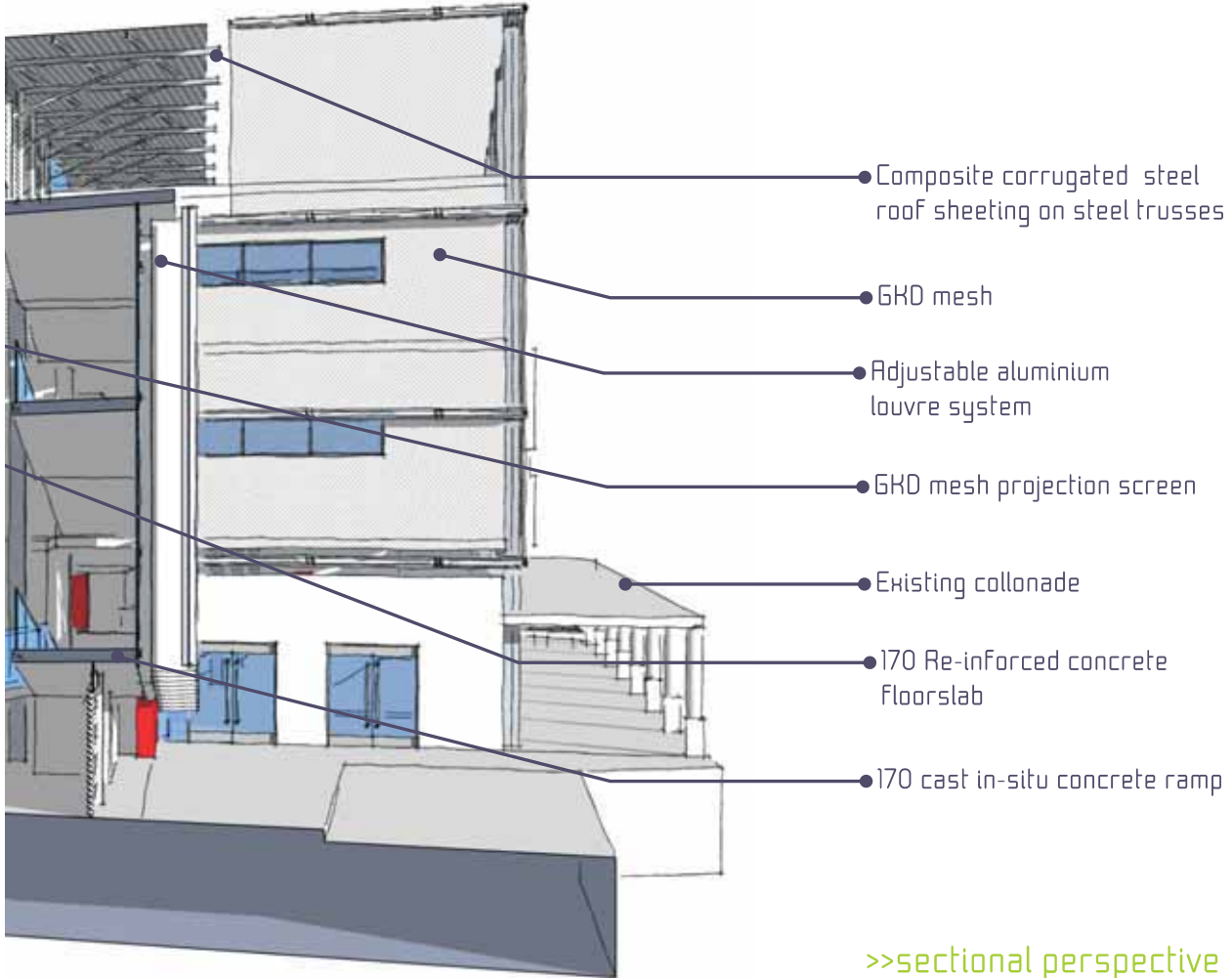


- GKD mesh
- Steel H-column frame structure over existing structure
- Digital media [exchange]
- 140 pre-cast concrete decking system on open web steel joists
- Existing masonry wall
- Roller shutter mesh door
- Security gate/canopy

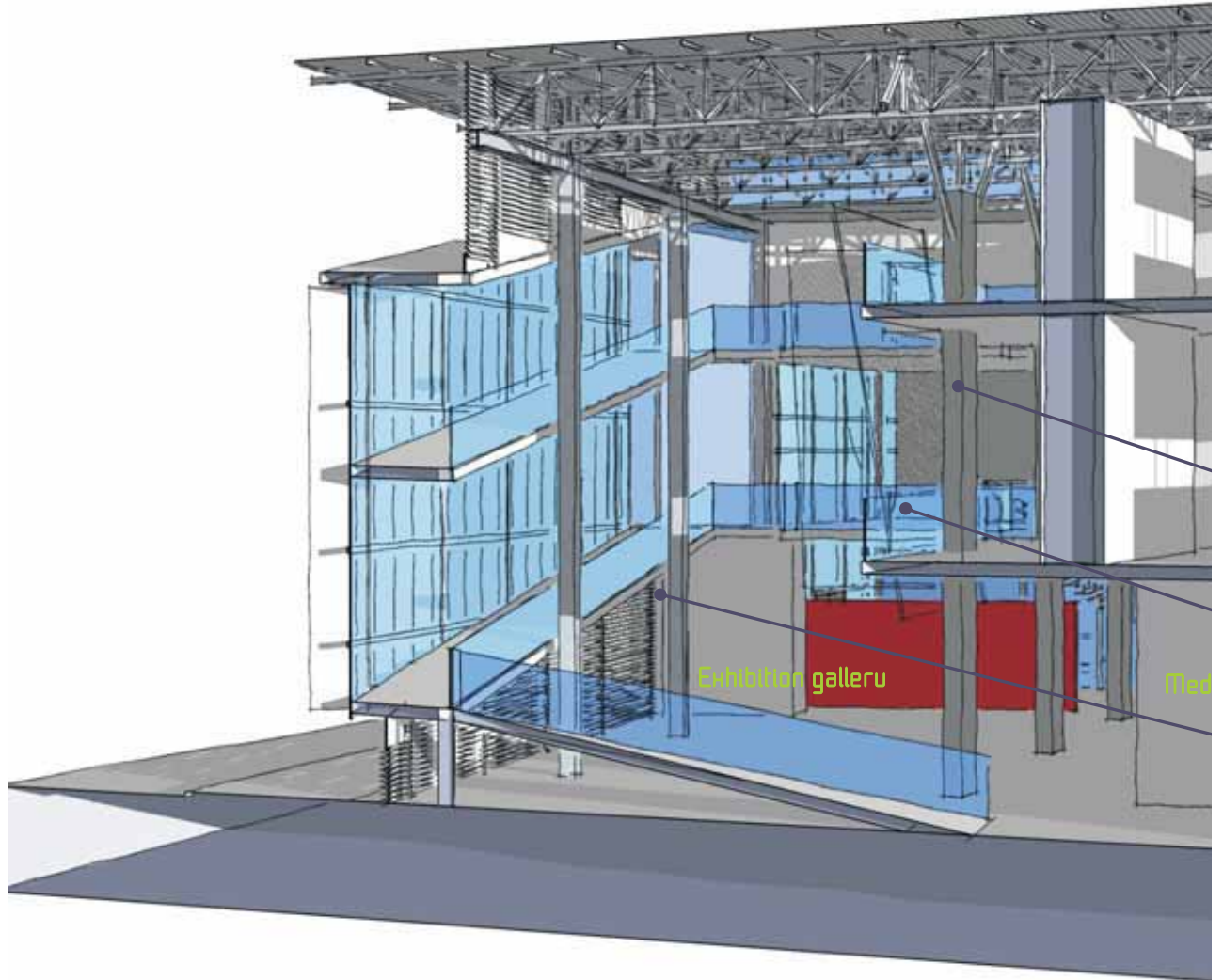
>>sectional perspective
existing structure media bar_

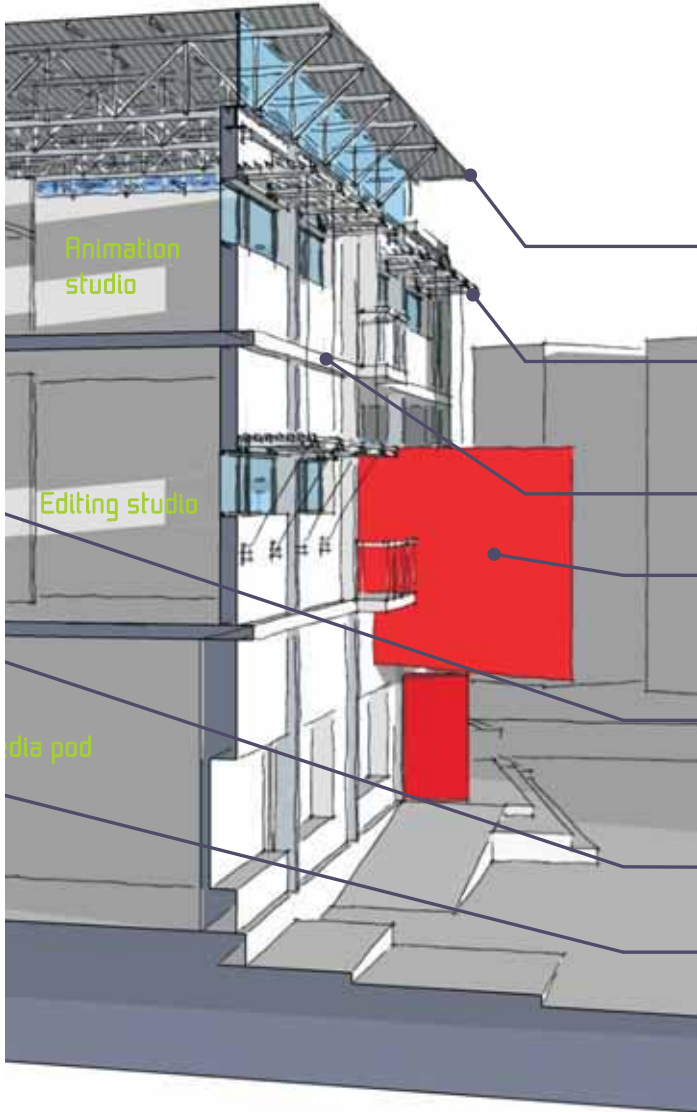






>>sectional perspective
digital media [exchange]_





● Composite corrugated steel roof sheeting on steel trusses

● Aluminium louvre canopy

● 170 Re-inforced concrete Floorslab

● Auditorium

● 690x230 Concrete column

● 6KD Mesh projection screen

● 170 cast in-situ concrete ramp

>>sectional perspective
digital media [exchange]_







>>north east view
digital media [exchange]_



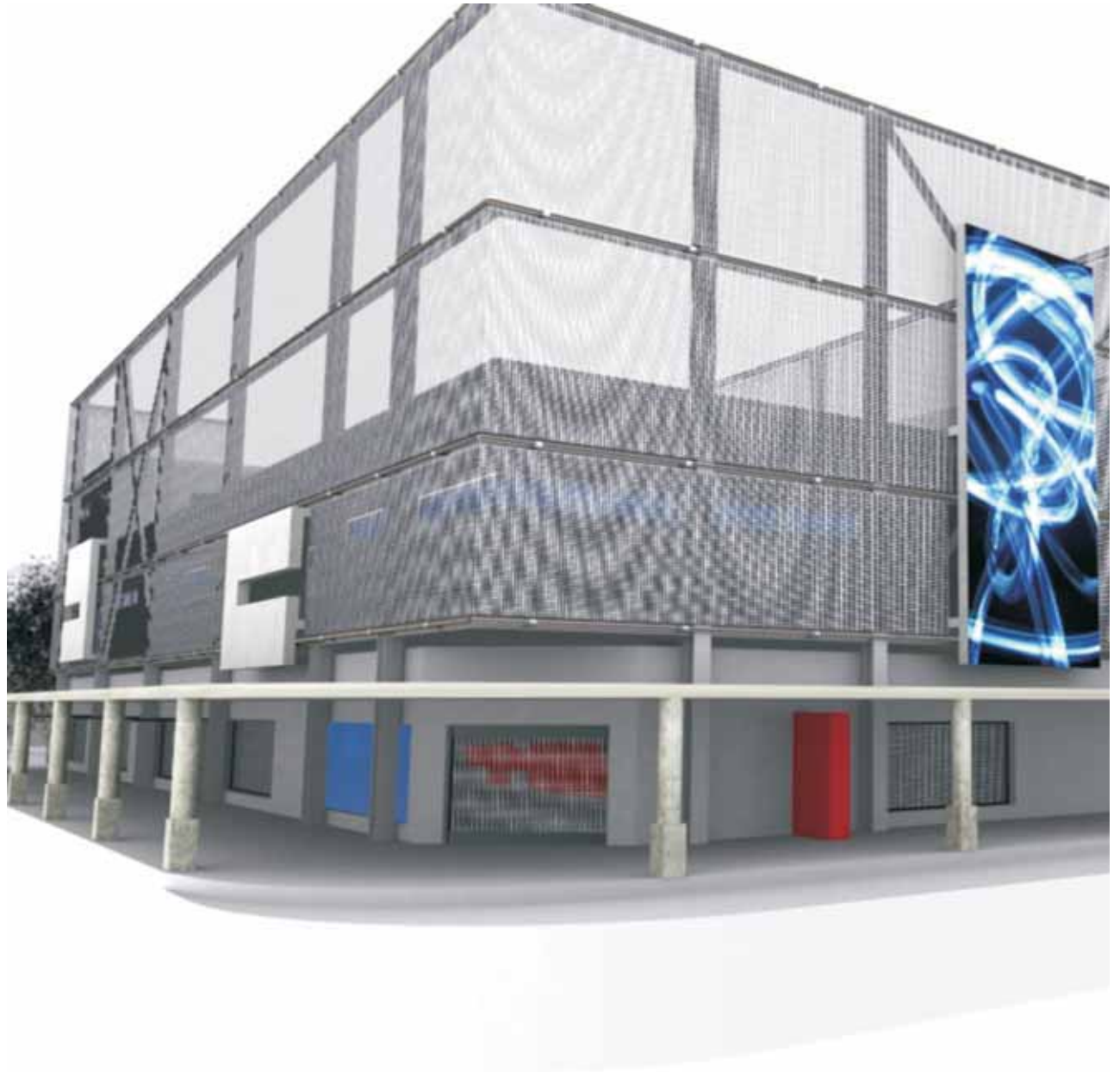




>>prinsloo street view
digital media [exchange]_









>>projection on mesh skin_

>>north view
existing structure and retail block_







>>struben street
extension of collonade_



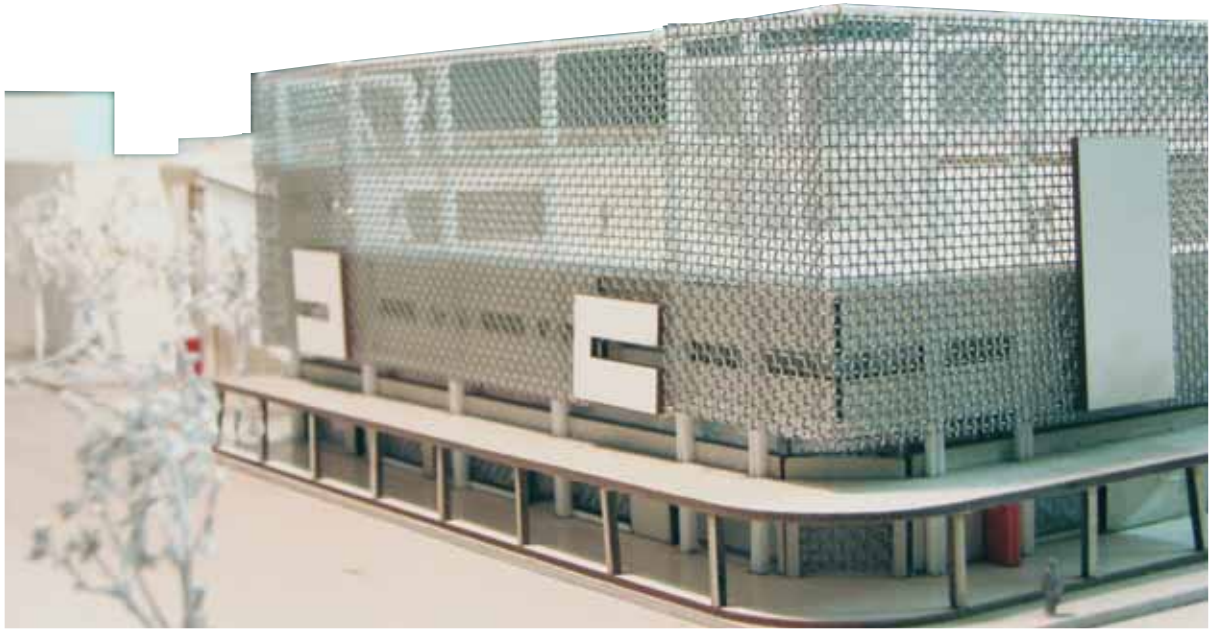


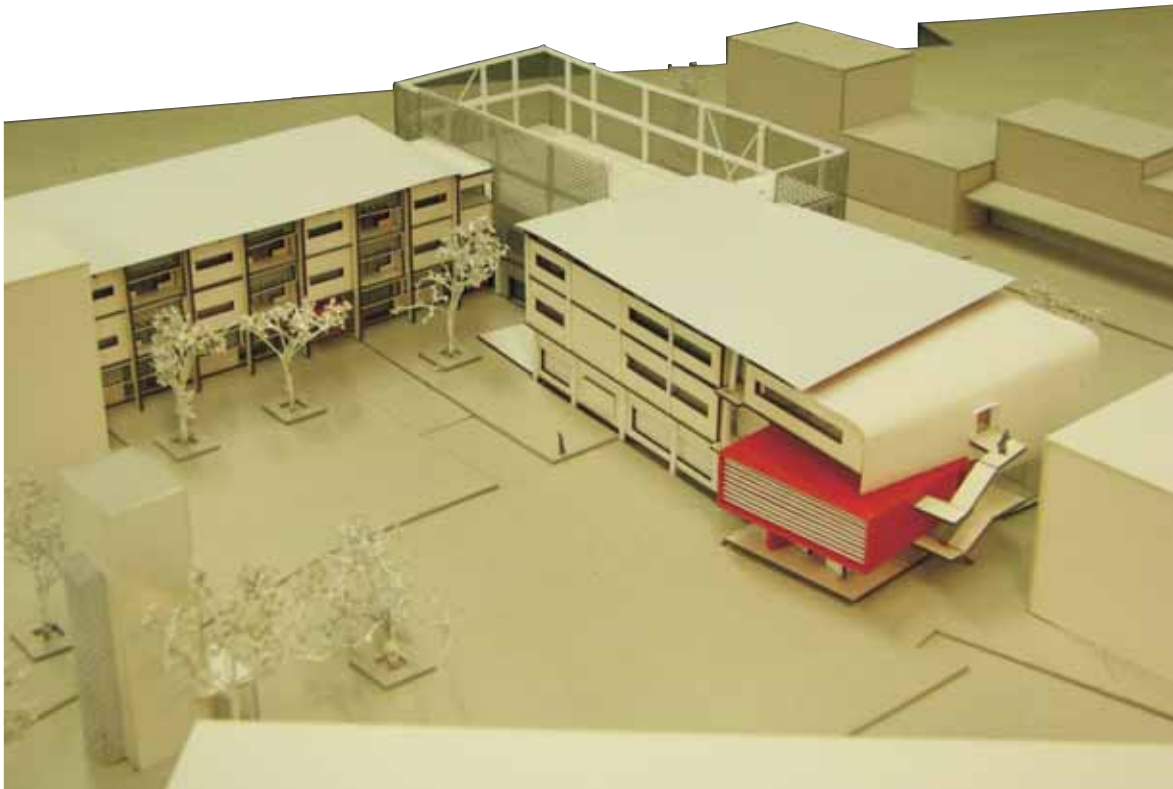
>>ne square view
digital media [exchange]_



>>sw corner view
existing structure_







8_00



