

09 - Design Development

Design

Brief, concept

BRIEF

The proposed mixed use art facility is not only to fulfil the needs of the T.U.T post graduate student, but also addresses the social and recreational needs of the people or students living in the area. Creating spaces that allowing people to interact not only with each other but there surroundings. This is aimed at uplifting the history and character of the site and the river.

The development should enrich the everyday experience of people living in or visiting the city and at the same time enrich the learning experience of the student through interaction and exposure to art and other artists. Exhibition spaces and the gallery can be used for private exhibits that engage artists, public and students.

T.U.T possesses a vast and valuable art collection that could be exhibited on a rotational basis. The purpose is to enlighten students and the public through art that is of a different style and era - work that tells a story of a culture that has evolved through different experiences and keeps evolving. Exhibit and gallery spaces should also provide a platform for students to exhibit their work, and engage with their community. Exhibitions of their work will give them the opportunity to market themselves and their artwork.

The mixed use development will facilitate a variety of different programs aimed at servicing the post graduate art facility and the general public. The program will facilitate workshop studios, restaurants, lecture facilities and accommodation. This mix is aimed at integrating the development into its surroundings, allowing a more robust and flexible space for spill over activities.

PROGRAMME SUMMARY

As a result of the scale of the development and different edge conditions, it was preferred to formulate different responses for each buildings based on the buildings location on the site and location to its edge requirements.

The intervention is made up of three main components.

1. Workshop art and sculpture studio spaces.
2. Restaurant and studio apartments located to north of site facing Church Street.
3. T.U.T seminar and student studios, linked to exhibition spaces and the gallery.

The workshop spaces make up most of the existing structures, while the restaurant, accommodation and T.U.T facilities make up the new structures.

It was important to integrate the different programs, thus connecting the different functions through a series of different courtyards, linked through the main circulation axis.

(A breakdown of the accommodation will be provided later in the design process to better understand how the different programs are integrated and relate to each other).

CONCEPTUAL APPROACH

The essence of what this intervention of (fusing space) can be best described architecturally as **FORGING/HYBRIDIZATION** - Thus a cross-fertilization/fusing of a multiple of complex issues. It is the concept of 'mixed use', where different activities are fused together to create a new idea or function in order to fit into its surroundings ; or meet more than one need in an area, bringing those needs together. (Archispeak, 2004 :89, 145)

The idea of fusion is also defined in Steven Holl's writing on 'intertwining of idea and phenomena'. Fusing has been interpreted as bringing together different elements to create a space that is vibrant and memorable for people. i.e.: where a new building is required to embody historicity or historic characteristics to fit into its surroundings. The focus of the design is aimed at addressing these

issues, reconnecting the old and new, bringing different elements on the site and surroundings together to create a memorable place that is integrated as part of the history and character of the site and city. Where history art and nature can be experienced as a simple part of everyday life.

Figure 9.1 is concept model of based on the idea of fusing space and reactivating space between buildings. How the concept developed can be better understood in Figure 9.2, where the concept evolved through the urban theories of connecting space and the analysis of the site (see figure 9.2: 95).

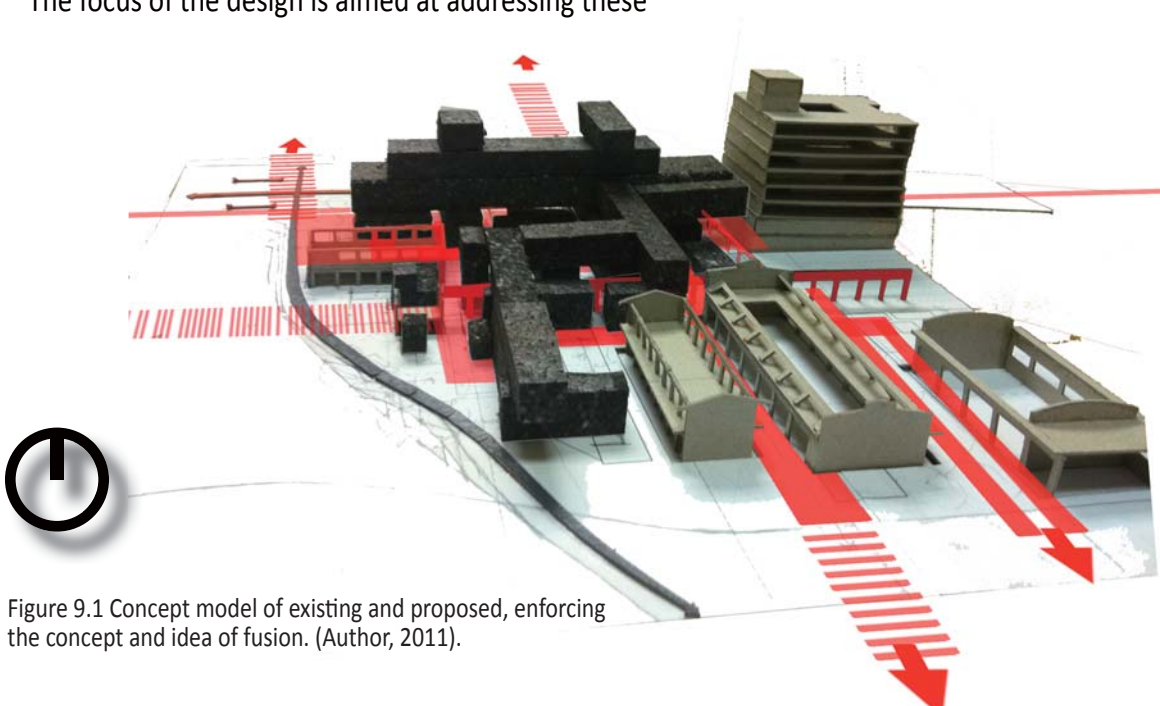
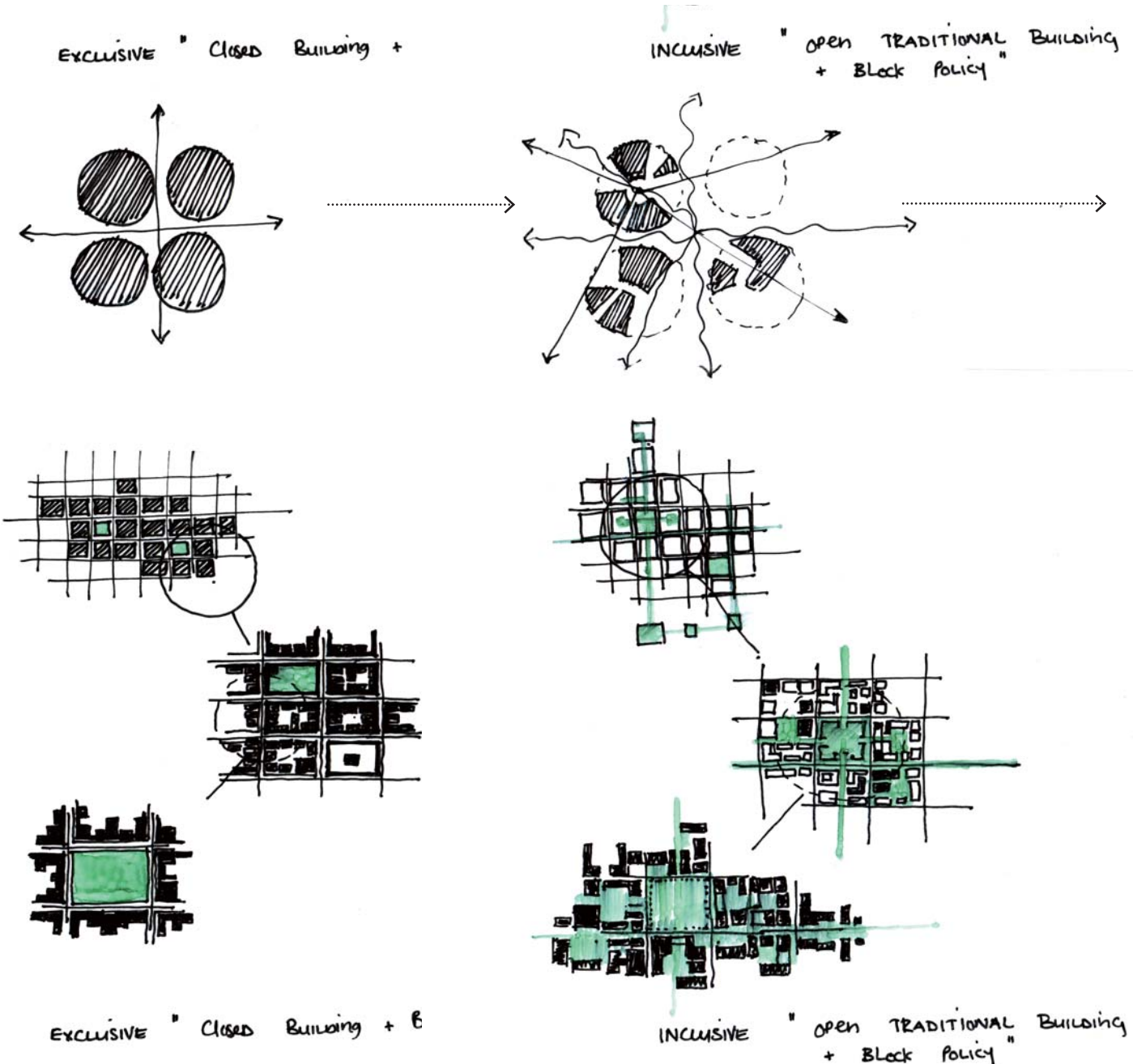
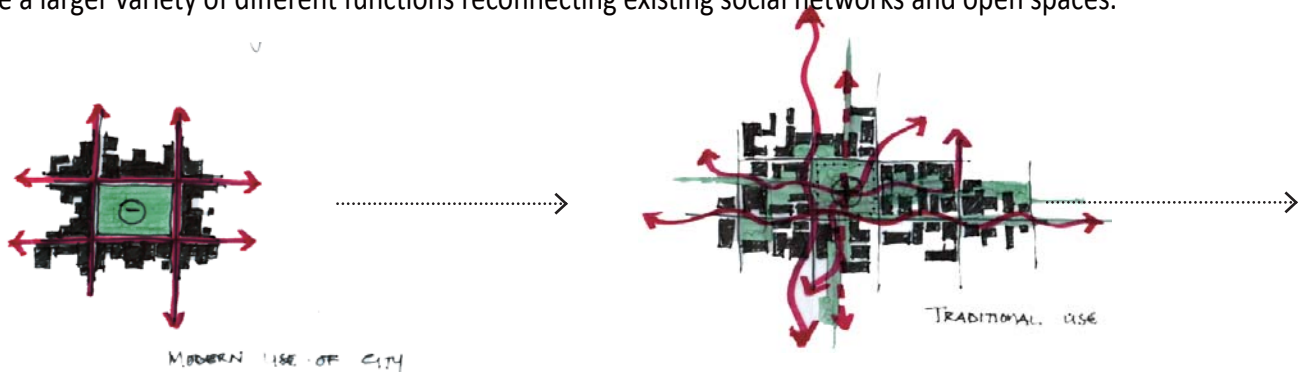


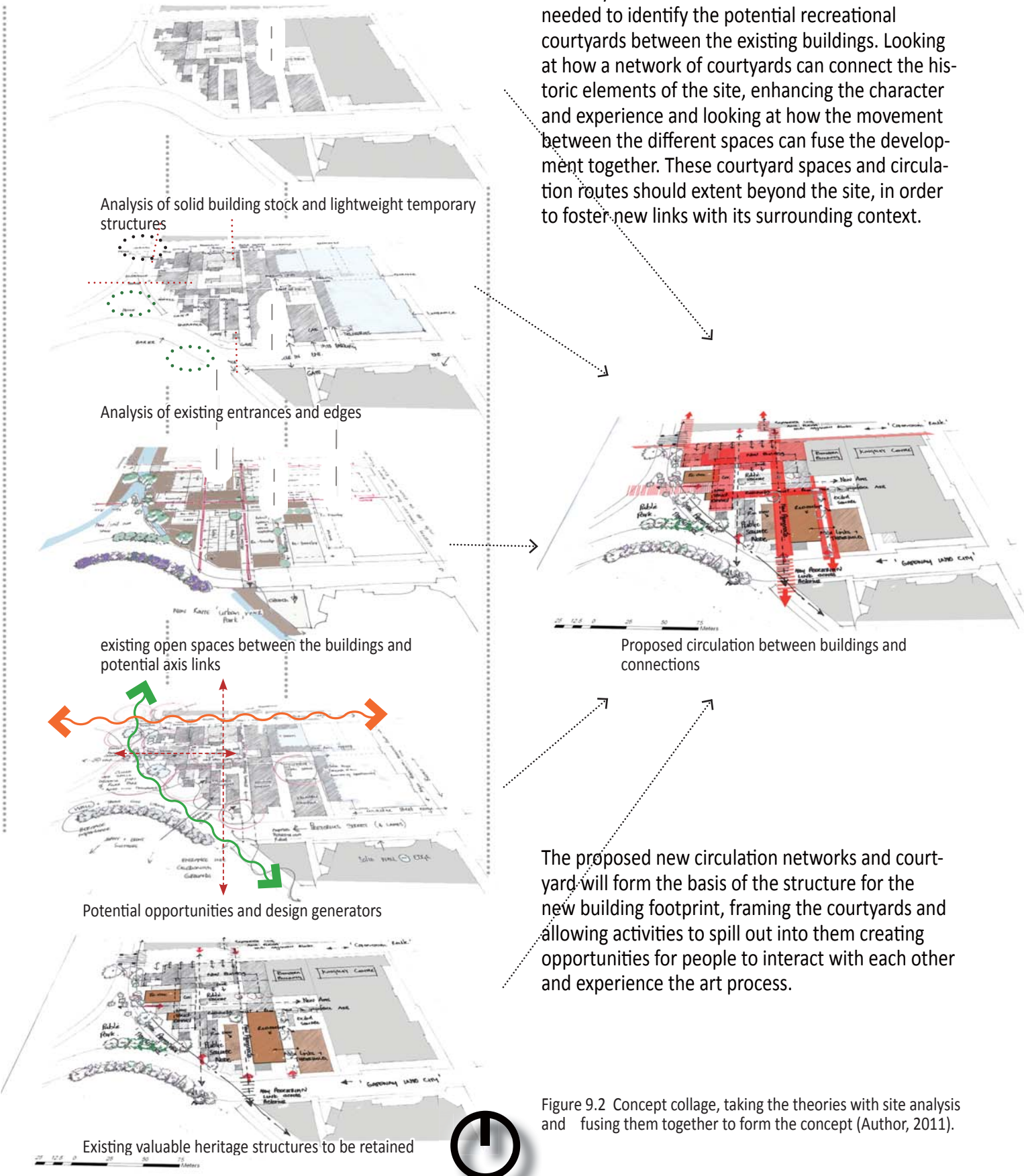
Figure 9.1 Concept model of existing and proposed, enforcing the concept and idea of fusion. (Author, 2011).



Buildings within the urban environment have been designed with little attempt to integrate themselves into existing social or recreational networks, resulting in the depopulation of areas around open spaces, that sustained them. These space as a result have become fragmented abandoned areas that contribute little to integrate social well being of cities. By creating more inclusive integrated responses, spaces could accommodate a larger variety of different functions reconnecting existing social networks and open spaces.



An analysis of different elements of the site is needed to identify the potential recreational courtyards between the existing buildings. Looking at how a network of courtyards can connect the historic elements of the site, enhancing the character and experience and looking at how the movement between the different spaces can fuse the development together. These courtyard spaces and circulation routes should extend beyond the site, in order to foster new links with its surrounding context.



The proposed new circulation networks and courtyard will form the basis of the structure for the new building footprint, framing the courtyards and allowing activities to spill out into them creating opportunities for people to interact with each other and experience the art process.

Figure 9.2 Concept collage, taking the theories with site analysis and fusing them together to form the concept (Author, 2011).

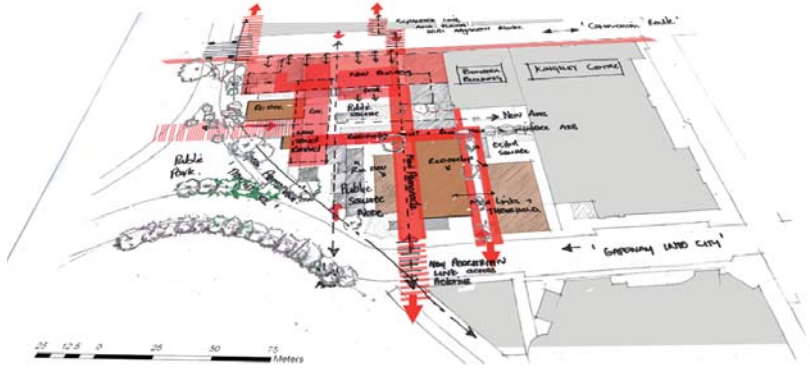


Figure 9.3 Proposed circulation arteries between the existing buildings and courtyard spaces (Author, 2011).

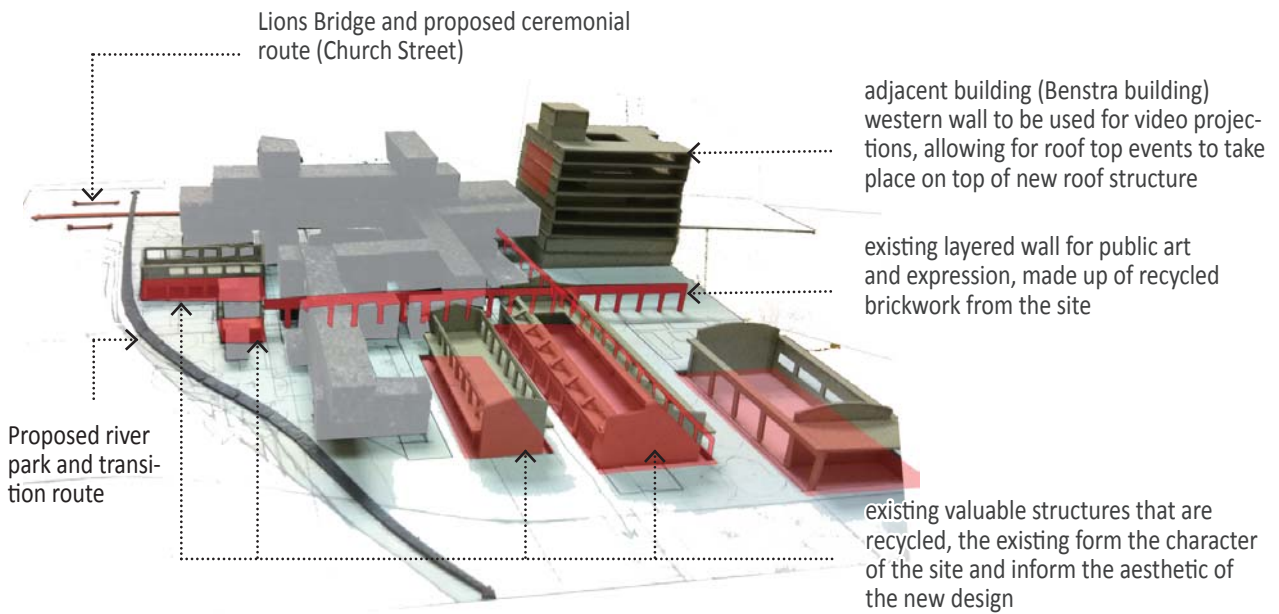


Figure 9.4 Analysis of the valuable structures to inform and be incorporated into the new design (Author, 2011).

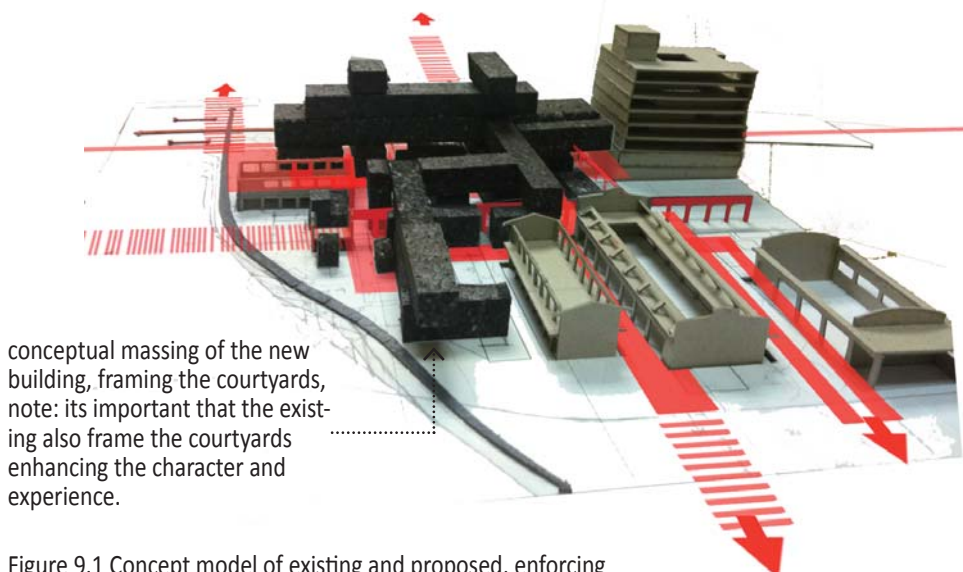


Figure 9.1 Concept model of existing and proposed, enforcing the concept and idea of fusion. (Author, 2011).



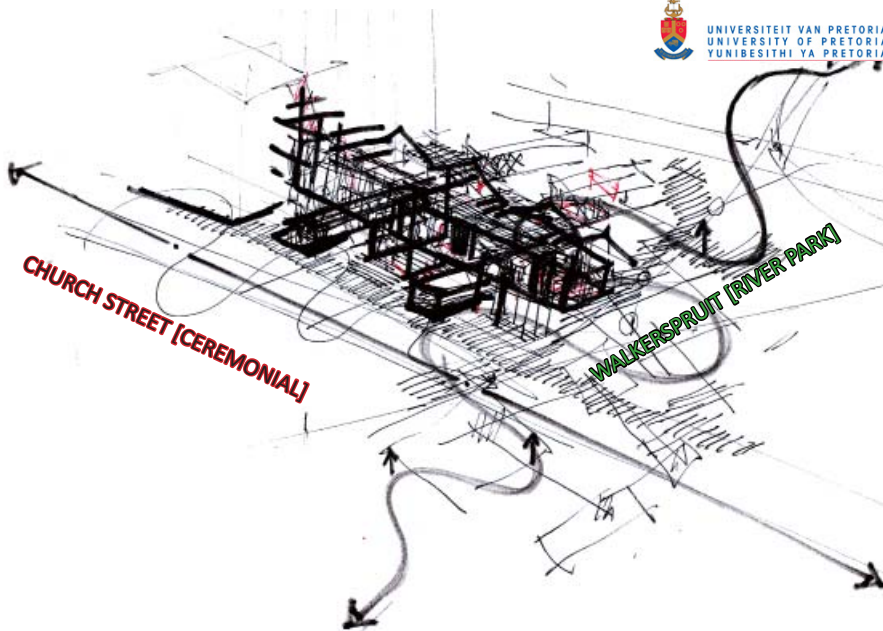


Figure 9.5. Concept building response to Church Street (Author, 2011).

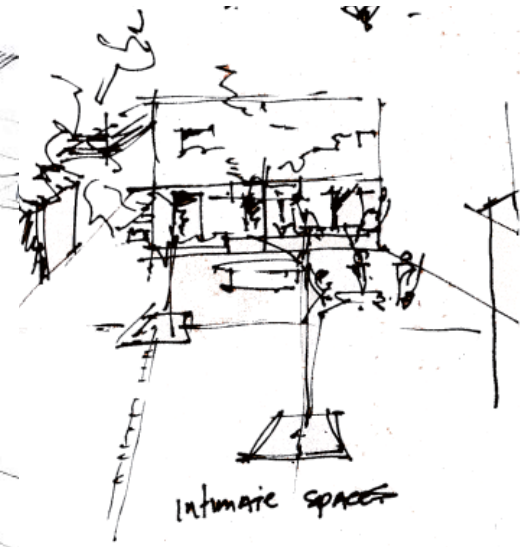


Figure 9.10. Concept for courtyard space (Author, 2011).

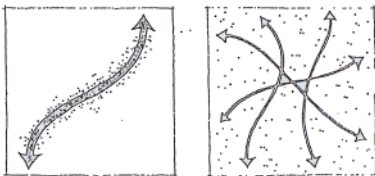


Figure 9.6. To assemble or disperse (Gehl, 2006).

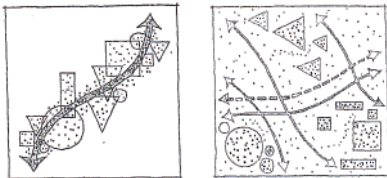


Figure 9.7. To integrate or segregate (Gehl, 2006).

To invite or repel

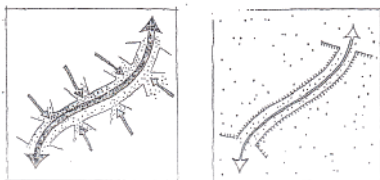


Figure 9.8 To invite or repel (Gehl, 2006).

To open up or close

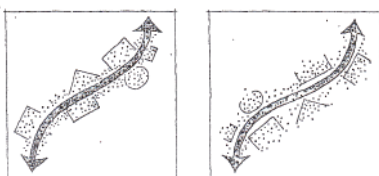


Figure 9.9 To open or close (Gehl, 2006).

Figures 9.6 - 9.9 are sketches of the different possible forms of responses in the treatment of spaces around pedestrian circulation. They illustrate the desired form of interaction between different public and private activities. The design and different programs will respond differently depending on the level of privacy or interaction with the public. Therefore the threshold between these different spaces are crucial to avoid any conflicts between program, security and circulation.

The dialogue between the public and artist should be such that the pedestrian can experience the art process without interrupting the creative process. The artist should also have the option of complete privacy if required. When required, internal processes or exhibits can flow out into courtyard spaces to actively engage the community.

Interaction between the process and projects – “Interaction between social activities in the public spaces and the social process must, therefore, in all circumstances be viewed on several levels- taking into account the prerequisites that exist in individual areas and the varied interests and needs of different kinds of residents or users within areas” (Gehl, 1987: 15).

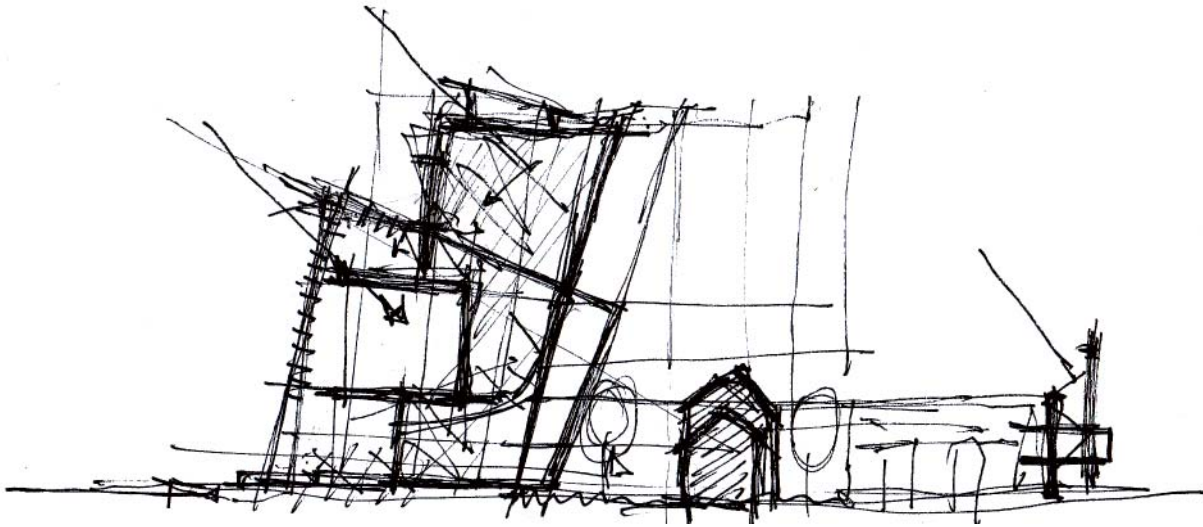


Figure 9.11 Concept section sketch (Author, 2011).

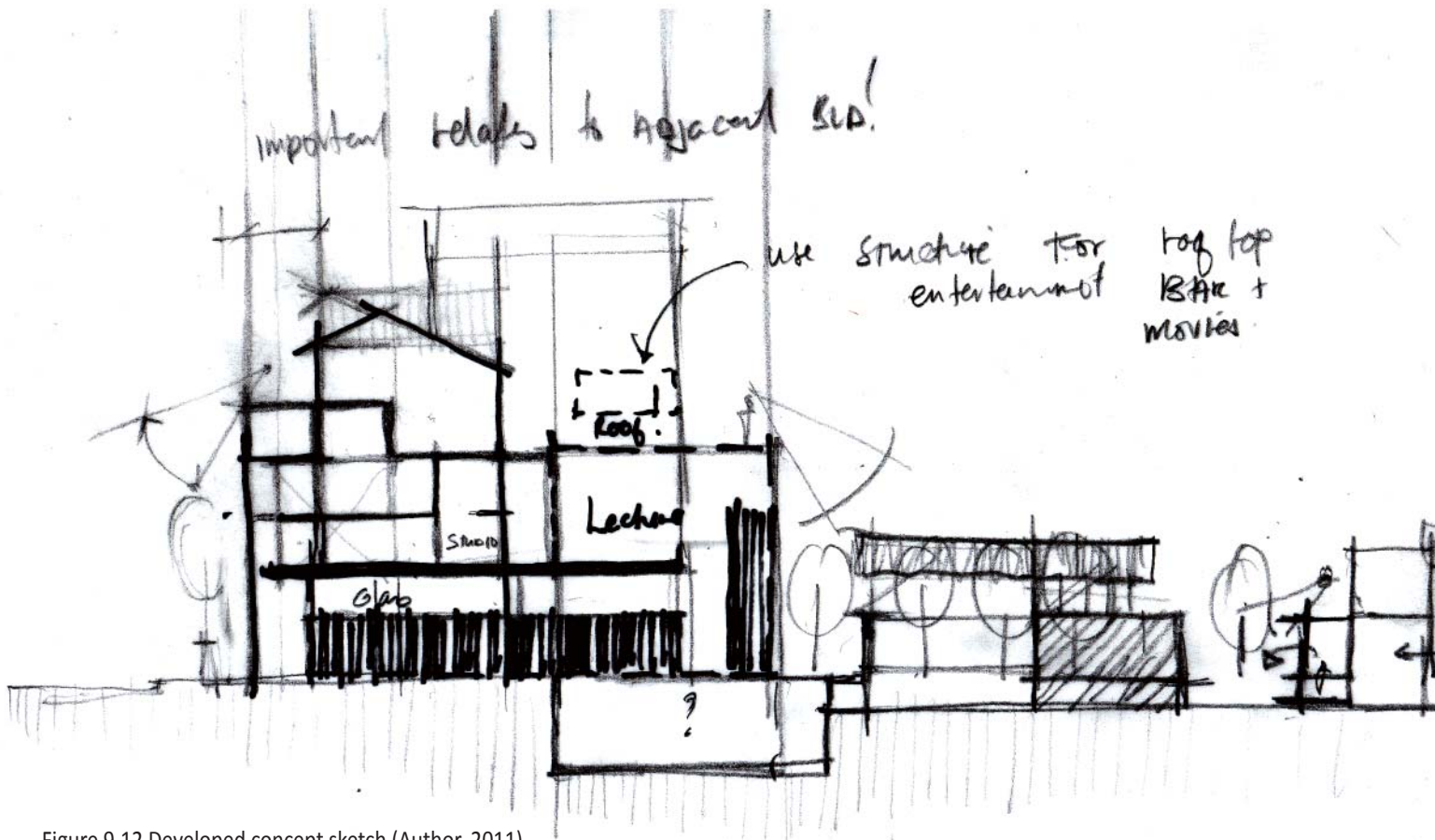
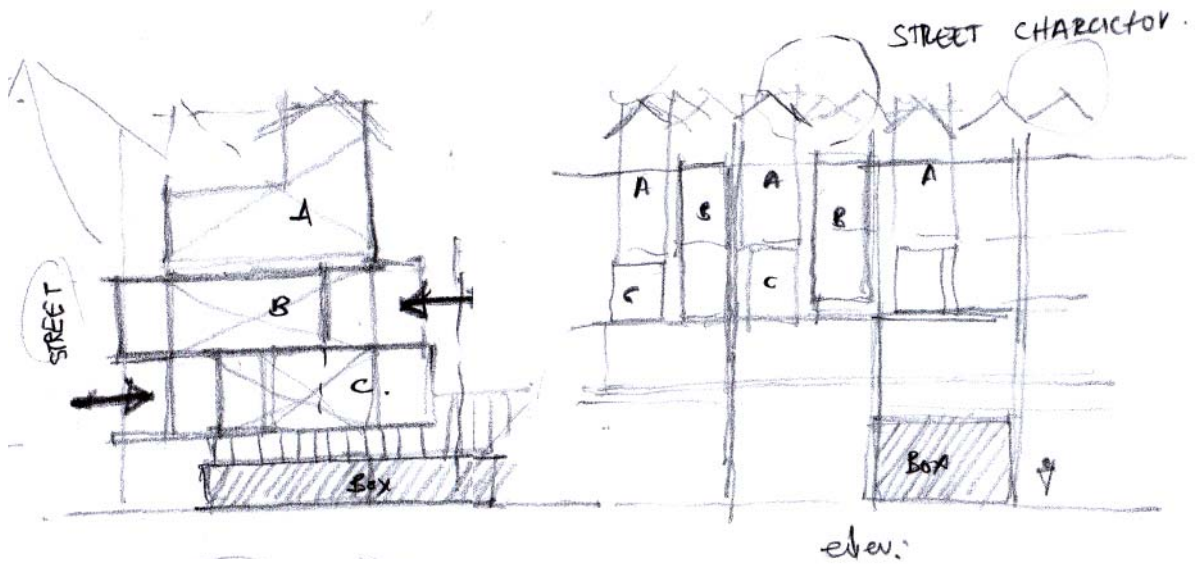


Figure 9.12 Developed concept sketch (Author, 2011).



elev.

Figure 9.13 Conceptual vertical planning section and elevation (Author, 2011).

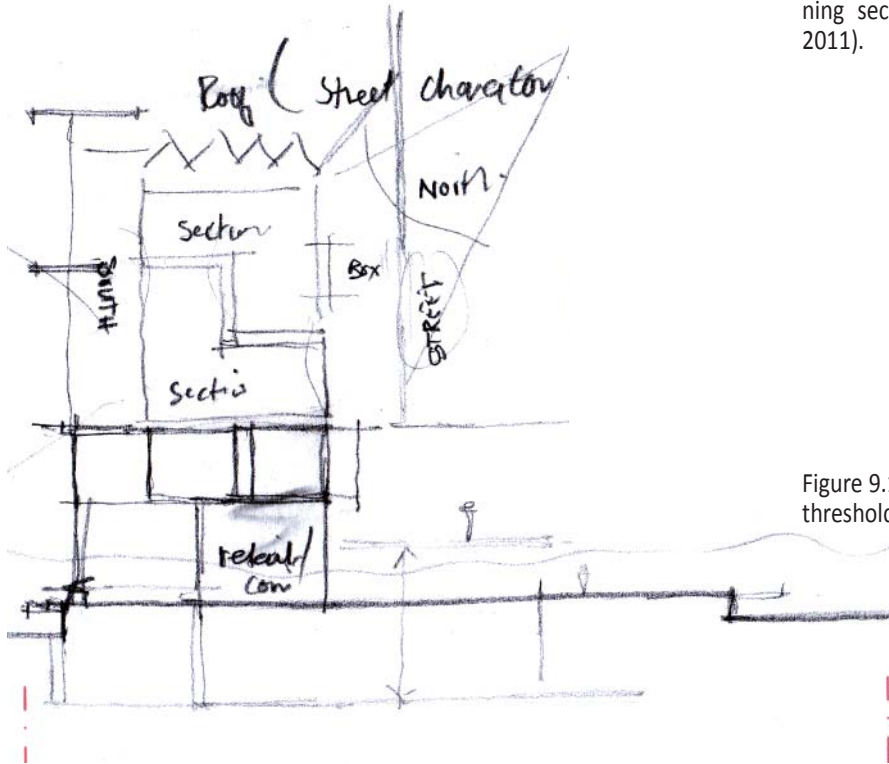
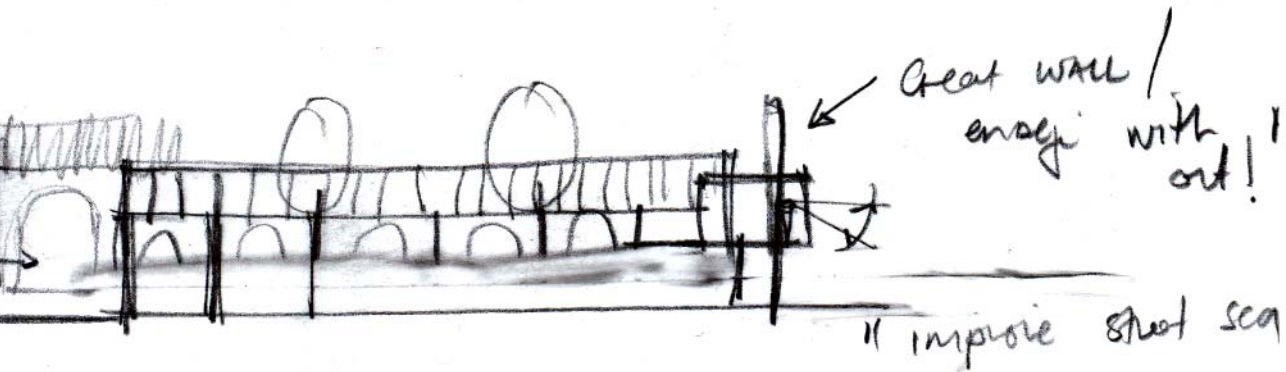


Figure 9.14 Concept circulation across thresholds (Author, 2011).



- 6. Circulation core lobby
- 3. Circulation core
 - 4. Gallery art store + cages + strong room
 - 5. Painting + sculpture store
 - 6. Photography class room
 - 7. Photo shoot studio
- 2. Residential circulation core + control

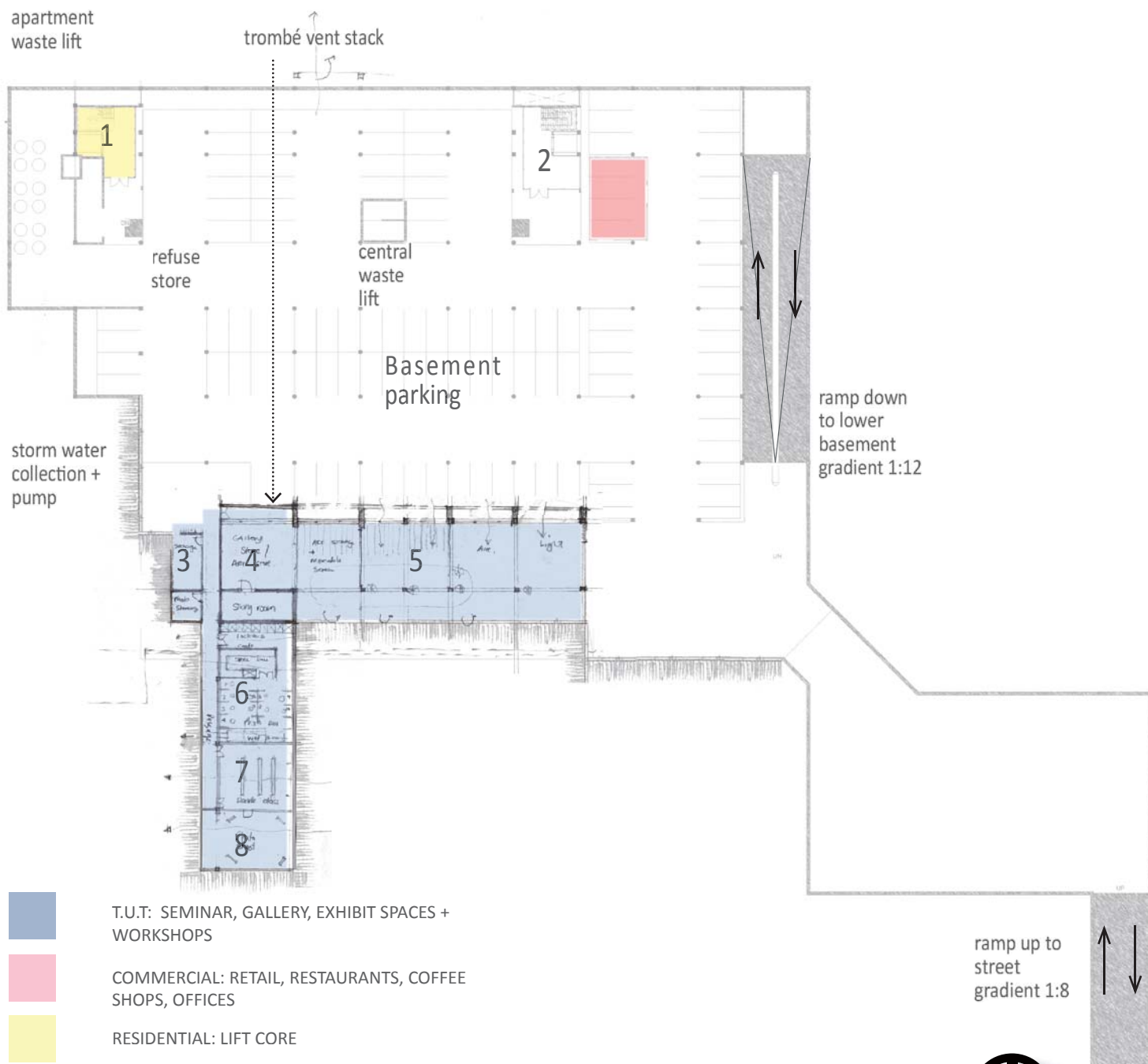


Figure 9.15 Basement floor plan and programme (Author, 2011).

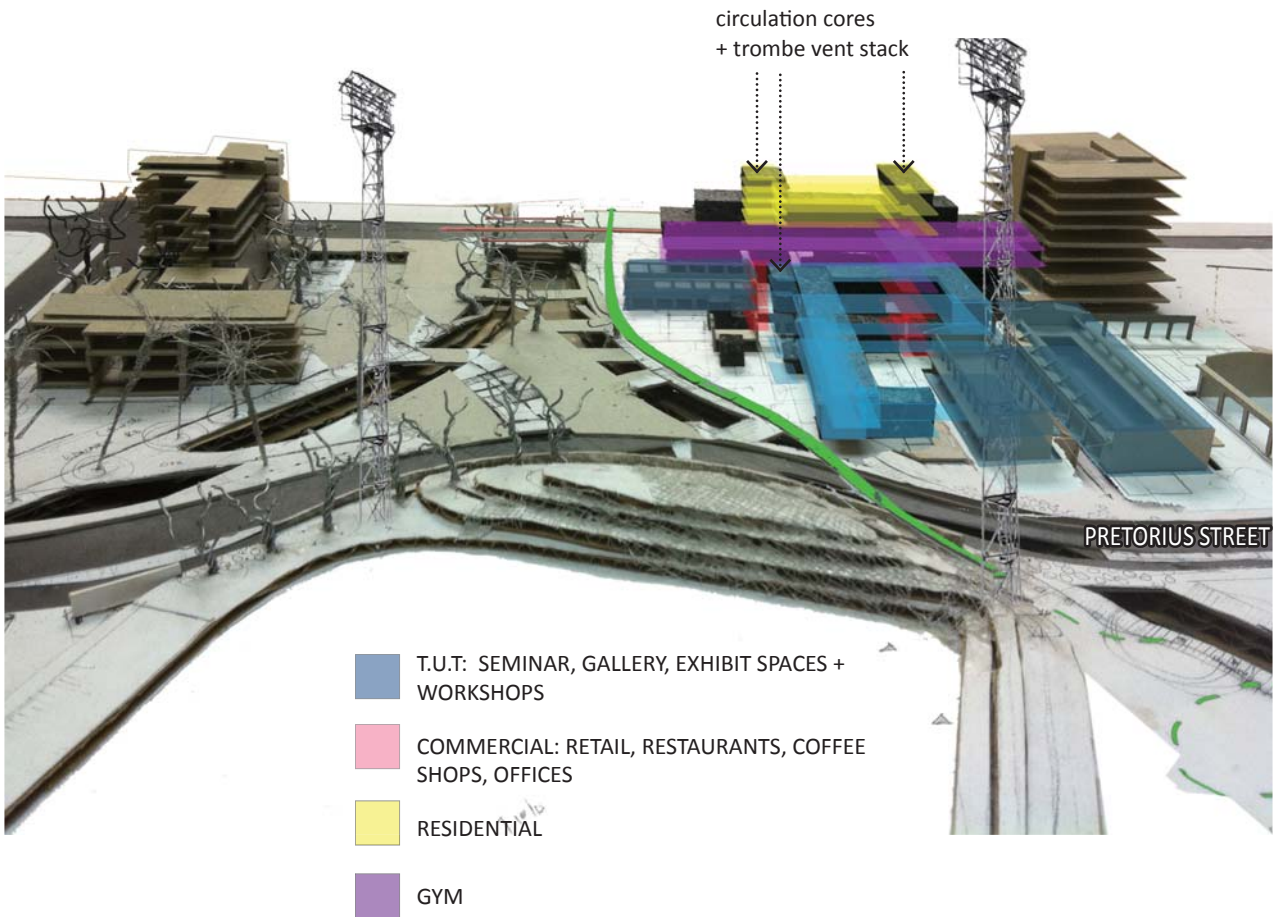


Figure 9.16 Concept Model showing program (Author, 2011).

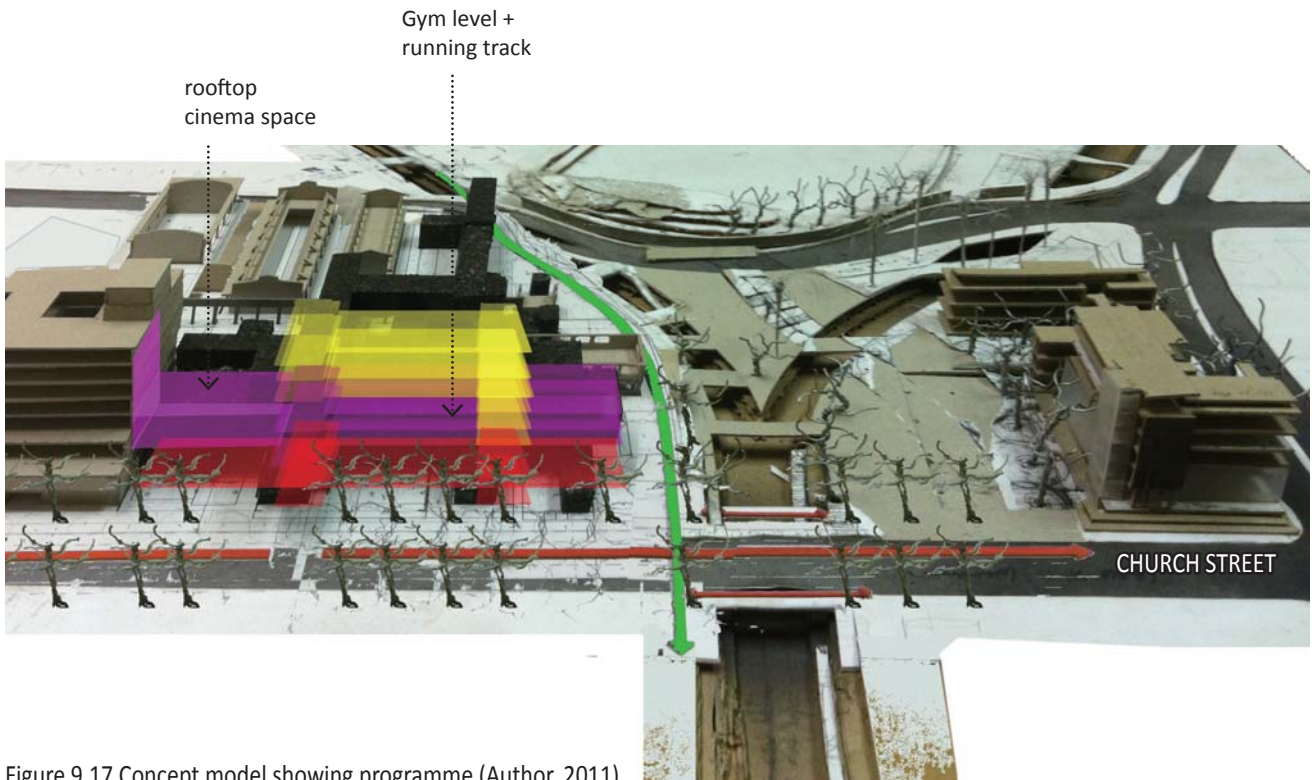


Figure 9.17 Concept model showing programme (Author, 2011).

Pedestrian flow along river park

Pedestrian flow through adjacent block courtyards

LIONS BRIDGE

CHURCH STREET

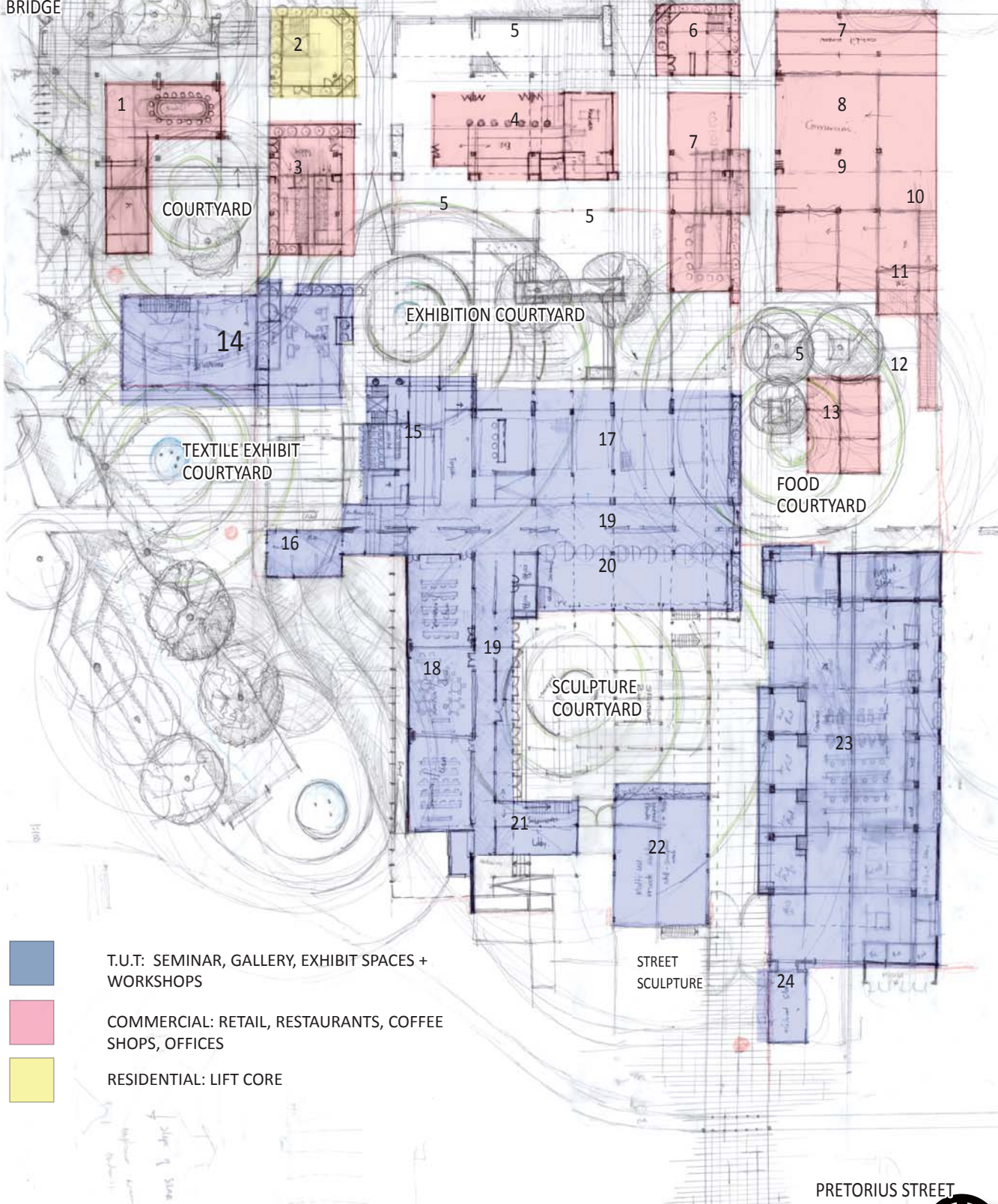


Figure 9.18 Ground floor plan and programme (Author, 2011).

Pedestrian flow from river walk



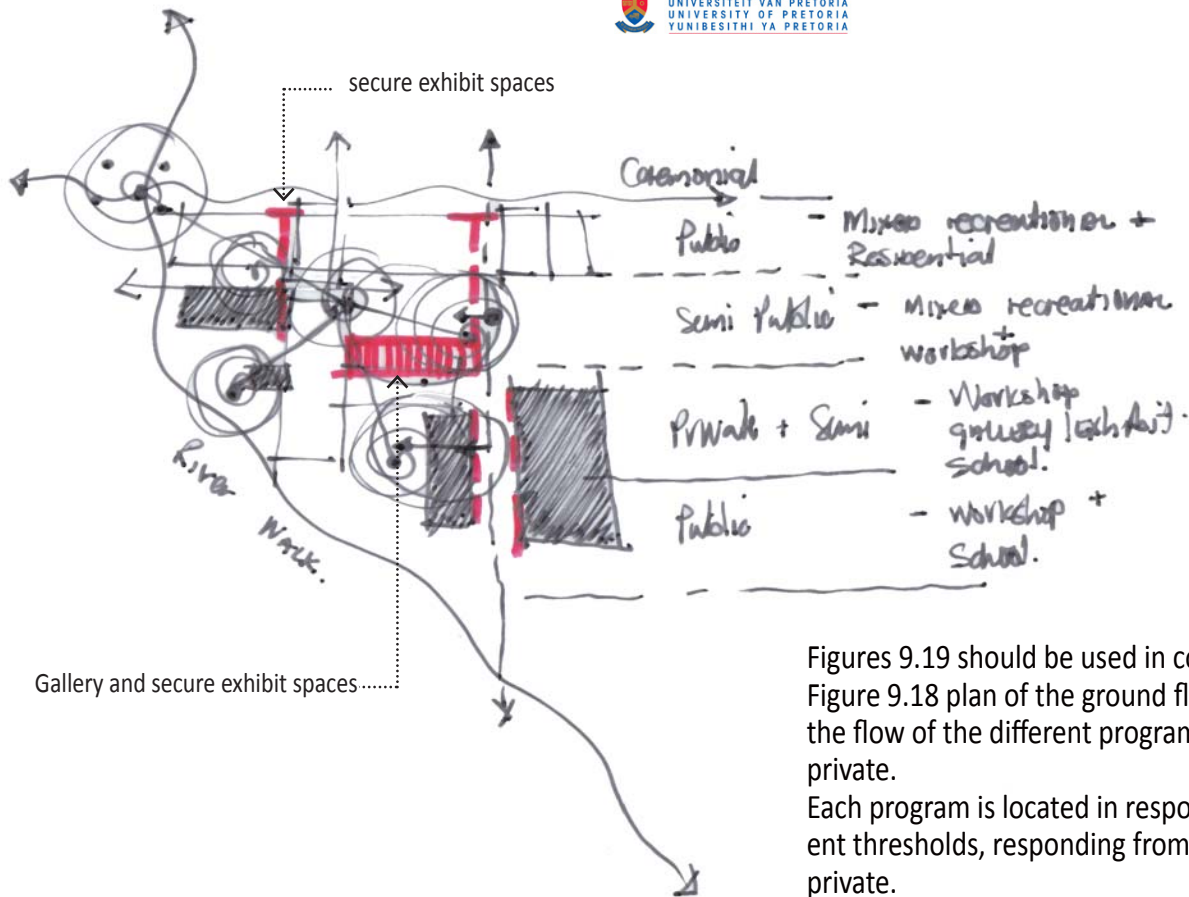


Figure 9.19 Hierarchy of space from public to private (Author, 2011).

Figures 9.19 should be used in conjunction with Figure 9.18 plan of the ground floor to understand the flow of the different programs from public to private.

Each program is located in response to different thresholds, responding from most public to private.

Church Street being most public with most pedestrian activity and Pretorius Street - less public with less pedestrian activity and more vehicle movement.

- | | | |
|---|--|--|
| <p>1. Sushi restaurant</p> <p>3. Ablutions</p> <p>4. Restaurant/ cocktail bar</p> <p>5. Outside seating area</p> <p>6. Circulation core lobby</p> <p>7. Boutique clothing store</p> <p>8. Salon/ hairdresser</p> <p>9. Office/ artist studio space</p> <p>10. Service passage</p> <p>11. Ablutions</p> <p>12. Fire escape</p> <p>13. Snack shop</p> | <p>14. Textile + Fashion workshop</p> <p>15. Lobby + Reception + Kitchen + Ablutions</p> <p>16. Red exhibit</p> <p>17. Rotational gallery</p> <p>18. Seminar/ class rooms</p> <p>19. exhibit passages</p> <p>20. student exhibit/ overflow space</p> <p>21. exhibit lobby + circulation space</p> <p>22. Photograph / green room</p> <p>23. Ceramics and Sculpture workshop</p> <p>24. Info and security</p> | <p>2. Residential circulation core + control</p> |
|---|--|--|

CHURCH STREET

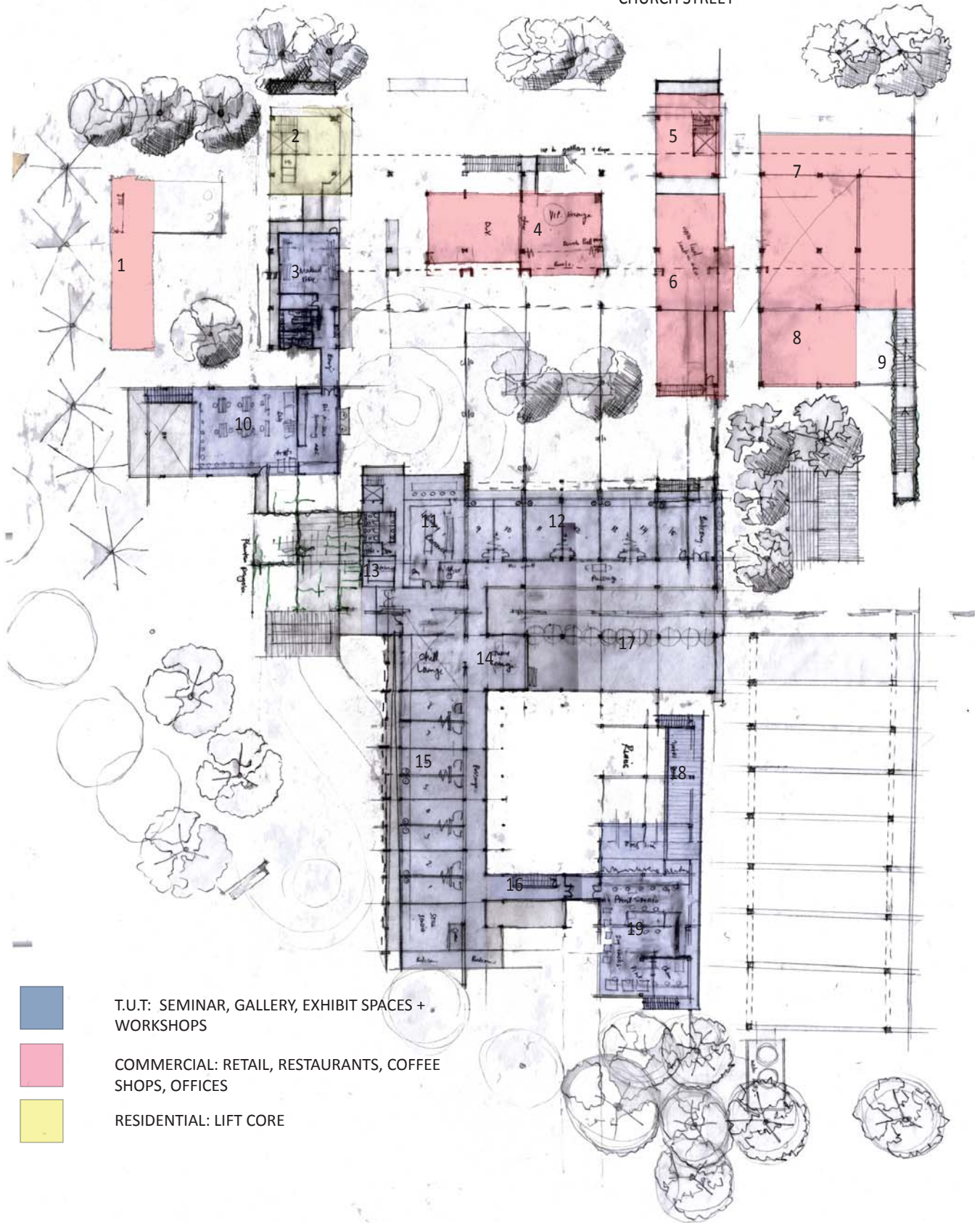


Figure 9.20 First floor plan and programme (Author, 2011).



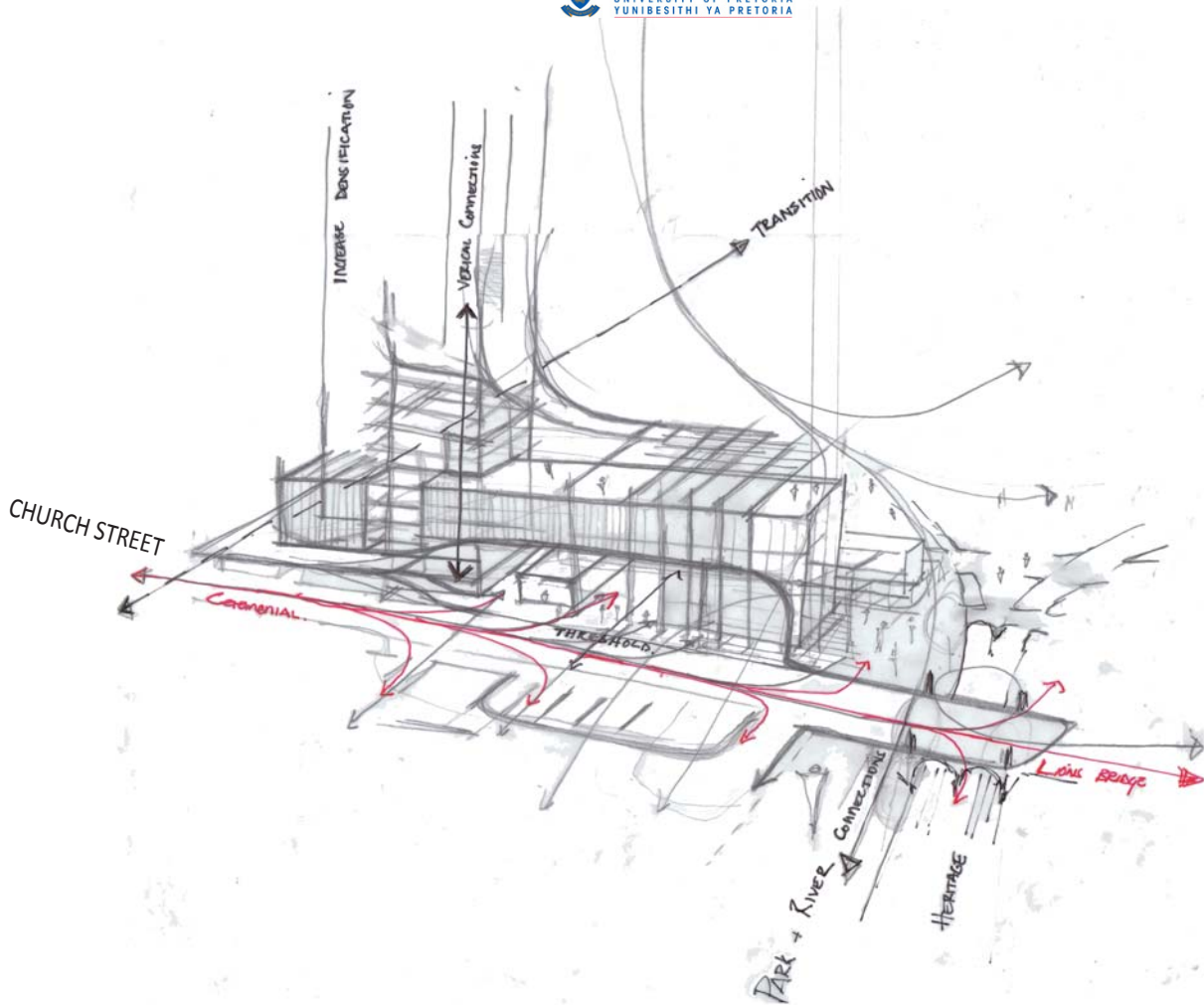


Figure 9.21 Concept image of pedestrian movements along Church Street across the threshold under the building onto the site (Author, 2011).

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> 1. Sushi restaurant mezzanine overlooking double volume + river 4. restaurant private area overlooking double volume space 5. Circulation core 6. restaurant private area overlooking double volume space 7. boutique double volume with mezzanine 8. Double volume and mezzanine office space 9. Fire escape | <ul style="list-style-type: none"> 3. Fashion ablution + material store 10. silk screening with wet area overlooking double volume 11. Research library 12. Studios 13. Ablutions + Kitchen area 14. Internet lounge and communal lounge area 15. Studios 16. Bridge overlooking exhibit lobby 17. Double volume 18. Outside deck 19. silk screening studio + acid bath area | <ul style="list-style-type: none"> 2. Residential circulation core + control |
|---|---|---|

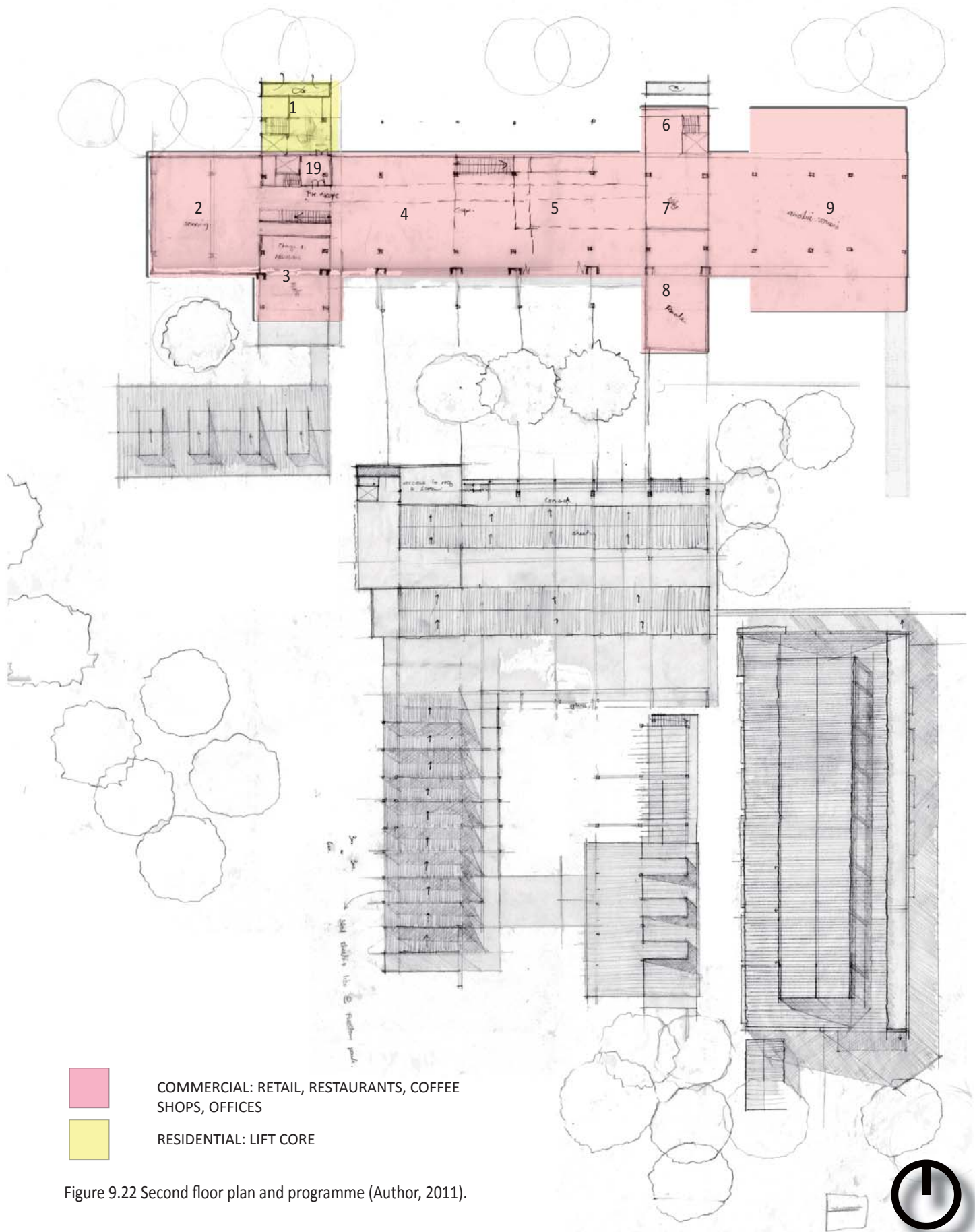


Figure 9.22 Second floor plan and programme (Author, 2011).

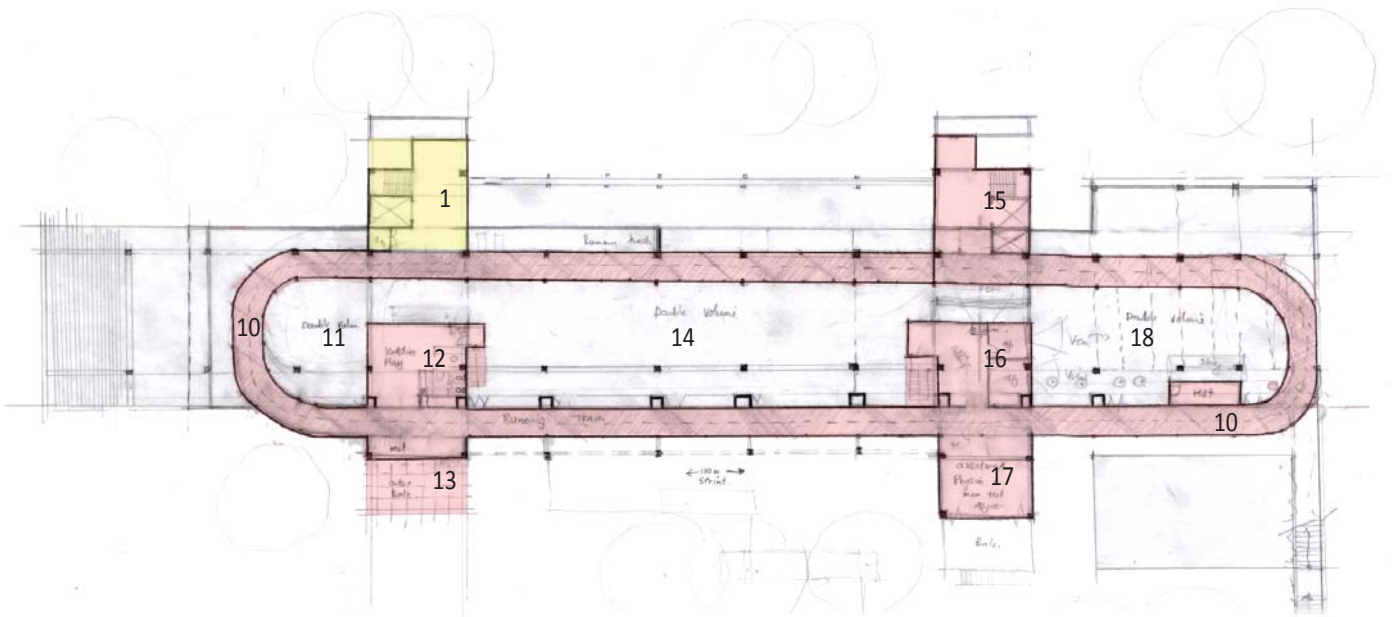
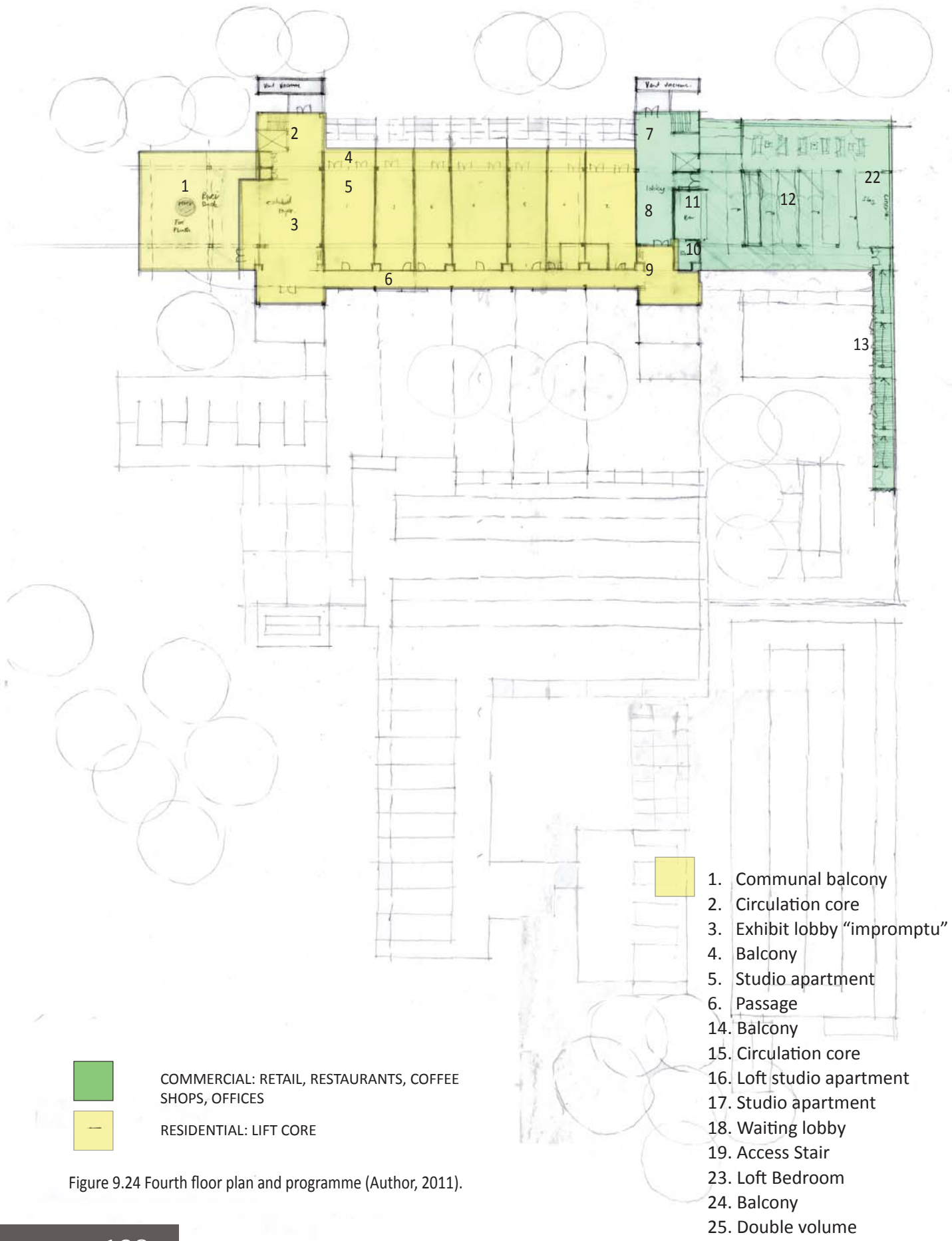


Figure 9.23 Third floor plan and programme (Author, 2011).

- | | |
|--|---|
| <ul style="list-style-type: none"> 2. Spinning 3. Male ablutions + change rooms 4. weight section 5. circuit section 6. Circulation core lobby 7. security and reception 8. Female ablutions and change rooms 9. Aerobic studio 10. Suspended running track 11. Double volume over spinning studio 12. Mother room 13. Inclosed outside balcony 14. double volume over weight training area 15. Double volume lobby 16. Sales Offices 17. Fitness assessment room 18. Double volume over aerobic studio. 19. Fire escape | <ul style="list-style-type: none"> 1. Residential circulation core + control |
|--|---|



COMMERCIAL: RETAIL, RESTAURANTS, COFFEE SHOPS, OFFICES
 RESIDENTIAL: LIFT CORE

- 1. Communal balcony
- 2. Circulation core
- 3. Exhibit lobby "impromptu"
- 4. Balcony
- 5. Studio apartment
- 6. Passage
- 14. Balcony
- 15. Circulation core
- 16. Loft studio apartment
- 17. Studio apartment
- 18. Waiting lobby
- 19. Access Stair
- 23. Loft Bedroom
- 24. Balcony
- 25. Double volume

Figure 9.24 Fourth floor plan and programme (Author, 2011).

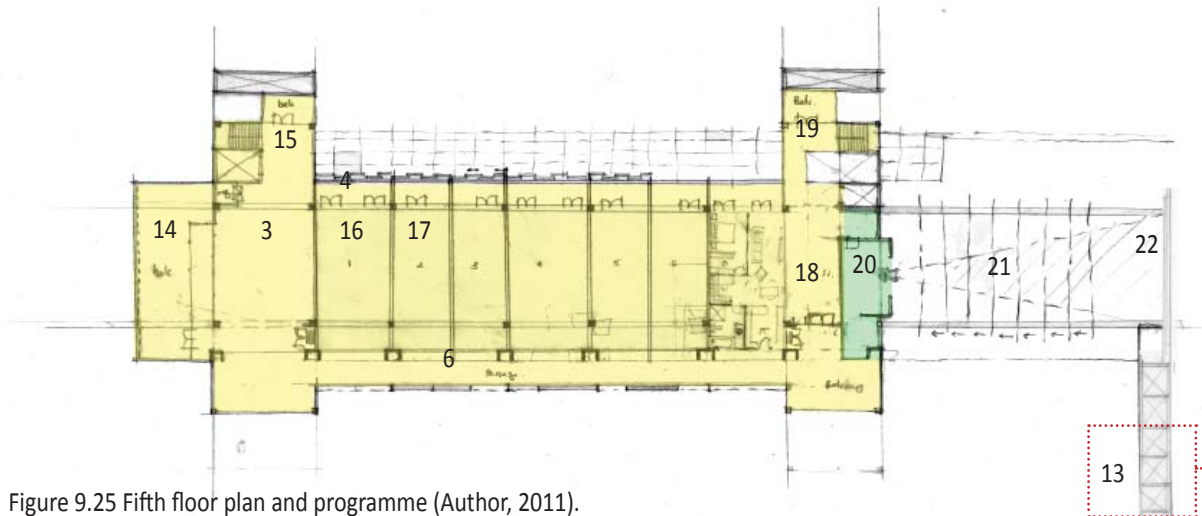


Figure 9.25 Fifth floor plan and programme (Author, 2011).

Roof : water tank store and solar tank geyser store for gym

Roof : water tank store and solar tank geyser store for gym

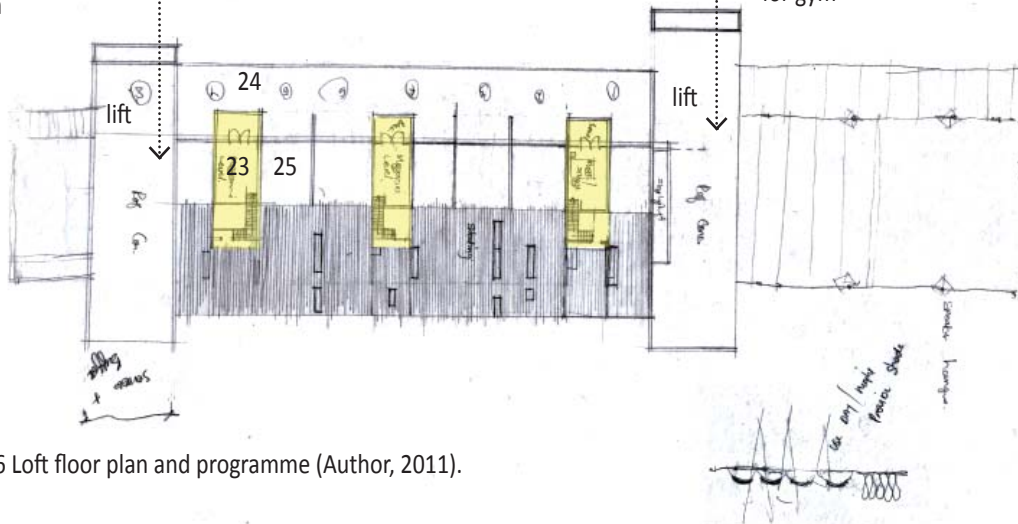


Figure 9.26 Loft floor plan and programme (Author, 2011).

- 7. Circulation lobby
- 8. Exhibit lobby "impromptu"
- 9. Balcony
- 10. Store room
- 11. Cocktail bar
- 12. Roof lounge seating
- 13. Fire escape stair + access to ablutions
- 20. Projector room and store
- 21. Retractable canopy
- 22. Screen

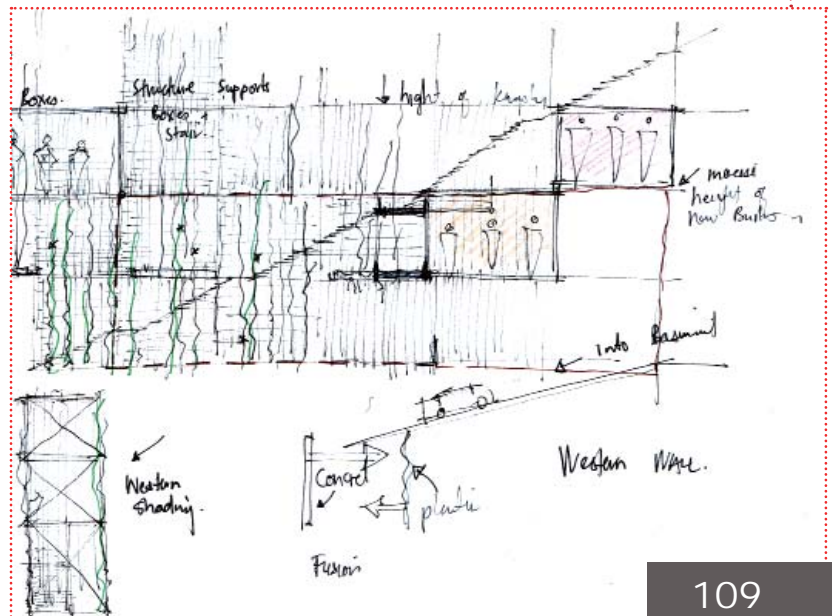


Figure 9.27 Fire escape sketch with vertical creeper (Author, 2011).

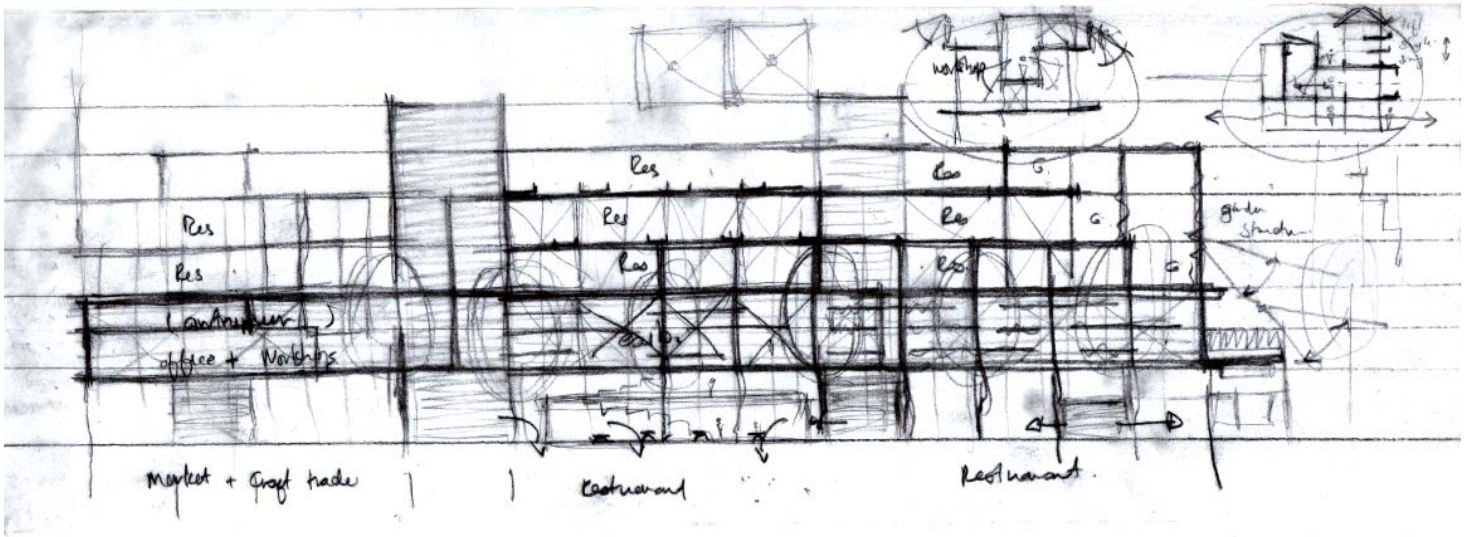


Figure 9.28 Concept sketch of northern elevation (Author, 2011).

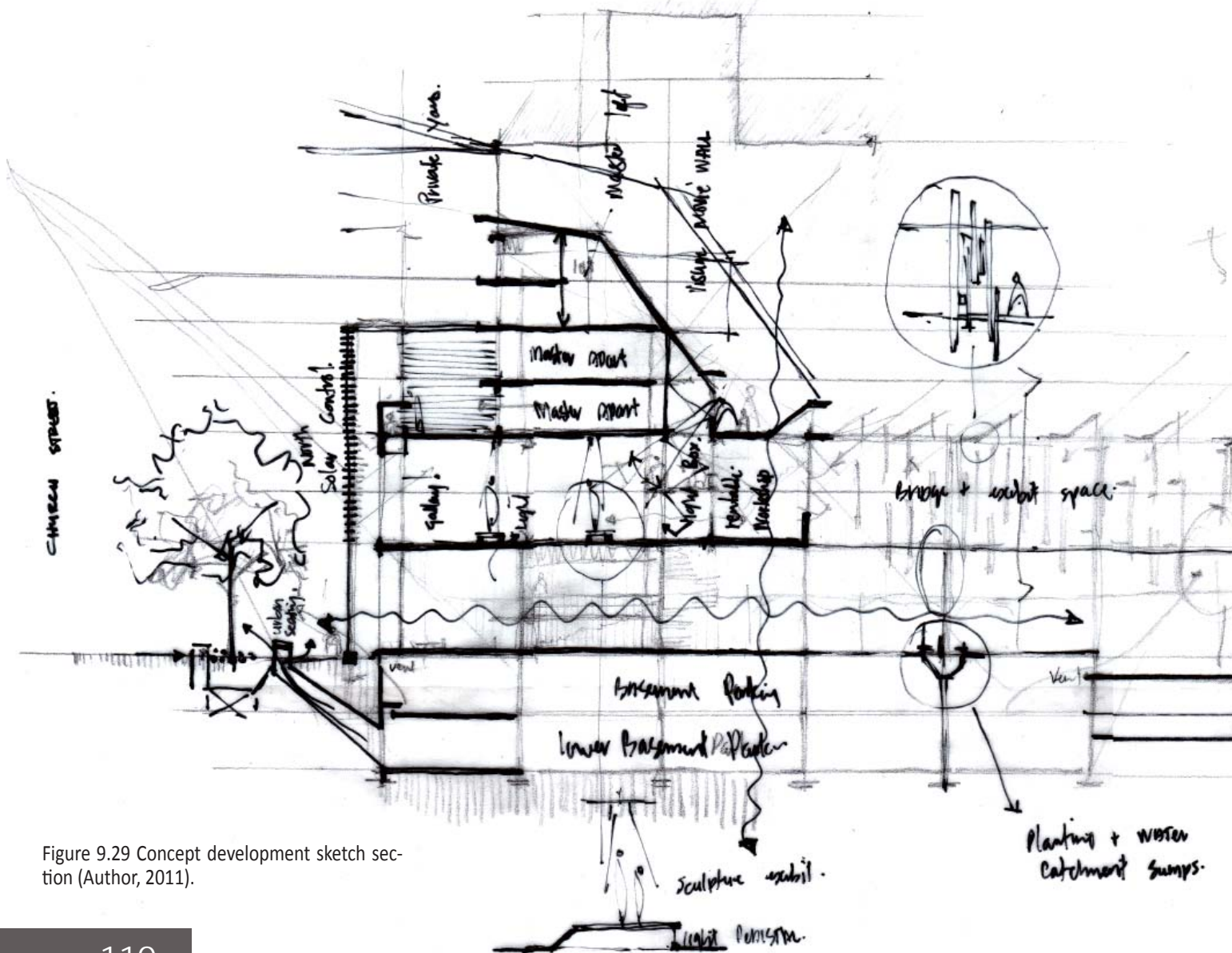
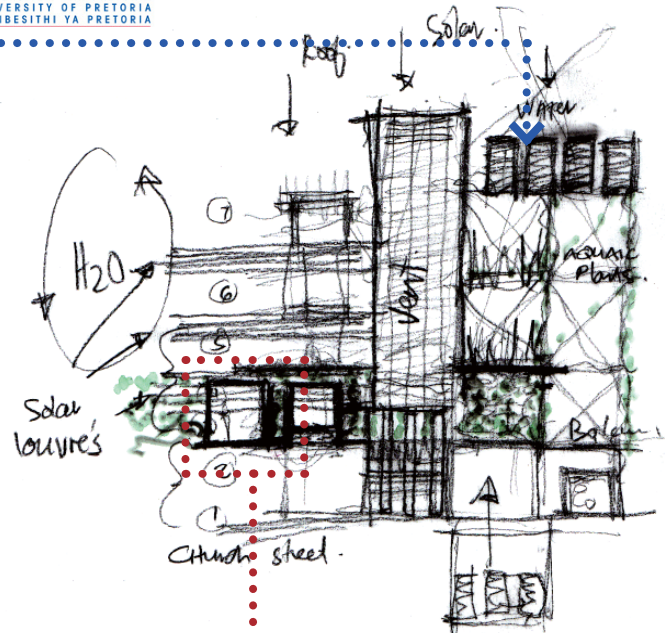
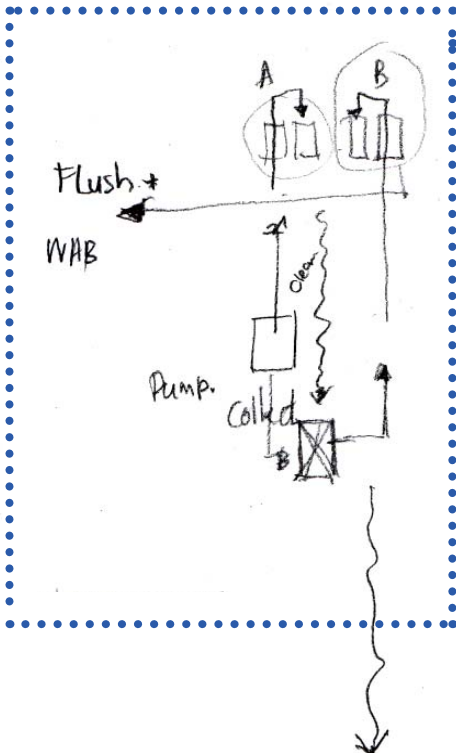
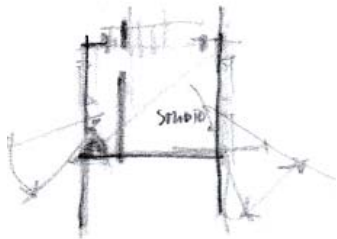


Figure 9.29 Concept development sketch section (Author, 2011).

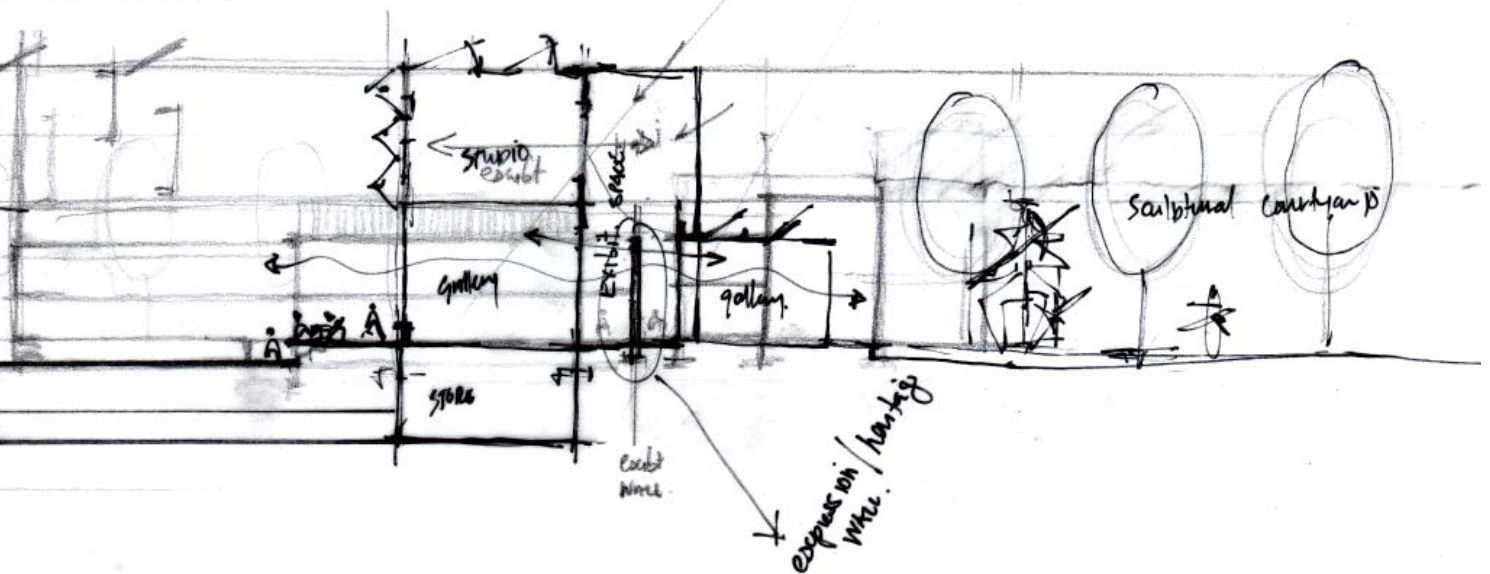


Water Collection +
Purification +
Pump.

Figure 9.30 Planted fire escape sketch (Author, 2011).



Sit in Window or
Use window to display.



Technical

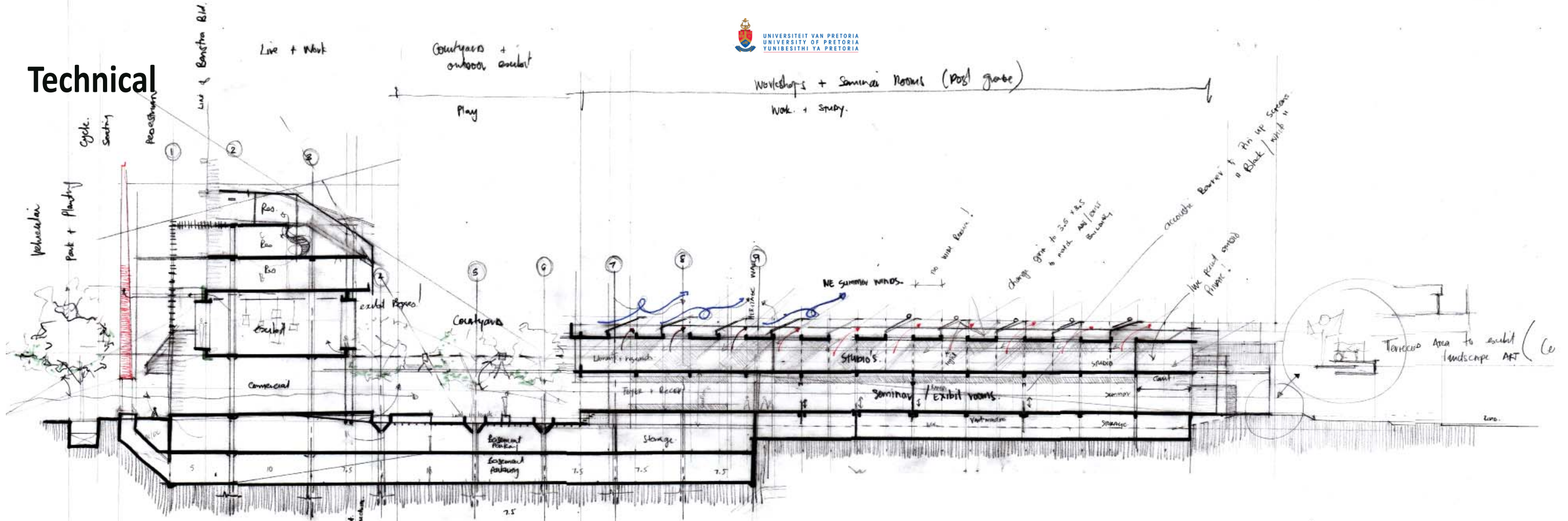


Figure 10.01 Technical development section through building, (see plan 115) (Author, 2011).

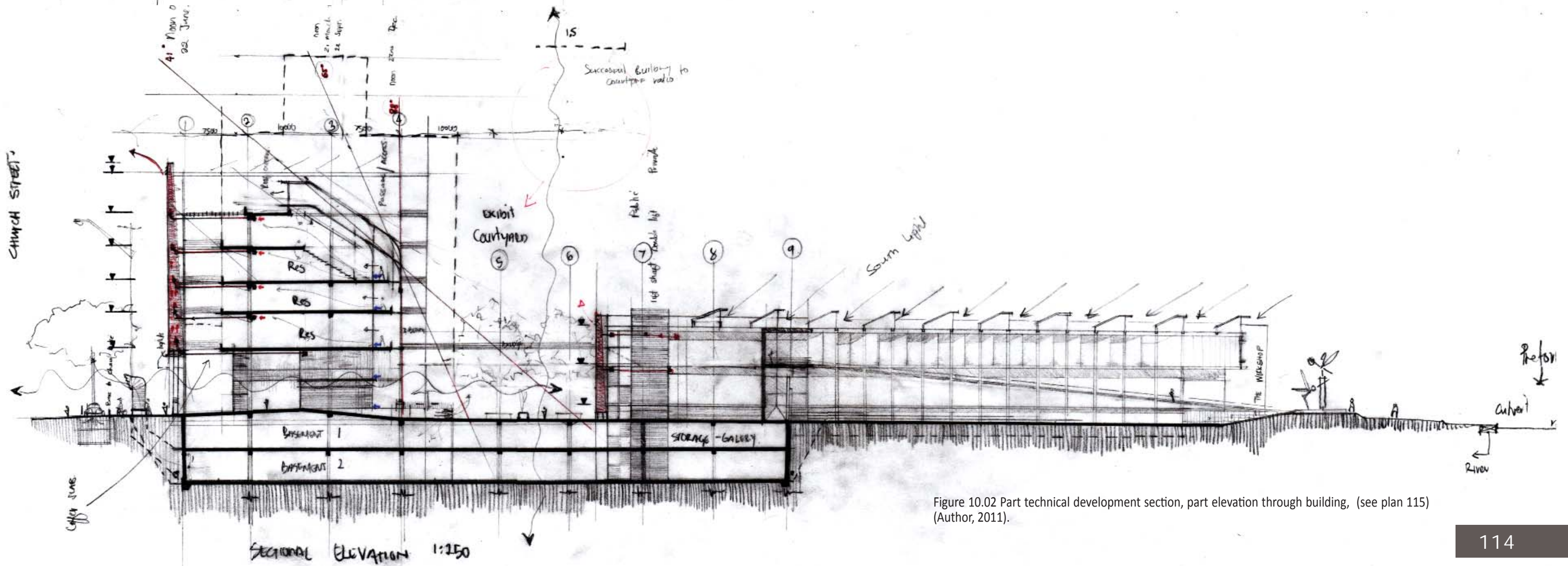
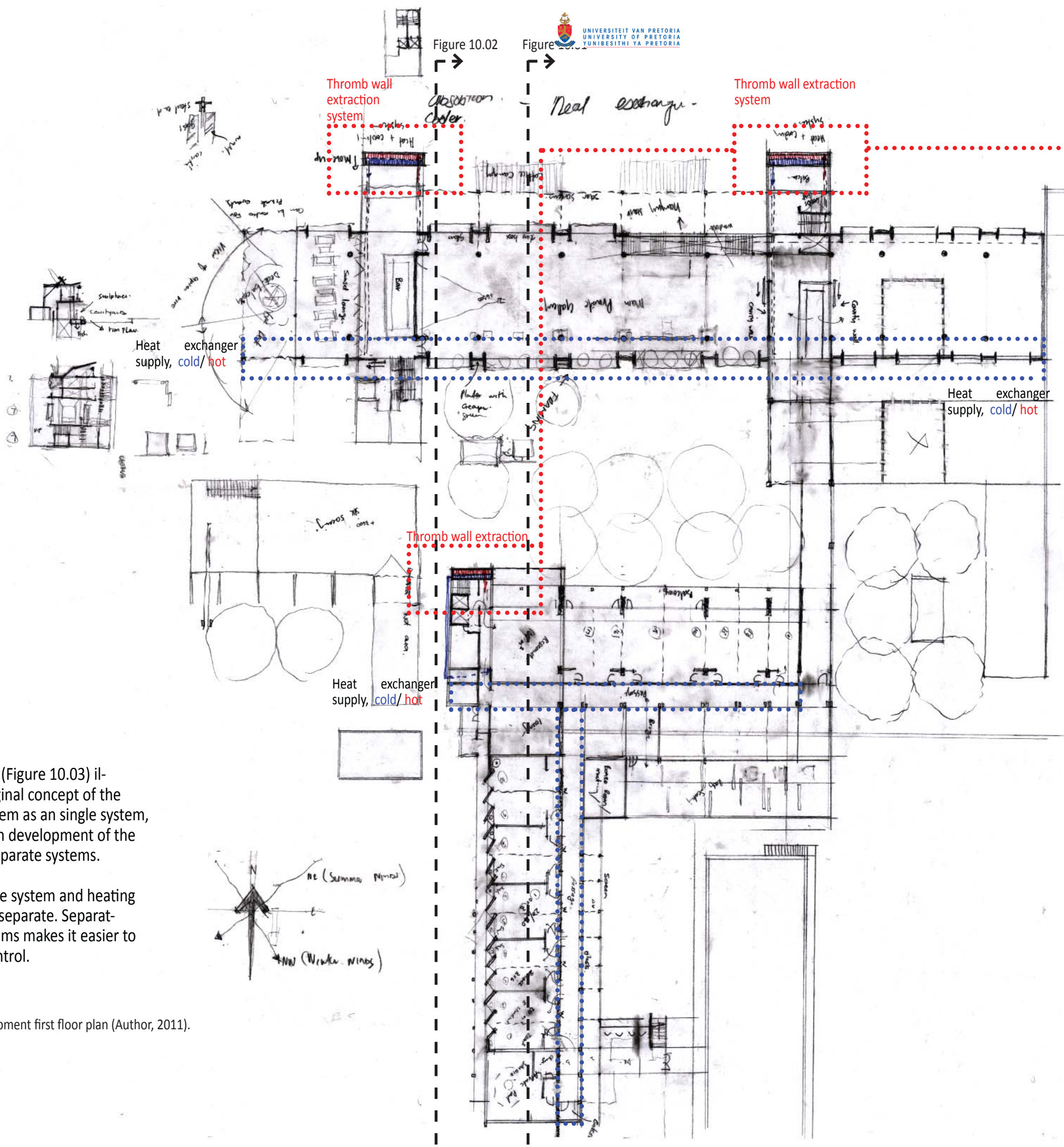


Figure 10.02 Part technical development section, part elevation through building, (see plan 115) (Author, 2011).



The tromb  air stack vents are passive hot air extraction devices fitted to the north facades of the building. Positioned on the norther facade to take advantage of Pretoria high solar radiation conditions. The system will be used to stimulate passive cross ventilation, drawing fresh air through the building and programs below ground level, where passive cross ventilation is difficult to achieve.

The fresh air (heated or cooled) is supplied seperately. Supplied air to the building will be heated or cooled through an indirect heat exchanger built onto the roof.

In summer, the air will be cooled before it is supplied to the internal space, and heated in winter. The system works by heating or cooling an anti freeze liquid (Glycerol) that circulates through a thermal exchanger. The exchanger will either heat or cool the air that moves through it, depending on the users requirements.

Heating the liquid will take place using a active parabolic trough. Cooling the air will occur passively by pulling ambient air through the exchanger internally extracting the heat out of the air, cooling the air down.

The air pulled over the exchanger into the supply ducts will be assisted mechanically, with the aid of a extractor fans built into the ducts. Fans will be used to circulate the air through the thermal exchangers, either heating or cooling the supply air.

The fans will be fed off photo voltaic panels that will power the fans during the day. The reason for this is that the prevailing winds in Pretoria are not suitable enough to supply enough velocity move the air over the exchanger to cool or heat the air sufficiently.

Summary: fresh air will be heated or cooled depending on the season, and supplied (controlled) from the southern facades of the building close to floor level. The stale air will be extracted (controlled) from the north facade via a tromb  wall extractor. The tromb  wall extractor is compartmentalised to extract air separately from the basement and the apartments or studios.

Note: the sketch (Figure 10.03) illustrates the original concept of the passive vent system as an single system, before the design development of the system as two separate systems.

Ventilation as one system and heating and cooling as a separate. Separating the two systems makes it easier to maintain and control.

Figure 10.03 Development first floor plan (Author, 2011).

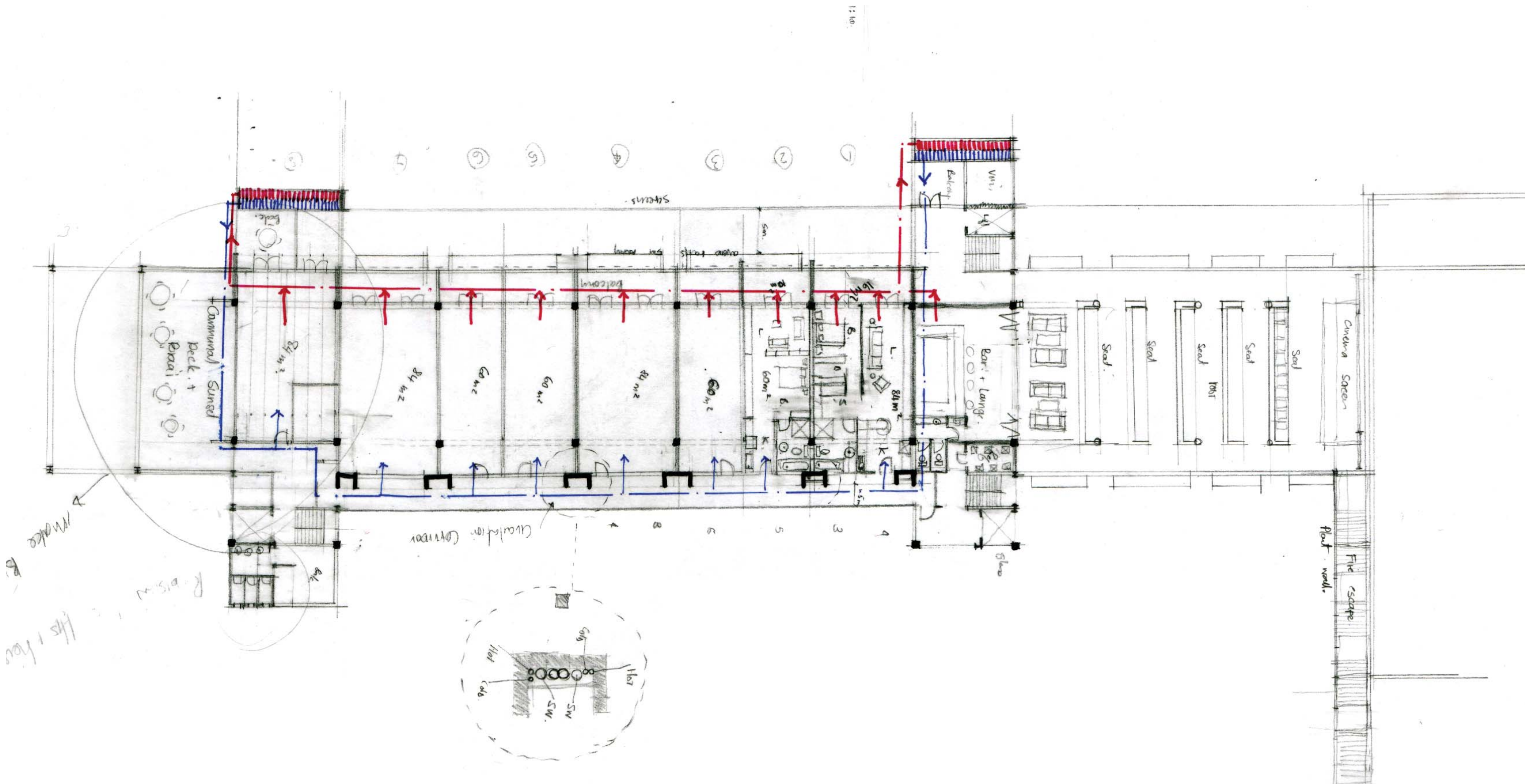


Figure 10.04 Development fifth floor plan (Author, 2011).

Figure 10.15

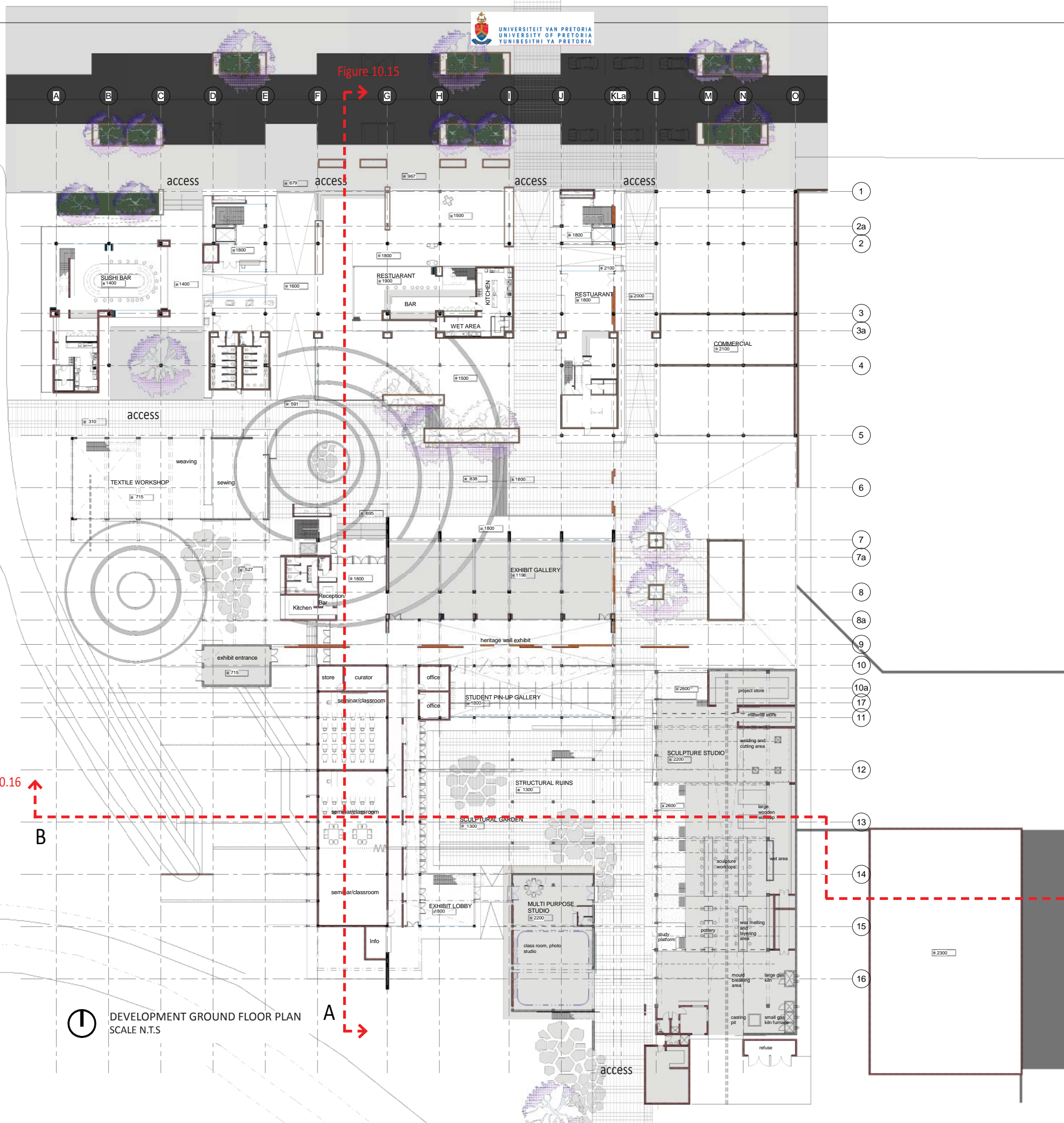


Figure 10.16

B

DEVELOPMENT GROUND FLOOR PLAN
SCALE N.T.S

A

B

Figure 10.05 Development ground floor plan (Author, 2011).

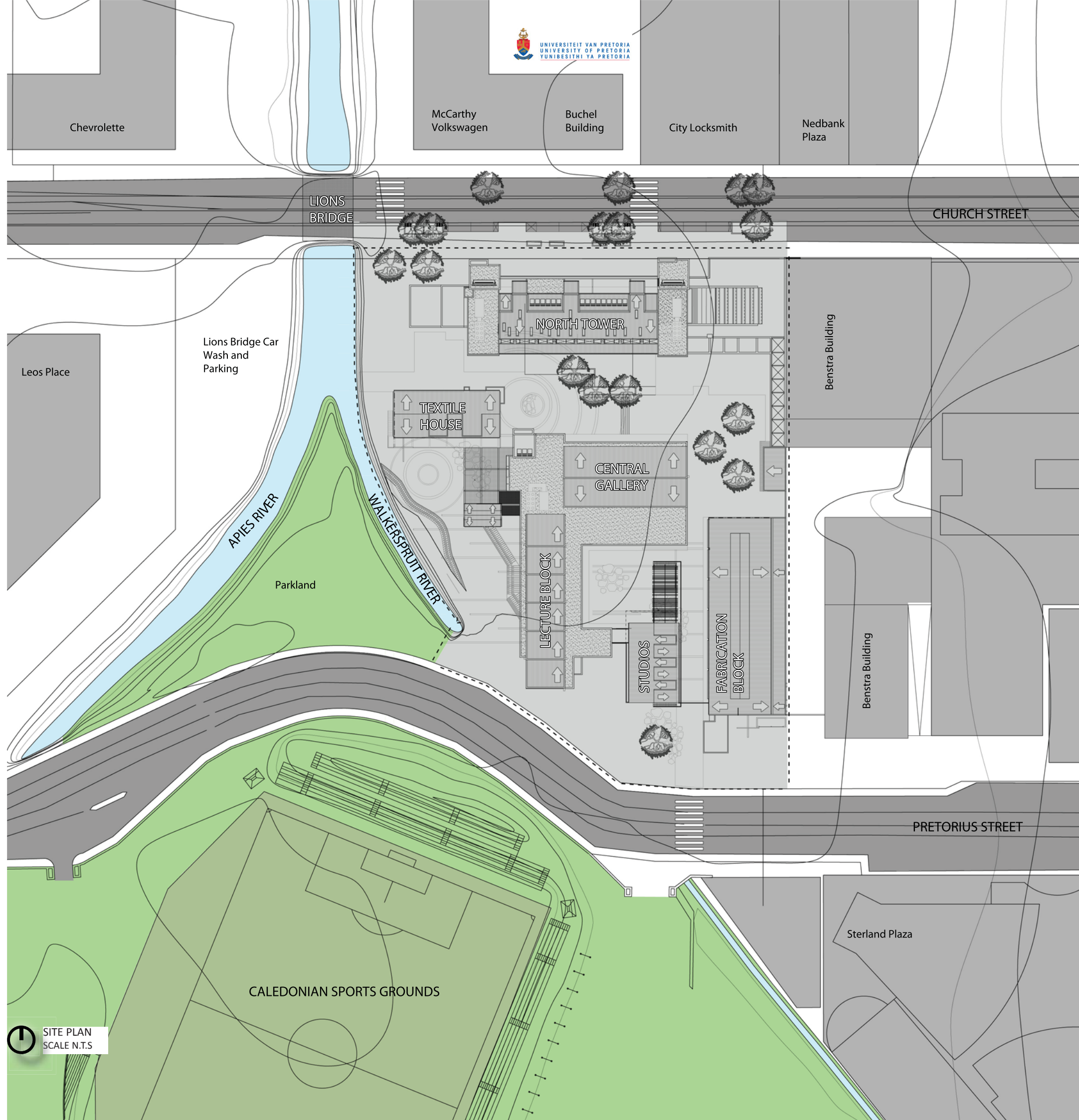
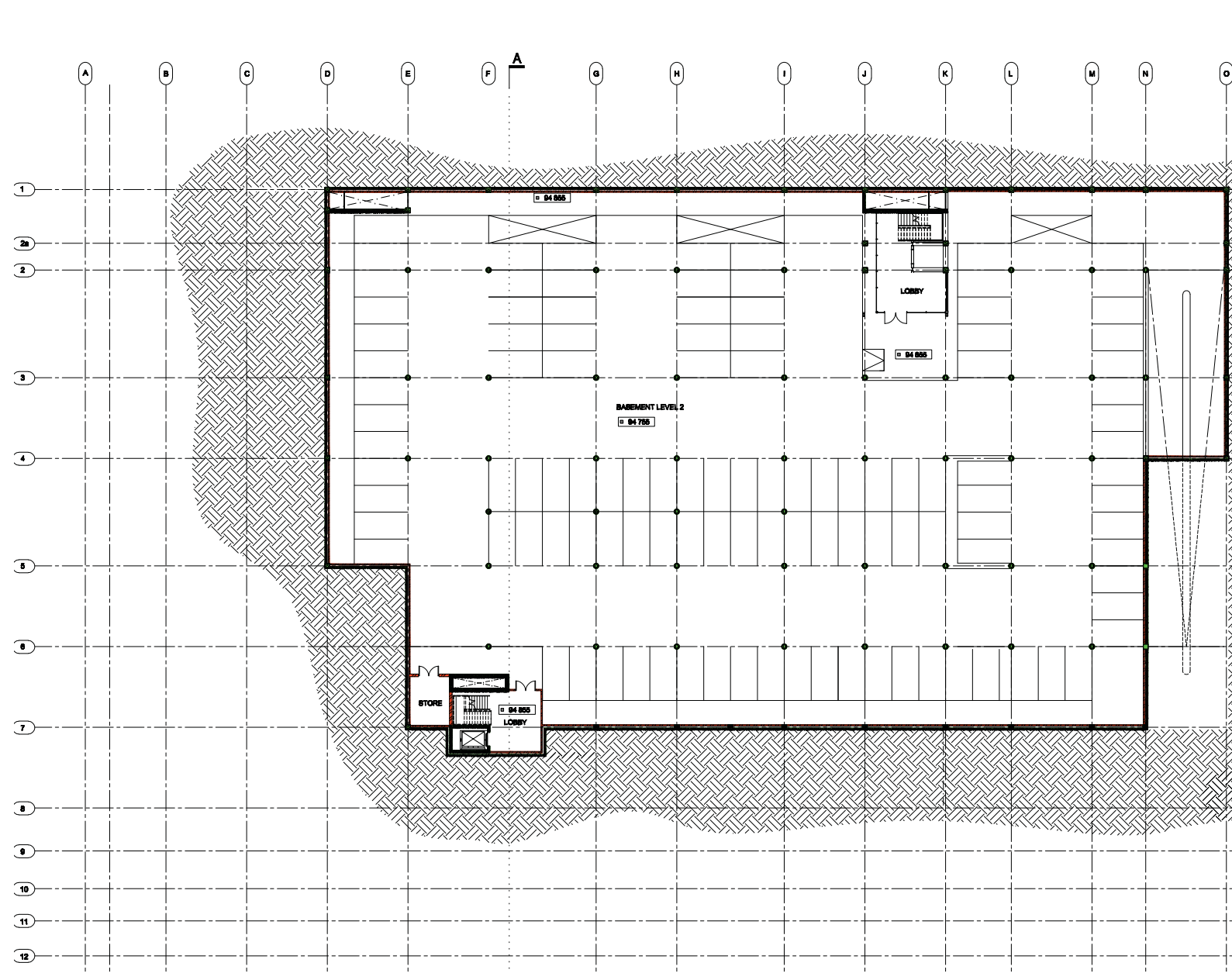


Figure 10.06 Site plan (Author, 2011).




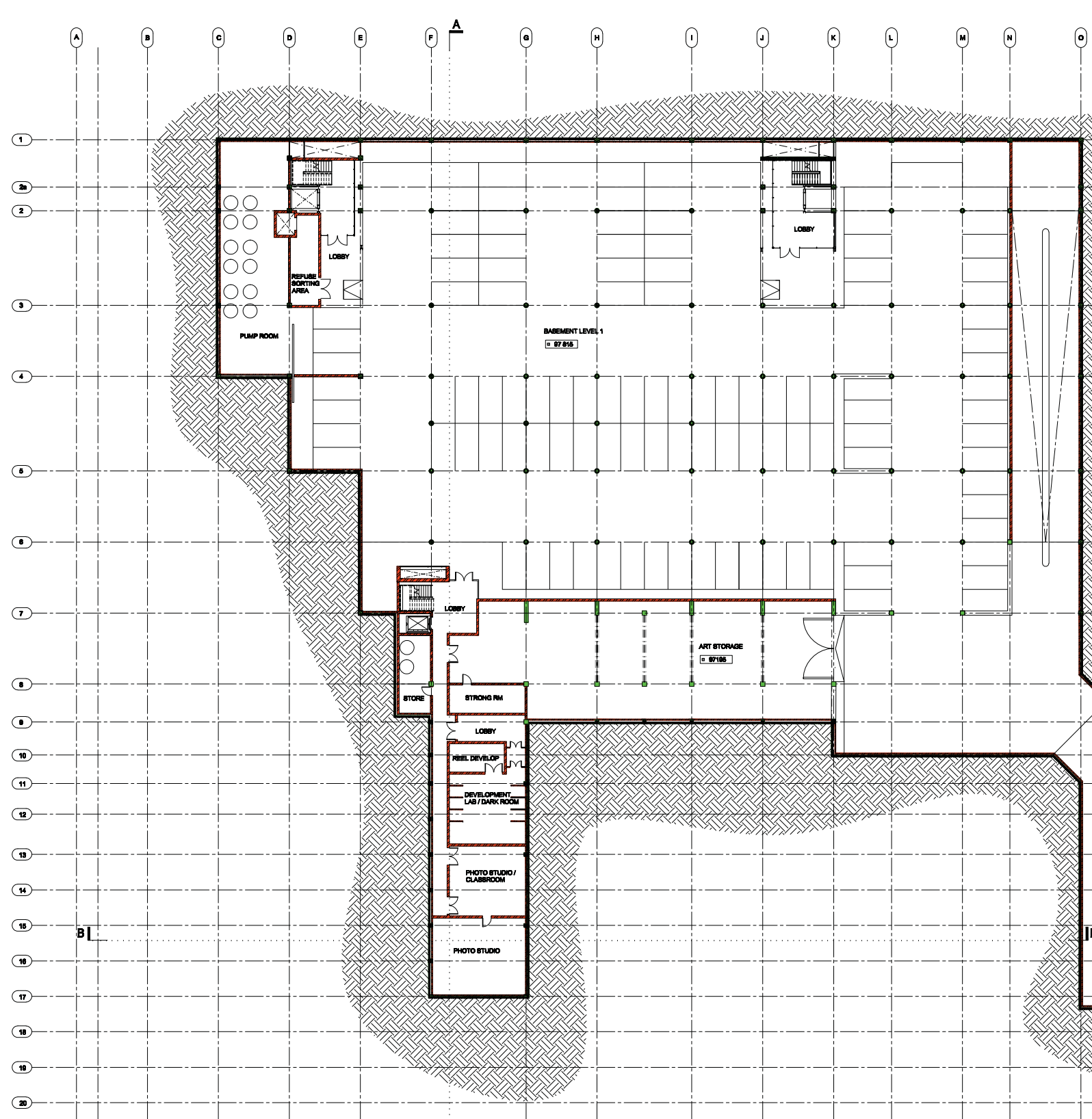
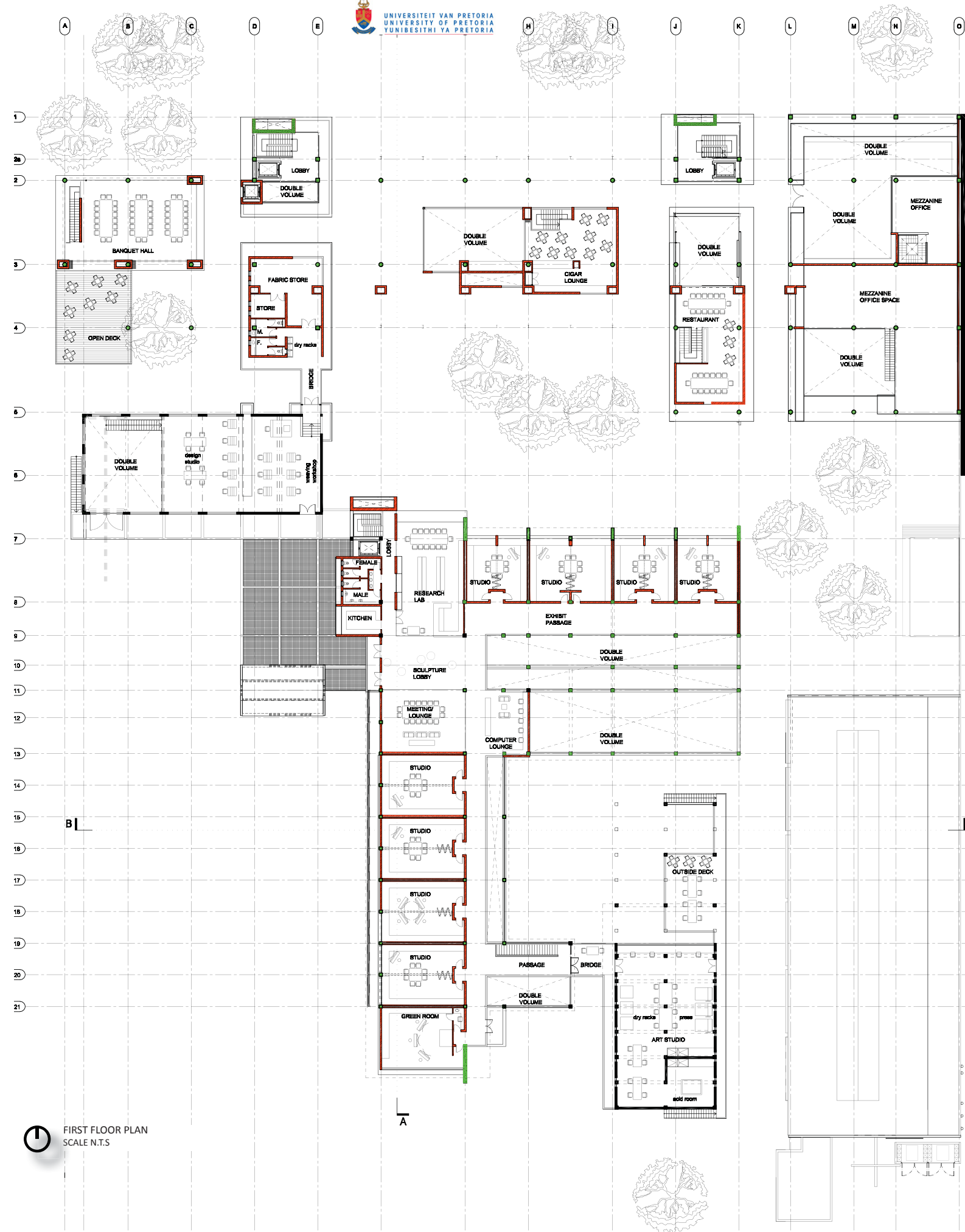
 BASEMENT LEVEL 2
SCALE N.T.S

Figure 10.07 Basement level 02 plan (Author, 2011).



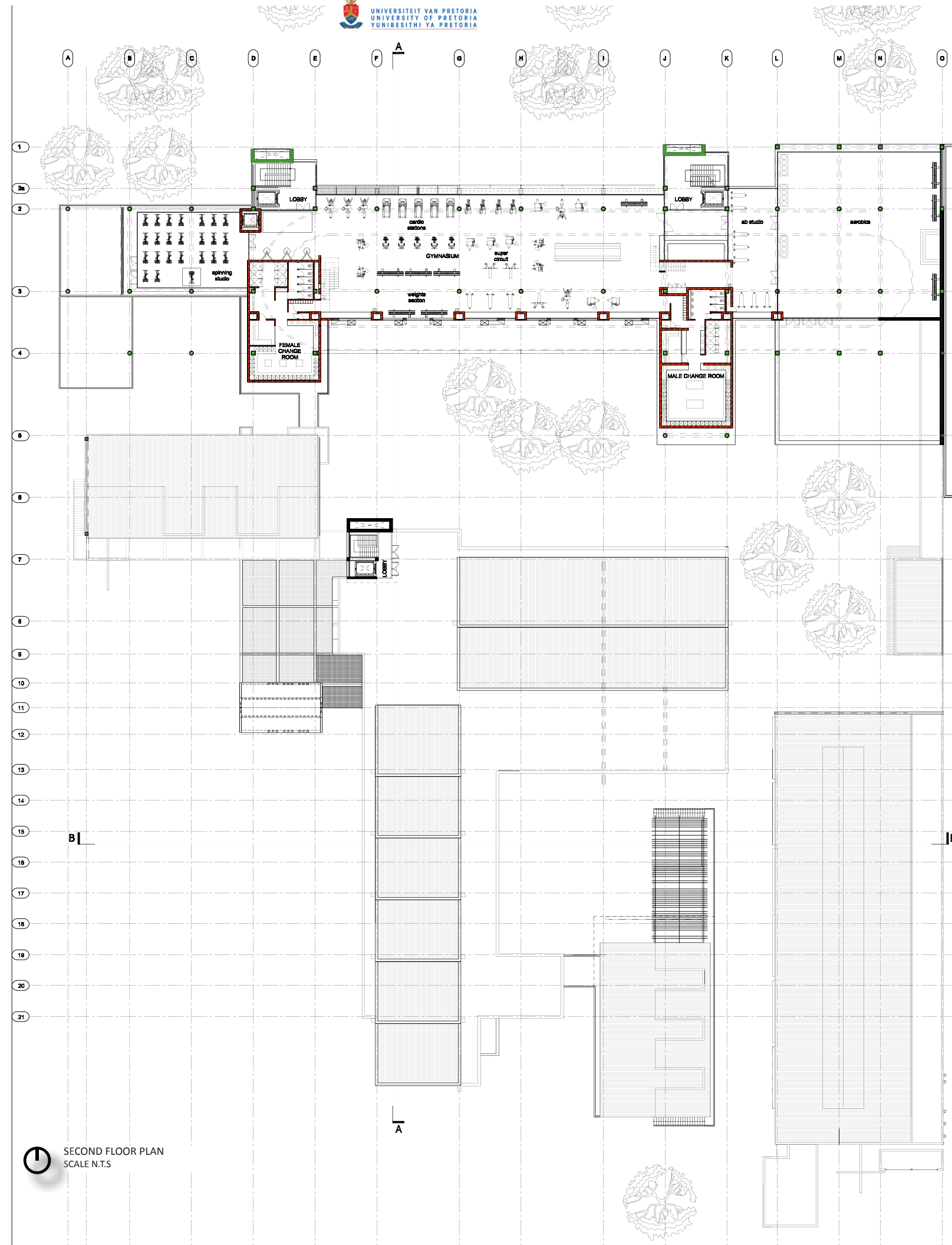
 BASEMENT LEVEL 1
SCALE N.T.S

Figure 10.08 Basement level 01 plan (Author, 2011).



FIRST FLOOR PLAN
SCALE N.T.S.

Figure 10.10 First floor plan (Author, 2011).



SECOND FLOOR PLAN
SCALE N.T.S.

Figure 10.11 Second floor plan (Author, 2011).

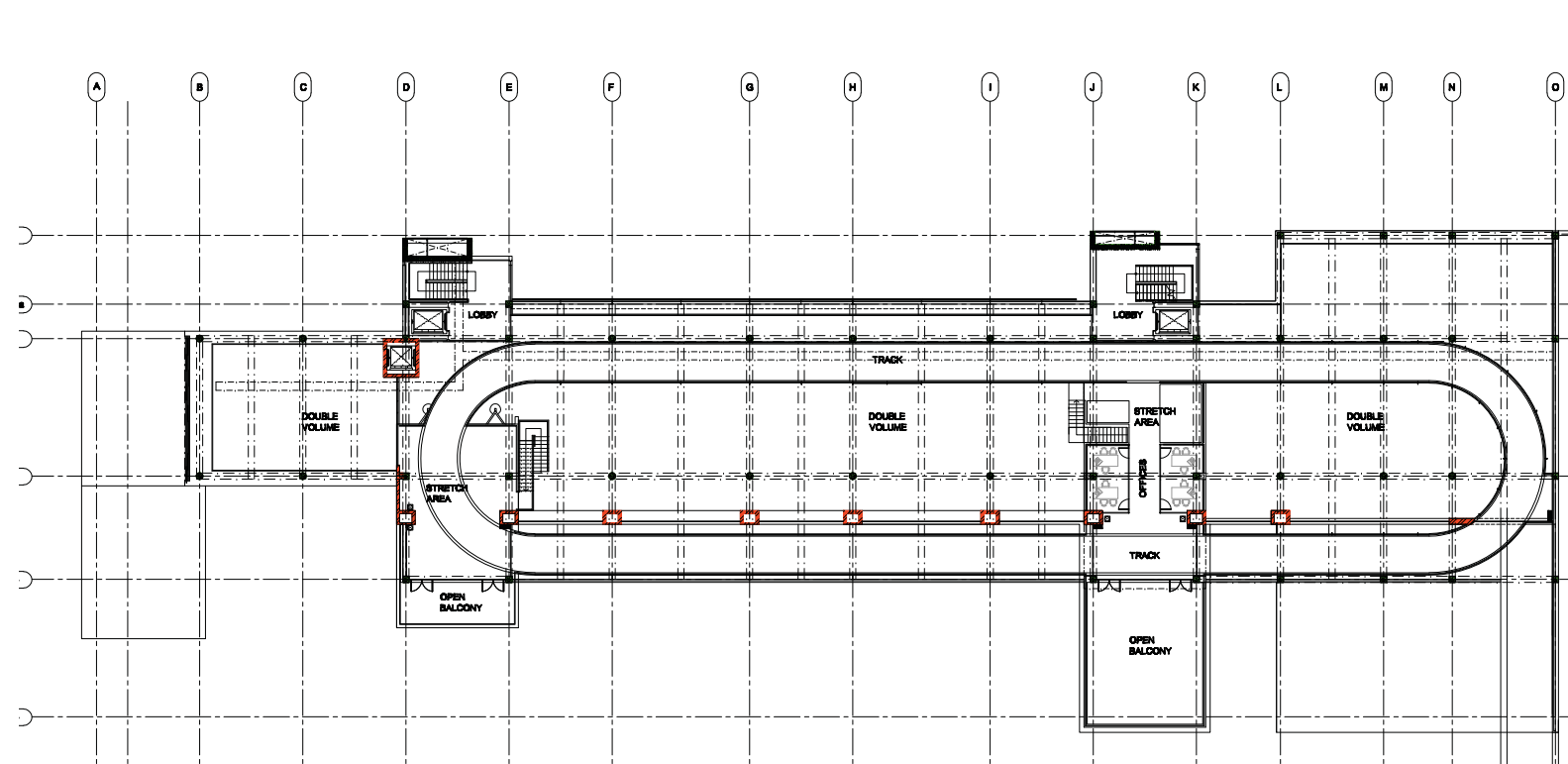


Figure 10.12 Third floor plan (Author, 2011).

① THIRD FLOOR PLAN
SCALE N.T.S

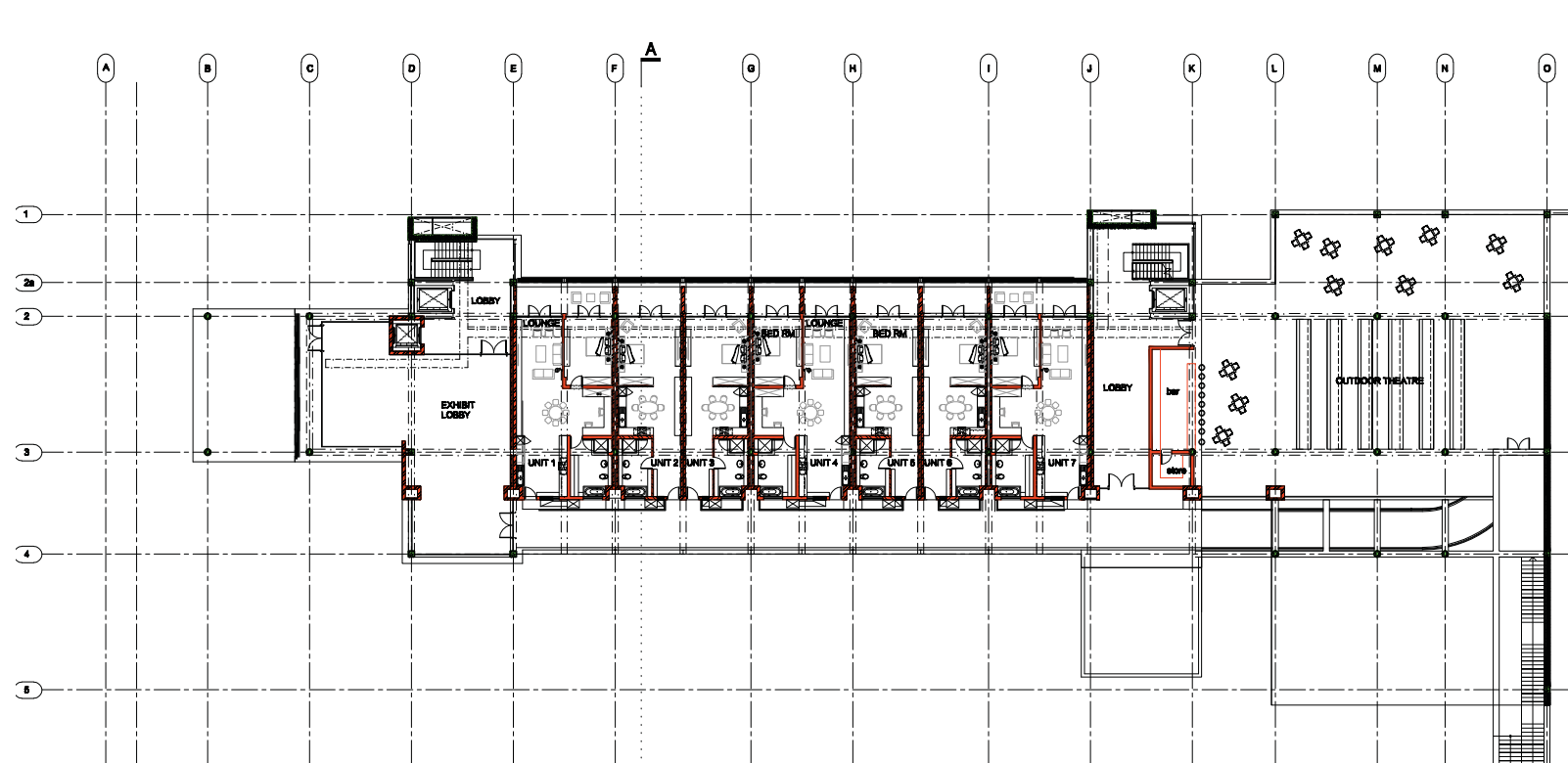
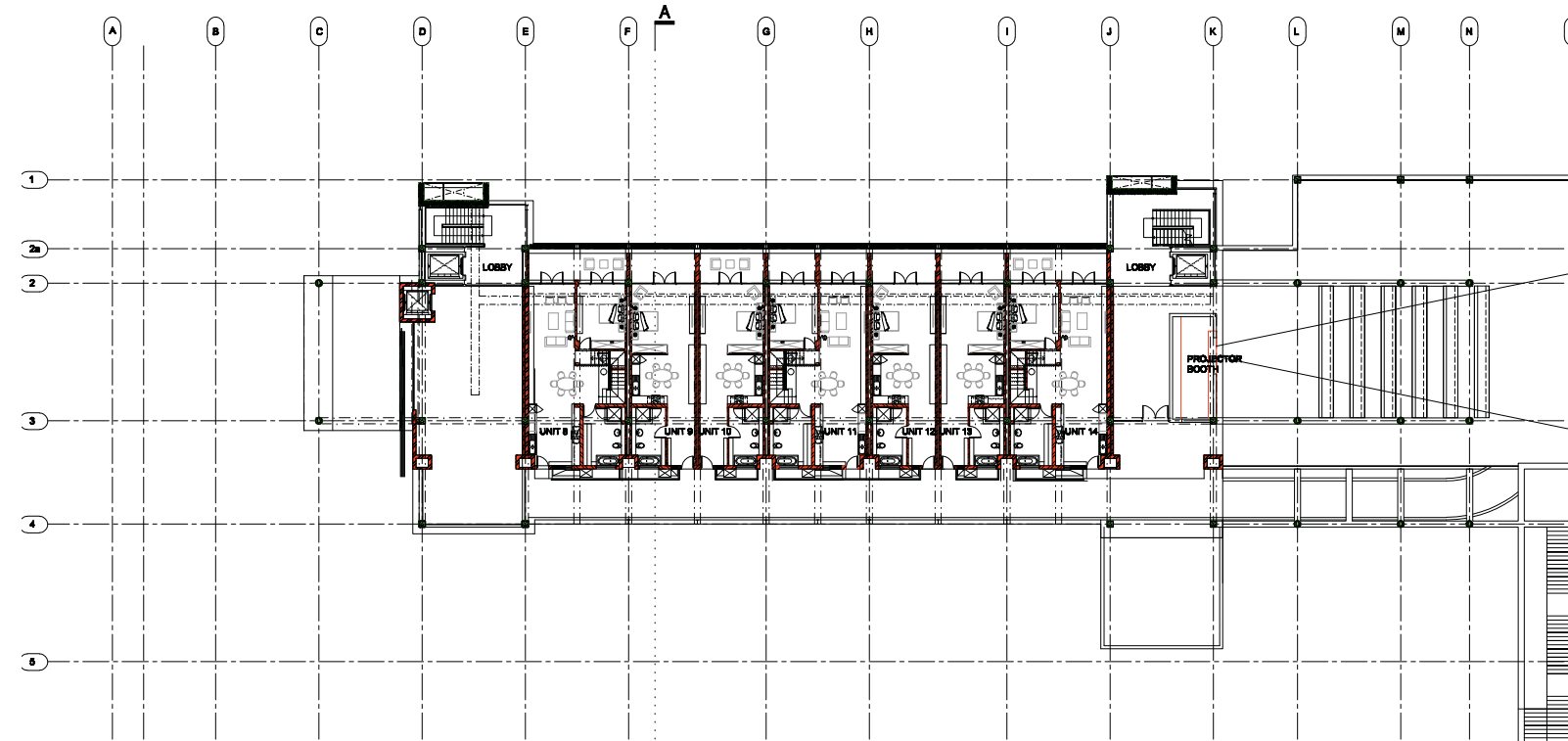


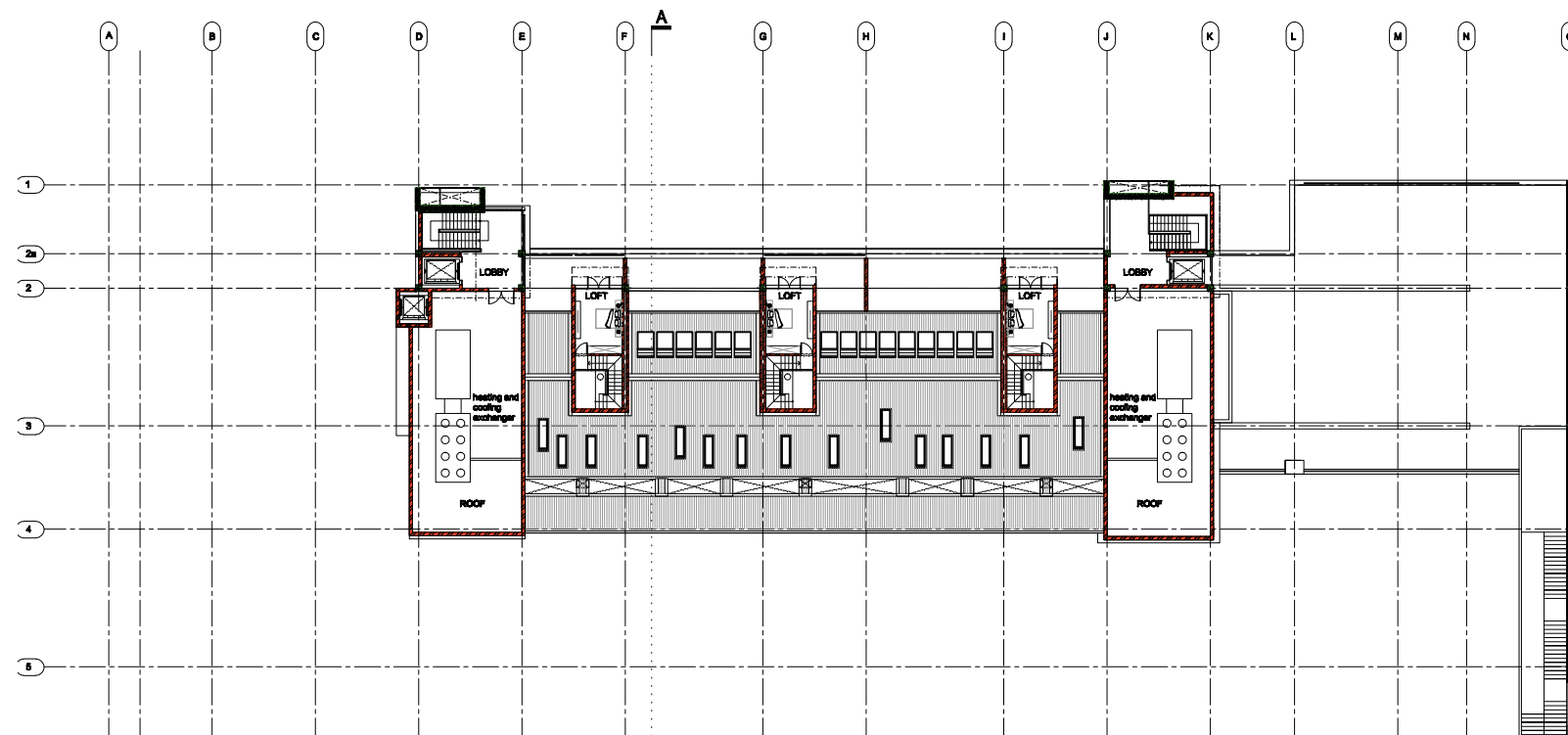
Figure 10.13 Fourth floor plan (Author, 2011).

① FOURTH FLOOR PLAN
SCALE N.T.S



FIFTH FLOOR PLAN
SCALE N.T.S

Figure 10.14 Fifth floor plan (Author, 2011).



SIXTH FLOOR PLAN
SCALE N.T.S

Figure 10.15 Sixth floor plan (Author, 2011).

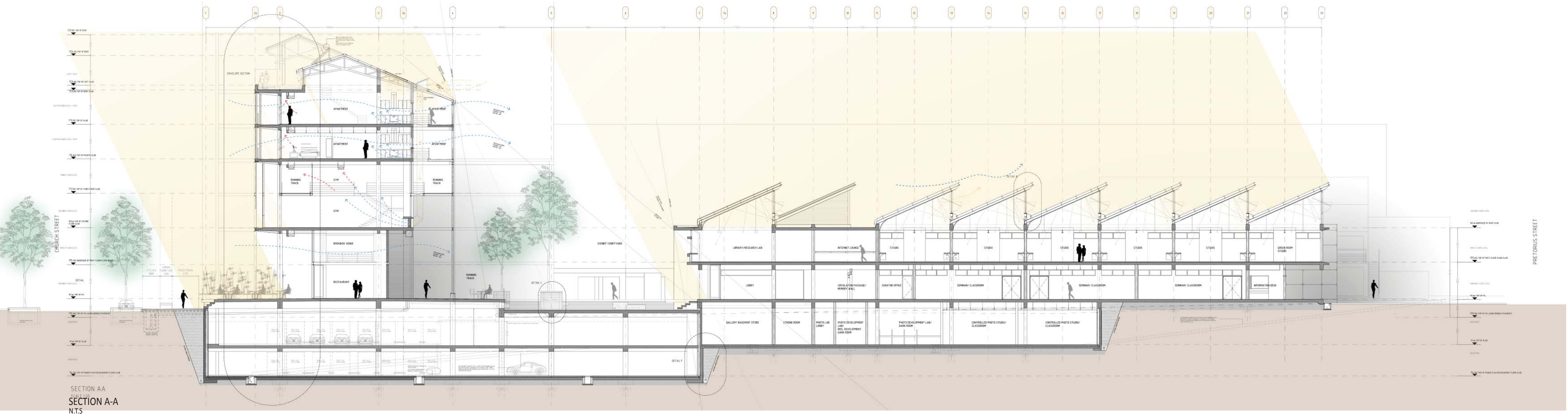
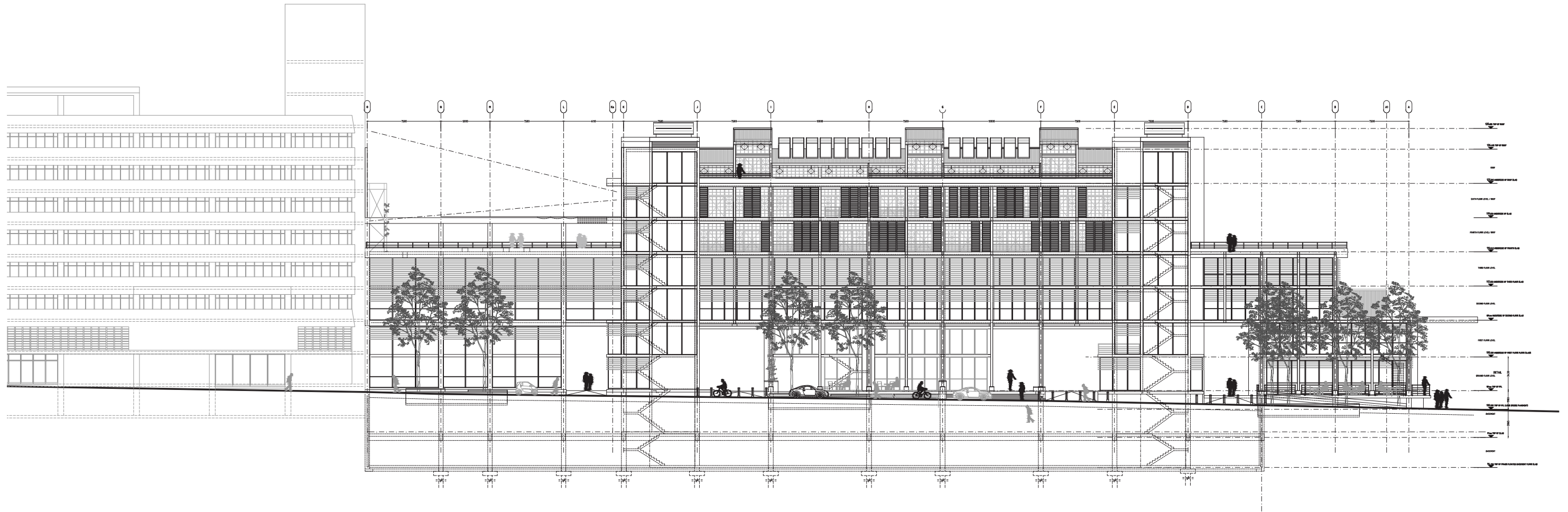
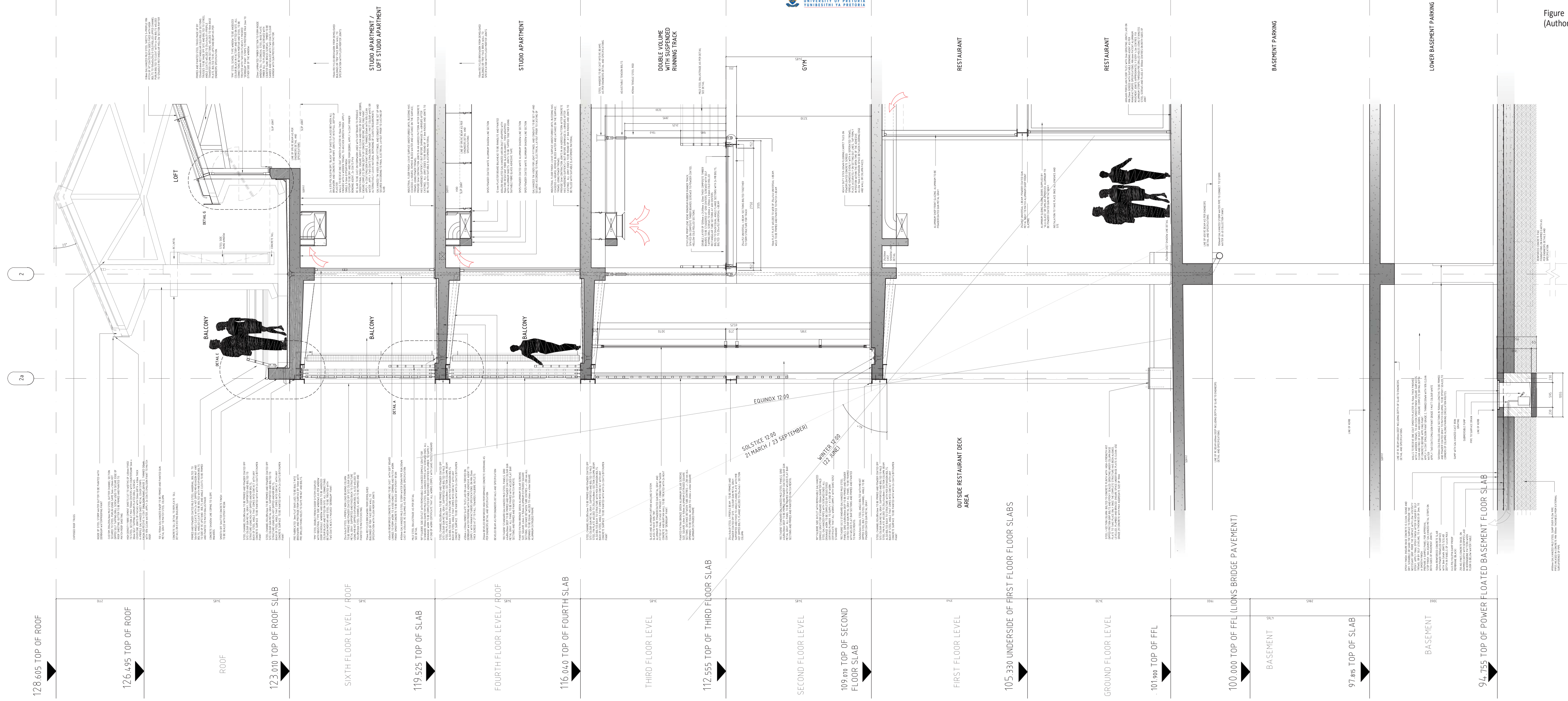


Figure 10.16 Section A-A (reference figure 10.5) (Author, 2011).



NORTHERN (CHURCH STREET) ELEVATION
N.T.S

Figure 10.18 Northern (Church Street) Elevation (Author, 2011).



ENVELOPE SECTION
SCALE 1:25

Figure 10.19 Envelope Section
(Author, 2011).

OUTSIDE

PATINA COATED ALUMINIUM SOLAR SCREENS
SIZE: SQUARE 40mm X 150mm ALUMINIUM EXTRUDED SQUARE SECTIONS. DISTANCE BETWEEN TUBE CENTRES: +/-200 mm ALL OPENINGS TO BE EQUAL WELDED TO 40mm x 40mm SQUARE ALUMINIUM EXTRUDED FRAME

40mm x 150mm x 2mm RECTANGULAR ALUMINIUM TUBE SECTION TO RECEIVE PATINA BRONZE FINISH TO HAVE CORROSIVE AESTHETIC
40mm x 40mm SQUARE ALUMINIUM EXTRUDED FRAME

Ø100mm 90° FULBORE OUTLET WITH FLAT CAST IRON GRID (CIRCULAR GRID INDICATED FOR GRAPHIC LEGIBILITY)

50x30 COLD ROLLED PRIMED AND POWDER COATED MILD STEEL ANGLE TO CONCEAL EDGE OF TILE SKIRTING AND SP4 DERBIGUM WATERPROOFING MEMBRANE BOLTED WITH M6 EXPANSION BOLTS AT 1200 CENTRES.

150x150x 5mm SQUARE BASE PLATE WELDED TO BALUSTRADE POST TO BE BOLTED WITH M8 ANCHOR BOLTS EPOXY SEALED INTO CONCRETE

"HILLALDAM" STRAIGHTWAY 100S TOP HUNG DUAL SLIDING DOOR SYSTEM. BASE WHEELS AND GUIDE SYSTEM SUPPLIED BY MANUFACTURER

STEEL CHANNEL 102x381x5mm TO BE PRIMED AND POWDER COATED OFF SITE COLOUR GUN METAL GRAY, SUPPORTED AND BOLTED TO MILD STEEL FIN PLATE WELDED TO 25x16x8mm I-SECTION COLUMN BEAM ALSO BOLTED BACK TO STRUCTURE WITH M20 EXPANSION BOLTS
BACK OF STEEL ANGLE THAT COMES INTO CONTACT WITH ANY CONCRETE SURFACE TO BE PAINTED WITH 2x COATS BITCHUMEN PAINT

SINGLE CLOSED FLORESCENT LIGHT FITTING

PRE FABRICATED 3mm FLAT BAR LUGS TO BE BUILT INTO BRICKWORK AND PROTRUDE FROM SURFACE BY 50mm WITH PRE DRILLED FIXING HOLES TO SUITE M8 NUT AND BOLTS.

BALCONY

"RECTA GRID" STANDARD GALVANIZED MILD STEEL PANELS. GRID 4x48x33mm DEEP TO BE PRIMED AND PATENA COATED TO MATCH SOLAR SCREENS. ALL PANELS TO BE FRAMED WITH WELDED FLAT BAR SECTIONS AND PRIMED AND PAINTED TO MATCH MENTIS.

50x50mm COLD ROLLED MILD STEEL HANDRAIL PRIMED AND POWDER COATED GRAY

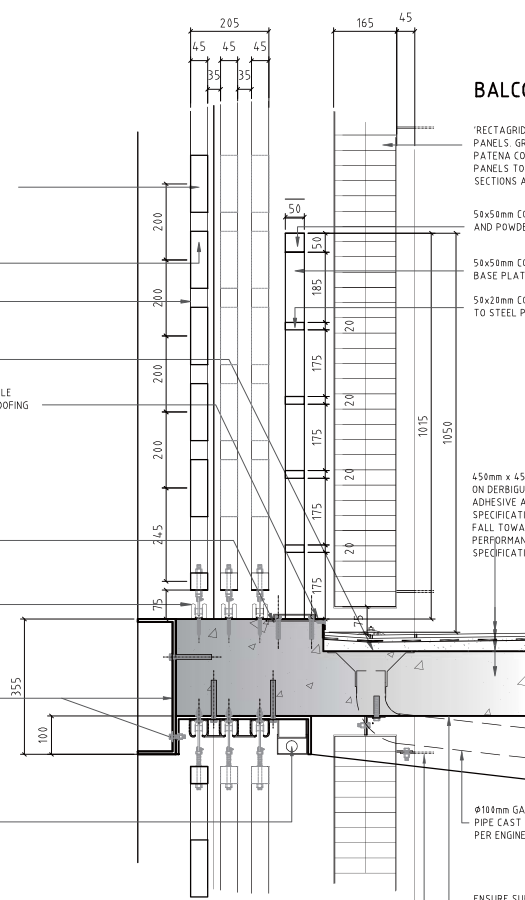
50x50mm COLD ROLLED MILD STEEL POST WELDED TO BASE PLATE PRIMED AND POWDER COATED GRAY

50x20mm COLD ROLLED MILD STEEL BALUSTER WELDED TO STEEL POST. PRIMED AND POWDER COATED GRAY

450mm x 450mm HONED SLATE TILES ON 4mm TORCHED ON DERBIGUM WATER PROOFING WITH SUITABLE ADHESIVE AGENT TO COMPLY WITH MANUFACTURERS SPECIFICATIONS. ON MIN 25mm THICK SCREED AT 2° TO FALL TOWARDS FULBORE OUTLETS ON REINFORCED HIGH PERFORMANCE CONCRETE AS PER ENGINEERS SPECIFICATIONS

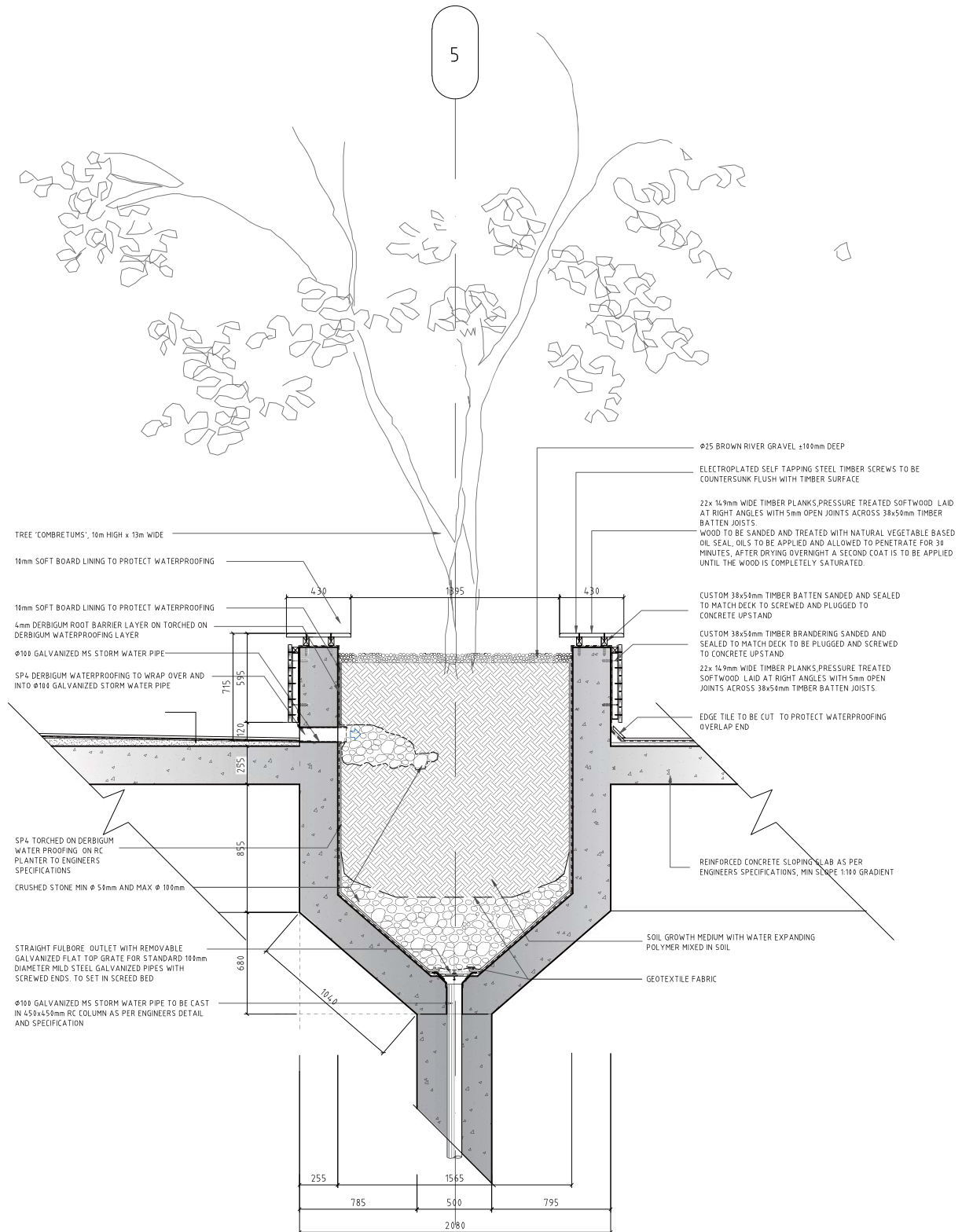
Ø104mm GALVANIZED MILD STEEL STORM WATER DOWN PIPE CAST IN RC BEAM AND 450x450. RC COLUMNS AS PER ENGINEERS SPECIFICATION

ENSURE SURFACE IS CLEAN AND FREE OF DUST AND DEBRIS. ENSURE COMPLETE DRYING DEPTH OF CONCRETE BEFORE APPLYING CLEAR EPOXY FINISH.



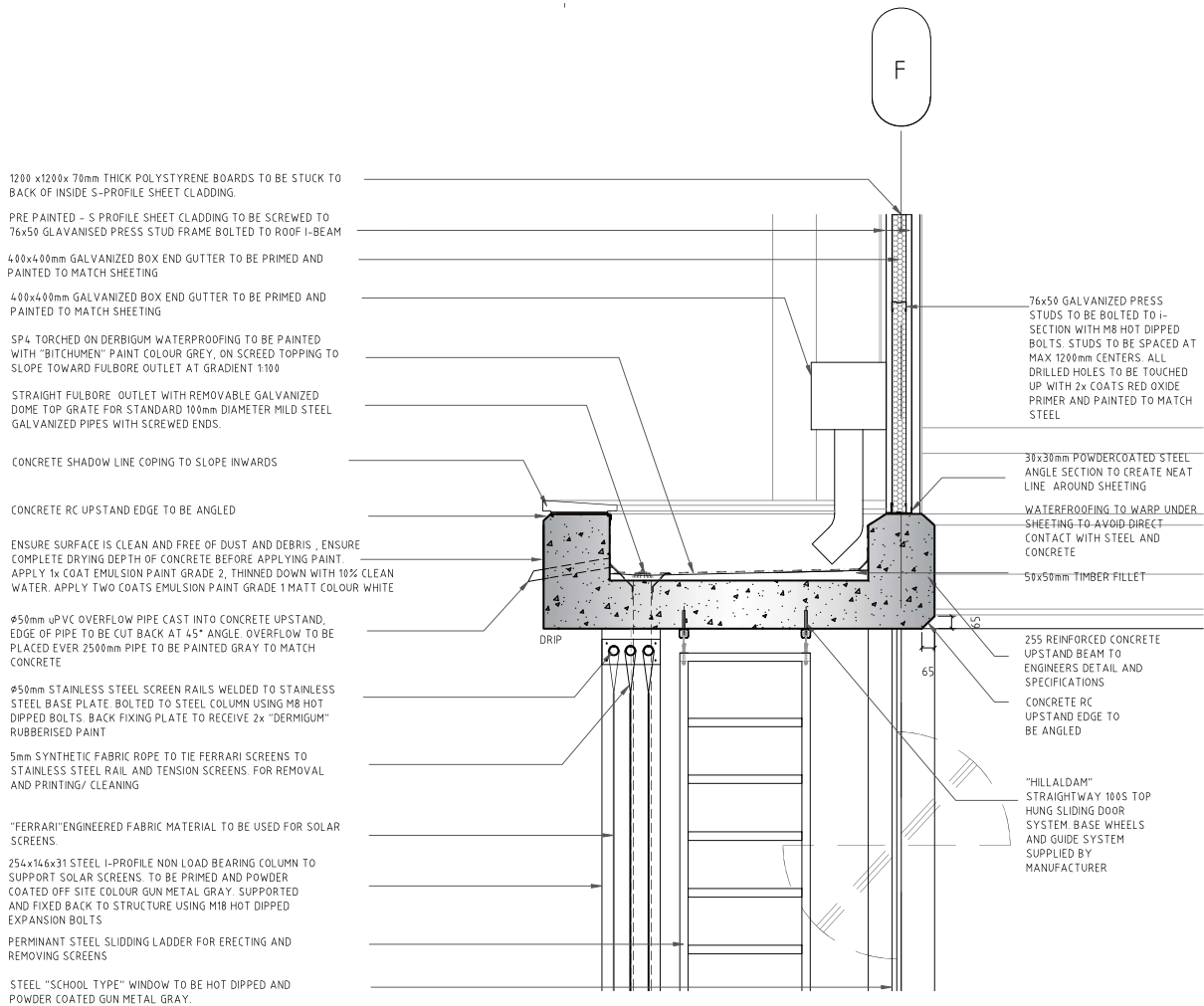
DETAIL A – SOLAR SCREEN AND BALUSTRADE DETAIL
SCALE 1:20

Figure 10.20 Detail (Author, 2011).



DETAIL C – PLANTER BOX DETAIL
SCALE N.T.S

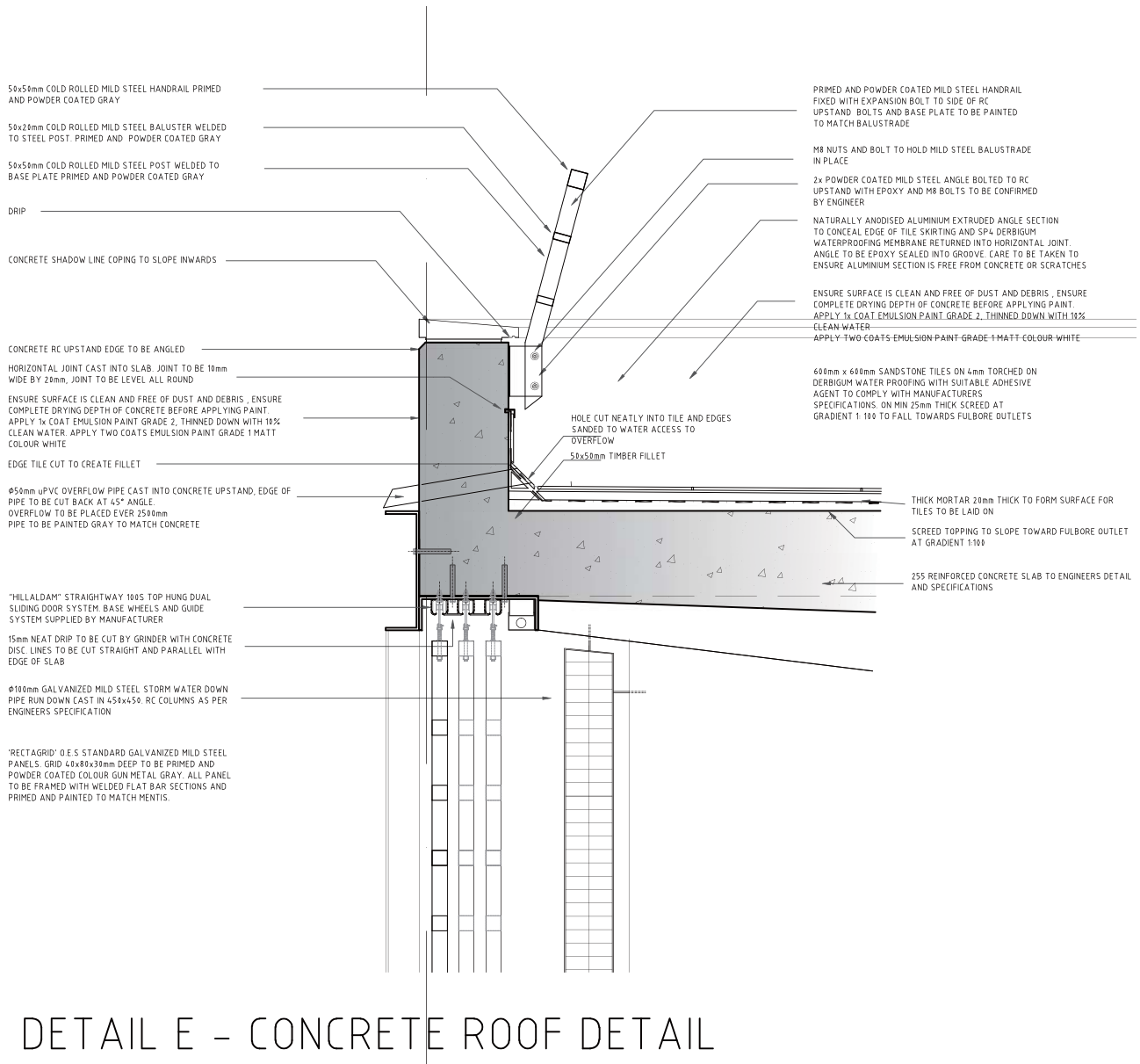
Figure 10.22 Detail (Author, 2011).



DETAIL D - SOLAR SCREEN DETAIL

SCALE N.T.S

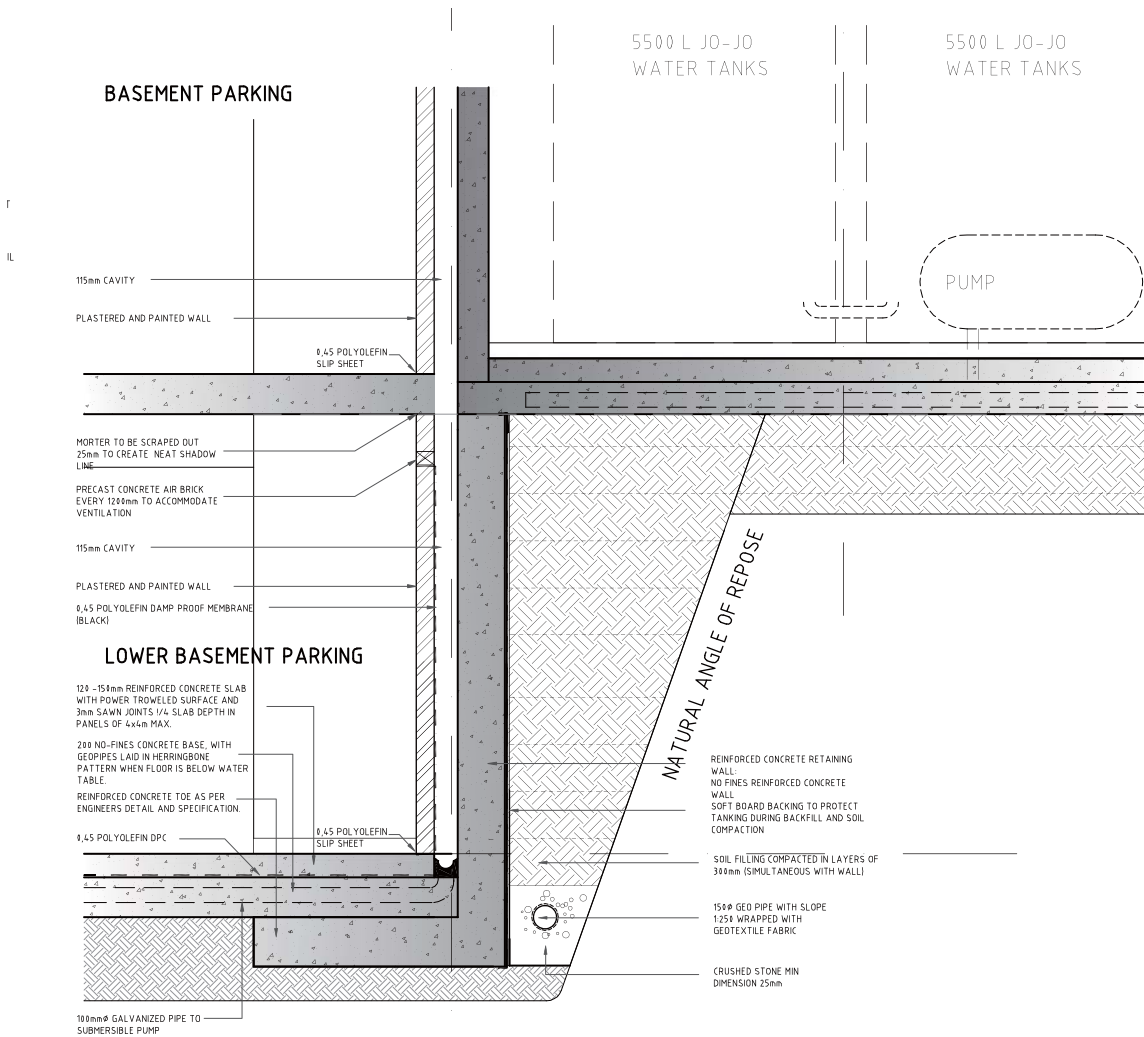
Figure 10.23 Detail (Author, 2011).



DETAIL E – CONCRETE ROOF DETAIL

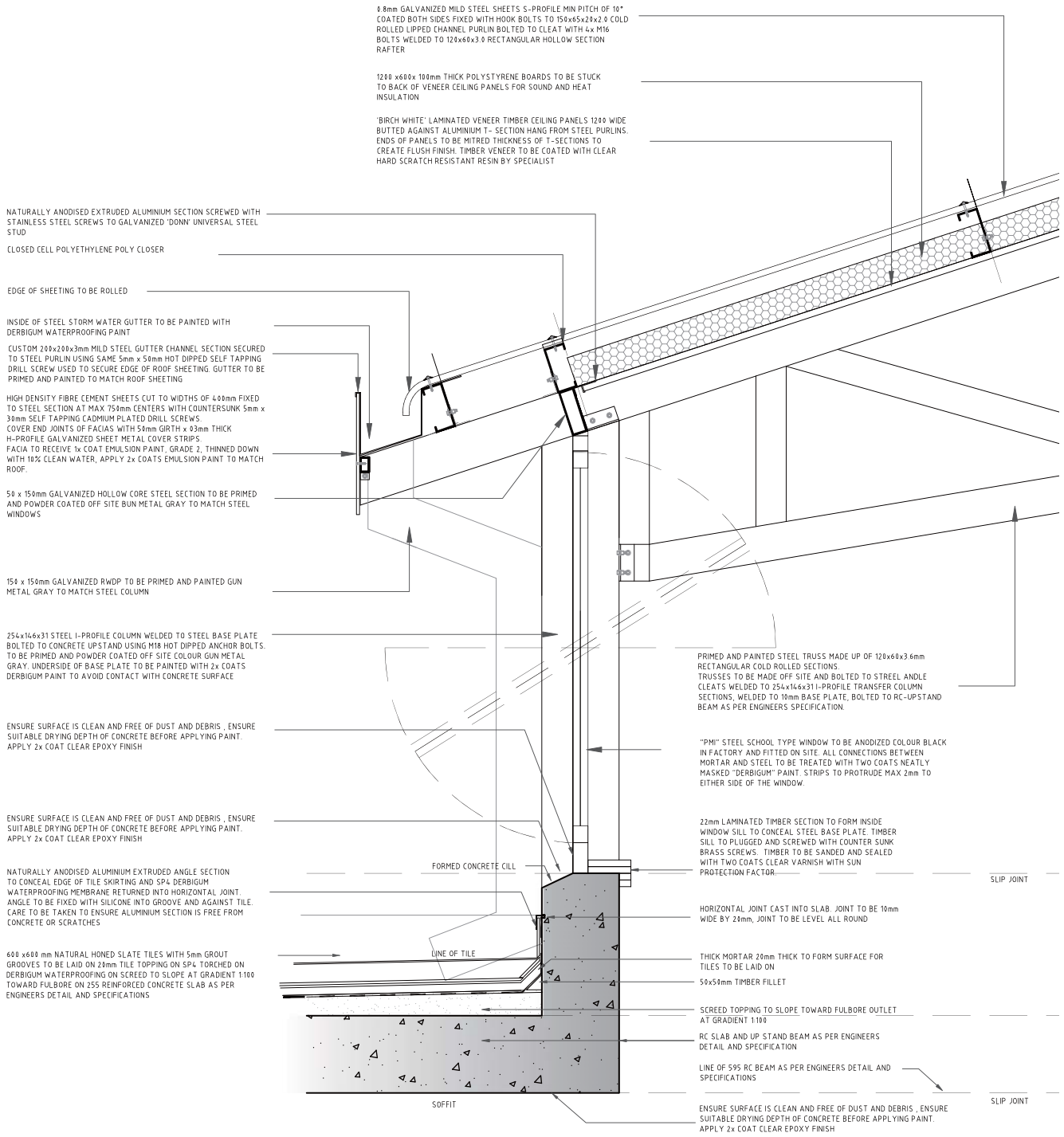
SCALE N.T.S

Figure 10.24 Detail (Author, 2011).



DETAIL F - RETAINING WALL DETAIL SCALE N.T.S

Figure 10.25 Detail (Author, 2011).



DETAIL G – STEEL ROOF DETAIL SCALE 1:20

Figure 10.26 Detail (Author, 2011).

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ADDENDA

ADDENDUM A:

Urban context and concept

Urban green and open space network with proposed links



Figure A. 1. Photograph of one of the identified future brown ways (Author, 2011)

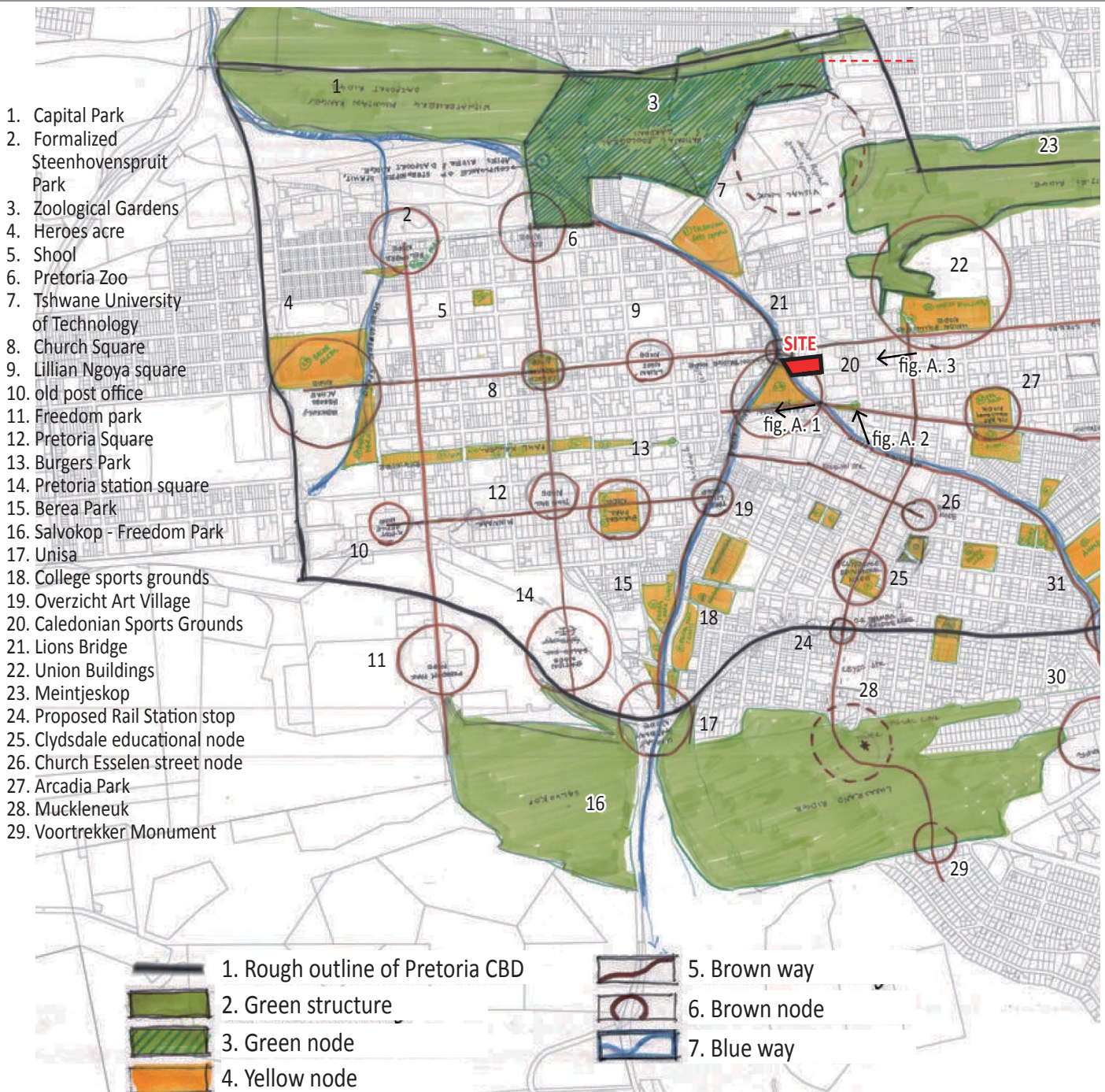
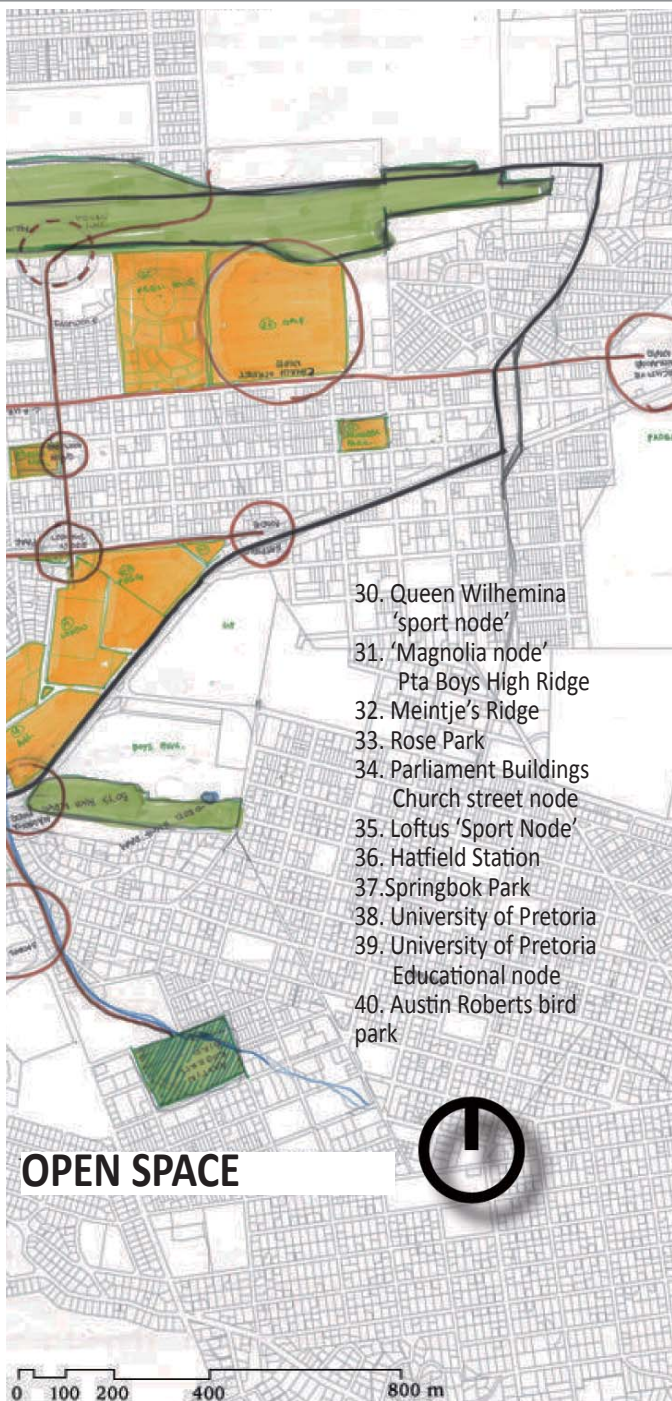




Figure A. 2. Photo of disconnected open space (Author, 2011).



Figure A. 3. Photograph of Schoeman Street identified as possible brown way (Author, 2011).



Open Space

Figure A. 4. Illustrates the existing open spaces with future brown way networks connecting the existing open and green spaces in Pretoria and surrounding the site.

The 'Brown Nodes' are space of interest within the city, that add value to the city experience and character.

The 'Brown Ways' are proposed routes from the group framework 2010, which identified network spines that could be landscaped and enhanced to visually improve the image of the city and help citizens and visitors orientate themselves.

The 'Yellow Nodes' were identified as open spaces, parks, areas of cultural or heritage value that link up along the 'Brown Nodes'.

The 'Green Structure' were identified as the natural green open space in the city,

The 'Green nodes' are green areas that are preserved but are not natural. Indicated in figure A. 4, are the zoological and botanical gardens which were identified as areas that could possibly be linked along Walkerspruit, identified as a 'Blue Way'.

There are two 'Blue Ways' - the Apies River and Walkerspruit which form a divide/edge between east and west, linking the north and south of Pretoria.

Figure A. 4. Map of green and open space network (Group Framework, 2010).

Urban context and concept

Movement networks with proposed ceremonial routes



Figure A. 5. Photo of Church Street travelling east (Author, 2011).

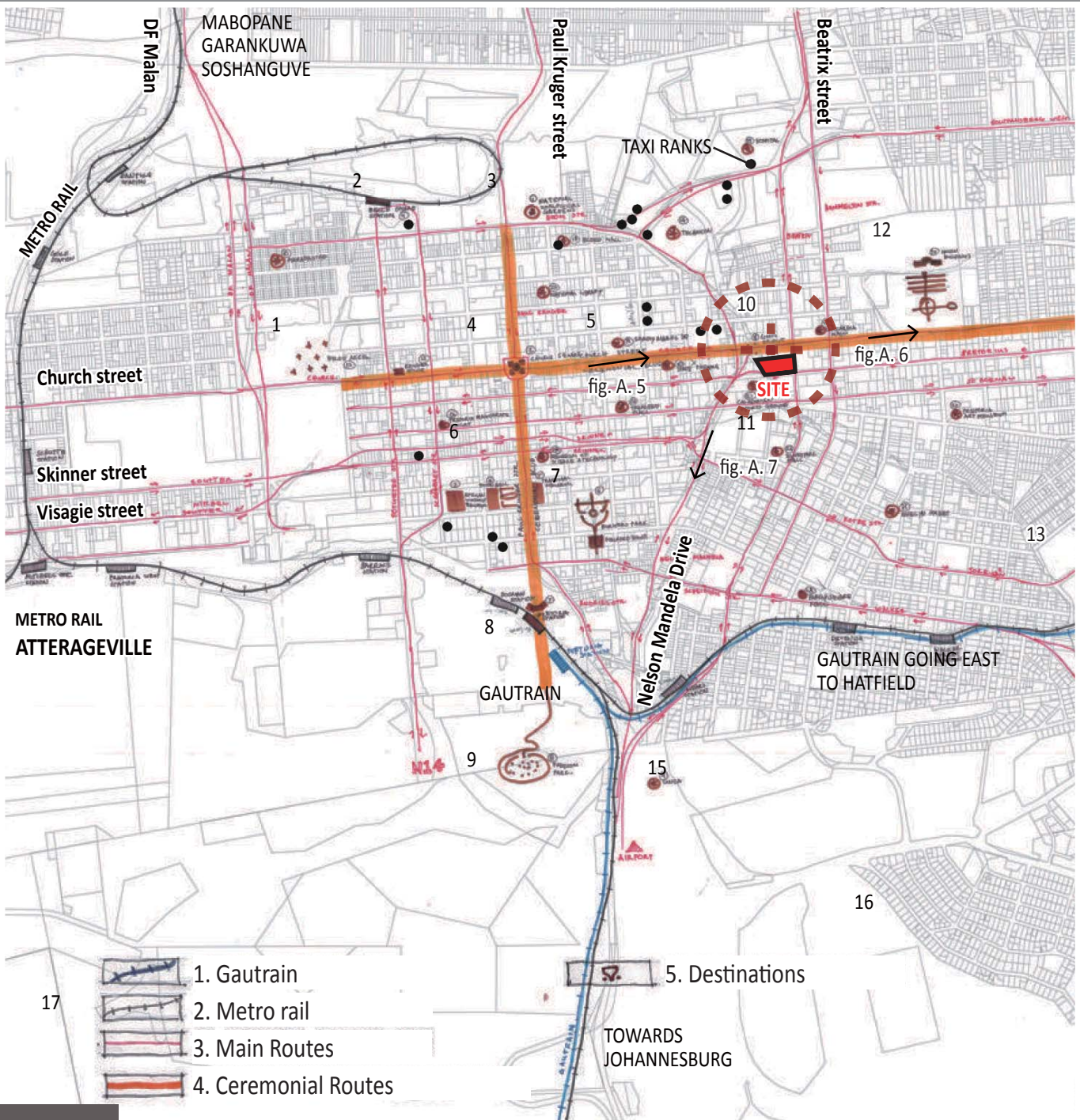
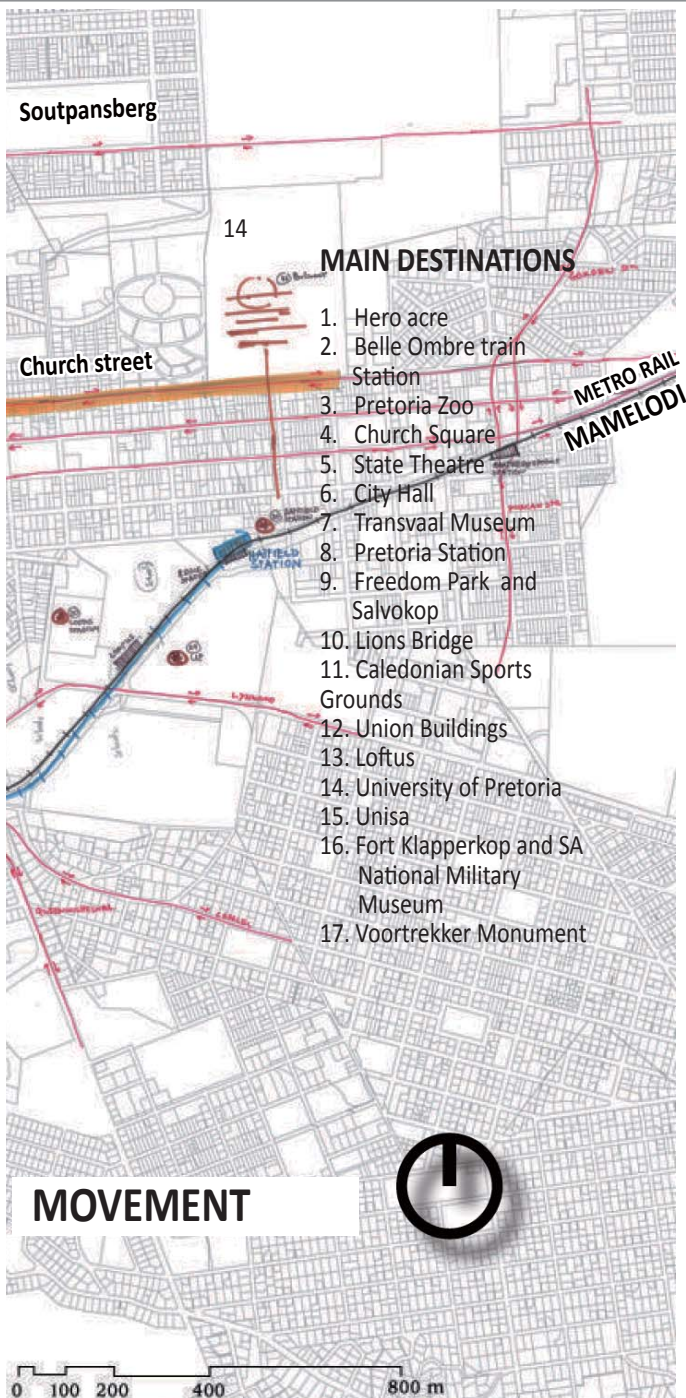




Figure A. 6. Photo of Church Street towards the union buildings (Author, 2011).



Figure A. 7. Photo of intersection between Nelson Mandela Drive and Esselen and direction out of the city (Author, 2011).



The 'main routes' identified are predominantly major vehicle routes into the CBD. The major network routes from the east are Soutpansberg, Church, Pretorius, Schoeman, Lynwood and Charles. From the north; Beatrix, Paul Kruger and DF Malan. From the south; Nelson Mandela Drive. From the west; Church, Skinner and Visagie.

Highlighted in red are the main vehicle circulation routes.

Church Street and Kruger Street are both Identified as major ceremonial routes both with tourist sites and sites of cultural significance. They are still very vehicular and it is proposed in the framework that Church Street become more pedestrian orientated with; more urban street furniture and planting linking the Union Buildings, Lions Bridge, the Pretoria State Theatre, Lillian Ngoya square, Church Square and Heroes Acre. Church Street needs to be addressed and integrated into the character and image of the city, and could therefore host annual street parades and festivals.

The street and building fronts need to be designed with an intimate pedestrian focus to enhance the character and memory of Church Street.

Figure A. 8. Map of movement networks (Group Framework, 2010)

Urban context and concept

New public transport networks

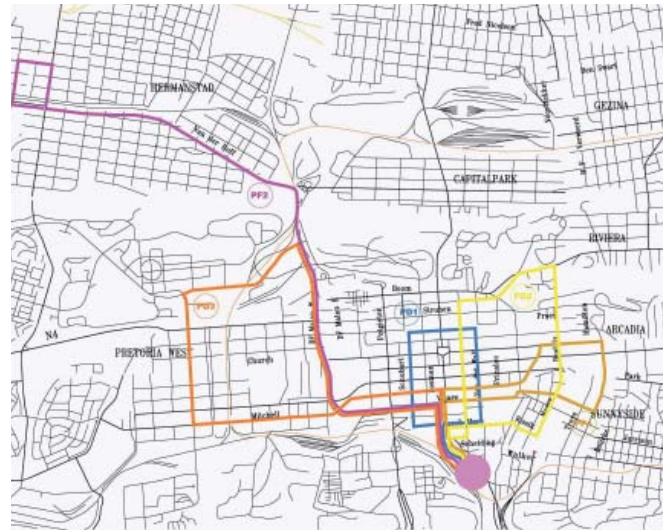


Figure A. 9. Map of the BRT bus service running from Pretoria Station (GAJV, 2010).

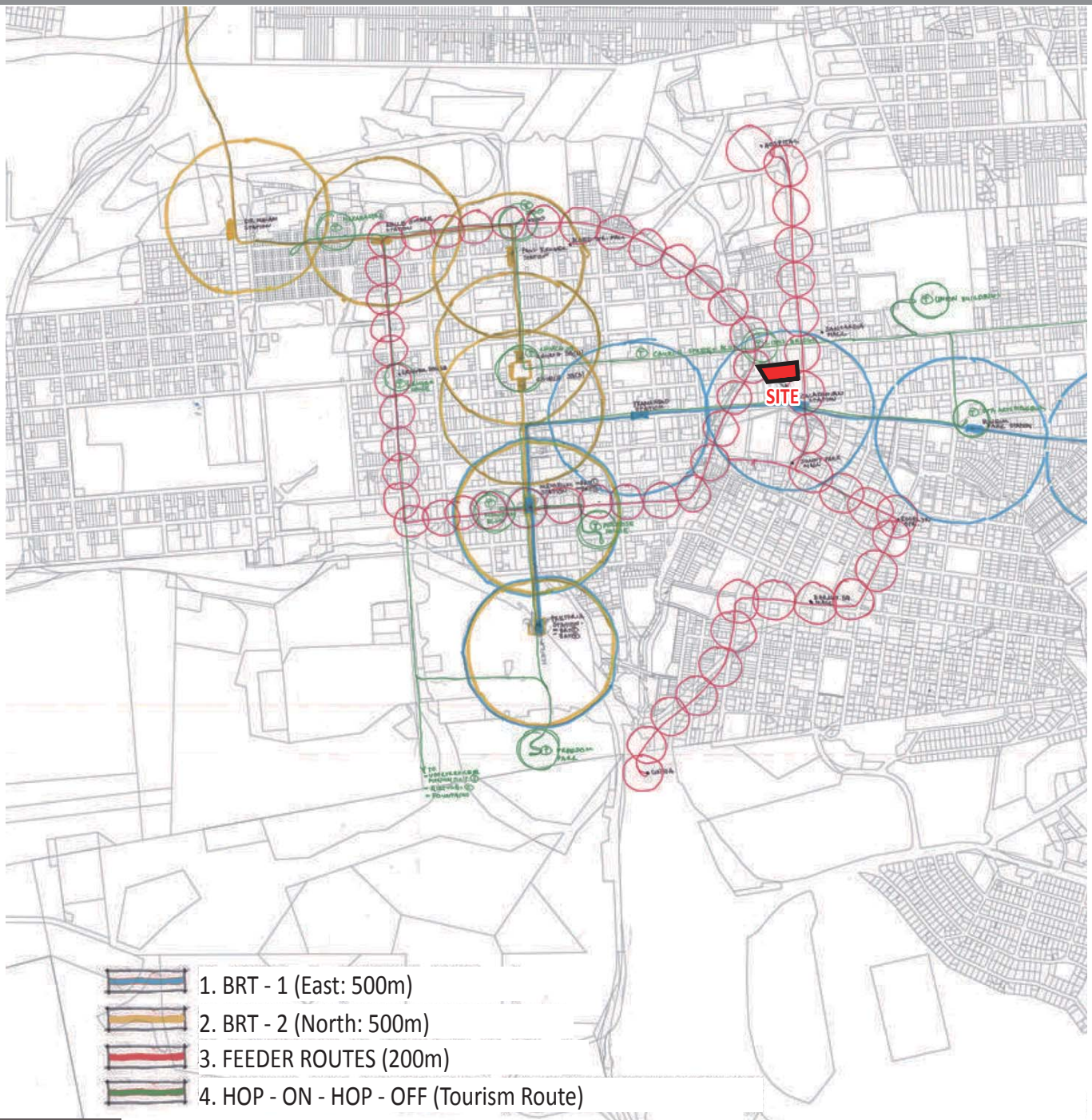




Figure A. 10. Perspective image of the Gautrain Pretoria station (GAJV, 2010).

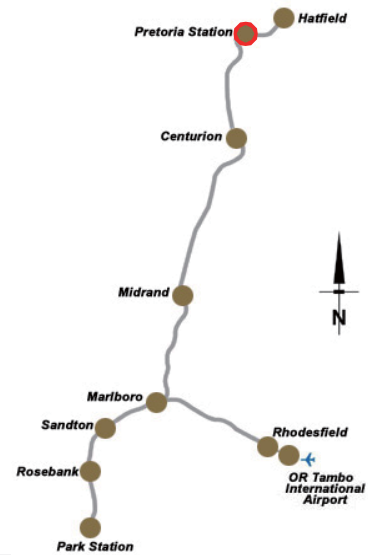


Figure A.11. Map of the Gautrain route and destinations (GAJV, 2010).



Figure A. 9. Indicates the existing BRT ring road system proposed by The Gautrain Rapid Rail Transport company. The ring roads proposal had been planned along the busiest routes as opposed to routes of interest within the city that would attract tourists or visitors. These new routes could activate new commercial spines that would uplift areas along them. Their framework additionally only proposes an extended BRT route to the west of Pretoria and none that extends further east into Arcadia. If it did, it could double up as commuter and non-commuter trips (i.e. to hotels, the Union Buildings, and various park embassies).

In the Framework, (Figure A. 12) the group proposes a major ring road in the middle that could serve as a link to the east and west. With major routes cutting through the ring roads, this would serve commuters more efficiently, with less stops. The framework also proposes a major link to the east that would connect the eastern suburbs to the CBD, aimed at creating more economic opportunities along this spine.

The framework proposes a ‘hop-on, hop-off’ tourist link that will link to major routes that travel east and west. The route will also stop off at major tourist attractions and information points.

Figure A. 12. Map of proposed BRT and public transport links (Group Framework, 2010).

Urban context and concept

Current district network pattern

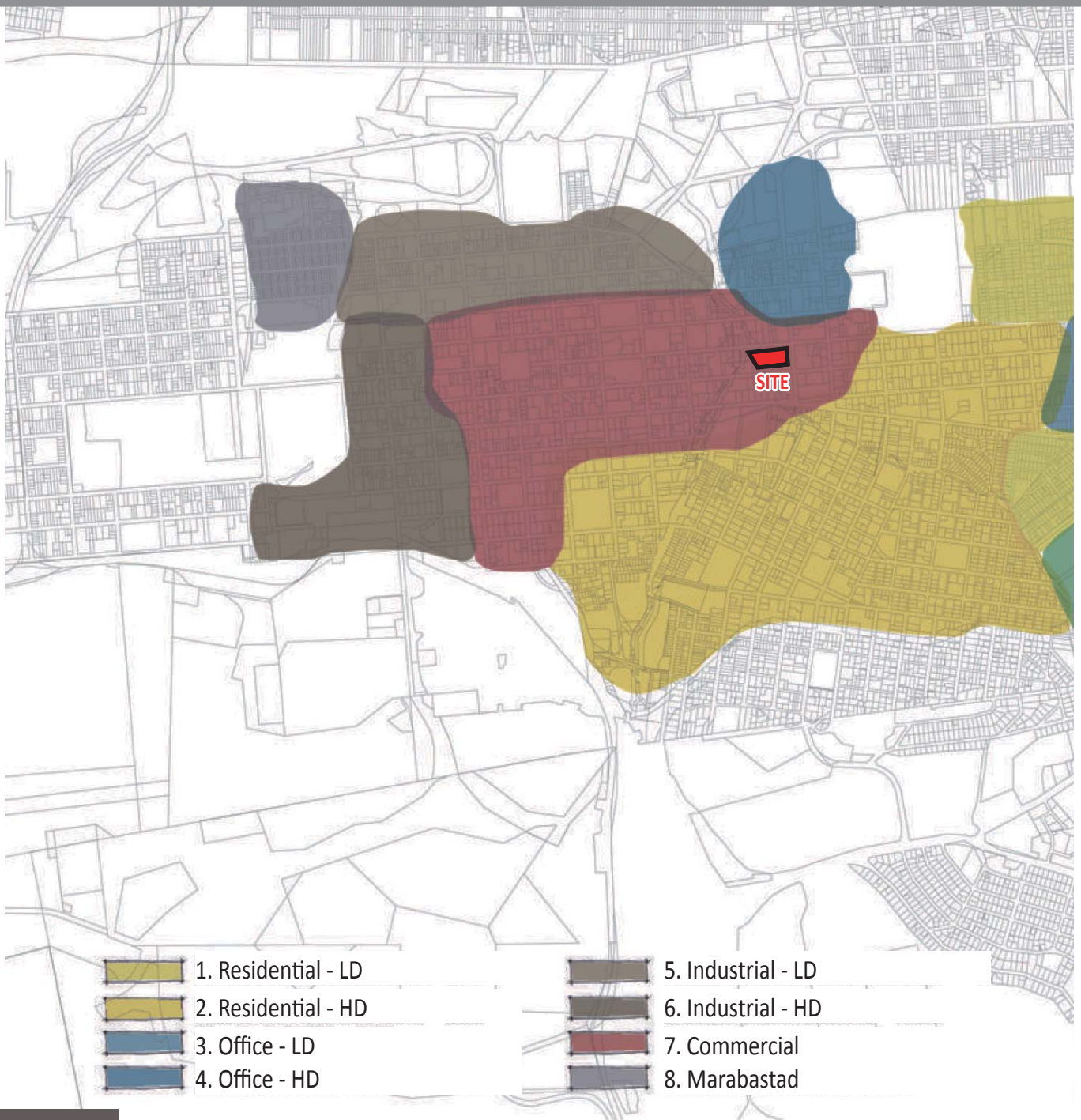




Figure A. 13. Photo of the character of commercial buildings opposite the site (Author, 2011).



Figure A. 14 Photo of the character of the student accommodation on the corner of Church street and Nelson Mandela drive (Author, 2011).



Figure A .15. Map of the district character relative to the site and Pretoria (Author, 2011).

Figure A. 13. Is a photograph of the general character of the commercial buildings in the area. Most of the commercial buildings along Church Street offer very little opportunity for interaction along the street front, contrary to the significance of Church Street (identified as a ceremonial route).

Figure A. 14. is a photograph of Lions Place a building designed for student accommodation. There is very little opportunity for student activity in the area and very little recreational and social activities for public in general. There is a huge short fall of spaces for recreational activities to take place in the area, The proposed intervention provided courtyard spaces with restaurants and exhibit spaces for the public to engage and interact.

Figure A. 15. Illustrates the general character or function of a particular area, defined as 'districts'. The map highlights the general district character that currently exist, though there is mix of activities that are spread across the different districts.

The specific site where the intervention is proposed conceptually to take place will be a mixture of Residential and Commercial components onto Church street, that will draw people off the street level into the courtyard areas where other interactive educational activities will take place.

ADDENDUM B:



Figure B. 1 Aerial photograph of site plan (Geography Department, University of Pretoria 2011).

25 12.5 0 25 50 75 Meters

Figure B. 2 & Figure B. 3

A - stand 2/60 (Author,2011).

Description : Vehicle show rooms and offices

User: Auto pedigree

Analysis: Contributes little to street, side alley potential access to precinct.

Intervention: Adaptive re-use potential.

Figure B. 4 & Figure B. 5

A - stand R/1029 (Author,2011).

Description : Semi enclosed vehicle showroom and offices

User: Audi pre-owned vehicles

Analysis: Steel roof structure part of street definition. Valuable open area created below, level difference

Intervention: Adaptive re-use potential.

Figure B. 6

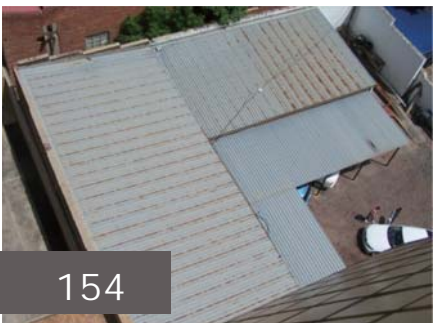
B - stand R/1029 (Author,2011).

Description : Out building

User: Audi pre-owned vehicles

Analysis: Alienated from its surrounding context, and negative positioning toward proposed open space structure for precinct.

Intervention: demolish retain parts of structure for potential urban furniture



SITE Context block study



Figure B. 7 & Figure B. 8
A - stand 4/56 (Author, 2011).
Description : Double story, Travel booking agency
User: South African magic travel centre
Analysis: building detracts from street language, no relationship with surrounding buildings or structures.
Intervention: remove external structure, possible reuse of internal structure and level difference, relocate use



Figure B. 9 & Figure B. 10
D - 1053 (Author, 2011).
Description : Covered parking.
User: Automotive
Analysis: Footprint important within structures. Structure is Neutral towards proposed development.
Intervention: removal to increase access to proposed precinct open square.



Figure B. 11 & Figure B. 12
A - stand 1053 (Author, 2011).
Description : Double storey workshop
User: Automotive
Analysis: Heritage building, contributes to character of the precinct. Building defines and lends scale to proposed open spaces.
Intervention: re-use arts and craft workshops/Restaurant/ exhibition, arts performance space and photography.

Figure B. 13
A - stand 5/56 (Author, 2011).
Description : Outbuildings
User: McCarthy Volkswagen
Analysis: buildings turn their backs on river, valuable adjacent space between buildings and Walkerspruit.
Intervention: possible re-use to frame open space onto Lions bridge.



Figure B. 14
B - stand 5/56 (Author, 2011).
Description : Covered outdoor vehicle display
User: McCarthy Volkswagen
Analysis: Negative towards definition of important corner, diagonally opposite Lions bridge
Intervention: remove create open space to celebrate Lions bridge, which is of heritage to the city.



Figure B. 15 & Figure B. 16
B - stand 1053 (Author, 2011).
Description : Workshop
User: Automotive
Analysis: connection between two buildings, detracts from impact two buildings have on the precinct character.
Intervention: to be broken open to create entrance into the precinct.





Figure B. 1 Aerial photograph of site plan (Geography Department, University of Pretoria 2011).

25 12.5 0 25 50 75 Meters

Figure B. 17 & Figure B. 18
C - stand 1053 (Author, 2011).
Description : Double storey work-shop staff living
User: Residential
Analysis: Building contributes to character of precinct and critical mass. Building faces onto proposed urban river arcade.
Intervention: to be restored, possible art studio workshop/ music and book store.



Figure B. 19 & Figure B. 20
E + F - stand 1053 (Author, 2011).
Description : Single fragmented structures.
User: ablutions and car scrap part shed for storage
Analysis: part of smaller detached sheds. structures within valuable part of precinct and onto urban river park
Intervention: demolish



Figure B. 21
E - stand 5/58 (Author, 2011).
Description : Covered parking structure
User: Tshwane central (Automotive)
Analysis: part of series of incoherent within valuable part of precinct and part of smaller network of open spaces
Intervention: remove part and re-develop. Restaurant/ small trading stalls

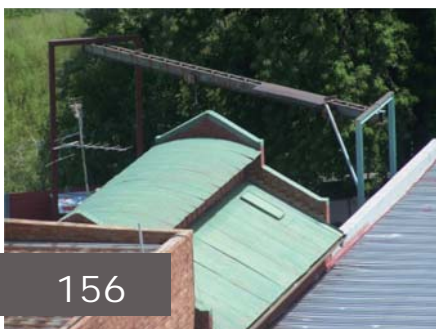




Figure B. 22 & Figure B. 23
B - stand 5/58 (Author, 2011).
Description : abandoned double storey building
User: Tshwane central (Automotive)
Analysis: building doesn't relate to street, badly positioned within precinct and proposed open space structure
Intervention: to be demolished

Figure B. 24 & Figure B. 25
C - stand 5/58 (Author, 2011).
Description : Workshop (double storey)
User: Tshwane central (Automotive)
Analysis: Important open space structuring element to courtyard front and back, connecting open space.
Intervention: Redevelop potential, office/ art live work studio.

Figure B. 26 & Figure B. 27
A - stand 5/58 (Author, 2011).
Description : Reception
User: Tshwane central (Automotive)
Analysis: add on, negative to open space framework behind and not street
Intervention: demolish

Figure B. 28
F - stand 5/58 (Author, 2011).
Description : Covered parking canopy structure
User: Tshwane central (Automotive)
Analysis: add on, obscures building in background and negative towards open space network links for precinct
Intervention: remove

Figure B. 29
D - stand 5/58 (Author, 2011).
Description : Workshop
User: Tshwane central (Automotive)
Analysis: roof form adds to character of precinct
Intervention: could form part of entrance into precinct and accommodate small shops/studios

Figure B. 30
F - stand 1183 (Author, 2011).
Description : single storey with flat concrete roof
User: Arcadia glass and frame worx (automotive)
Analysis: potential open top roof space, structural integrity to be confirmed
Intervention: possible redevelop or adjacent building 'D' to be extended outward over structure.





Figure B. 1 Aerial photograph of site plan (Geography Department, University of Pretoria 2011).

25 12.5 0 25 50 75 Meters

Figure B. 31 & Figure B. 32
A - stand 1083 (Author, 2011).
Description : Warehouse
User: Unknown occupant
Significance: Heritage -1948 Warehouse, Valuable internal spatial qualities.
Intervention: Adaptive re-use potential. Exhibition/workshop space/workshop studio space

Figure B. 33 & Figure B. 34
D - stand 1083 (Author, 2011).
Description : Secondary building, double story face brick
User: Arcadia glass and frame work (automotive)
Significance: formal facade defines open space structure
Intervention: Adaptive re-use potential. exhibition/workshop space/art workshop office space.

Figure B. 35 & Figure B. 36
C - stand 1083 (Author, 2011).
Description : Secondary workshop
User: Arcadia glass and frame work (automotive)
Significance: building contributes to character of precinct , important relationship to adjacent small space and adjacent buildings
Intervention: can be redeveloped as workshop space and form part of workshop exhibition cluster with adjacent buildings.





Figure B. 37 & Figure B. 38
B - stand 1083 (Author, 2011).
Description : Double storey main workshop and reception
User: Arcadia glass and frame work (automotive)
Analysis: Valuable concrete frame building, part of series of longitudinal warehouse structures
Intervention: activate buildings along street facade, possible mixed use work live units/ double volume retail spaces



Figure B. 39 & Figure B. 40
G - stand 1183 (Author, 2011).
Description : Covered parking and outbuildings
User: Arcadia glass and frame work (automotive)
Analysis: no interface between street and pedestrians
Intervention: removal of canopy structure, space between building to form part of access into precinct



Figure B. 41
E - stand 1183 (Author, 2011).
Description : outbuilding/store
User: Arcadia glass and frame work (automotive)
Analysis: out of scale with the surrounding building scale. building blocks new access of street though the precinct
Intervention: could form threshold between open spaces and into main open space

Figure B. 42 & Figure B. 43
A - stand 2/62 (Author, 2011).
Description : Workshop
User: Vacant (previously RMP Fitment Centre)
Analysis: Warehouse building with attached sub structure onto street
Intervention: potential multi purpose open internal retail space.



Figure B. 44 & Figure B. 45
B - stand 2/62 (Author, 2011).
Description : Various Outbuildings
User: Vacant (previously RMP Fitment Centre)
Analysis: Buildings currently used as informal automotive workshop space (illegally)
Intervention: part of network of open spaces with spill over functions into space. Propose restaurants and smaller service stalls.



ADDENDUM C:

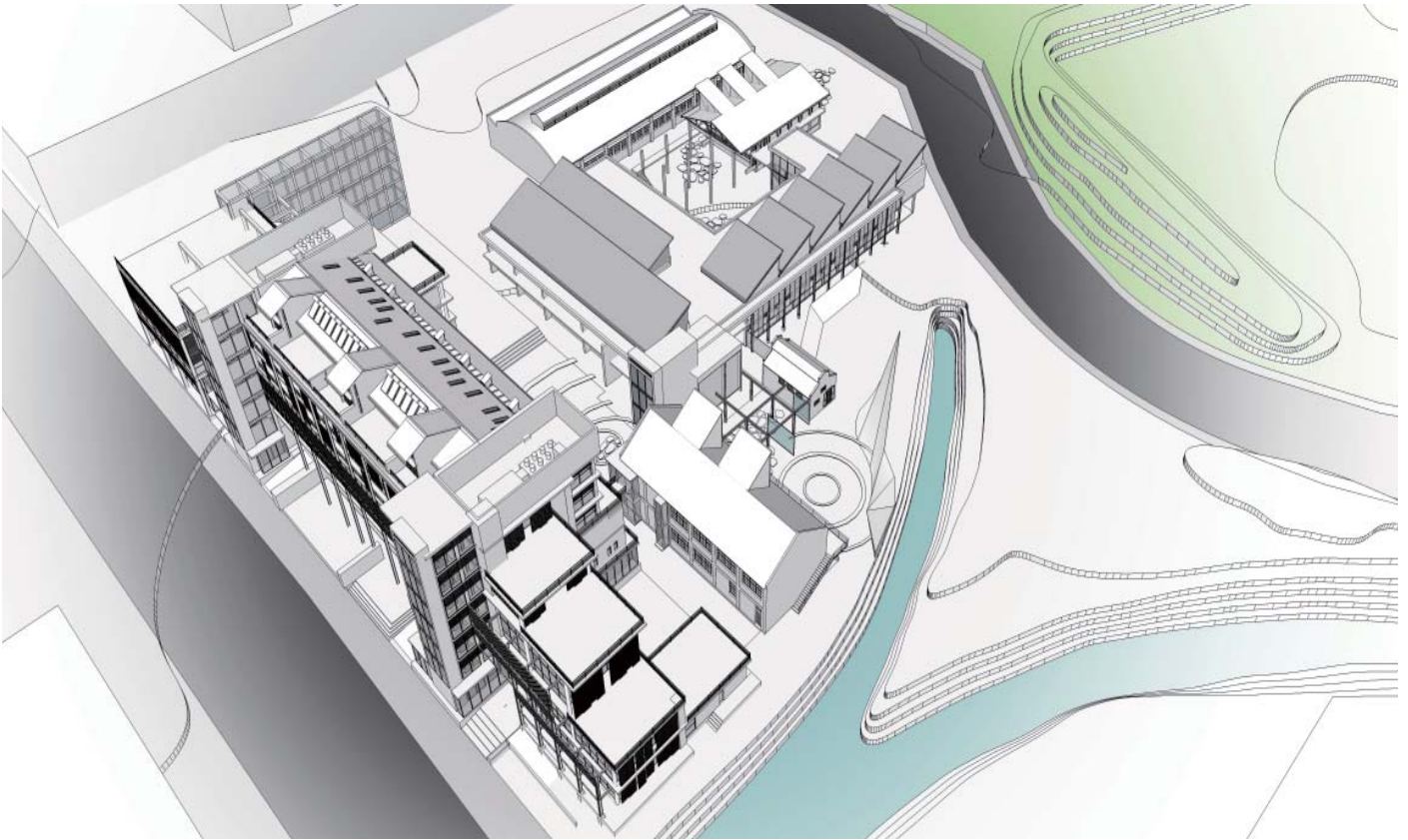


Figure C. 1 Birds eye view perspective (Author, 2011).



Figure C. 2 Perspective taken from the island between the two rivers (Author, 2011).

Presentation

Final presentation images

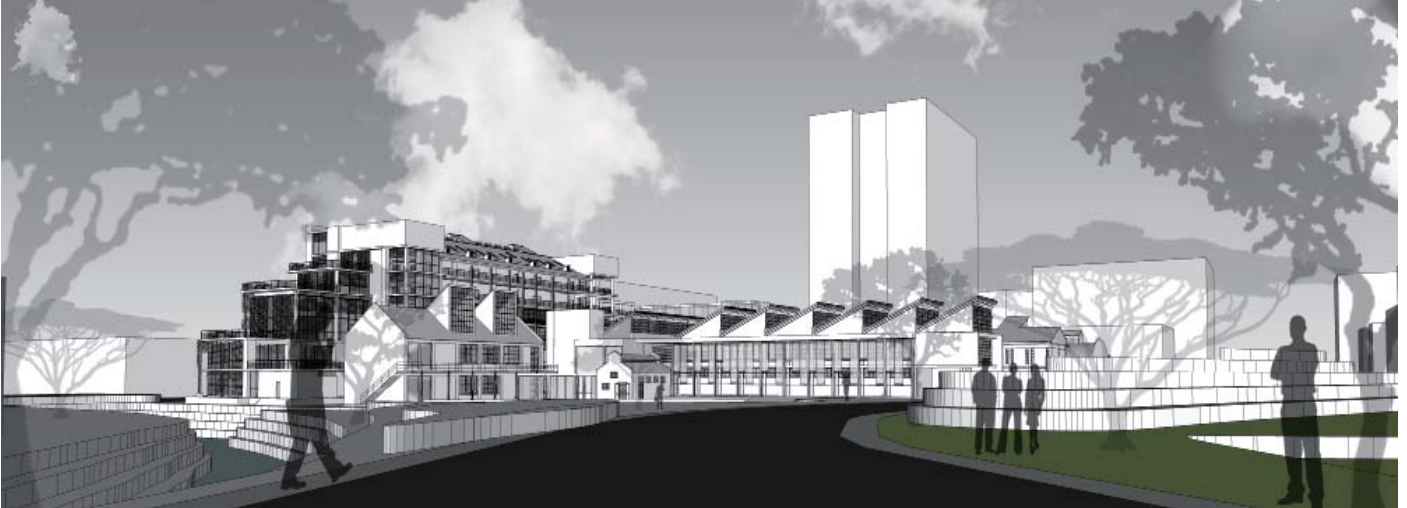


Figure C. 3 Perspective taken from Nelson Mandela Drive looking up to Pretorius Street (Author, 2011).



Figure C. 4 Perspective taken from Lions Bridge (Author, 2011).

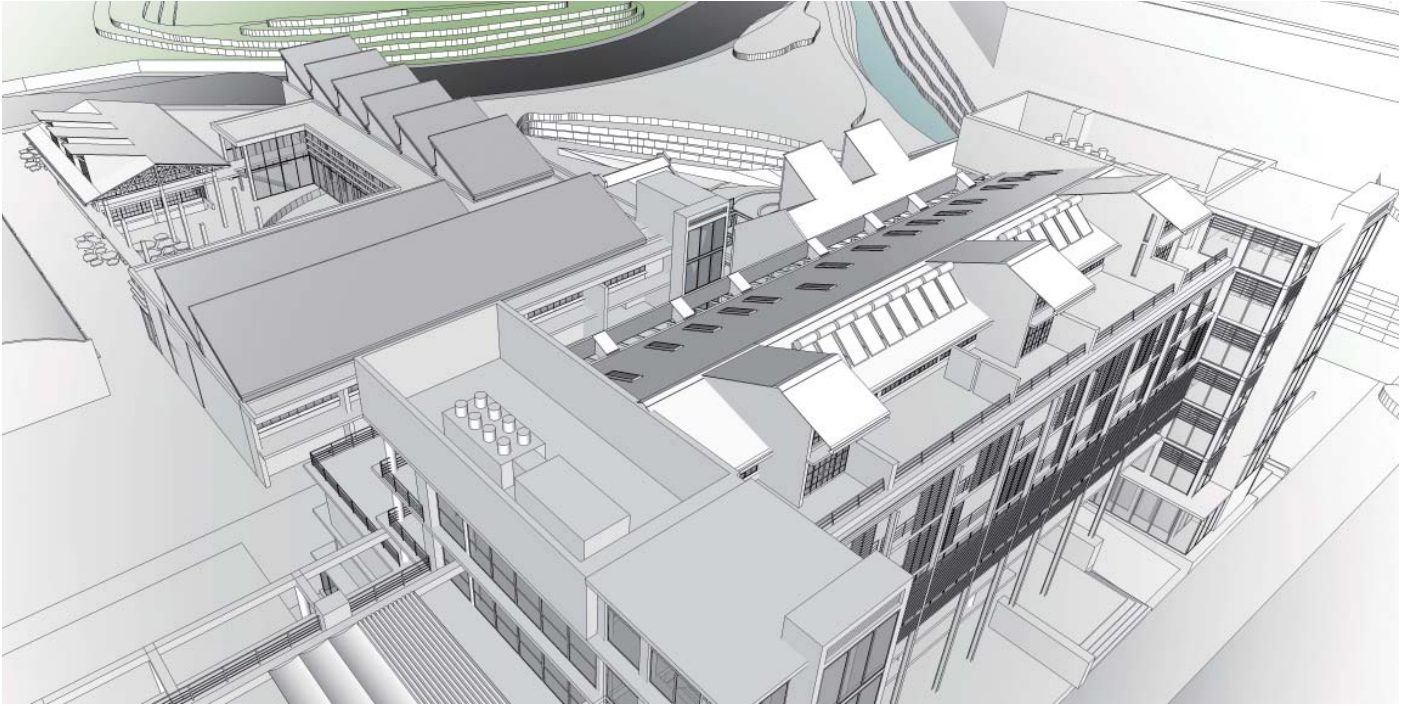


Figure C. 5 Aerial Perspective (Author, 2011).



Figure C. 6 View of courtyard 2 (Author, 2011).

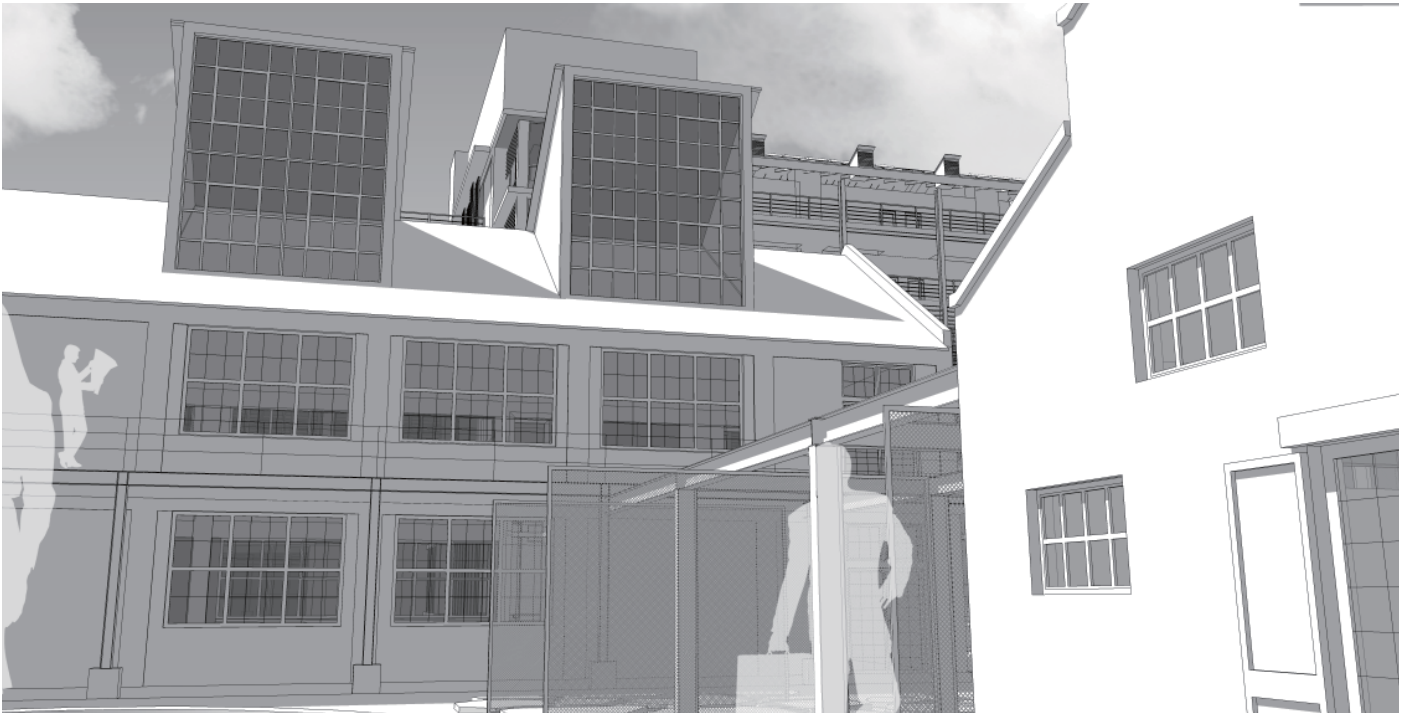


Figure C. 7 View of Textile Workshop taken from river (Author, 2011).



Figure C 8. View of access across site looking the photography and art workshop (Author, 2011).

ADDENDUM D:

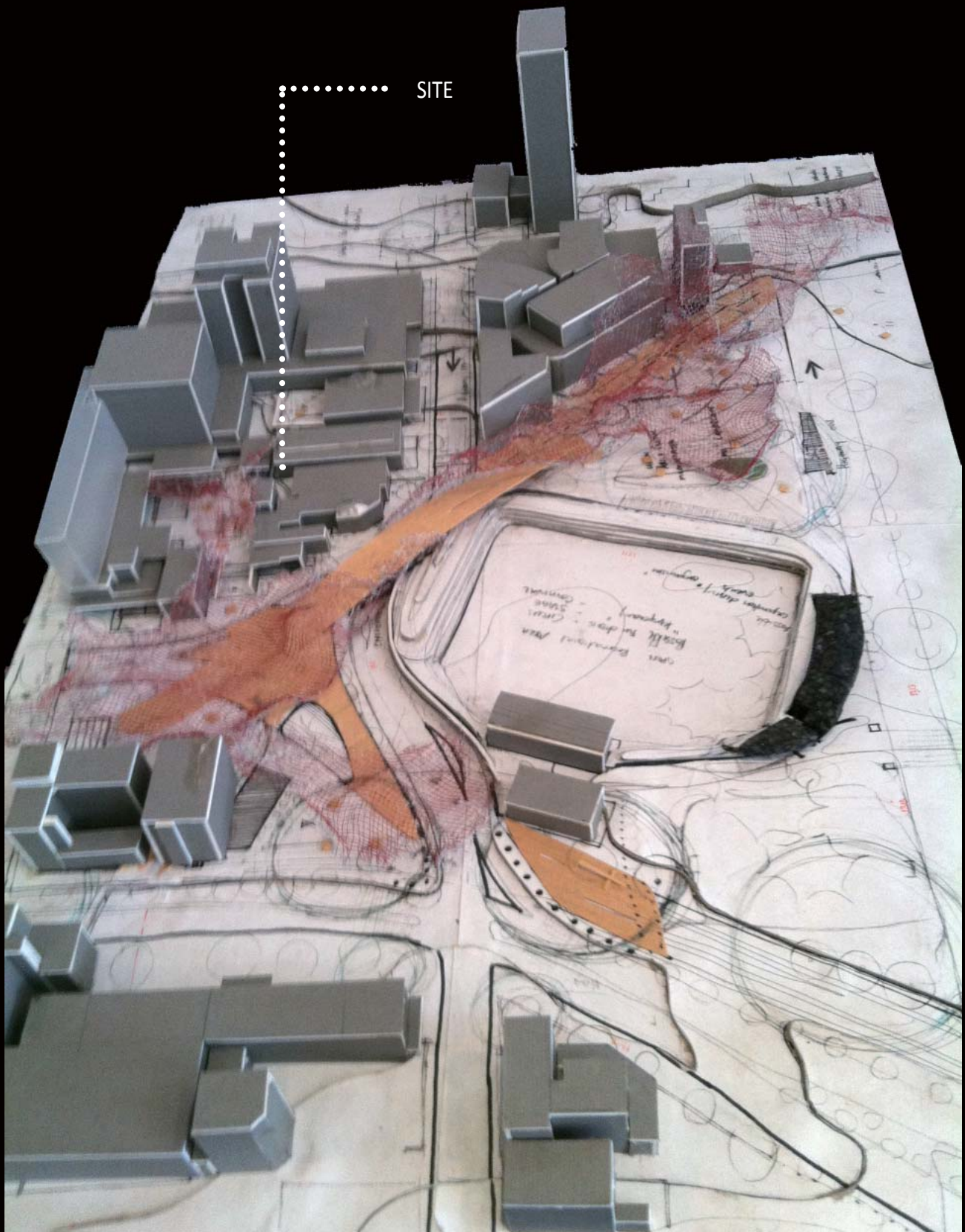


Figure D 1. Photograph of urban concept model looking east (Author, 2011).

Models

Urban concept model

SITE

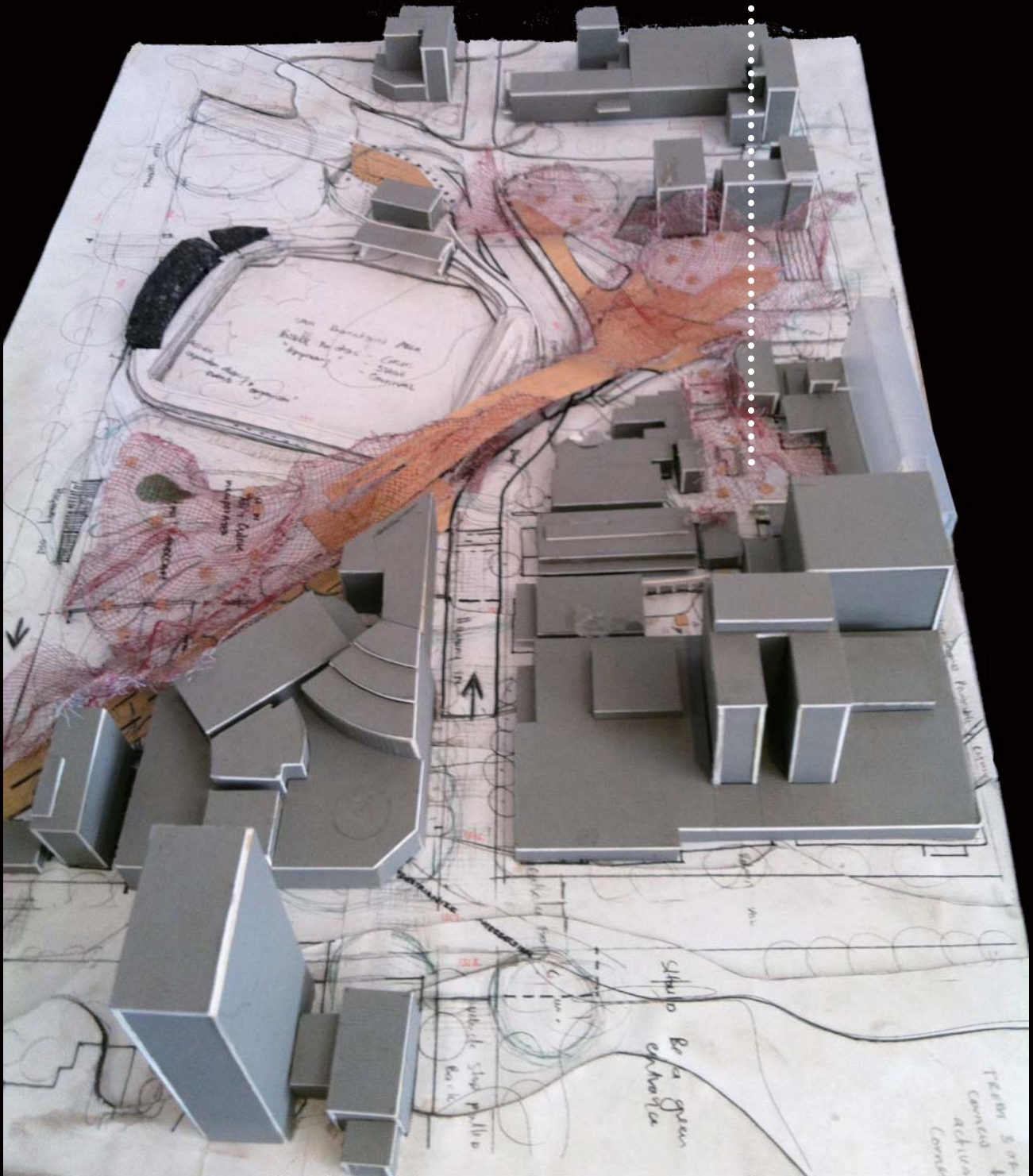


Figure D 2. Photograph of urban concept model looking west (Author, 2011).

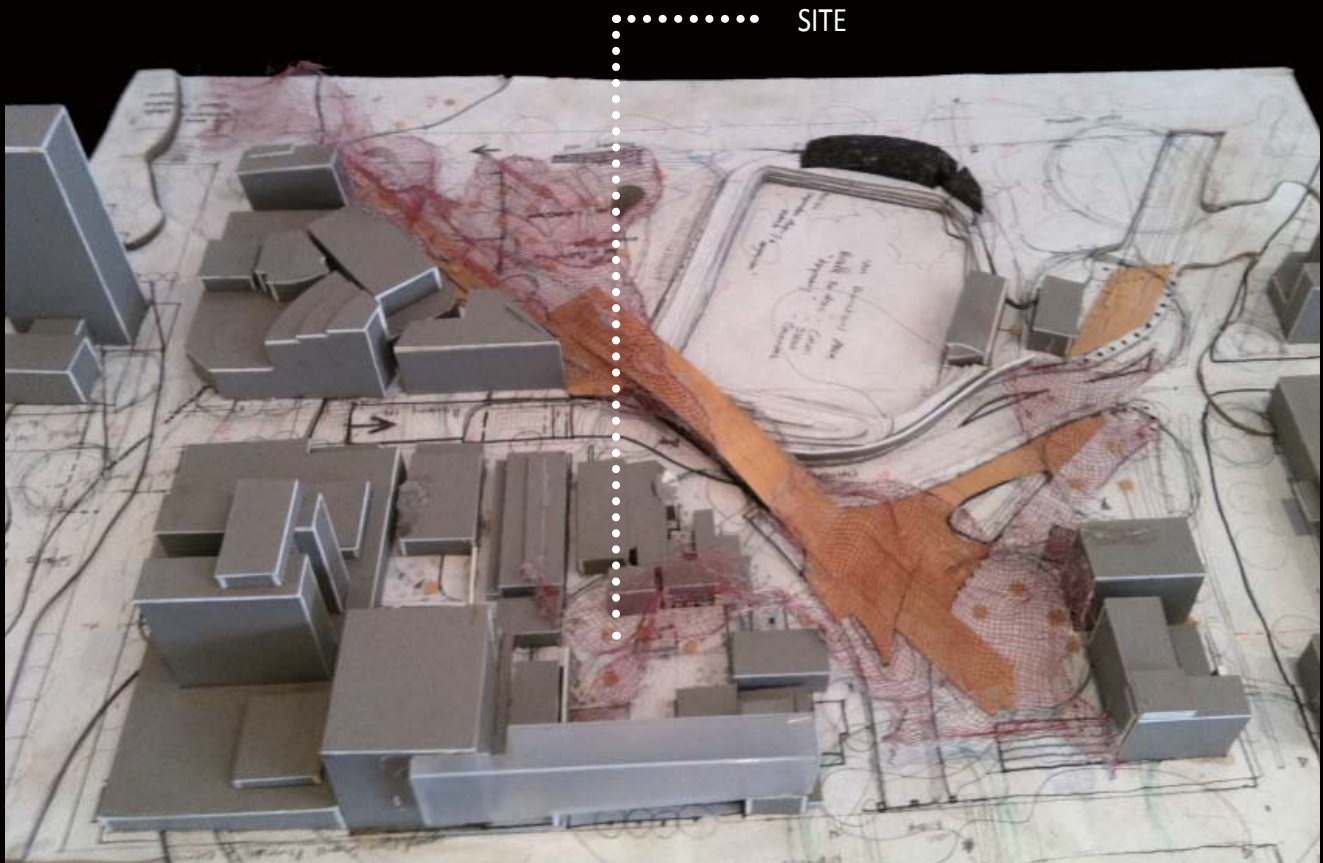


Figure D 3. Photograph of urban concept model looking south (Author, 2011).



Figure D 4. Photograph of urban concept model looking north (Author, 2011).

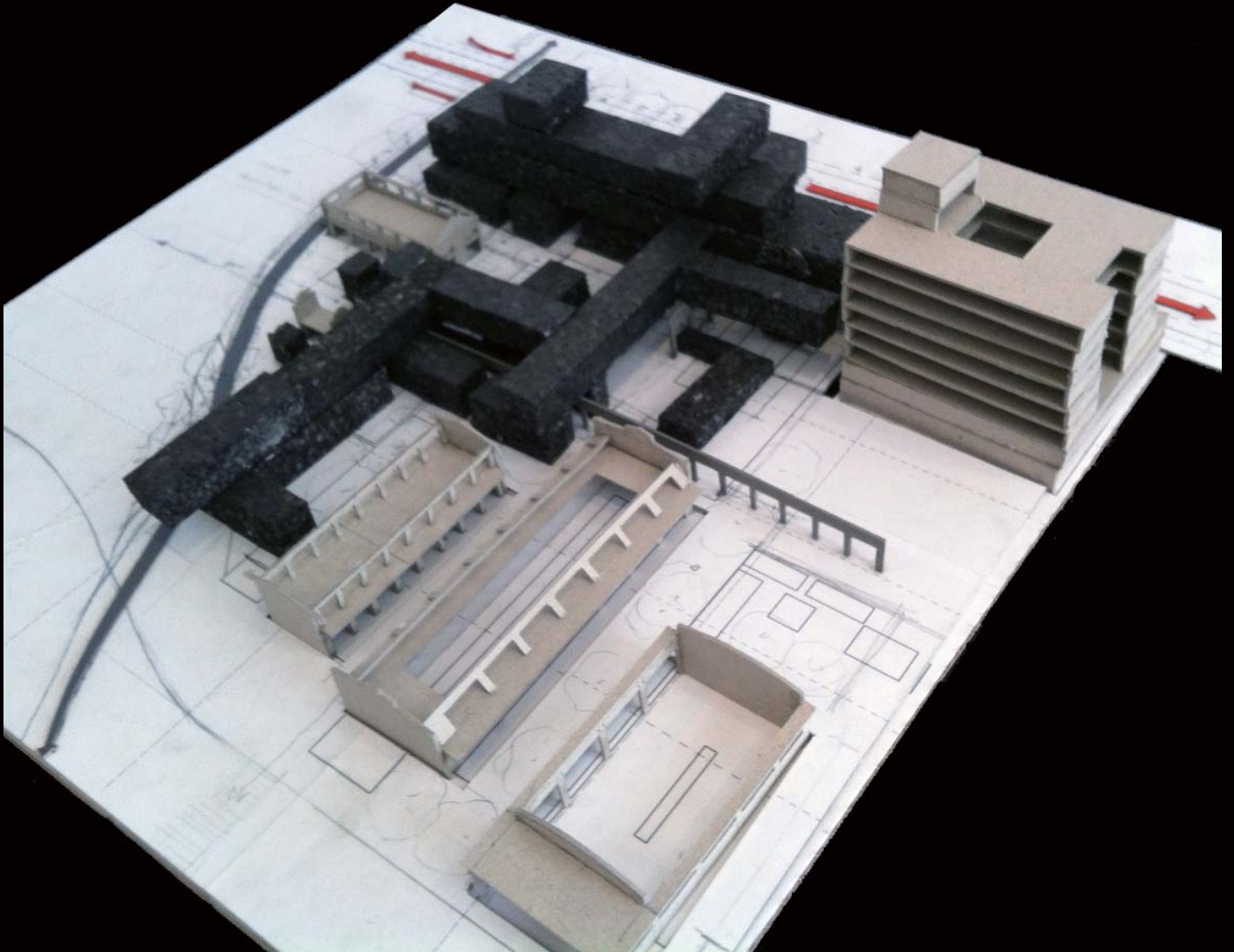


Figure D. 5 Aerial photograph of concept model looking north west (Author, 2011).

Models

Concept model

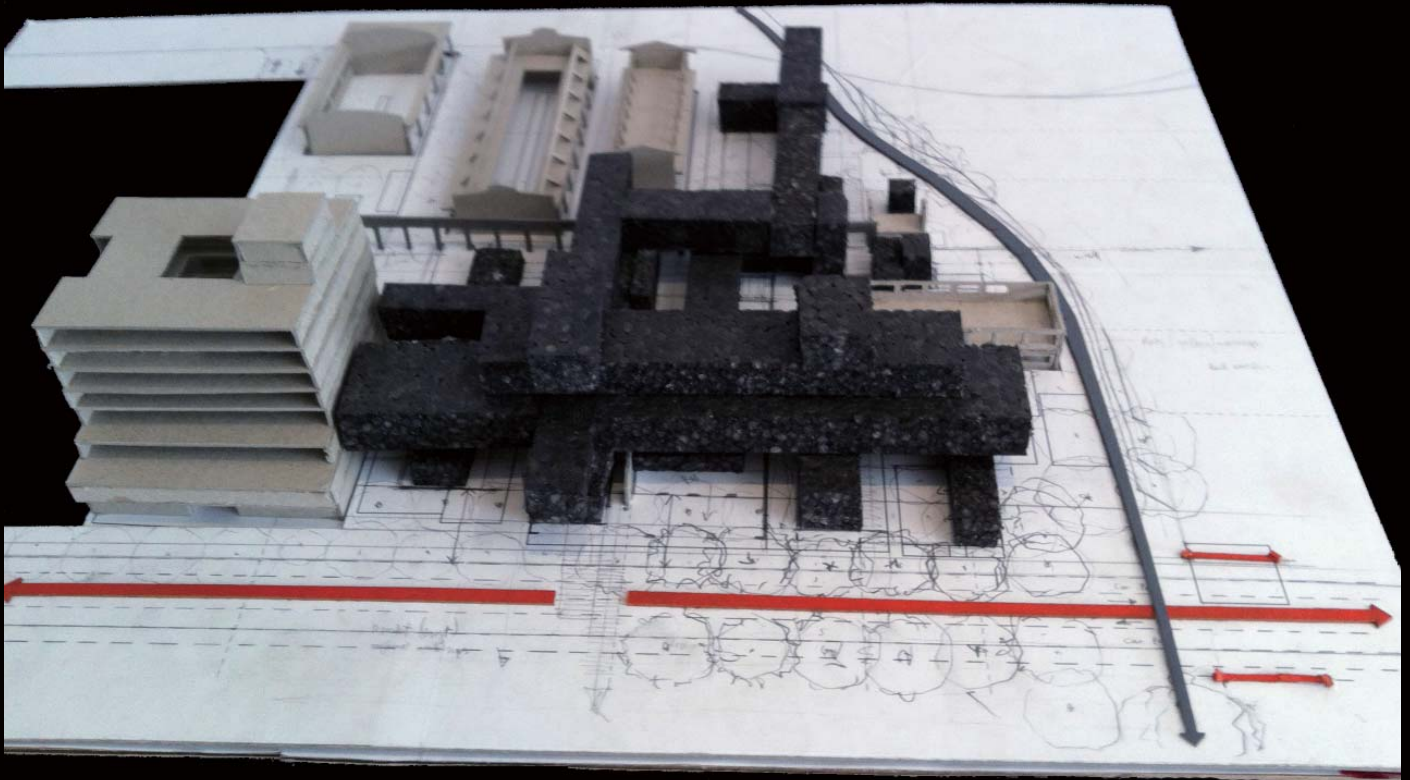


Figure D. 6 Aerial photograph of concept model looking south (Author, 2011).



Figure D 7. Aerial photograph of structural model looking north (Author, 2011).

Models

Structural model



Figure D 8. Aerial photograph of concept model looking east (Author, 2011).



Figure D 9. Aerial photograph of structural model looking south (Author, 2011).

Structural model

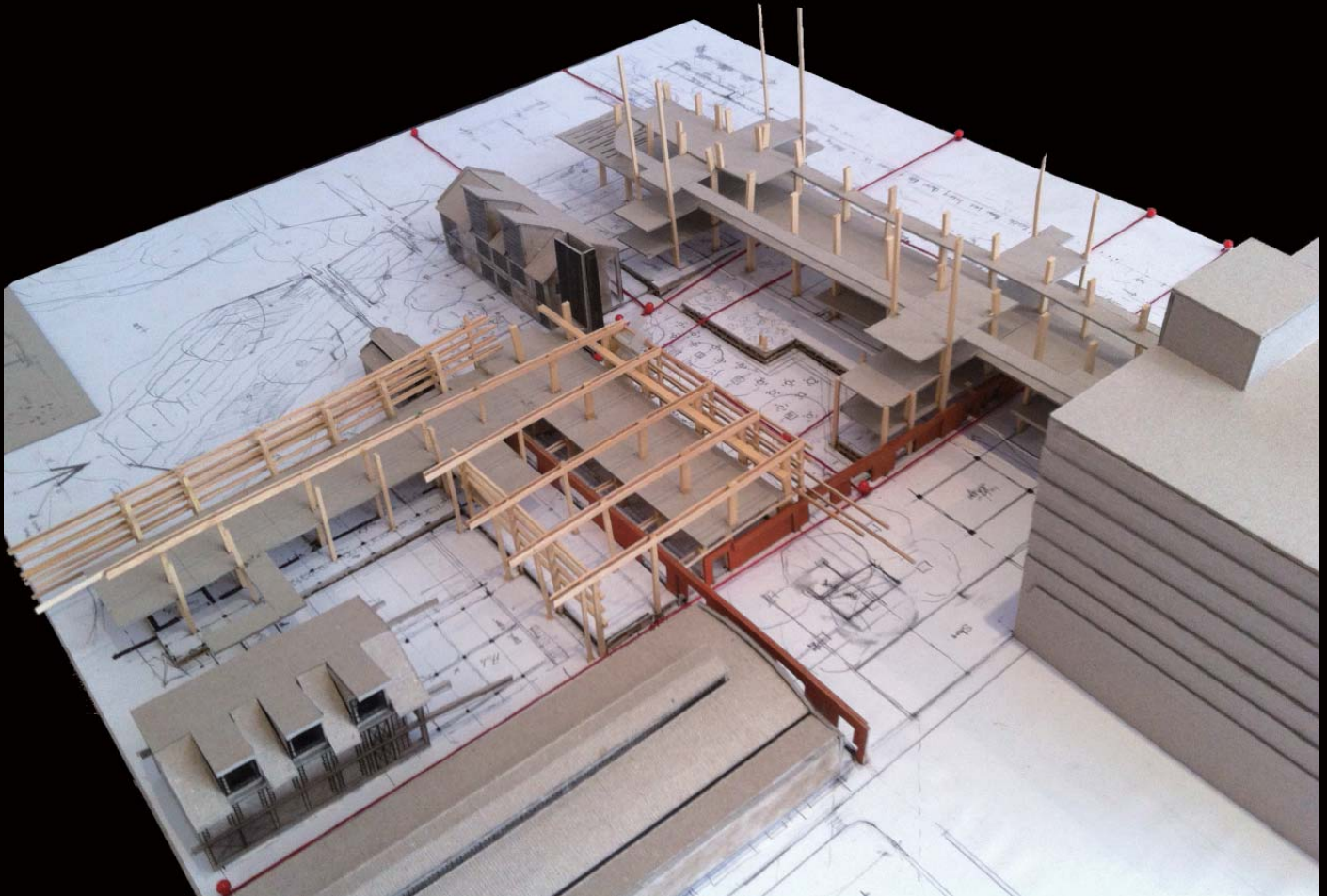


Figure D 10. Aerial photograph of structural model looking north -west (Author, 2011).