

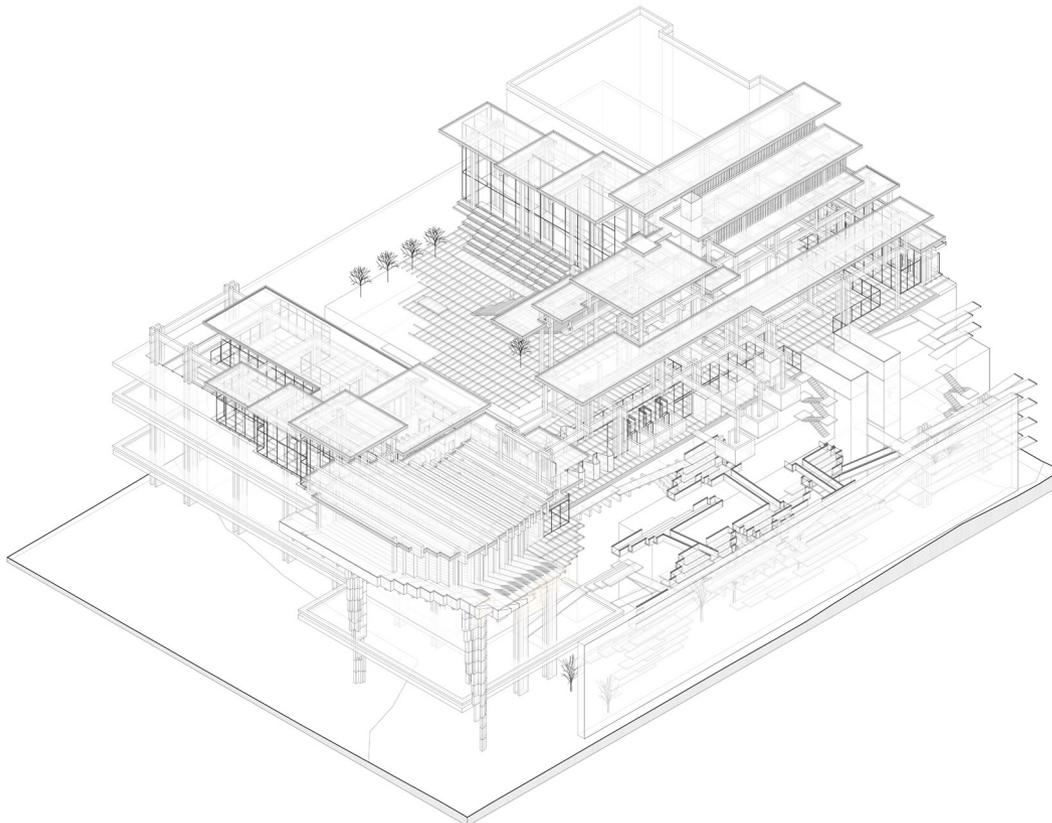


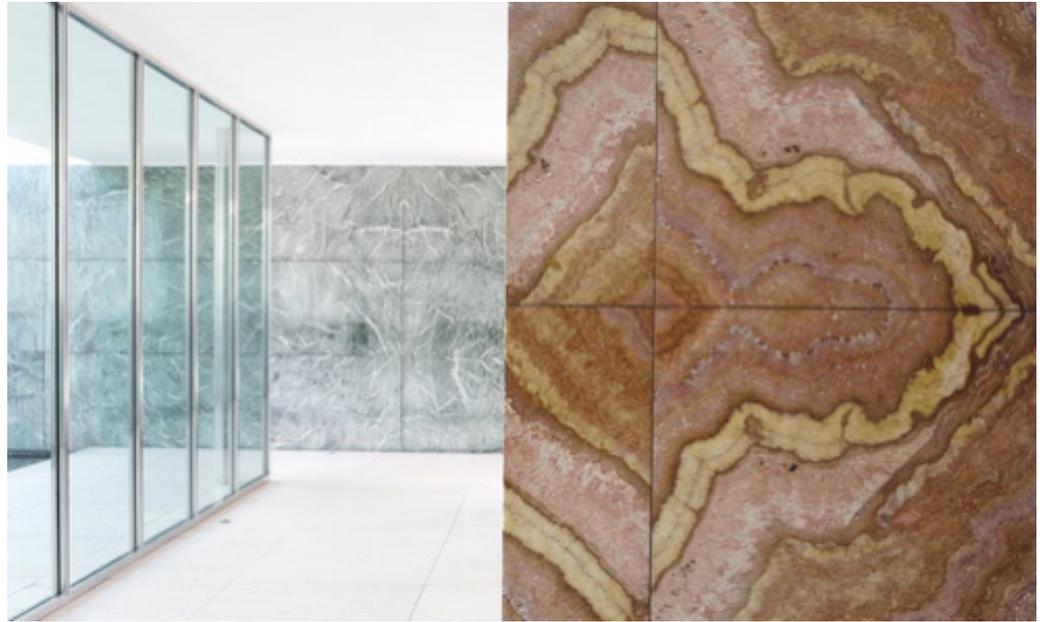
# PART SIX

## TECHNICAL RESOLUTION

## Introducing Technification

The entirety of this dissertation culminates in a technical resolution. The resolution revisits the proposition of a formal middle ground within the fields of iconic and contextual architecture. Proliferation of the material mimesis is achieved by subtle material changes - technological advancement to the endemic concrete of the State Theatre. By formal dissolving of the endemic architectural style by breaking it down into its architectonically elemental basis, and repeating that defined module, a new architecture based on etymology of the old that faintly but succinctly differs from the existing, is created.





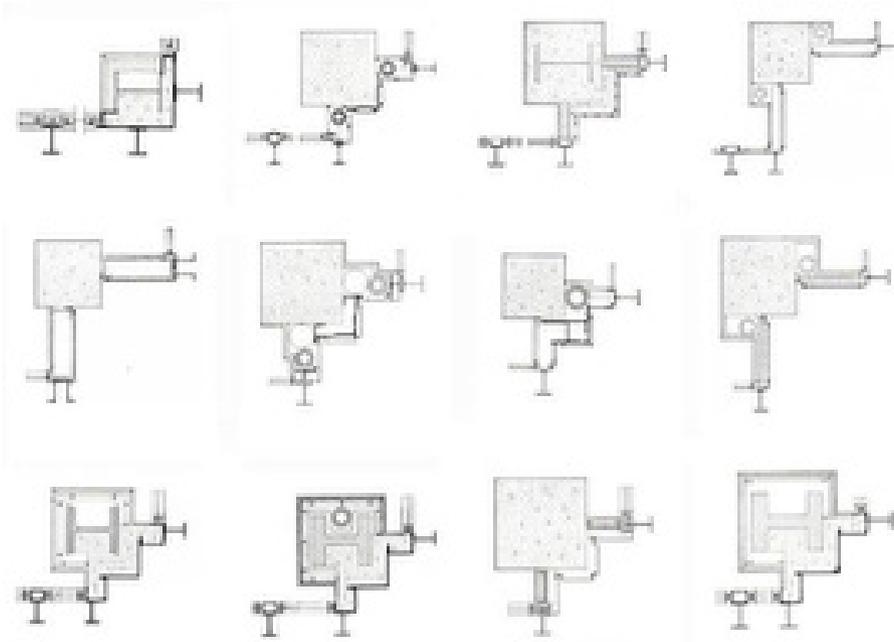
## Extracting Meaning From Form



The Barcelona Pavilion by Mies van der Rohe in 1929 stands as a testament to material honesty and the powerful signification that comes with architectural detailing. This can be seen in the details of junctions and joining of steel elements to make a structure. The way in which the corner is articulated either fortifies or nullifies it due to the method of its fixture of the corner's elements (salient or re-entrant).

On a material level, the broaching of the travertine wall panels by Mies was used to attain a sense of material symmetry in the most natural way possible. This was achieved by using the grain of the travertine and onyx blocks, and mirroring them on themselves for a sense of symmetry.

Miesian corner theory has been coined as a means to understand the ways that Mies van der Rohe used the idea of adding or subtracting a corner to further reinforce its integrity, or undermine its severity as a junction point.



<http://www.detailsinsection.org/>

## Material Selection.

Materials will be selected mimetically. Concrete, therefore, will be used to seemingly grow metabolically out of the existing concrete of the State Theatre. Instead of a tectonic steel and glass construction, which would juxtapose the existing construction style completely, contrast to the existing is achieved by technological advances in concrete as a material itself.

A chronologically lucid palimpsest on the existing building is exalted by inherent changes in the material itself and not by a banal and superimposed juxtaposition of a new and non-vernacularly founded architectonic language or material system.

## Concrete types used:



Prestressed Tensioned Beams (PTB) - Prestressed, tensioned, high performance, cast in-situ concrete beams are used for the interstitial flooring beam system.

Low Density Concrete (LDC) - Lightweight or low density concrete slabs for non bearing elements such as the stepped beam platforms have a density of less than 2000 kg/m<sup>3</sup>  
(Kearsley, 2009:309)



High Performance concrete (HPC) - High Performance concrete is used for the main column and beam structure that forms the main facility. It is preferred to normal strength concrete for its bearing capacity and slenderness ratios. Typical compressive strength: 100-150 MPa  
(Beushausen, 2009:297)

Fibre Reinforced Concrete (FRC) - Using steel fibre reinforced concrete for the stepped beam, cantilevering, bearing elements adds bearing strength, while accentuating a slender dissolving aesthetic. By using carbon fibre, (PAN HM□ - 2500-3500 mPa of tensile strength) the large cantilevers of the stepped beams can be achieved.  
(Perrie, 2009:329)



Litracon® Translucent Concrete (LTC) - Using Litracon® Translucent Concrete in certain places give a certain preferable light quality and also further juxtaposes the traditional concrete of the built context. It becomes the formal and material translator between the fenestration and the concrete bearing structure itself. Litracon panels are manufactured in controlled conditions, brought to site and assembled into the discussion booth walls by precast panels which are fixed together.  
([www.litracon.hu](http://www.litracon.hu))

Precast Concrete Systems (PCS) - Precast concrete systems are used for cladding type applications, such as the stringer and columns of the auditorium. They are bolted to the in situ members with concealed fixtures. Precast concrete has many benefits, including: reduced slab weight due to voids or prestressing, faster erecting and a guaranteed consistency and quality due to factor conditions. They are simply assembled on site.  
(Cairns, 2009:339)



Clockwise from top left:

Exposed aggregate sandblasted

Timber formwork beton brut with vertical and horizontal shuttering



## Overall Structure and Finish

### Concrete

Horizontal face elements such as walls are finished with a sandblasted and exposed aggregate method, with a smoothed, chamfered frame similar to that of the existing building.

Horizontal exposed beams will be finished in an off shutter 'beton brut' method, with the timber formwork imprints. Columns will be finished with vertical timber formwork, finished in the same manner.

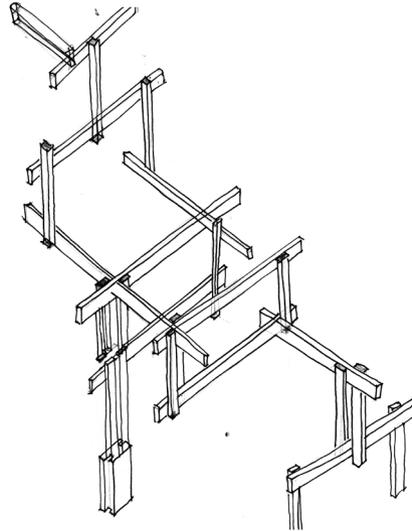
### Aluminium

Aluminium is finished with an anodised coating for corrosion resistance on the structural fenestration elements.

### Steel

Galvanised and intumescent coated mild steel is used for all structural steel members in the facility.





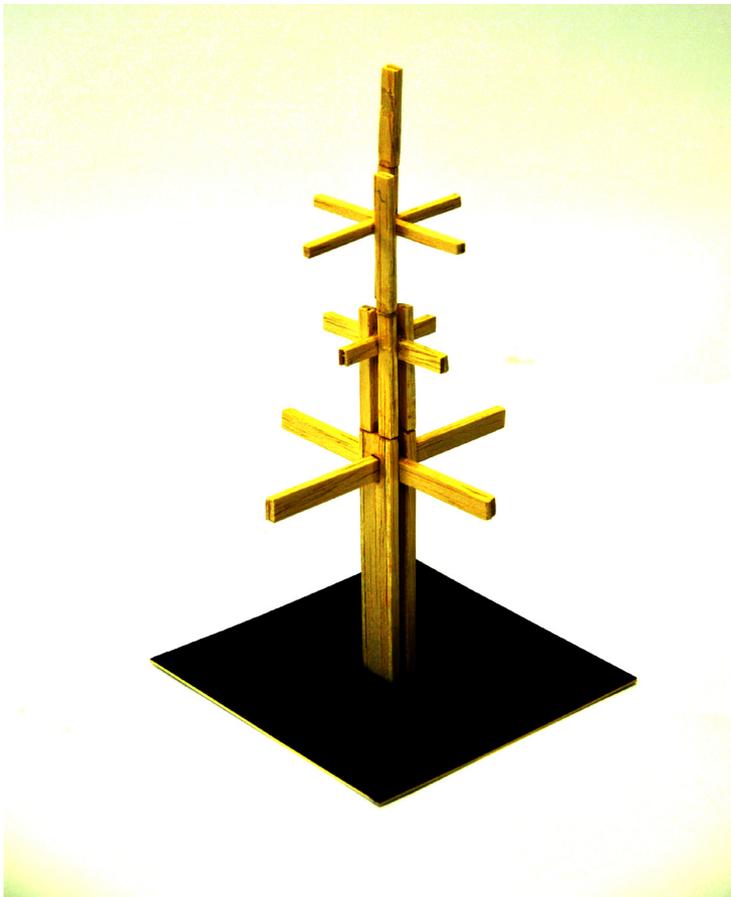
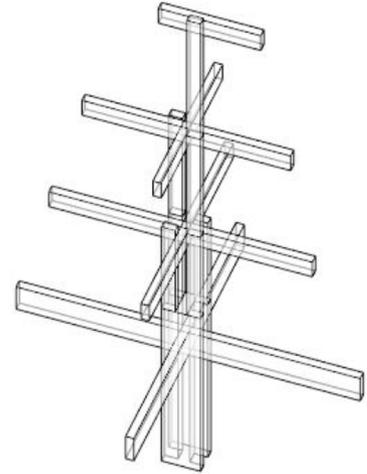
## General Structural Concepts

The general structural system that is used in the main library mass is created by casting columns directly onto starter bars that extrude from the prestressed beams that make up the interstitial floor above the State Theatre roof. This allows for space for existing Heating Ventilation and Air Conditioning (HVAC) systems to continue to function and supplement the proposed facility.

The structural system is created by these columns which seemingly emerge from the endemic structure, as if from a cellular, genetic level. This correlates to the biotic aspect of metabolist language of the Theatre itself. By extruding through the Full, Four, Two, One system and the spreading and staggering the column formation and their loads, the structure dissolves as it gets higher. This dissolving into the context is achieved by the spans and beams diminishing in depth and thickness as they ascend.

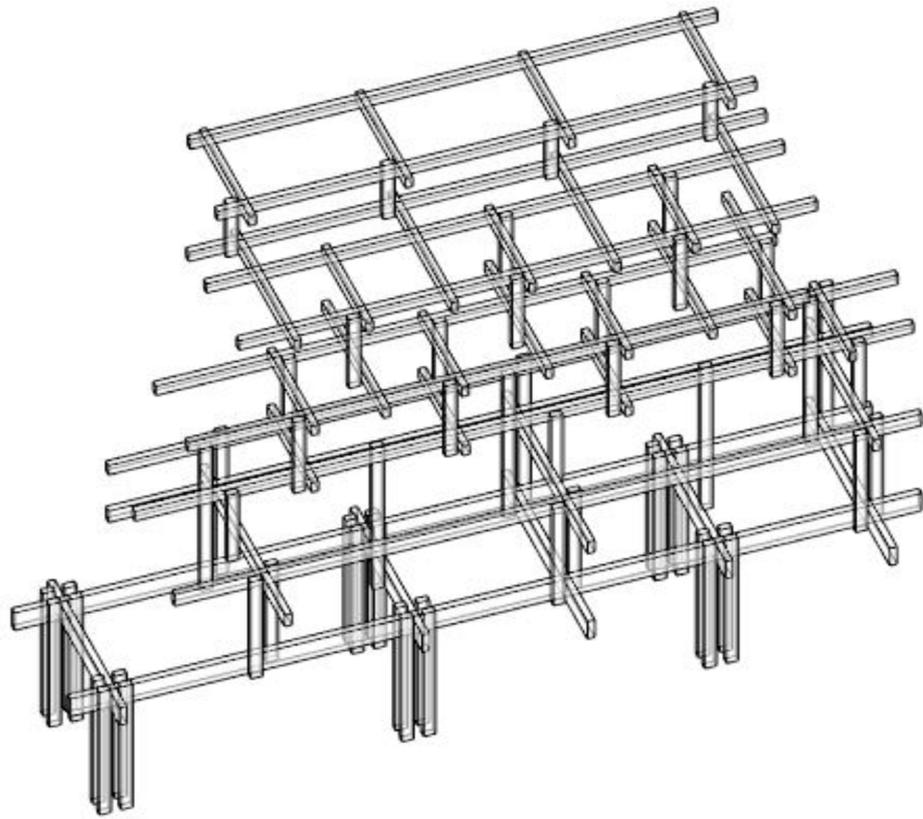
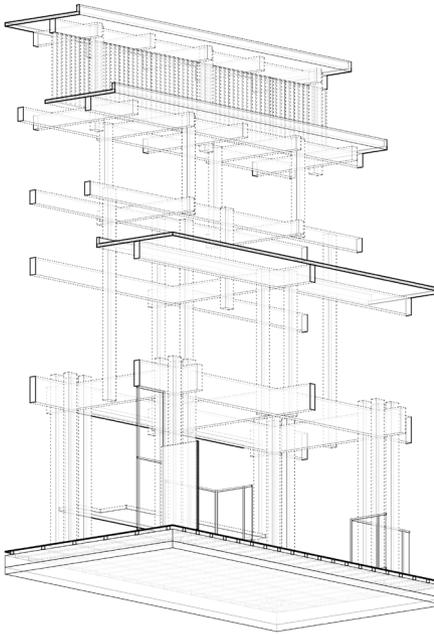


This structural concept came from the genetic predisposition of formal logic and aesthetic that the State Theatre itself gives off. It starts by continuing the existing H-profile column, then splitting it into four columns which extrude out of the original column via the interstitial floor beam system. At a higher level, two diagonally opposite columns stop ascending, while the two others continue upwards. They are alternating, so the beam can be cast into the column and have two resting planes as opposed to one that two adjacent columns would. The last stage is of a one column extrusion. This is the smallest material genetic code of the original state theatre's column design.



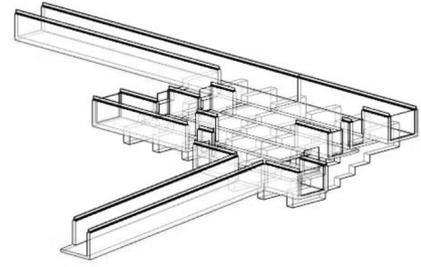
## Spread out and Stagger

This was a means to further seemingly dissolve the structure as it grows outwards. In keeping with the original tenets of construction, elements must be repeated, mutated and then dissolved into contextual insignificance. This is basically a staggered column formation that also contains the “Full Four two one” idea of diminishing structure with height, according to span and necessary depth of the beams.



## Stepped Beam

This became the translation of the “red” delineating lines that formed a public arcade in the alleyway between the women’s memorial and the State Theatre’s back of house. This construction ideology was a means to span the opening of a public thoroughfare and shade it as an arcade would. With this premise, a column could easily be used instead of the stepping beams. With these tessellating platforms, however, it becomes evident that the functionally bridging pathways seem to extrude out of the buildings themselves, and also out of the ground plane.



80 mm THICK AERATED LOW DENSITY OFF SHUTTER FINISHED REINFORCED CONCRETE PLATFORM SLAB THAT FORMS T BEAM WITH PERPENDICULAR STEPPED BEAM

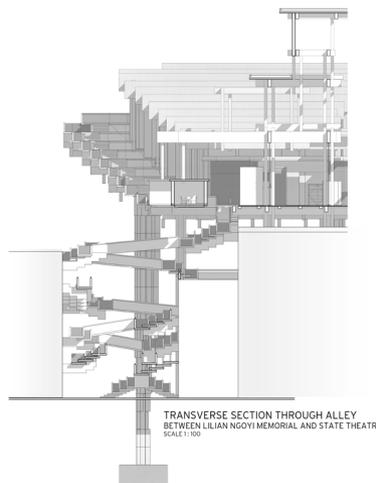
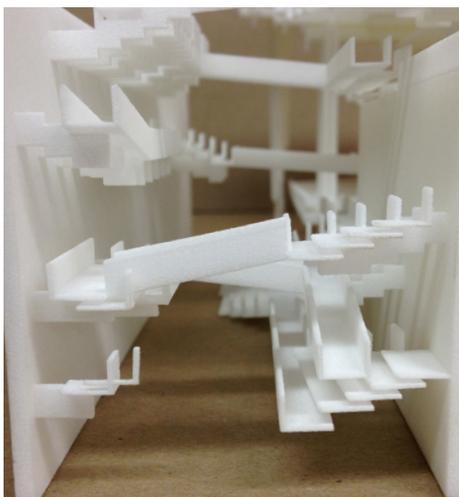
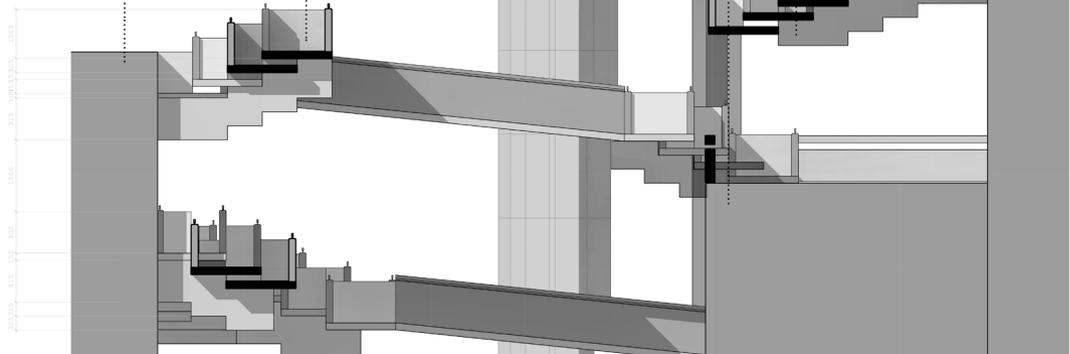
305x914mm STEEL FIBRE REINFORCED OFF SHUTTER FINISHED REINFORCED CONCRETE STEPPED BEAMS WHICH CANTILEVER FROM COLUMNS AND SUPPORT BASE SLABS

OFF SHUTTER FINISHED 100mm AERATED LOW DENSITY & LIGHTWEIGHT CONCRETE UPSTAND BALUSTRADE WITH 20X50mm ALUMINIUM HOLLOW BALUSTRADE CONCEAL BOLTED TO THE BALUSTRADE.

BALLET BALCONY OF THE STATE THEATRE

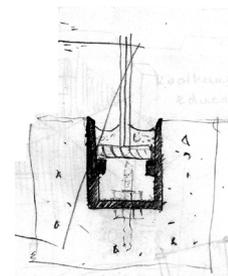
15MM SAFETY GLASS SET IN MASTIC SEALANT & HELD IN ALUMINIUM FRAMES WHICH ARE CAST INTO THE BALUSTRADE.

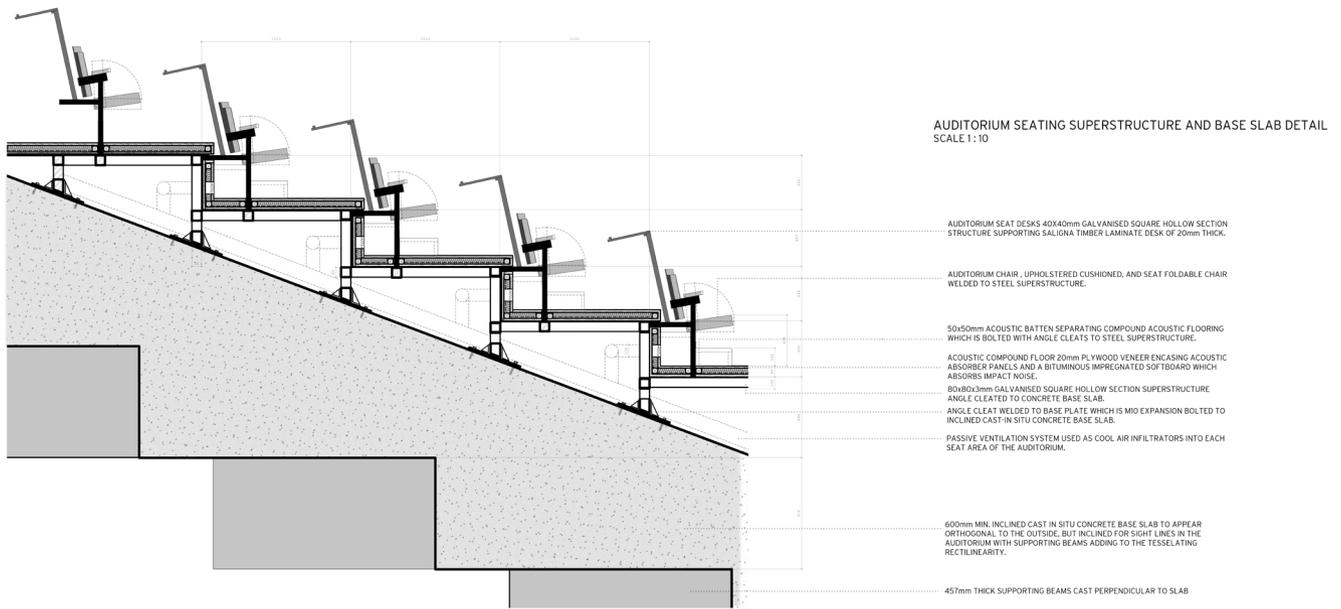
LILIAN NGOYI WOMEN'S MEMORIAL MUSEUM



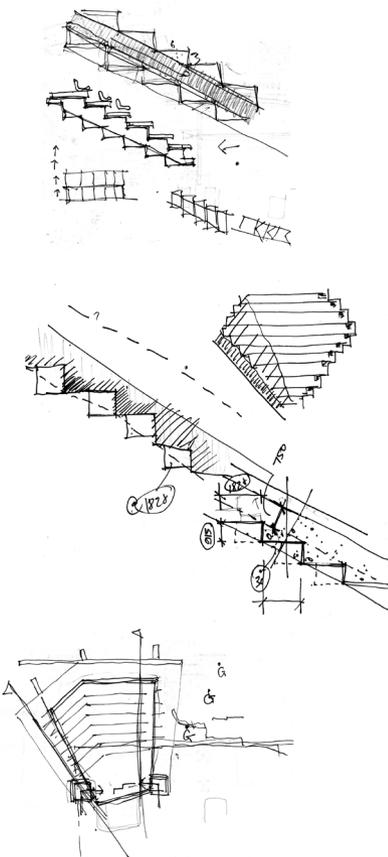
TRANSVERSE SECTION THROUGH ALLEY BETWEEN LILIAN NGOYI MEMORIAL AND STATE THEATRE  
SCALE 1:100

GLAZING DETAIL SET INTO CONCRETE FOR SEAMLESS APPEARANCE





AUDITORIUM STRINGER STRUCTURE ON BASE SLAB DEVELOPMENT



## Specific Technical Features

### Auditorium

#### Composite floor

Underfoot in the auditorium, is a compound floor made up of a lightweight, steel, interior suspended structure which projects the actual seating above the load bearing inclined slab. The floor structure is clad with acoustically appropriate, composite floor made of a plywood veneer, acoustically absorbent board and a bituminous sheet as an underlay to absorb impact noise. This composite floor is fixed to the steel superstructure.

The steel superstructure is bolted with angled cleats to the reinforced concrete base slab that spans the entire auditorium floor. (It takes the load of the auditorium, the above outdoor amphitheatre and their respective live loads). It acts as an upside-down staircase, allowing for a staggered step aesthetic to be understood from the street underside. This is then clad with superficial beams that gives more prominence to the corbeled aesthetic. This slab is supported by two concrete stringer beams which are situated on the ends of the enclosure and run parallel to the stepped truncated walls. It transfers the load onto the original H-profile columns and two corbeled and precast, clad, reinforced concrete columns. These columns taper downwards and project through Helen Joseph street which are founded in the underground parking garage.

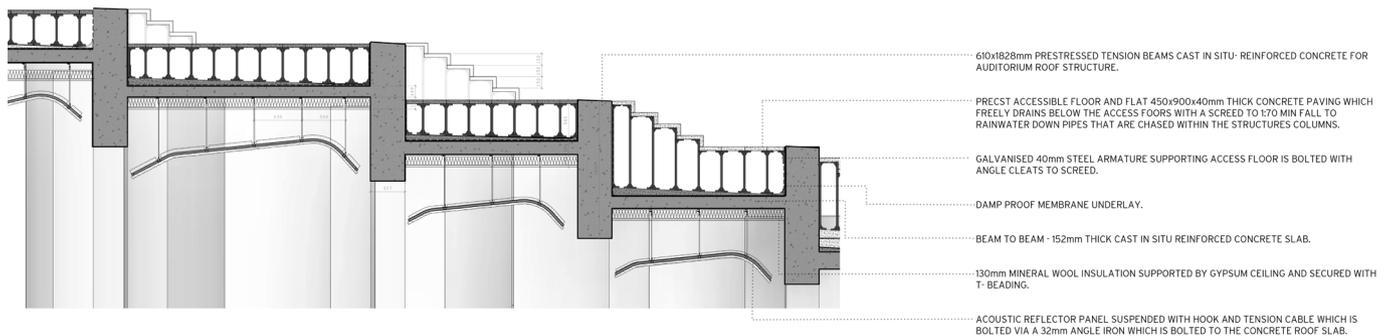


## Ventilation and lighting

The lectern of the auditorium system is fitted with remote systems that control natural lighting and ventilation of natural means by opening apertures in shaded South facing areas of the Southern facing short walls that stagger down the sides of the auditorium. This would provide completely closable, dappled and indirect, natural insolation which is controllable by closure mechanisms. These can also be used as passive, high altitude exfiltrators of hot stale air from the auditorium.

## Outdoor Amphitheatre

The amphitheatre's floor is free draining, allowing the rainwater to penetrate the top layer and be collected in rain water downpipes. The downpipes are chased down each beams respective columns onto a base slab and then eventually to underground water storage tanks. These tanks additionally assist in the water demand of the building during rainy summer months.



## Anechoic chamber

Impact noise on the floor is dealt with acoustically absorbent material, used as an accessible floor. It is suspended over the existing roof structure by a system of beams and short columns. This allows for the existing HVAC services located on the roof to remain undisturbed in an interstitial or service floor that bridges the existing to the proposed. The service floor is suspended by steel armatures which are bolted to the beam and column system, as well as the existing roof of the theatre's opera block. Under these flooring panels, a thick sound absorbent material is used to absorb any extraneous sound attenuation. Acoustic diffuser panels are attached to the walls of these chambers and are used to diffuse reverberant sound. Absorbers are fitted behind these panels to absorb any unwanted sound disturbances. The ceiling is also of acoustic panelling which provides a completely anechoic environment.

FLAT CONCRETE CAST IN SITU ROOF WITH UPSTANDS  
AND FULLBORE DRAINS TO SERVICE AREA

AUDITORIUM ROOF SLABS

AUDITORIUM PRIMARY BEAMS

AUDITORIUM COLUMNS

MAIN STRUCTURE OF SPREAD OUT AND STAGGERED  
FULL 4-2-1 CONCEPTS

AUDITORIUM CONCRETE INFILL WALLS WITH  
VENTILATION GAPS ON SOUTHERN SOLAR PROTECTED  
WALLS

AUDITORIUM SEATING PLATFORMS

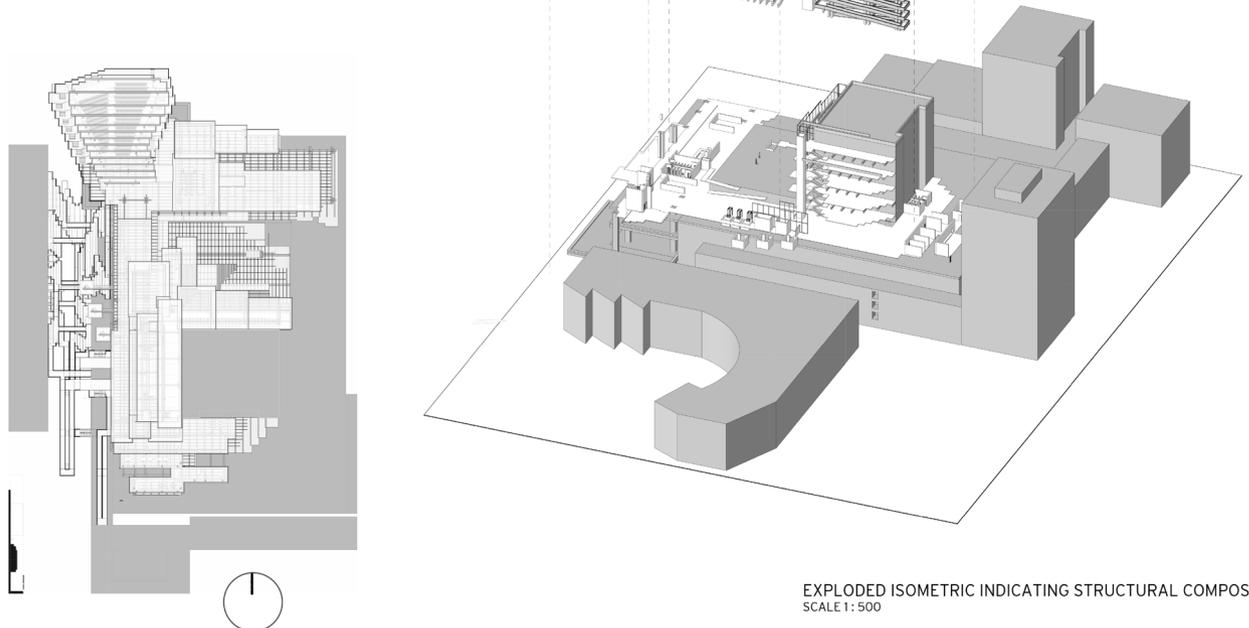
AUDITORIUM VERTICAL CIRCULATION AND  
BALLUSTRADE

AUDITORIUM BASE SLAB

INTERSTITIAL FLOOR CREATED BY BEAMS OF  
FLOORING BEAMS ATOP STATE THEATRE'S ROOF

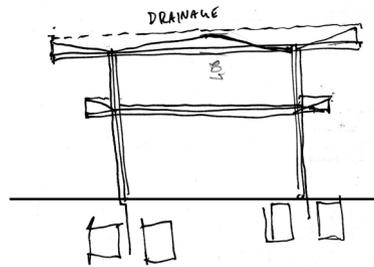
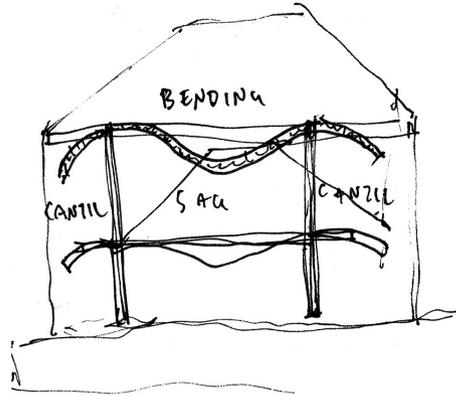
CONCRET COLUMN CAST IN SITU CLAD WITH  
ORTHOGONAL PRECAST CORNER PIECES WHICH  
ARE CONCEAL FIXED TO THE CONCRETE INNER

VERTICAL CIRCULATION POSSIBILITIES:  
BY STAIR, ELEVATOR OR RAMP/SEATS.

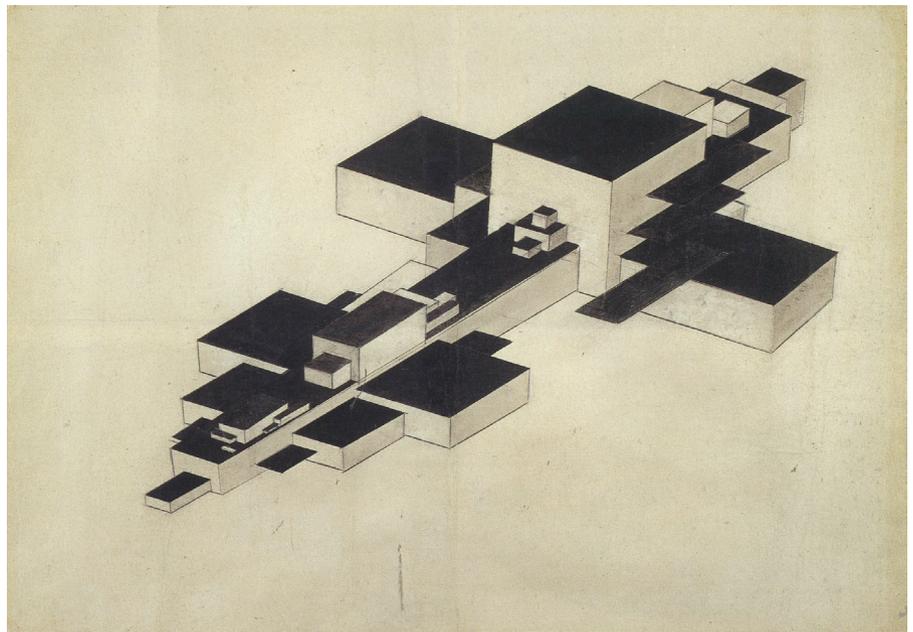


EXPLODED ISOMETRIC INDICATING STRUCTURAL COMPOSIT  
SCALE 1:500

## BENDING MOMENT DIAGRAMME OF AUDITORIUM ADJUSTMENT



DRAINAGE SECTION THROUGH AUDITORIUM WITH  
WATER STORAGE TANKS UNDER GROUND



COMPARISON TO MALEVICH'S  
3-DIMENSIONAL SUPREMATISM

## Structural Systems

### Foundation Percentages principle.

Percentage wise, the linguistics facility becomes a nominal addition to the load of the building on its existing foundation, even though the building has reasonable internal loading for inventory, equipment and live loads from occupants. The loads transfer via the existing building, through the parking garage and to its foundations. This is because the existing structure is massive already. A 10-15% increase in loads on top of the roof, with respect to the rest of the building, implies nominal changes to the foundation to strengthen it. Existing foundations can be supplementarily strengthened by adding the appropriate percentage to their size in higher strength concrete.

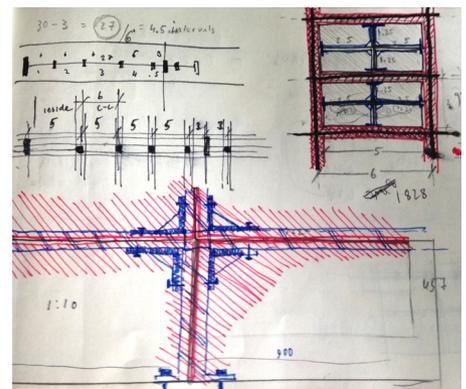
The load bearing, existing columns and beams of the State Theatre are braced with 15mm intumescent coated and galvanised sheet steel which is epoxied to the existing column to brace it and prevent buckling with the additional loads on top of them.

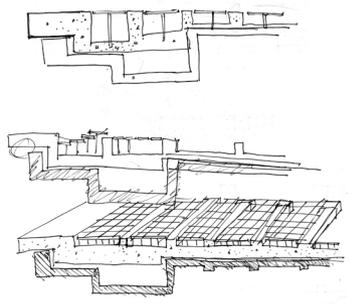
### Prestressed beam system

To spread the load of the proposed facility on top of an existing structure, prestressed load transfer beams that are attached to the tops of the existing columns of the theatre are used. These prestressed beams contain tension cables that allow them to be of a much larger span without compromising depth. They are laid in the transverse, East to West direction across the roof of the Opera block of the State Theatre.

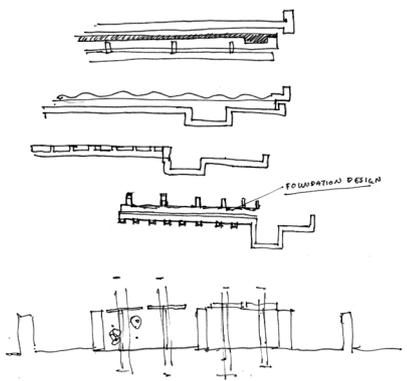
This beam system that is attached to the load bearing members of the state theatre forms a new structural grid that can be built onto in any configuration, as the loads are sufficiently spread across the State Theatre's structure itself.

This is the reason that the column module can change and stagger the way it does. The language centre can be of any modular configuration as long as it becomes a structural multiple that fits within the prestressed beam module, and thus the endemic structure of the theatre itself.



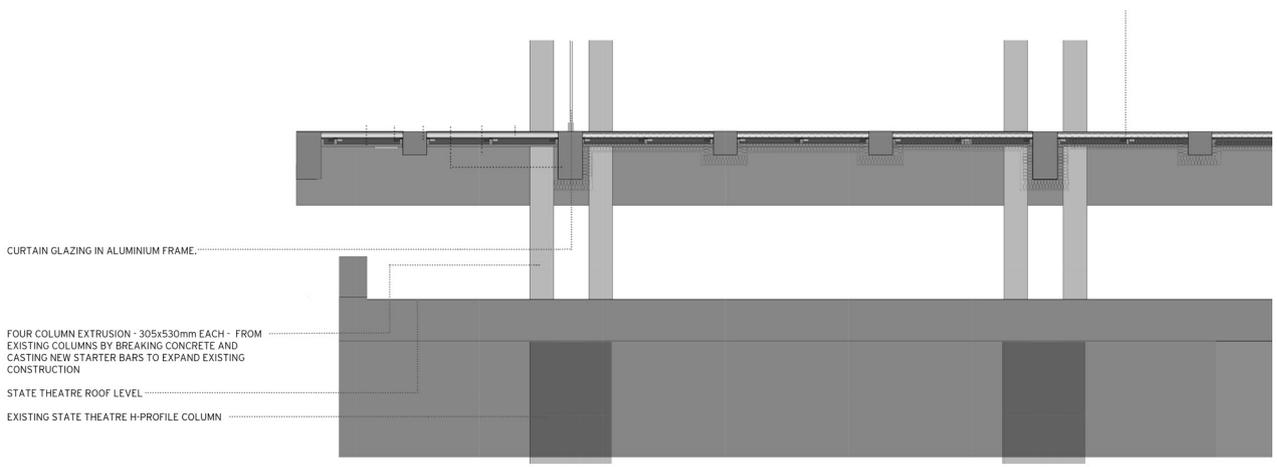
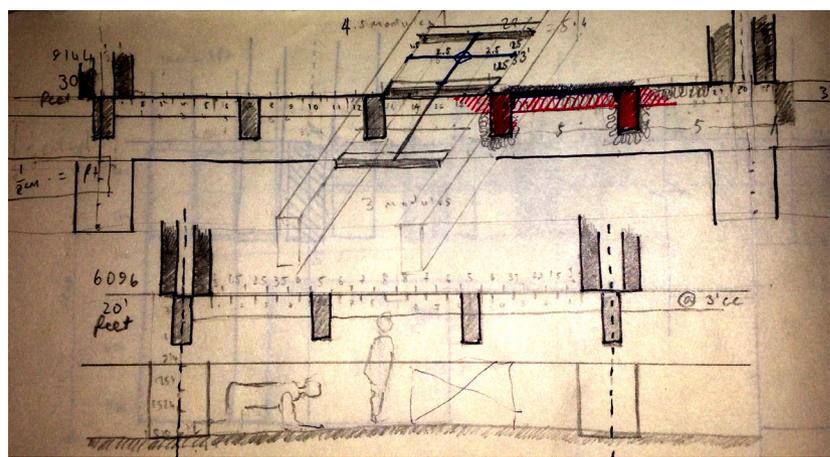


FLOOR STRUCTURE ATOP STATE THEATRE'S ROOF ON BEAM SYSTEM WITH ADJUSTABLE ACCESS FLOORING



### Flooring of the facility.

An access floor is supported by galvanised steel armatures which are bolted to a concrete bearing slab that is cast in place. This slab hangs off the bottom of the prestressed beams. An access flooring system is used to achieve the desired flush with the top of the beam flooring height. The flooring surface can be constructed of acoustically absorptive panels in interior space, or lightweight precast panels that are used as exterior flooring surface. Services of the proposed linguistics facility will also be brought through this cavity between the new and old buildings. This way the interstitial floor is completely accessible to both repairing and maintaining both the new and old HVAC systems, as well as water and effluent service piping that the proposed and existing buildings require.



## Rainwater Harvesting

The stepped flat concrete roofs of the language centre are used as rainwater harvesting platforms. Rainwater is reticulated first from one roof to another by adequate falls of a minimum of a 1:40 gradient in the slab. The slab is then insulated with rigid insulation, which is then waterproofed and topped with gravel fill which assists in increasing the insulative R-Value of the roof slab.

Rainwater is reticulated vertically by chasing downpipes within the concrete columns. It is then collected and taken to the underground car park where it is stored in water tanks. This water is then pumped up to the ablutions of the facility as grey water for flushing, or into a treatment room, where it is ultraviolet and manually filtered to remove impurities. It then becomes accessible to all the transient users and informal traders on street level.

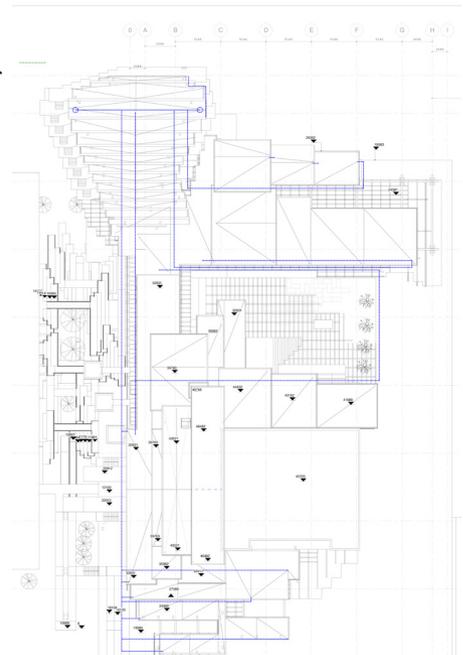
Total roof catchment area including stepped auditorium and opera stage block = 4130m

Pretoria

25° 44'S 28°11'E

1308m altitude from sea level.

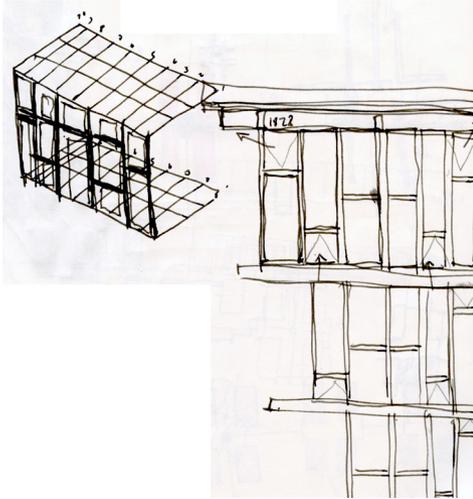
Total Annual Precipitation 732mm



1) We attach the Tank Size calculator completed with your figures showing		
a roof area of	<b>4 130</b>	square metres
annual rainfall in your area of	<b>73</b>	centimetres
and, therefore, total annual collectable rain (Yield) of	<b>2 411 920</b>	litres
2) We have then calculated your typical daily usage of rain water indoors and in the garden.		
The number of people in the building is taken as	<b>100</b>	people
For toilets, we assume an average flush of 3 litres and...	<b>442,00</b>	flushes per day per person
We assume some water needed outdoors of...	<b>500</b>	litres per day
This makes a total daily use of	<b>2 710</b>	litres per day
or a total annual use (Demand) of ...	<b>989 150</b>	litres across a whole year
You can see that if the total amount of rain collectable, above, is more than or about the same as this figure, you have a coherent rain water "budget". Do you?	<b>YES</b>	
3) The drought protection provided by this rainwater system is:	<b>21</b>	days
The capacity of rainwater storage for drought protection is	<b>56 910</b>	litres
The lesser of Yield and Demand	<b>989 150</b>	litres
Therefore optimal volume of rainwater storage is...	<b>56 910</b>	litres
Tank size required		<b>[26,000 litres]</b>
5% of annual rainwater yield (in litres)	<b>120 596</b>	litres
5% of annual non-potable water demand in the home (in litres)	<b>49 458</b>	litres
To be conform to BS8515, tank must hold at least ... (in litres)	<b>49 458</b>	litres

## Fenestration

On all the fenestrated facades solar heat gain is kept to a minimum using passive methods which include:



Large roof overhangs on all Northern exposed and glazed facades.  
The brisé soléil sun-shading system on all exposed, Western facades.  
Eastern solar ingress is mostly curbed by the massivity of the State Theatre's blocks itself, although any exposed Eastern faces are vertically shaded using the same lightweight concrete fin system as on the West.  
Southern insolation is often encouraged ingress as it is ambient and never direct.

Anodised Aluminium fenestration systems are created in double glazed sealed systems that are fixed to the concrete structure. All glazing system throughout are double glazed, low emissivity coated, 15mm light-grey coloured laminated safety glass. They are manufactured either into fixed panes/door apertures of 1800x3600mm or smaller, fixed panes/door panels of 900x1800mm, or finally 900x900mm top or bottom hung openable ventilators. The internal cavity of the glazing system is filled with more inert Argon gas and it is rubber gasket sealed to the other pane in a fixed system. There are also two coatings on the external sides of the glazing system, apart from the low emissivity laminate. They are a photoactive coating which dissolves dirt as well as a hydrophobic coating which assists in shedding water. These coatings will assist in occupant comfort as well as reducing UV radiation on the occupants, equipment and inventory of the library. They are also there to greatly assist in maintenance or cleaning of the expansive glass panes. As a result, they will virtually only need replacing when damaged. If this is the case, the double glazed panel is replaced in its entirety.

## Ventilation

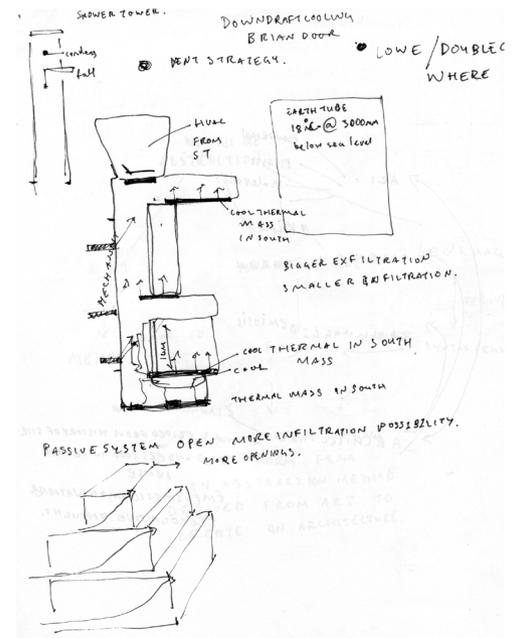
A comfortable ventilation environment will be achieved by passively cross-ventilating spaces that have overhangs and brisé soléil for solar control. HVAC systems of the existing State Theatre will supplement the high occupancy levels in the auditorium area. Various other passive and hybrid-active systems are used to achieve adequate air quality throughout the building.

### Passive cross ventilation

Air is manually allowed ingress into the main spaces of the building by opening bottom hung ingress ventilators that are situated at a low height respective to the person opening them. Top-hung hopper windows are used as hot air egress ventilators and allow for hot, stale air to effectively exit the building.

### Passive general ventilation

Cool air is gathered from the permanently shaded area South of the large Opera stage block. Air is filtered and pollutants are removed before being sequentially allowed ingress through the floor space to a specific module, thus maintaining constant clean ingress of airflow throughout. The air is reticulated successively by ducts that run under the access floor to where it is needed. Ducting that crosses vertical space is chased by simply attaching it to the vertical column with bolted armatures.

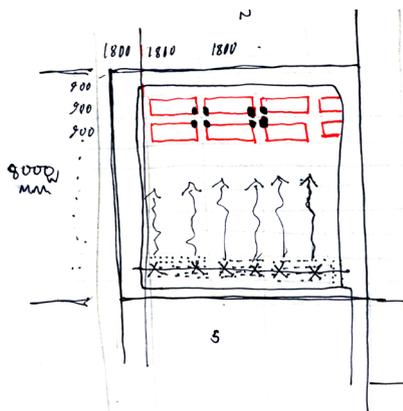


## HVAC Piggy Backing

The auditorium and seminar hall, due to its large occupancy, will have to be mechanically ventilated. HVAC systems of the State Theatre will be supplemented with necessary improvements, and will be used for the mechanically assisted portions of the linguistic centre's ventilation. The main library facility will use a hybrid approach and be supplemented by the existing HVAC system for cool, clean air ingress and be manually cross ventilated to achieve adequate air changes.

## Floor to Ceiling Module

As cool air rises, it fills an indoor space and is heated by the occupants and equipment. It is then exfiltrated out of the space at ceiling height. This is the premise for the modular access floor to roof, in-situ, ventilation egress system. To address the lengthy voluminous space that requires adequate ventilation, it has effectively been divided into 10 module or 8000mm intervals. They are derived from the flooring and ceiling coffer modules, which are based on Japanese tatami mats - 900x1800mm. The in-situ ventilation system allows cool air ingress through the ventilated access floor system and hot air to be exfiltrated from the ceiling every 10 modules wide. This allows for a constant air temperature and change rate to be maintained across the entire lengthy North-South mass of the library block.



These ventilation systems are used to achieve the necessary 10AC/h (air changes per hour) for the auditorium space and more than the minimum 2AC/h for library type spaces. The minimum outdoor air requirements for both spaces is 7.5l of air per person per second according to SANS 10400 Part 0. This is achieved through the various ventilation systems.

## Fire Precautions

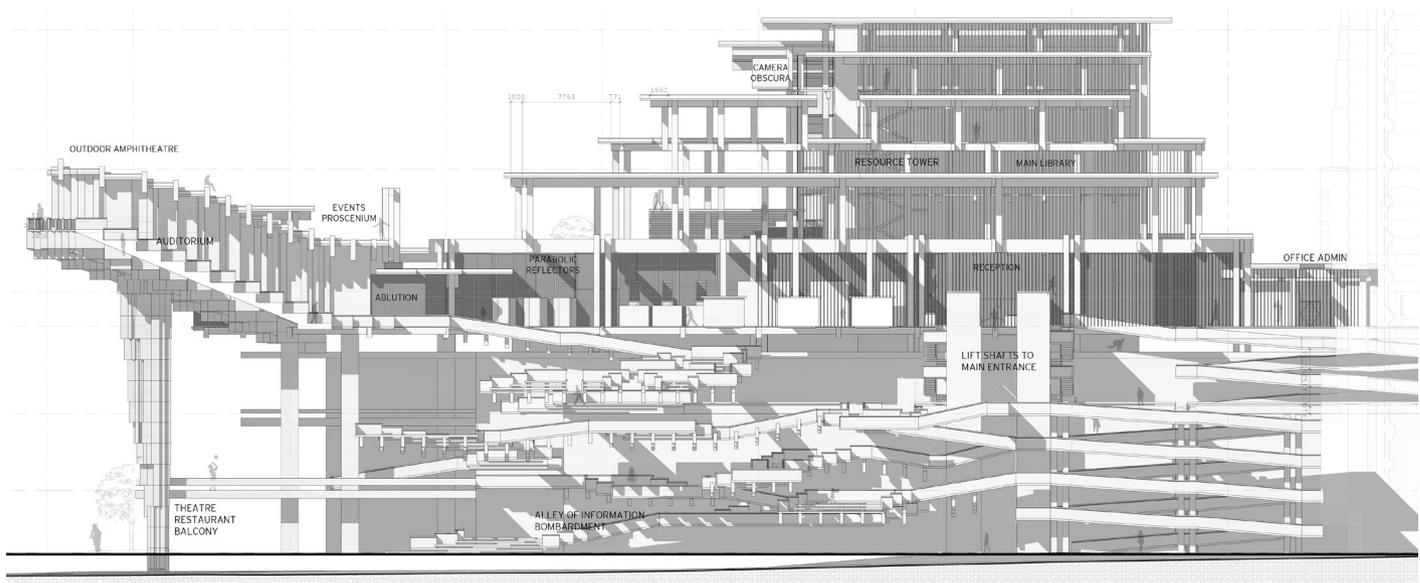
Precautions for fire are dealt with according to SANS 10400 part W regulations, fire escapes from any part of the building, as well as supplemented by the circulation through the State Theatre itself. There are nine possible exits from the facility and at any point, the visitor is never more than 30m from any of these escape routes that take to ground level. According to SANS part W, there is a system of piping that is connected to the main water supply. In the event of a fire, it activates and releases water through a series of sprinkler heads which are suspended within the coffered roof slabs throughout the building.

## Site operation excavation.

Regarding site operations and excavations, the State Theatre's operations would have to halt very briefly for the casting of the prestressed load transfer beams. Once that is complete, the theatre's operations could continue as normal.

## Inclusivity for Disability

Stairways and ramps conform to SANS 10400 part - S which concerns persons with disabilities. Access ramps do not exceed 6 m in length without having landings that are sufficient for bi-directional access. The ramps are of a non-slip, graded surface that is sandblasted to expose the concrete aggregate and provide a non slip finish for the exterior spaces.

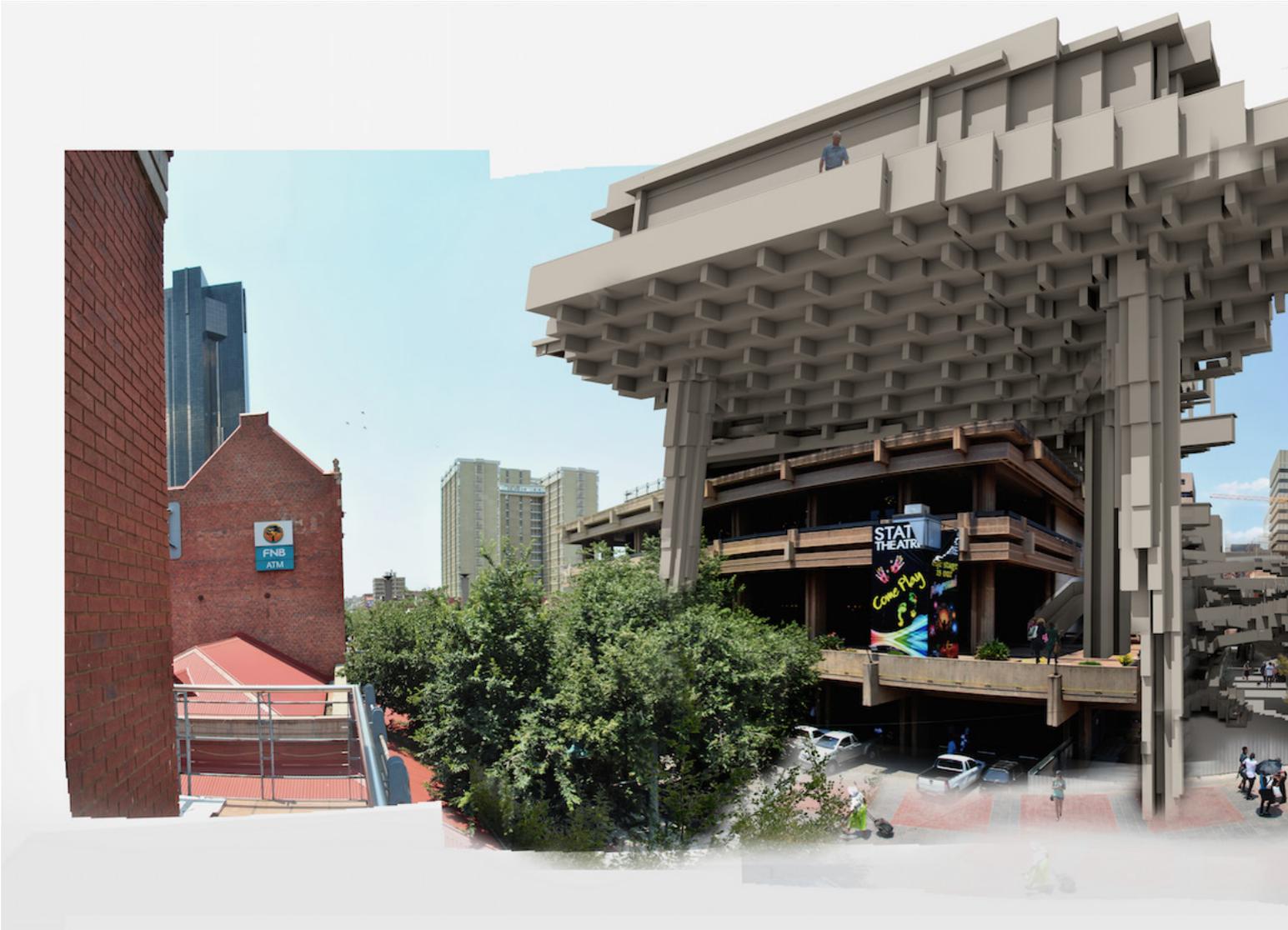




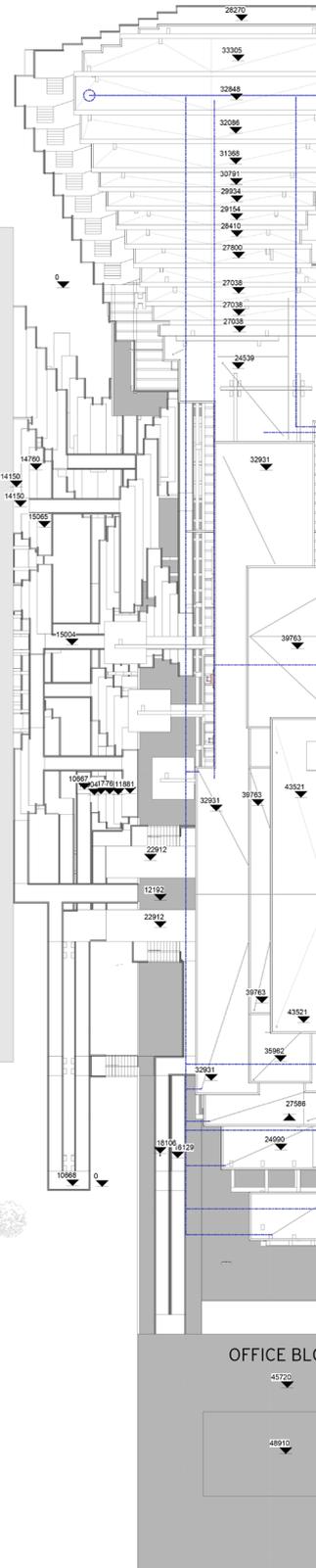
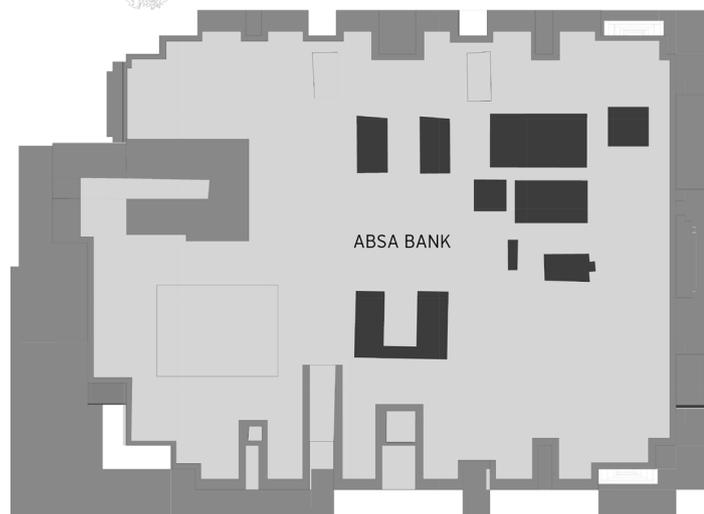
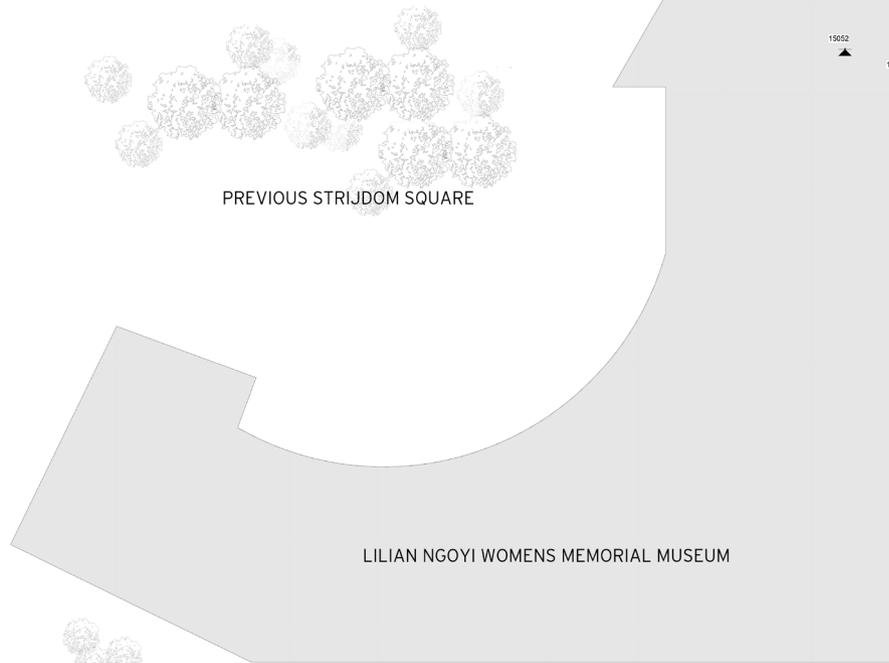
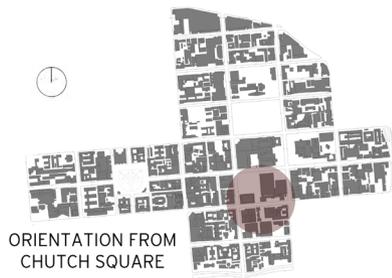


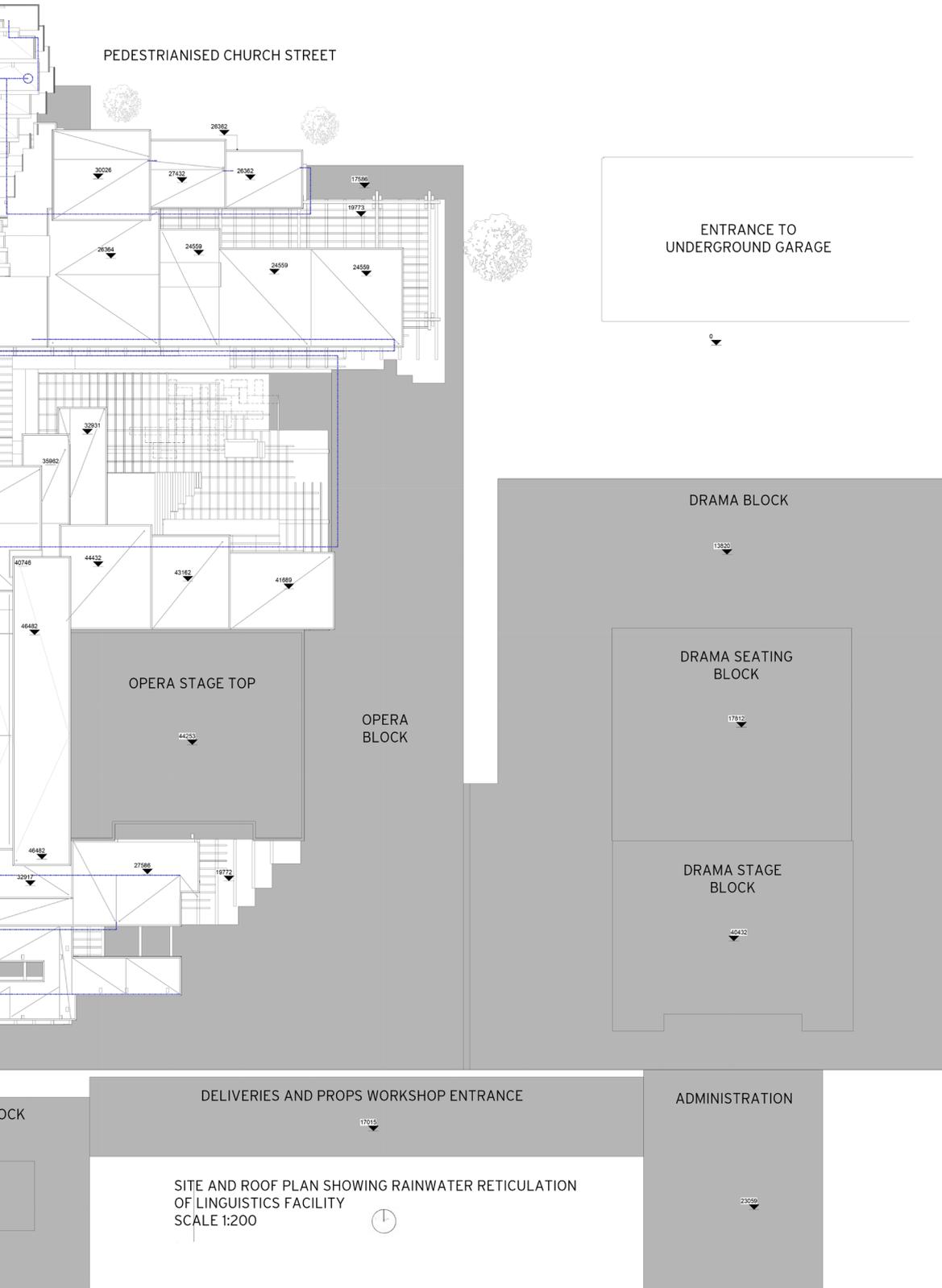
# PART SEVEN

## FINAL PRESENTATION

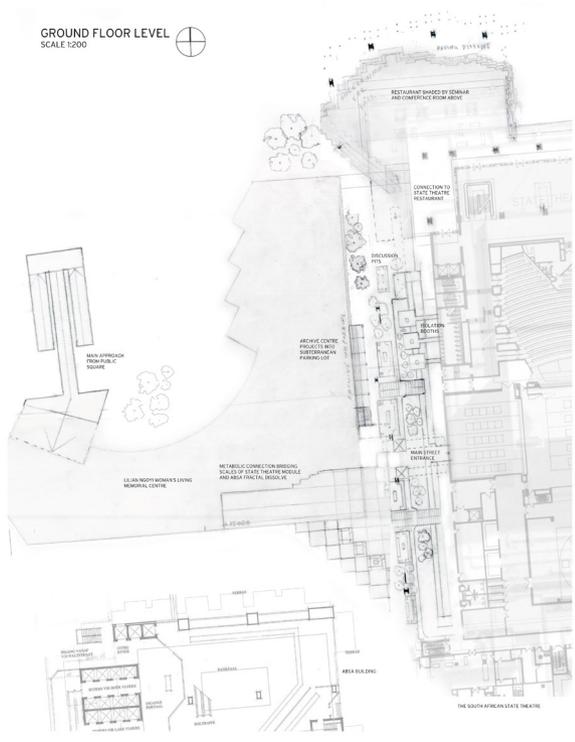




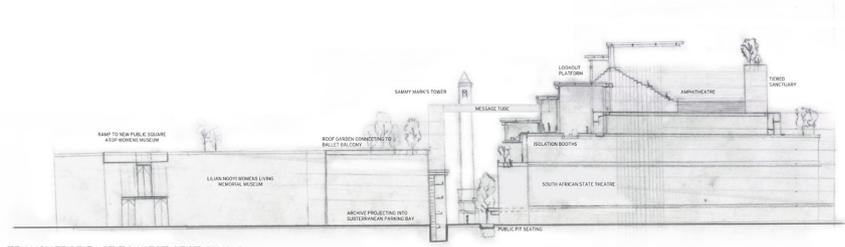
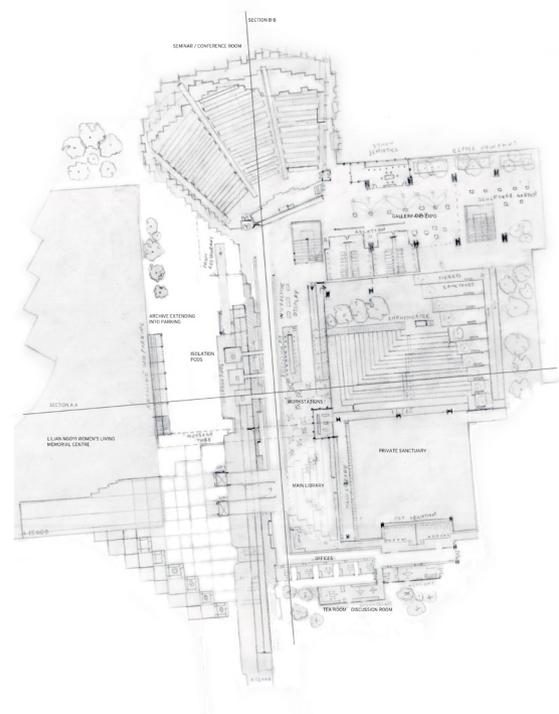




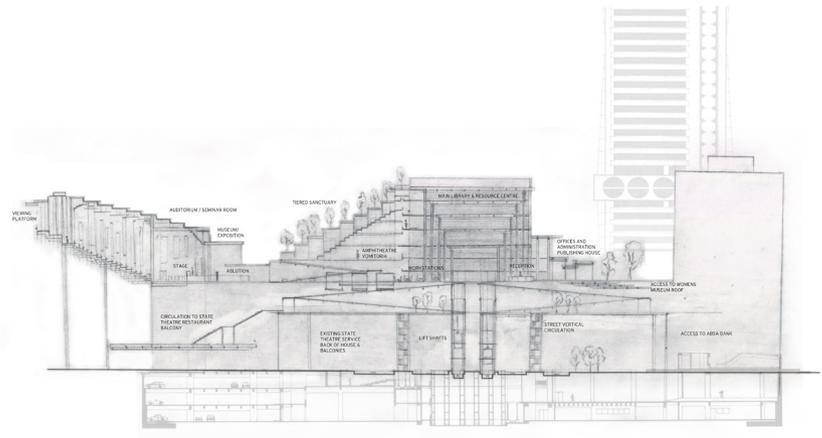
GROUND FLOOR LEVEL  
SCALE 1:200



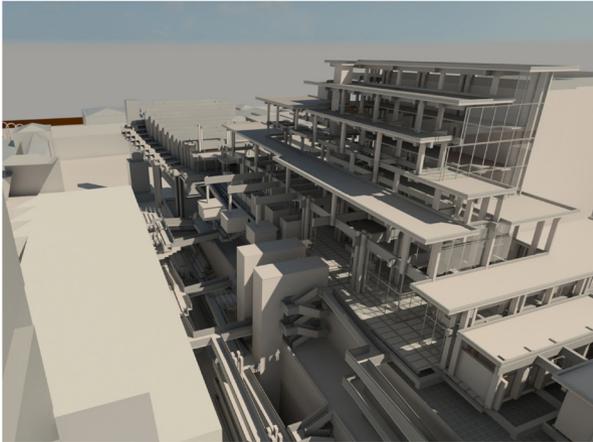
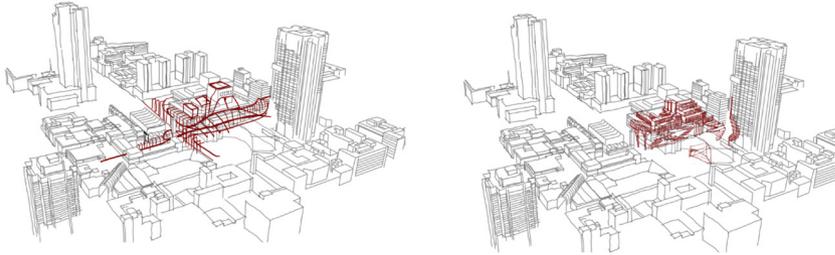
FACILITY FLOOR LEVEL  
ON STATE THEATRE ROOF  
SCALE 1:200



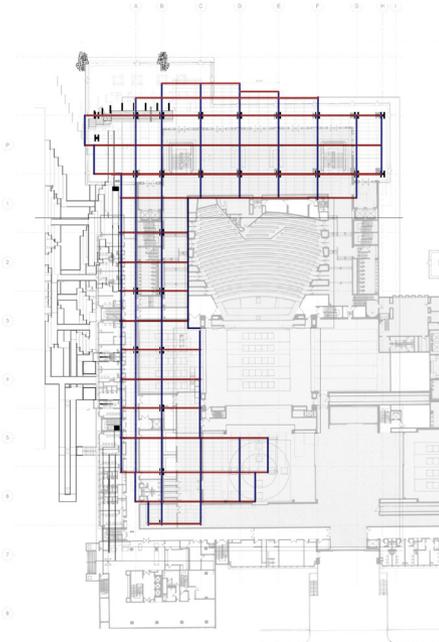
TRANSVERSE EAST TO WEST SECTION A-A  
SCALE 1:200



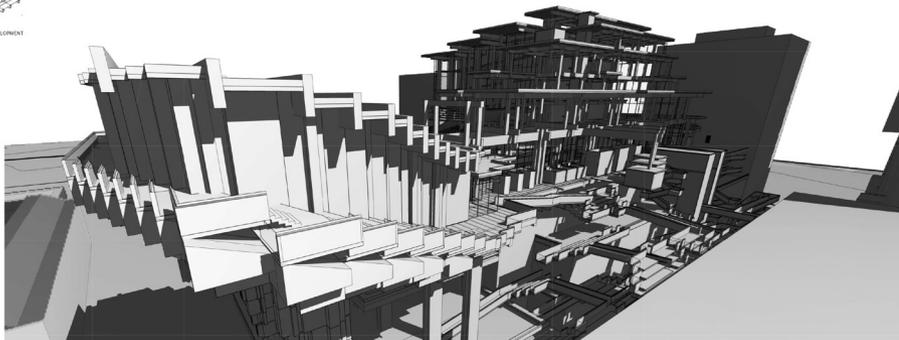
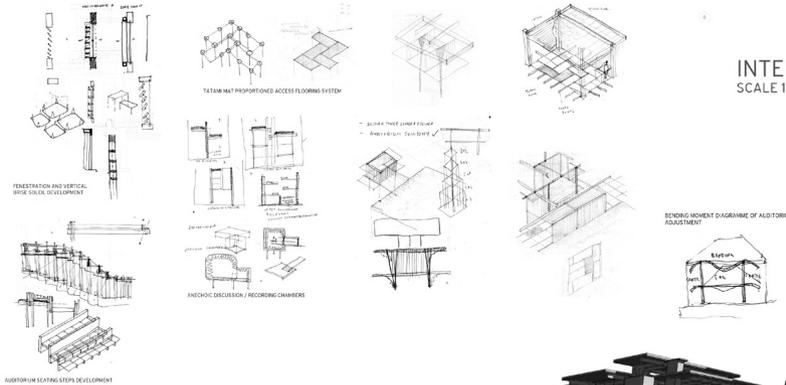
LONGITUDINAL NORTH TO SOUTH SECTION B-B  
SCALE 1:200



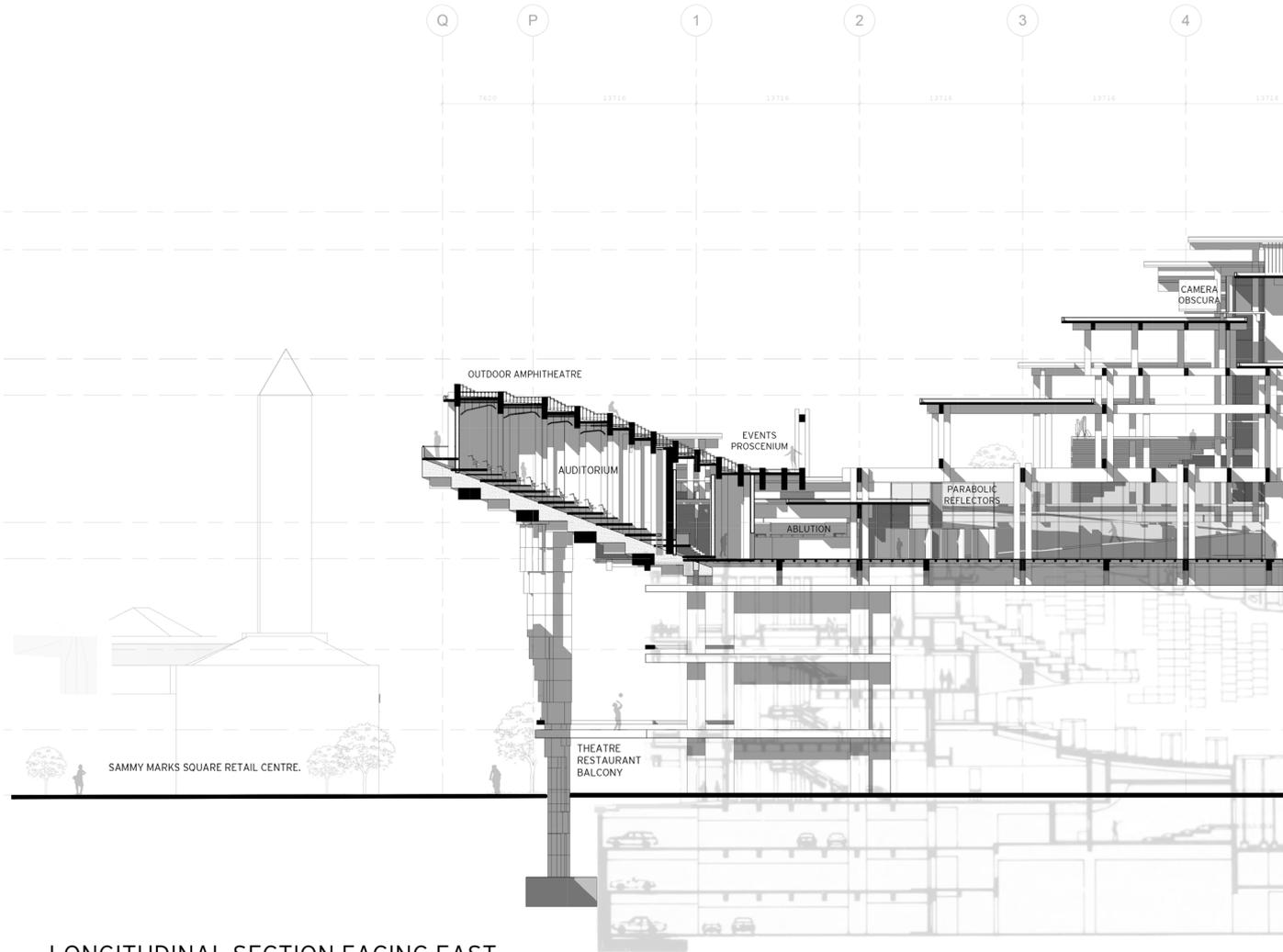
VIEW FROM ABSA TOWER



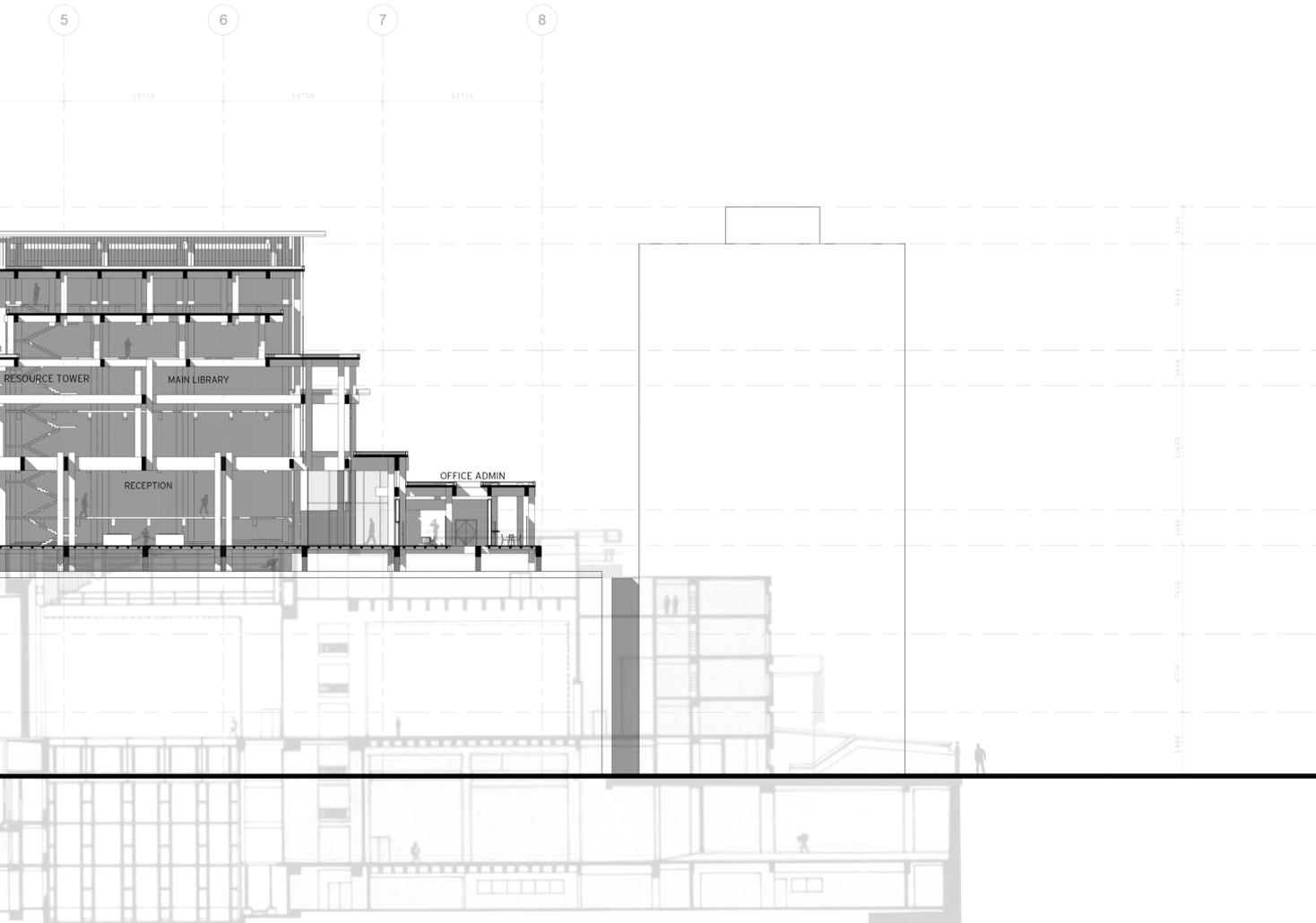
INTERSTITIAL FLOORING PLAN  
SCALE 1:500  
SHOWING I BEAM LAYOUT

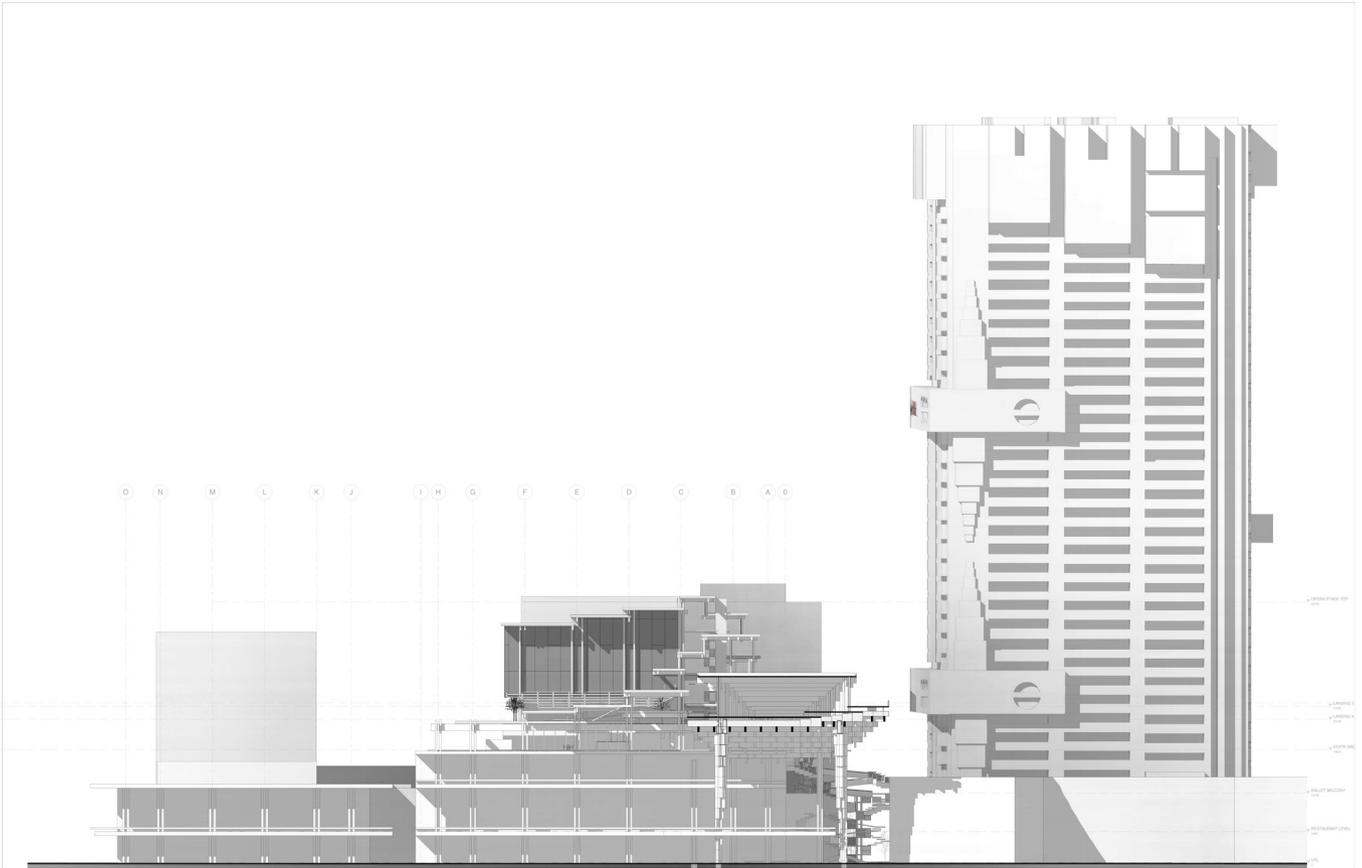


VIEW FROM LILIAN NGOYI WOMEN'S MEMORIAL CENTRE

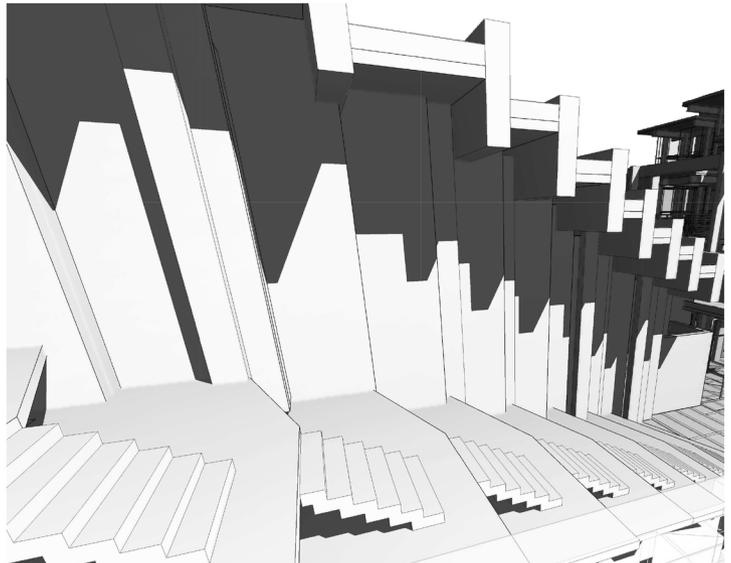


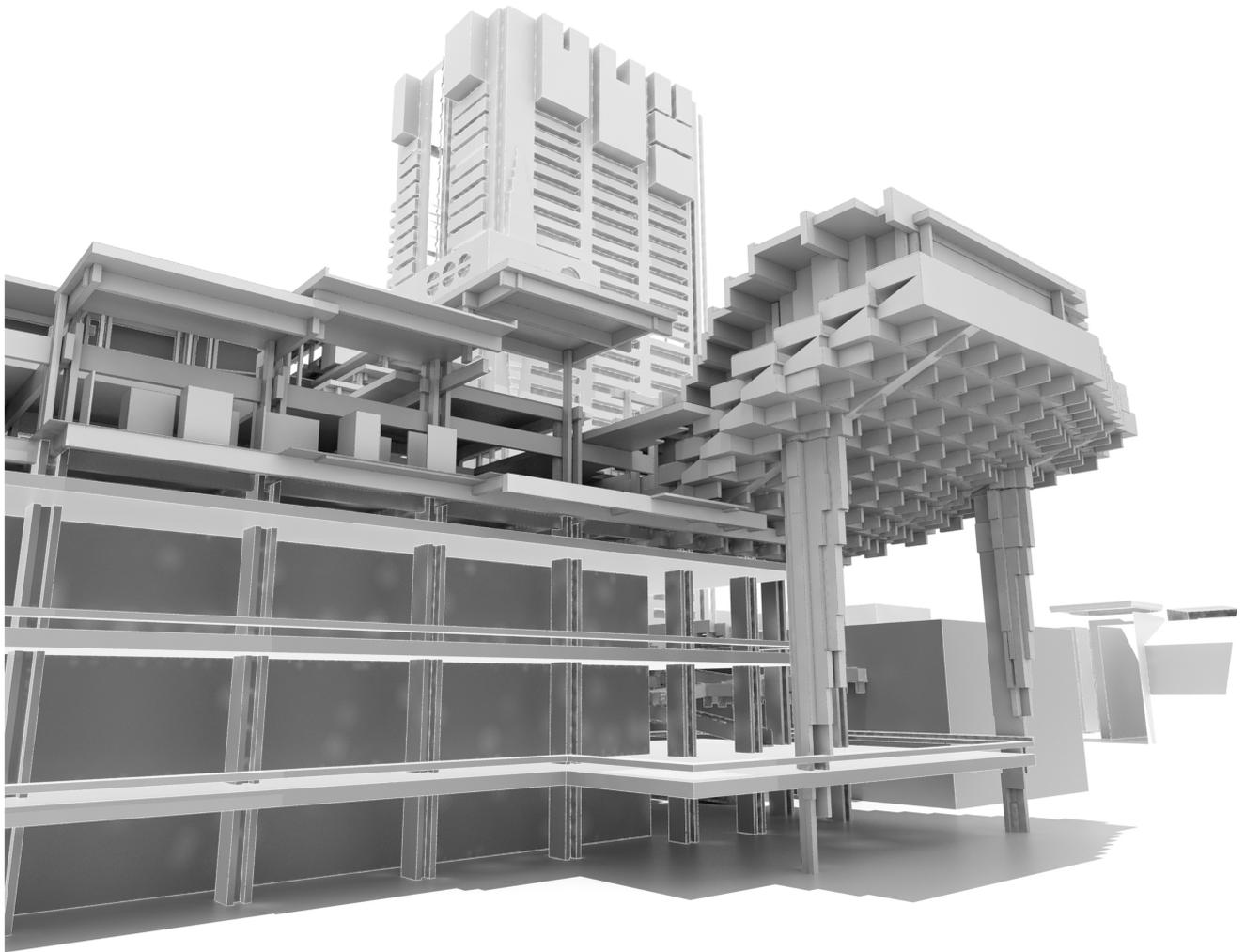
LONGITUDINAL SECTION FACING EAST





TRANSVERSE SECTION FACING SOUTH  
SCALE 1:200

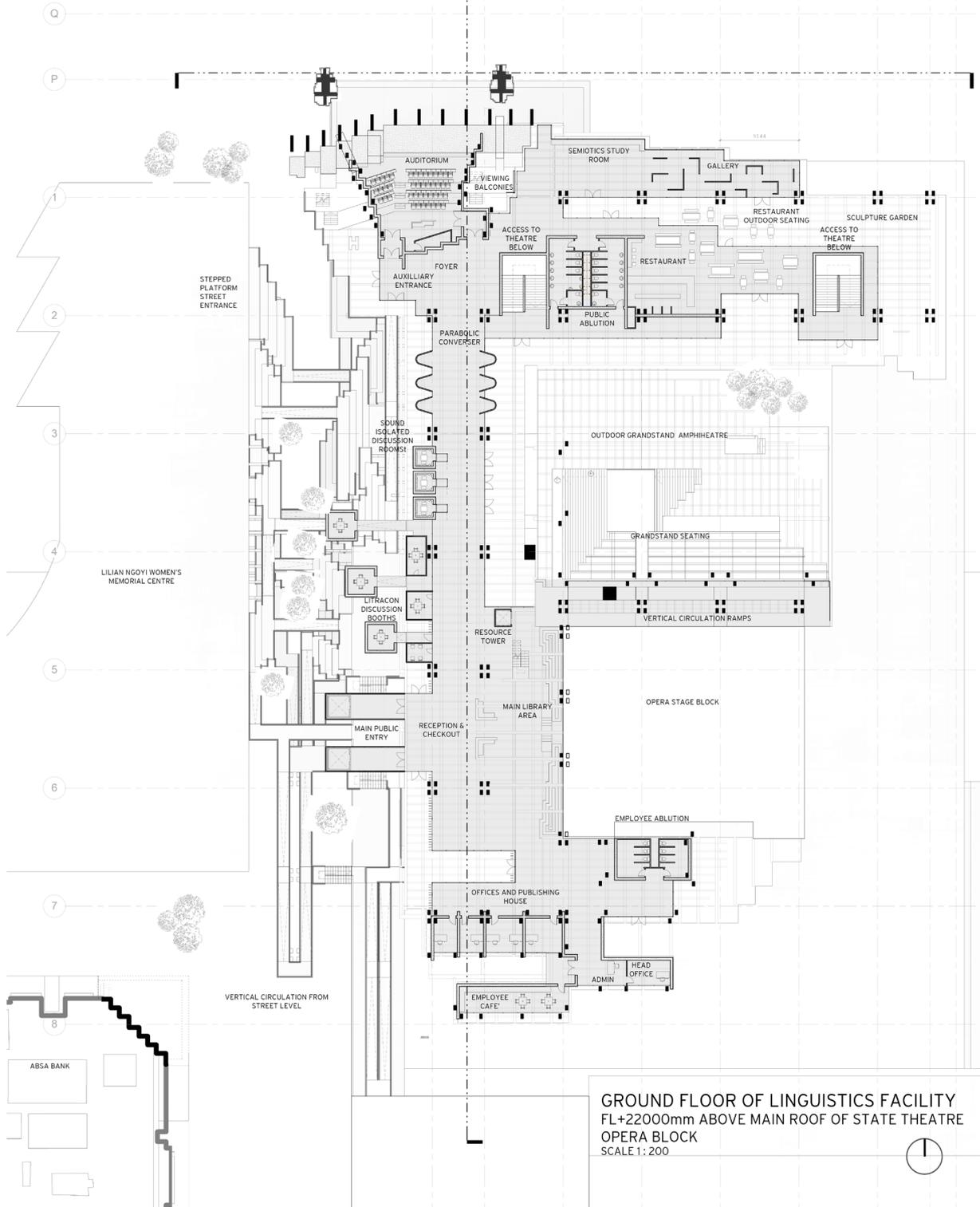




CHURCH- HELEN JOSEPHS STREET

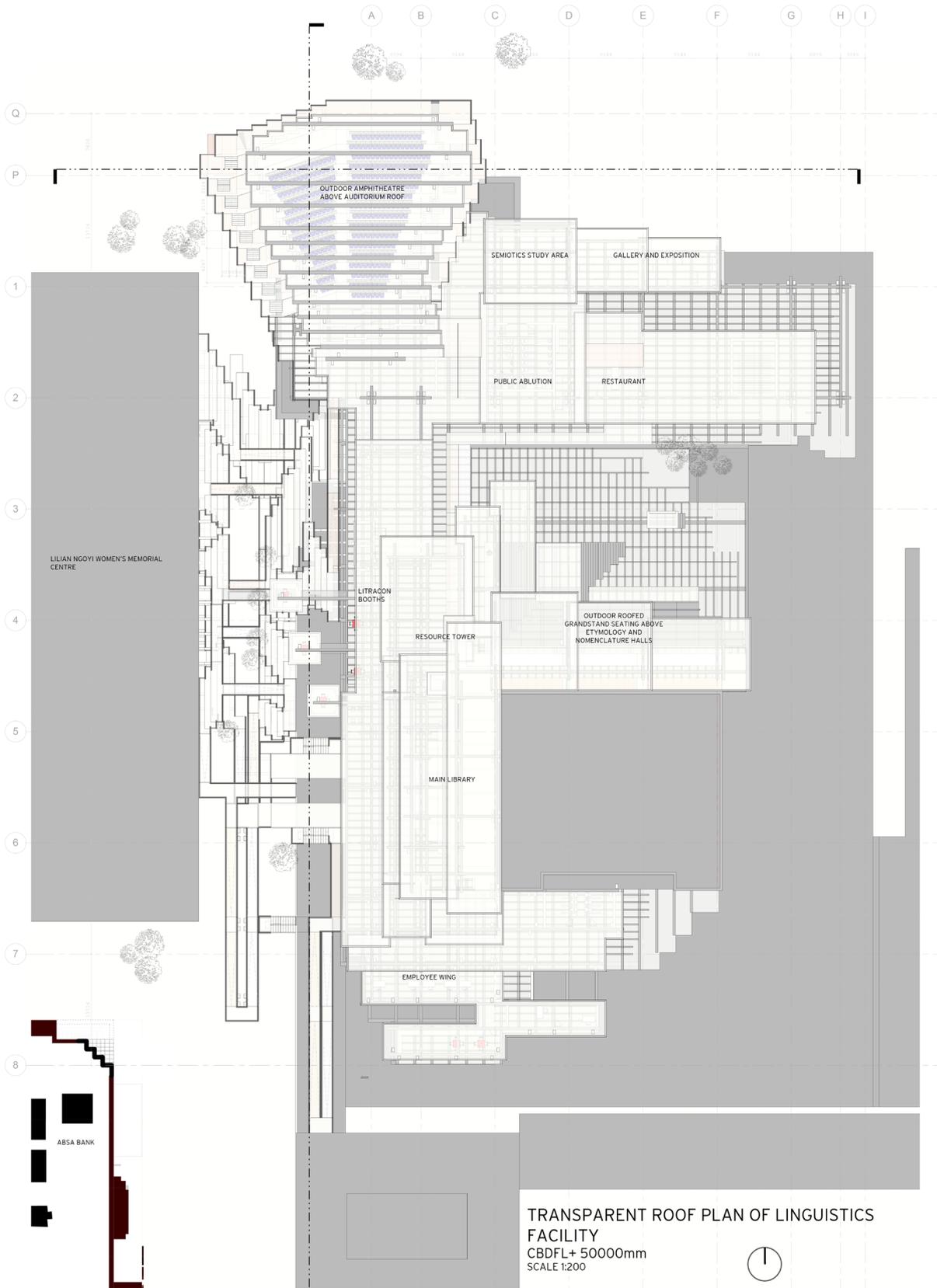
A B C D E F G H I

SAMMY MARK'S SQUARE CLOCK TOWER

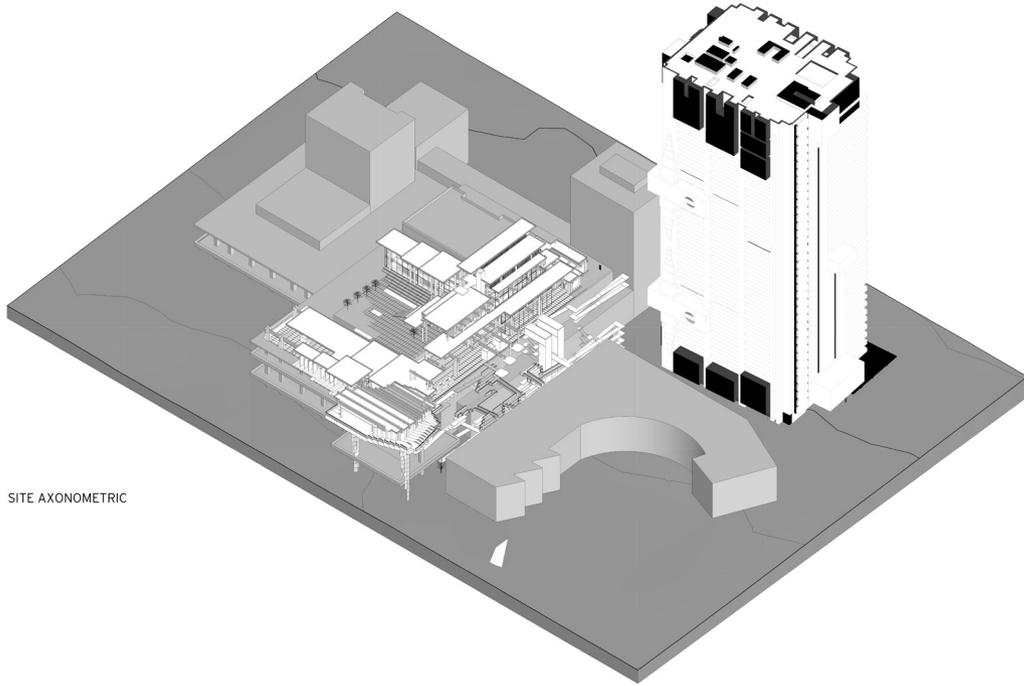


GROUND FLOOR OF LINGUISTICS FACILITY  
FL+22000mm ABOVE MAIN ROOF OF STATE THEATRE  
OPERA BLOCK  
SCALE 1:200

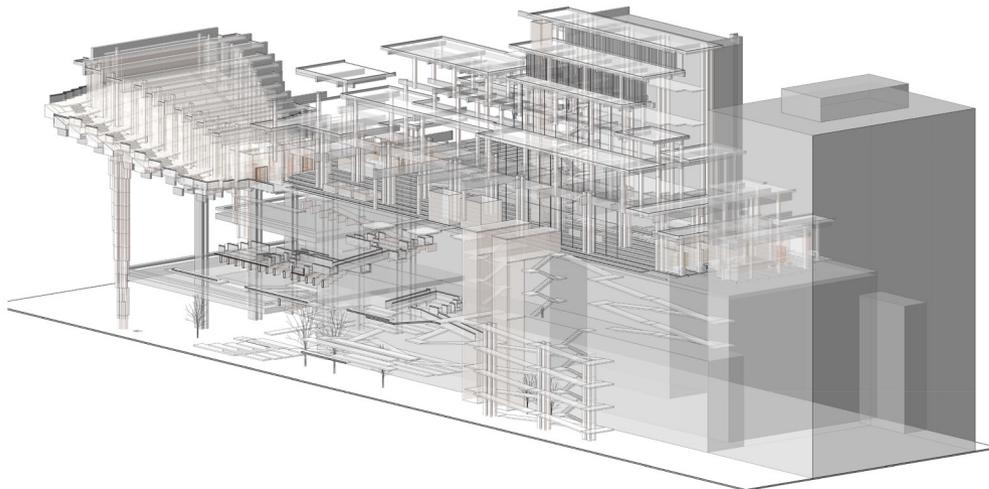




TRANSPARENT ROOF PLAN OF LINGUISTICS FACILITY  
CBDFL+ 50000mm  
SCALE 1:200

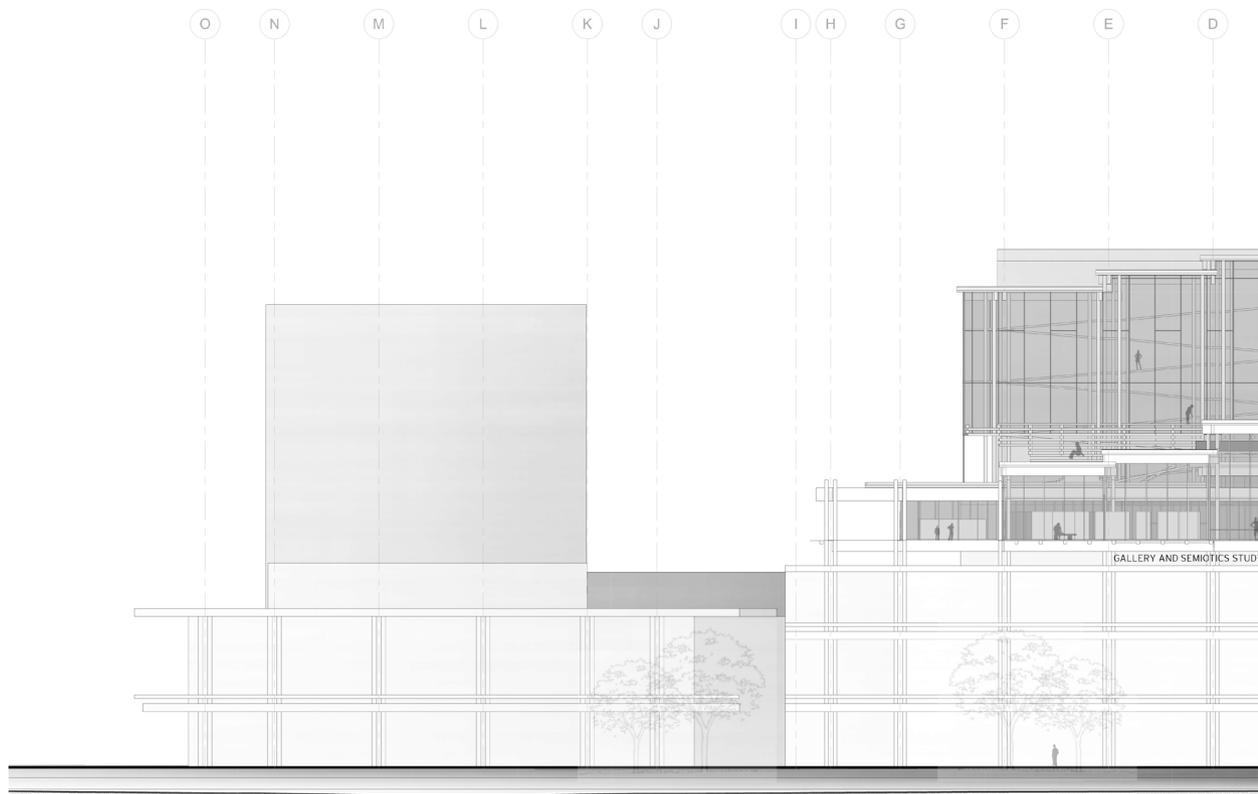


SITE AXONOMETRIC

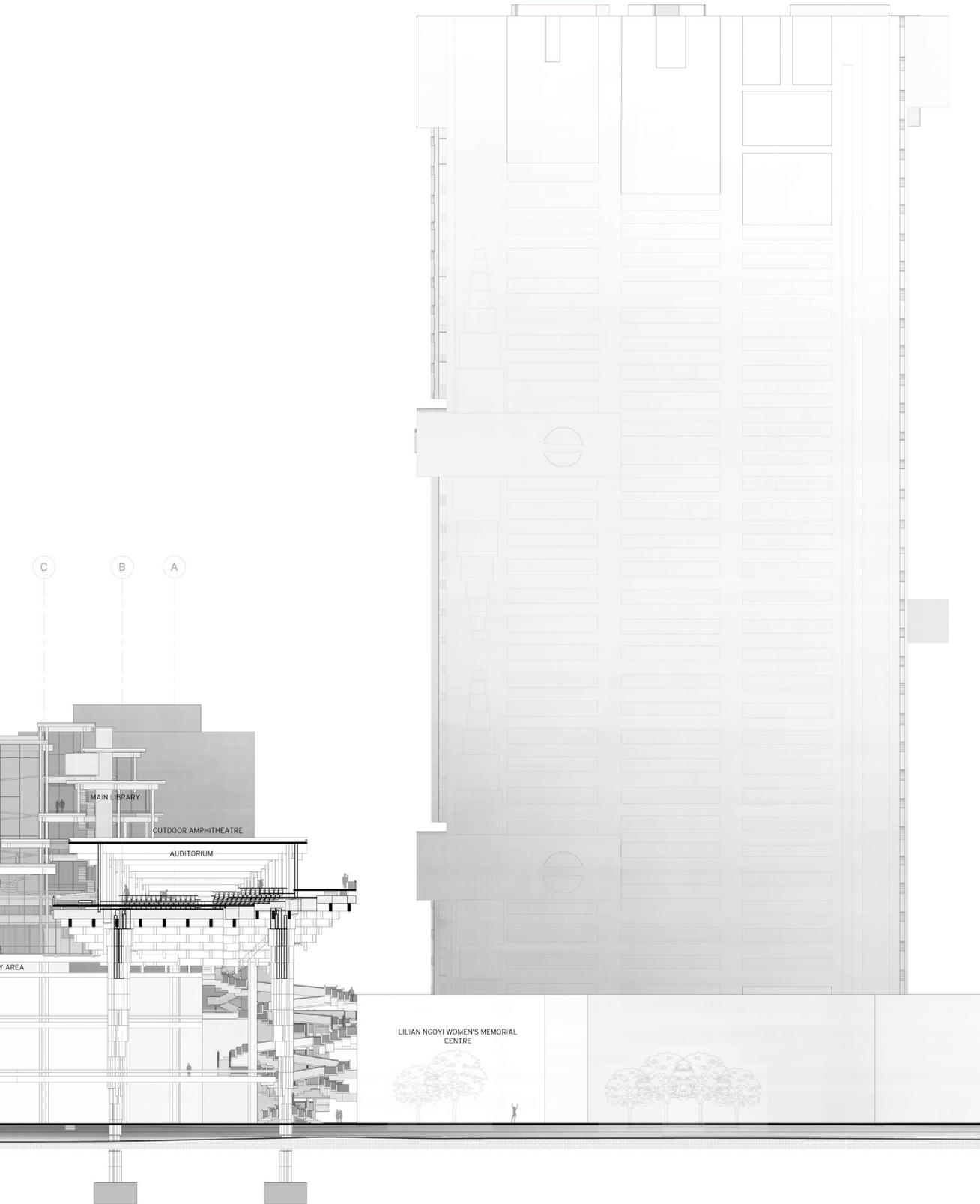


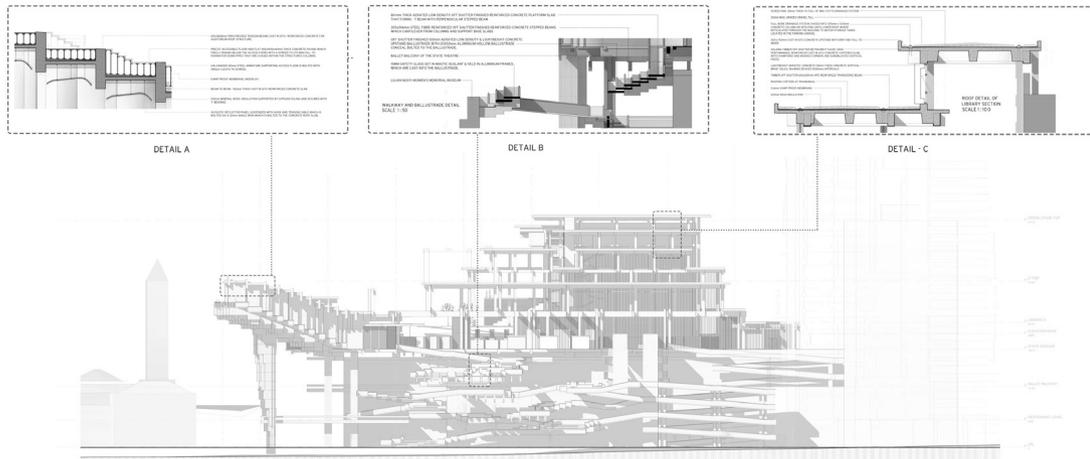
STRUCTURAL COMMUNICATION  
SCALE: 1: 200



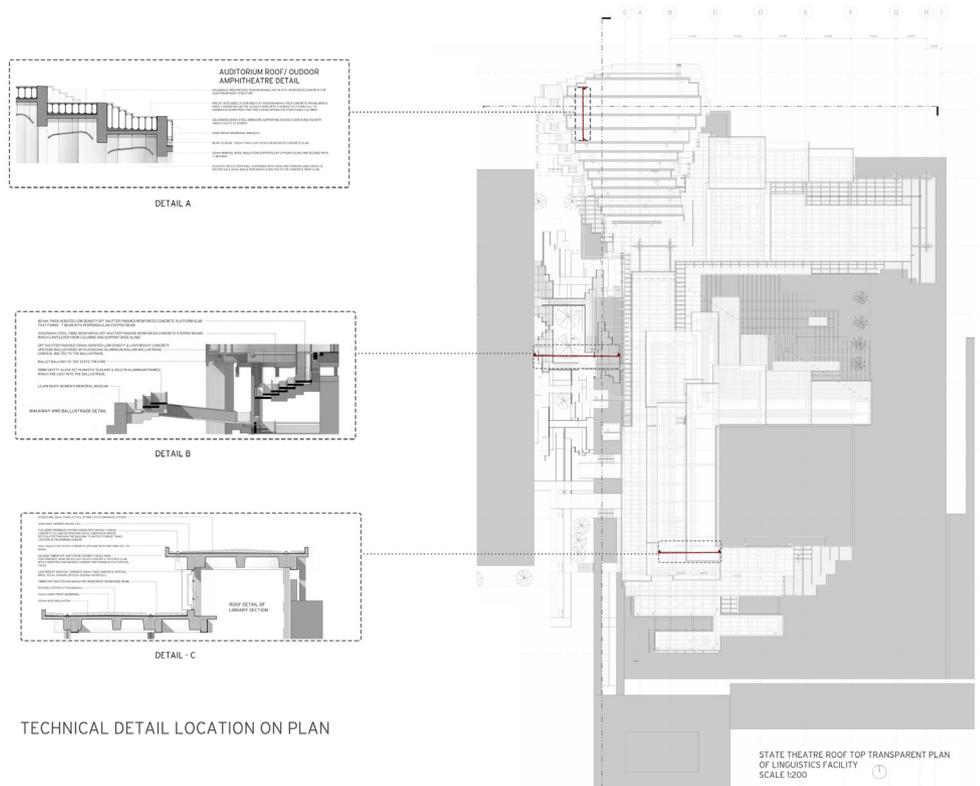


TRANSVERSE EAST TO WEST SECTION FACING SOUTH.  
SCALE 1:200

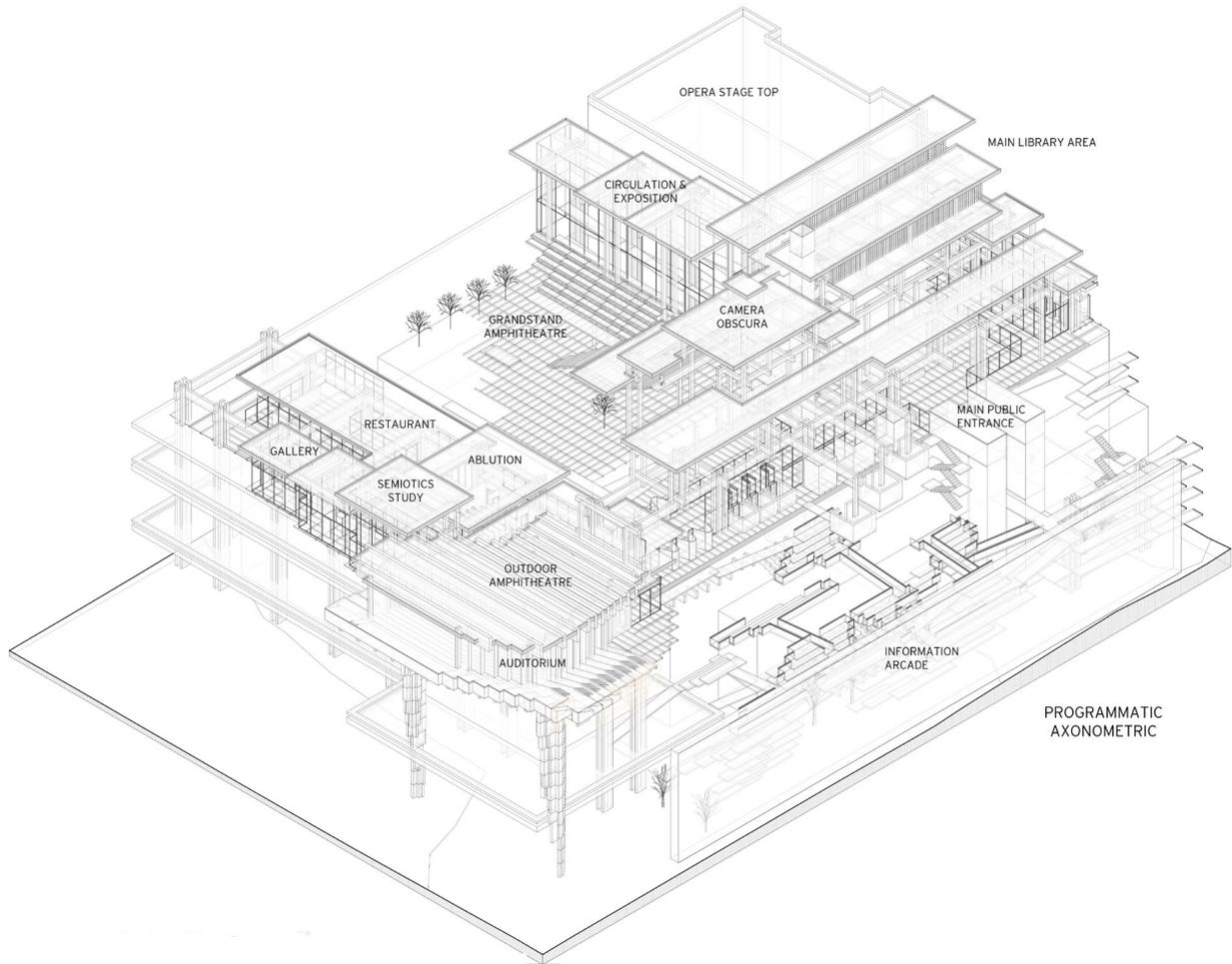




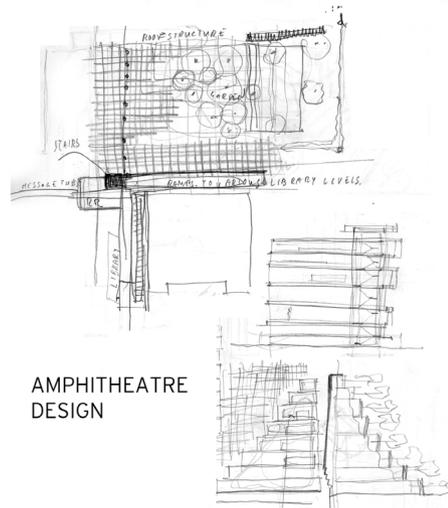
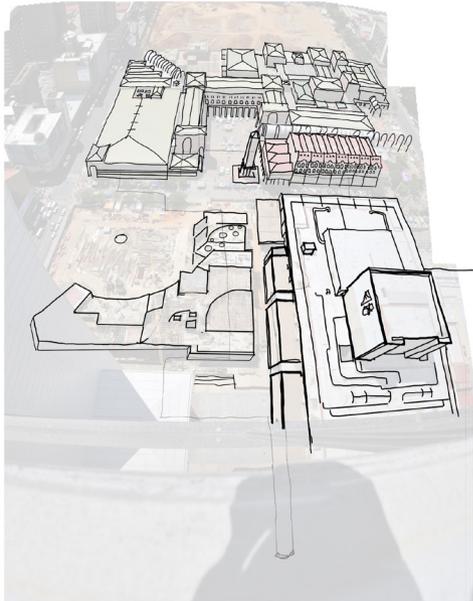
TECHNICAL LOCALITY ON WESTERN ELEVATION



TECHNICAL DETAIL LOCATION ON PLAN

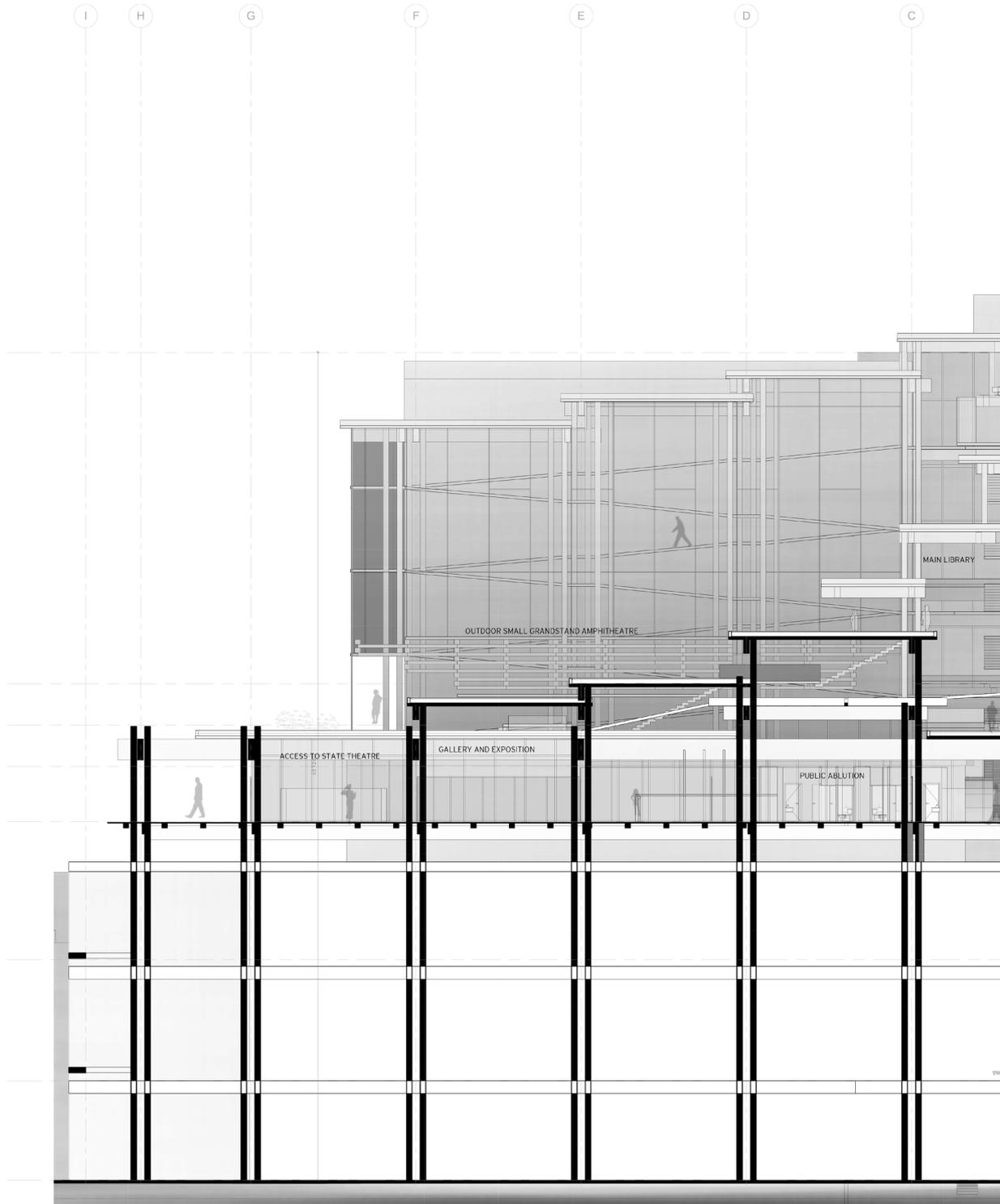


PROGRAMMATIC  
AXONOMETRIC

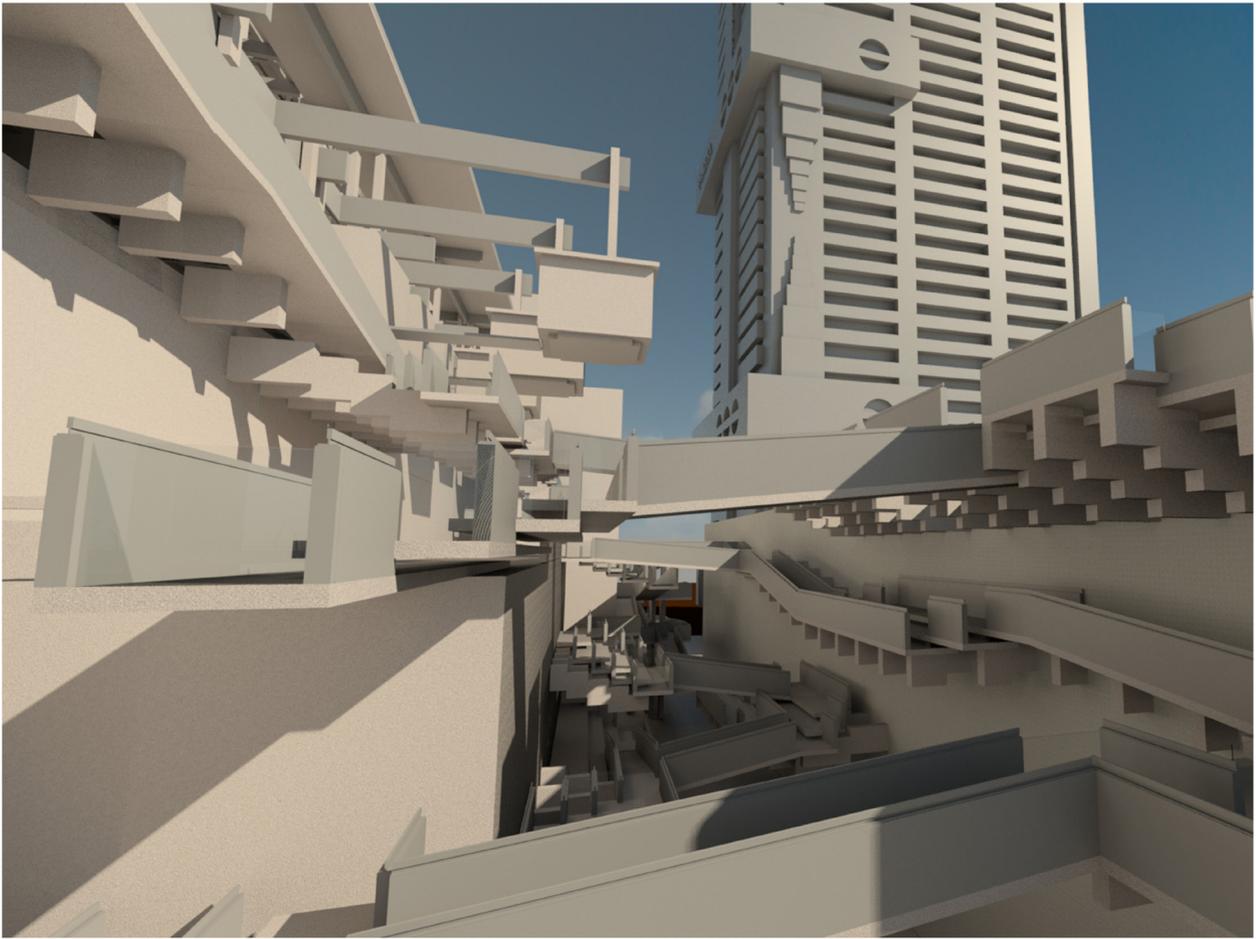


AMPHITHEATRE  
DESIGN

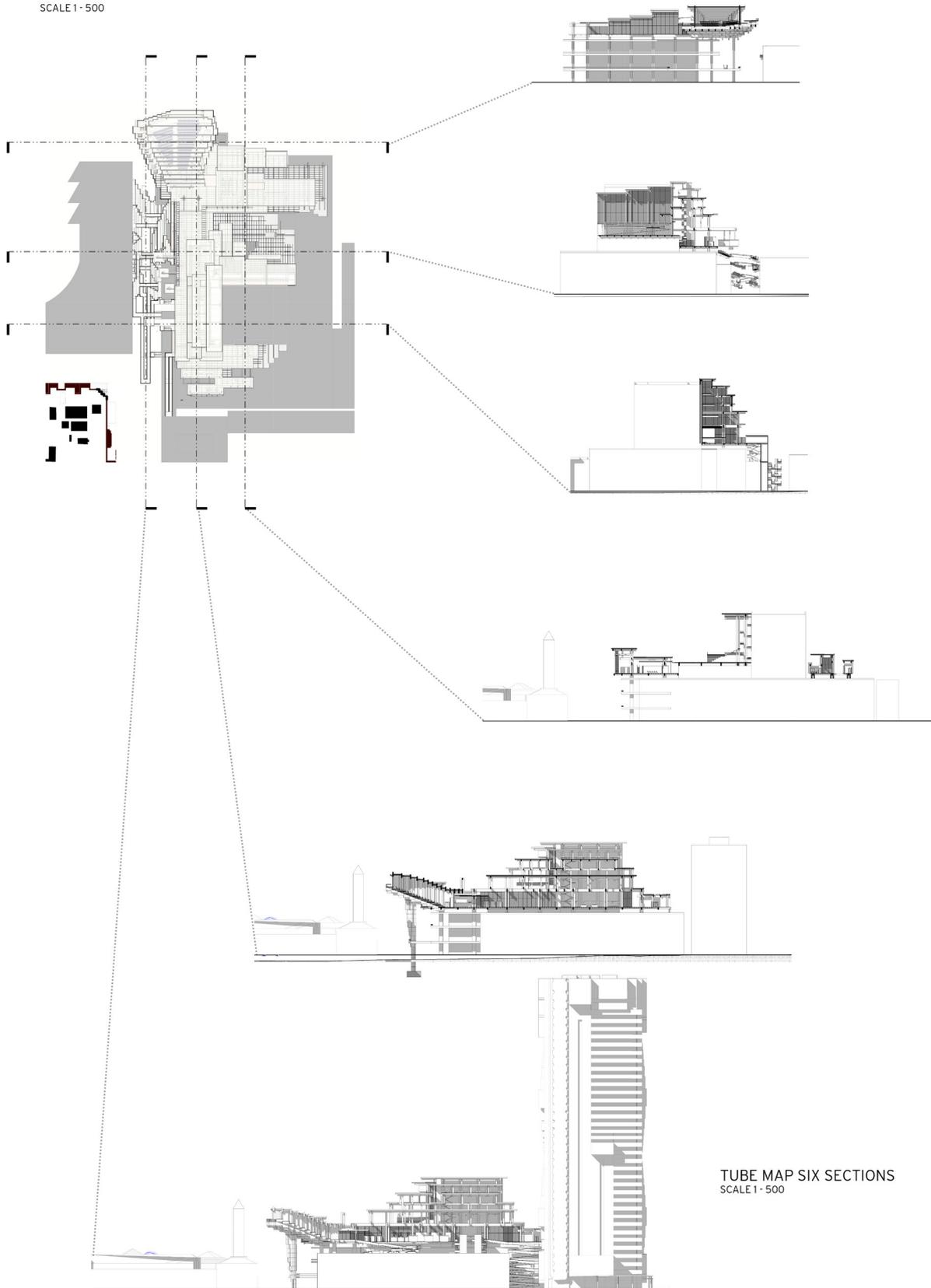
TRANSVERSE SECTION FACING SOUTH.



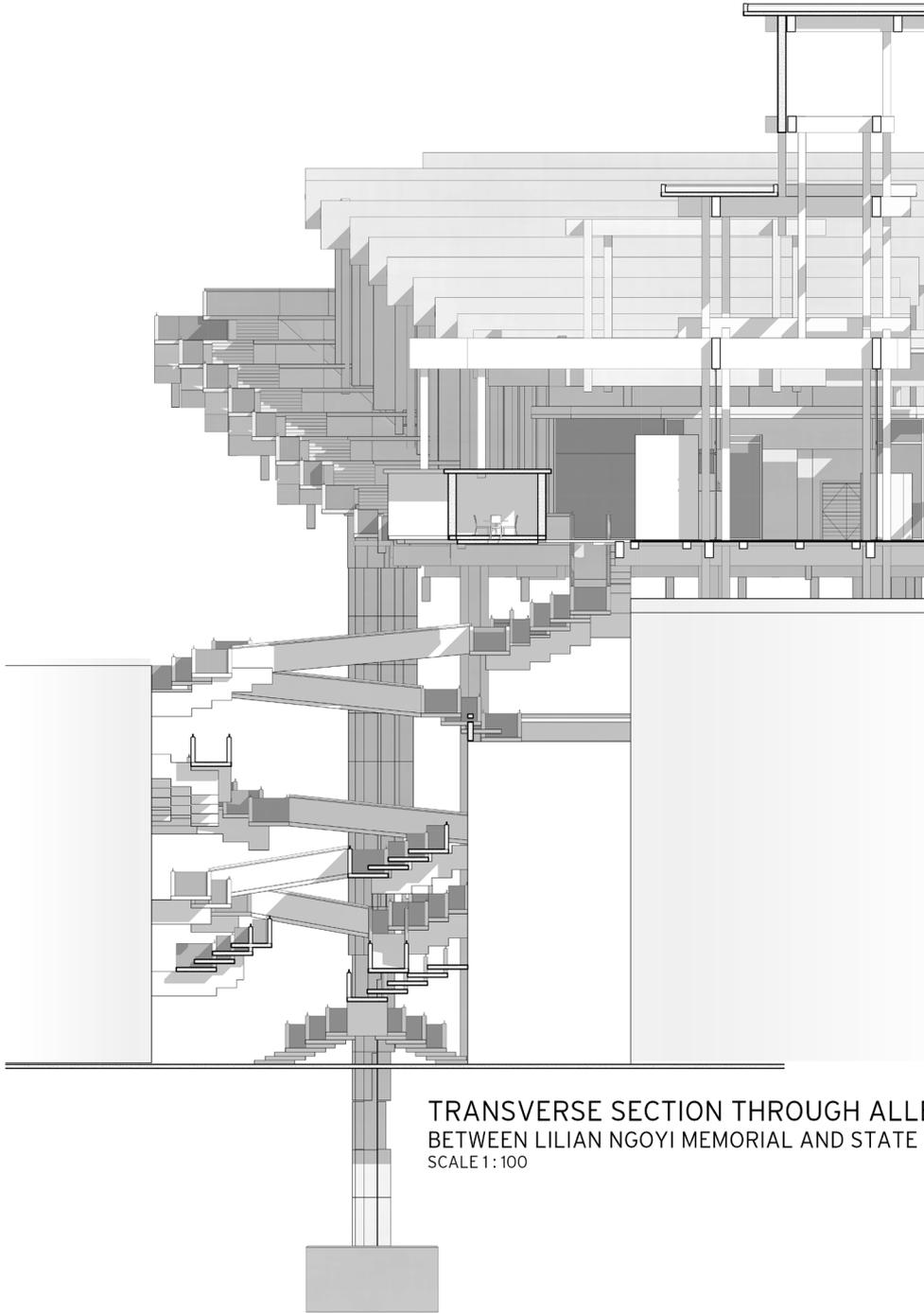




TUBE MAP TRANSPARENT PLAN  
SCALE 1 - 500



TUBE MAP SIX SECTIONS  
SCALE 1 - 500



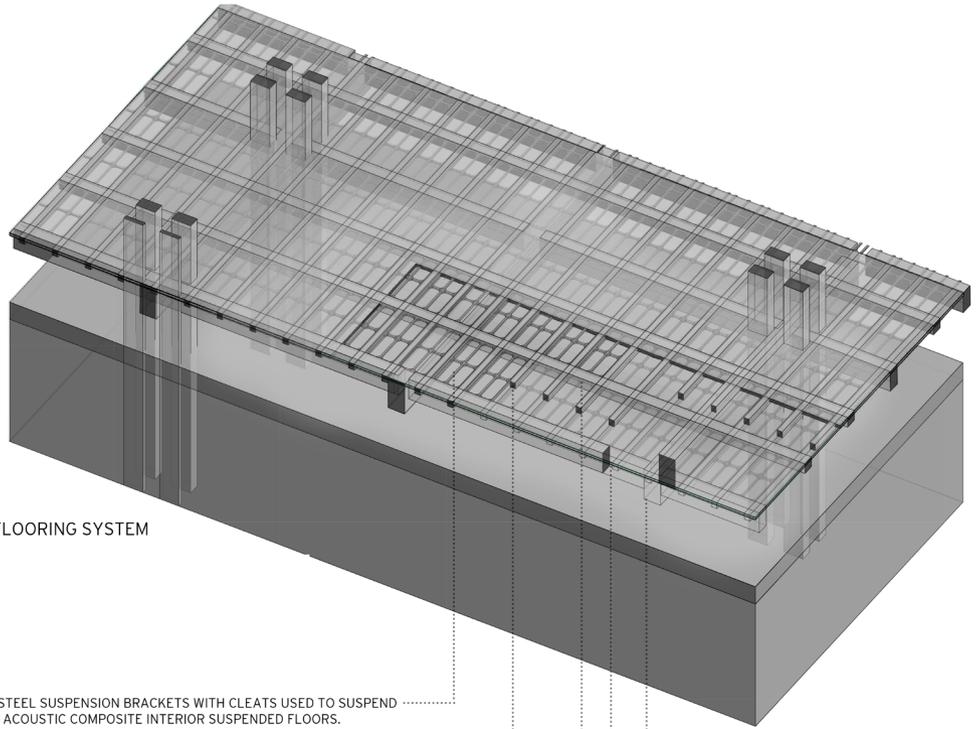
TRANSVERSE SECTION THROUGH ALLEY  
BETWEEN LILIAN NGOYI MEMORIAL AND STATE THEATRE  
SCALE 1 : 100

CURTAIN GLAZING IN ALUMINIUM FRAME.....

FOUR COLUMN EXTRUSION - 305x530mm EACH - FROM .....  
EXISTING COLUMNS BY BREAKING CONCRETE AND  
CASTING NEW STARTER BARS TO EXPAND EXISTING  
CONSTRUCTION

STATE THEATRE ROOF LEVEL.....

EXISTING STATE THEATRE H-PROFILE COLUMN .....



AXONOMETRIC OF FLOORING SYSTEM  
SCALE 1:50

50x50 GALVANISED MILD STEEL SUSPENSION BRACKETS WITH CLEATS USED TO SUSPEND CONCRETE EXTERIOR AND ACOUSTIC COMPOSITE INTERIOR SUSPENDED FLOORS.

REINFORCED CAST IN SITU INTERSTITIAL FLOOR DISTRIBUTION BEAMS:

152x152mm- TATAMI BEAM - 914c/c

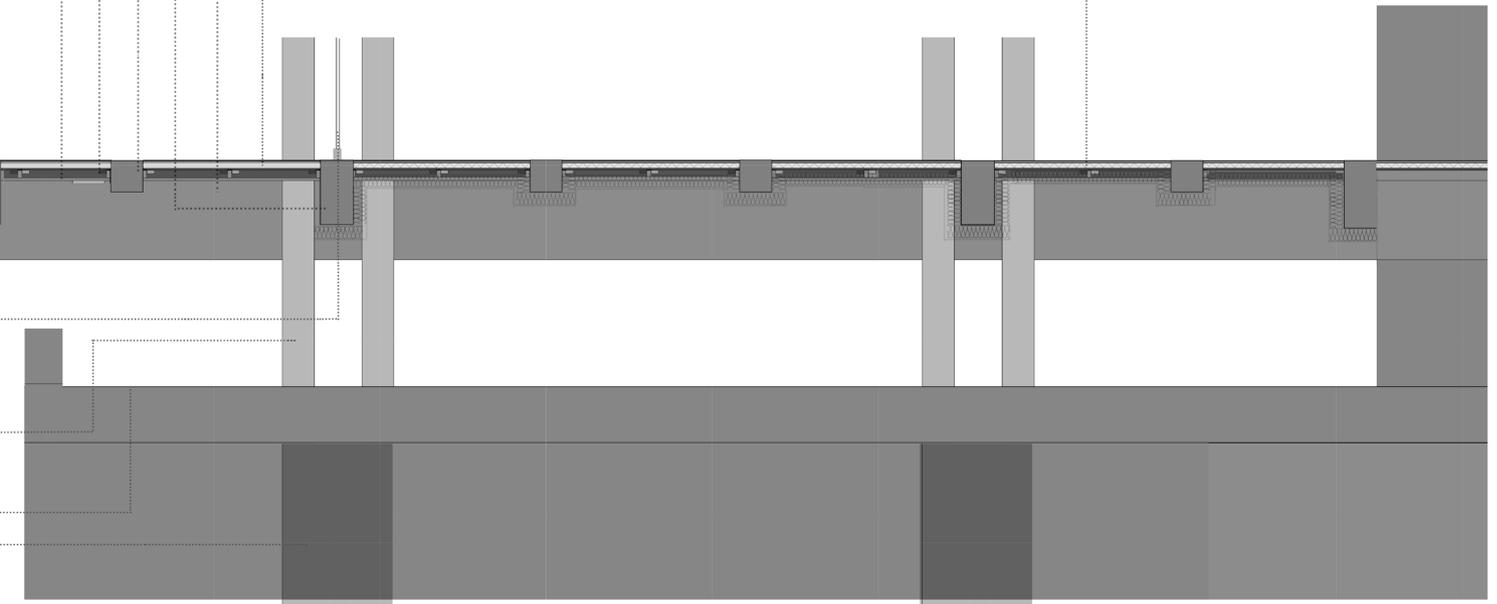
305x305mm- LONGITUDINAL TATAMI BEAM - 1829c/c

610x305mm- SECONDARY INTERSTITIAL BEAMS - 3048c/c

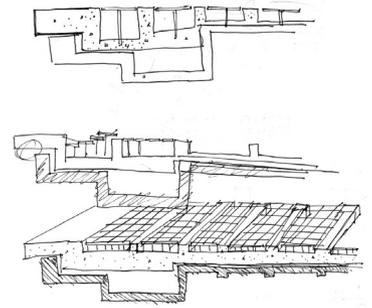
914x457mm- PRESTRESSED LOAD TRANSFER BEAMS - 6096 c/c

900x450x30mm PRECAST CONCRETE EXTERIOR TILES

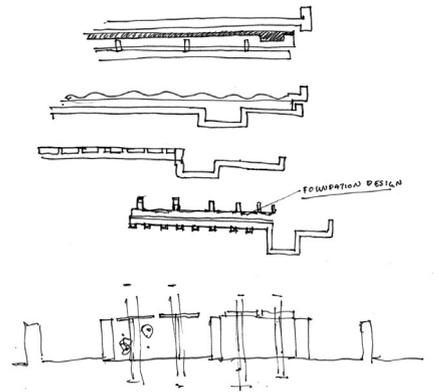
900x450x100mm PLYWOOD CLAD ACOUSTIC COMPOSITE FLOORING

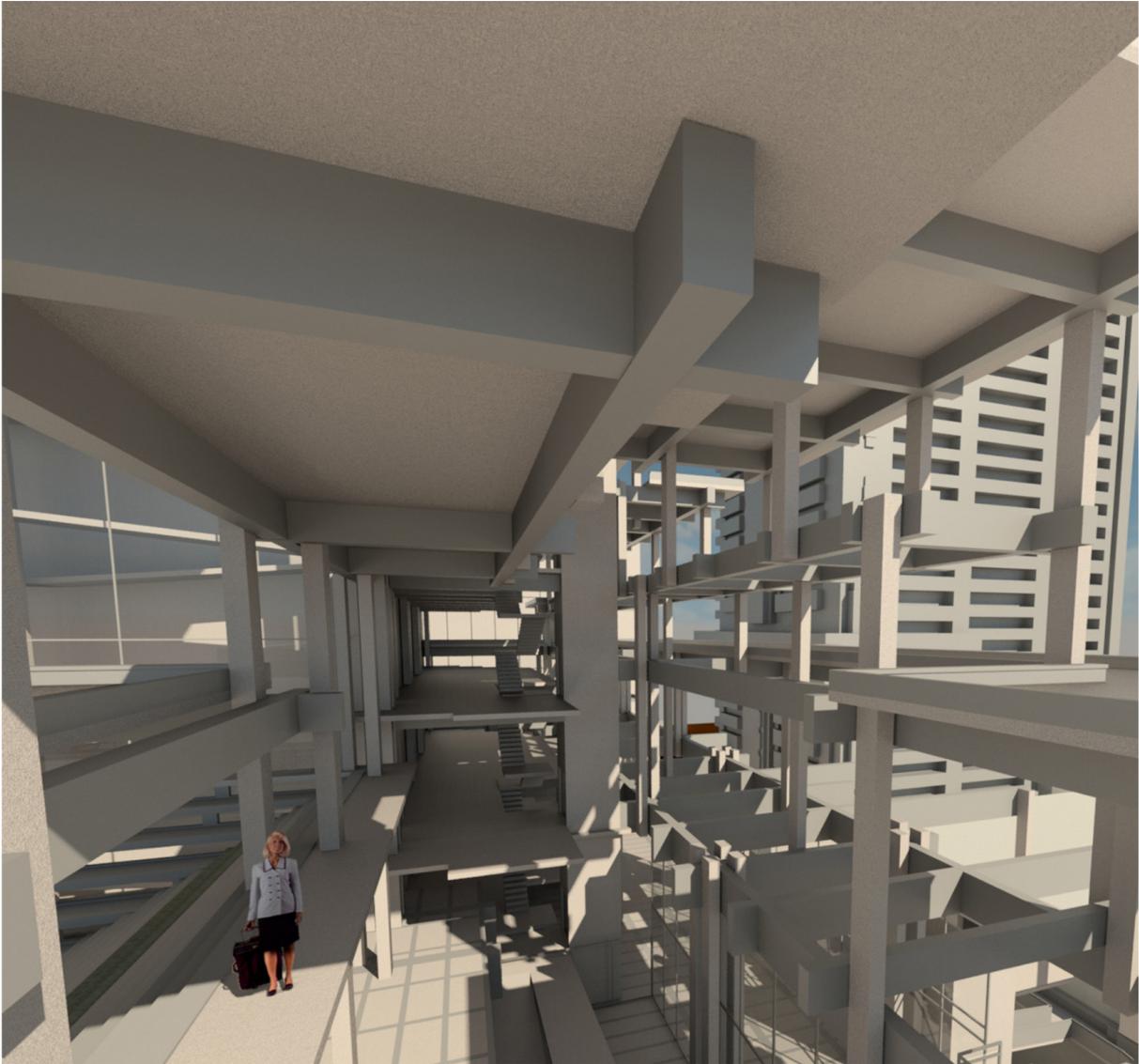


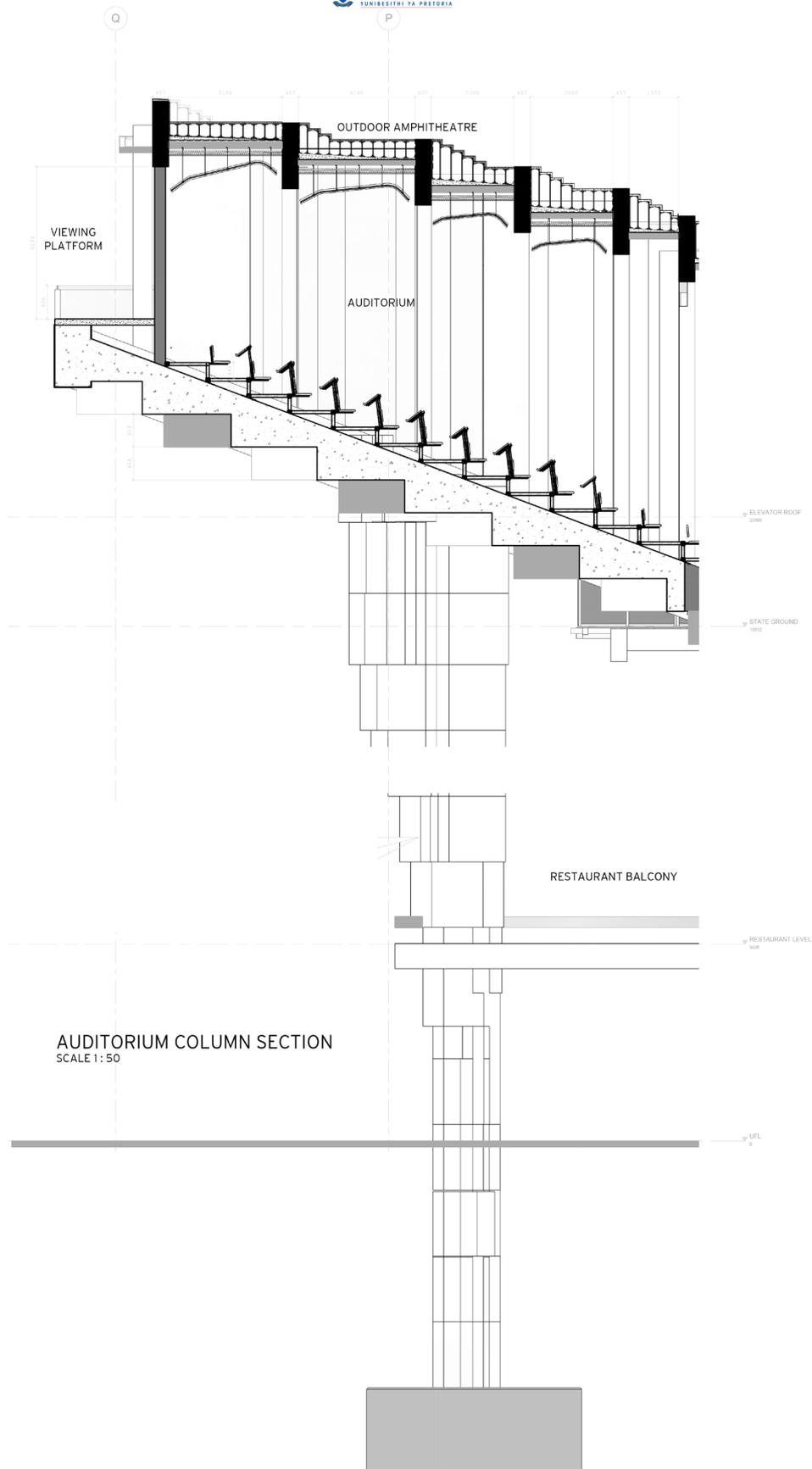
INTERSTITIAL SERVICE FLOOR  
SUSPENSION OF LINGUISTICS FACILITY ABOVE STATE THEATRE  
SCALE 1:20

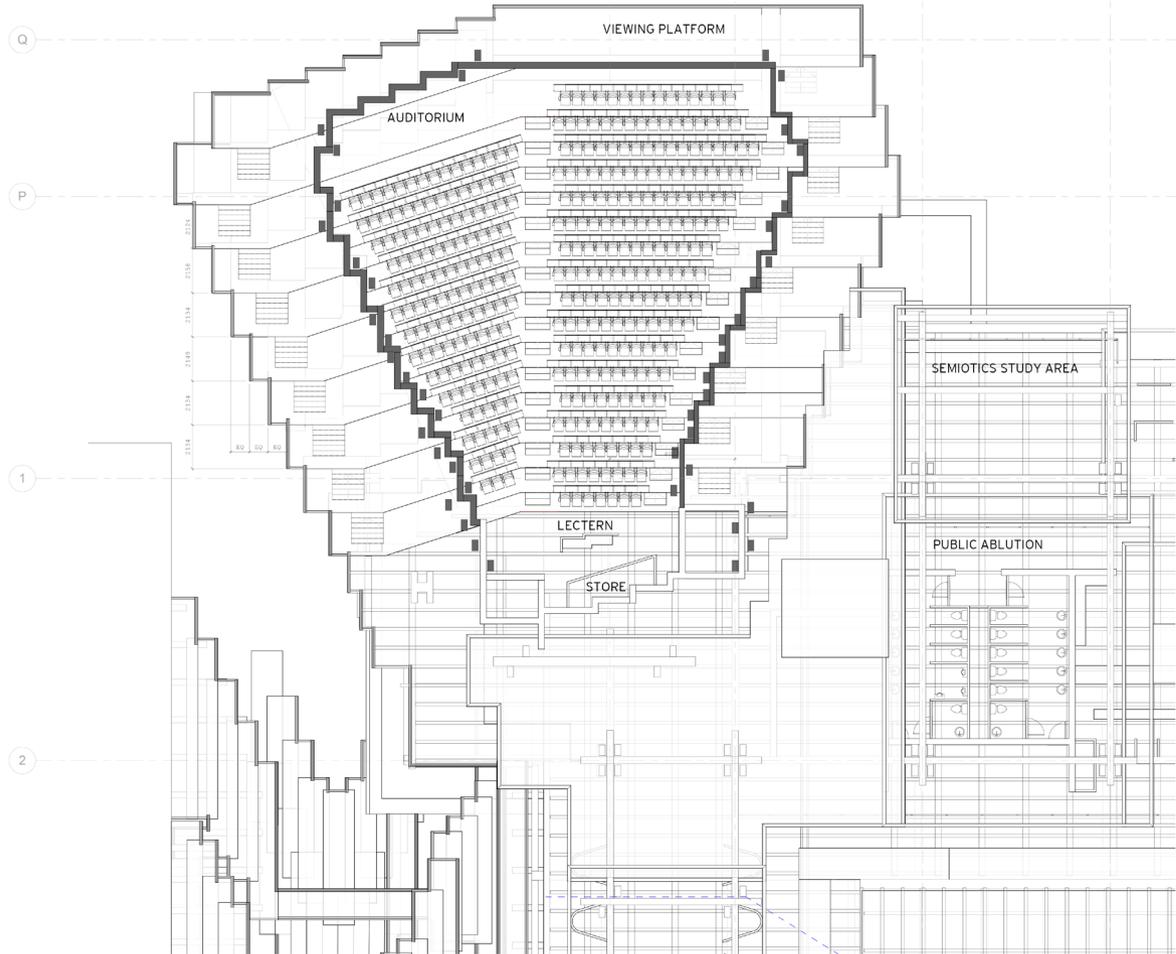


FLOOR STRUCTURE ATOP STATE  
THEATRE'S ROOF ON BEAM SYSTEM WITH  
ADJUSTABLE ACCESS FLOORING

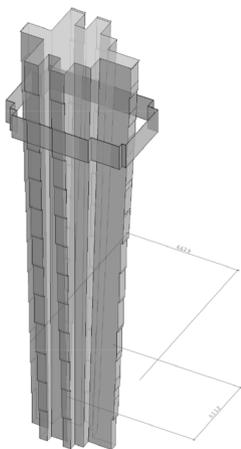




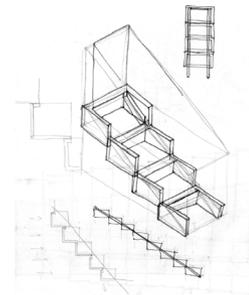
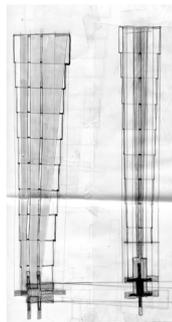
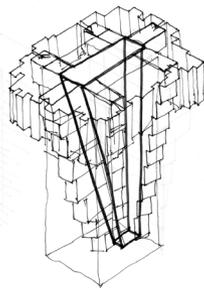




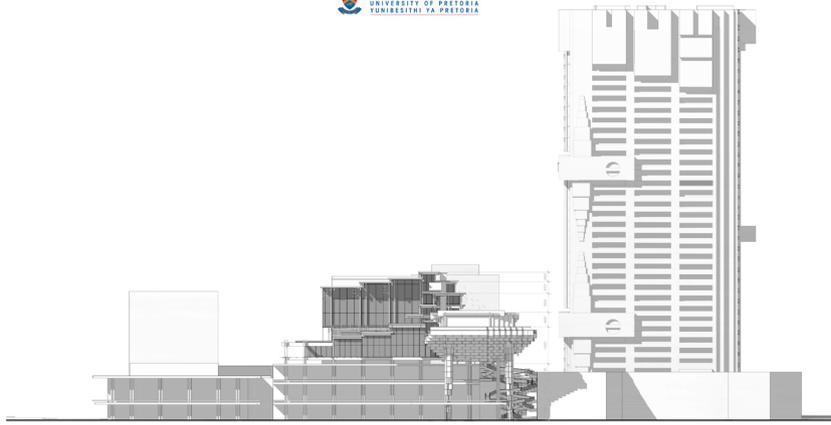
AUDITORIUM SEATING PLAN  
SCALE 1:100



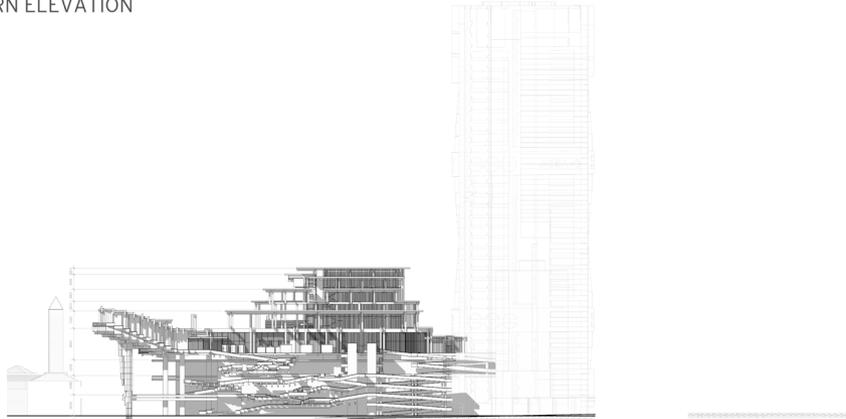
PRECAST CONCRETE CLAD STEPPED  
TAPERING CAST IN SITU CONCRETE COLUMN  
SUPPORTS AUDITORIUM



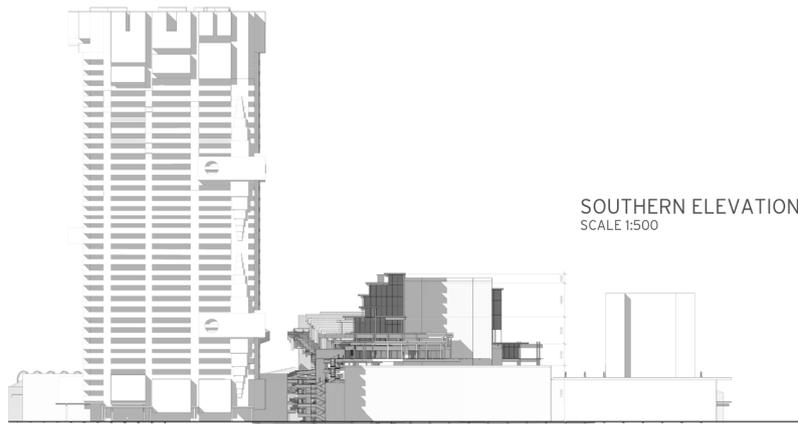
PRECAST STRINGER  
CLAD DRAWER



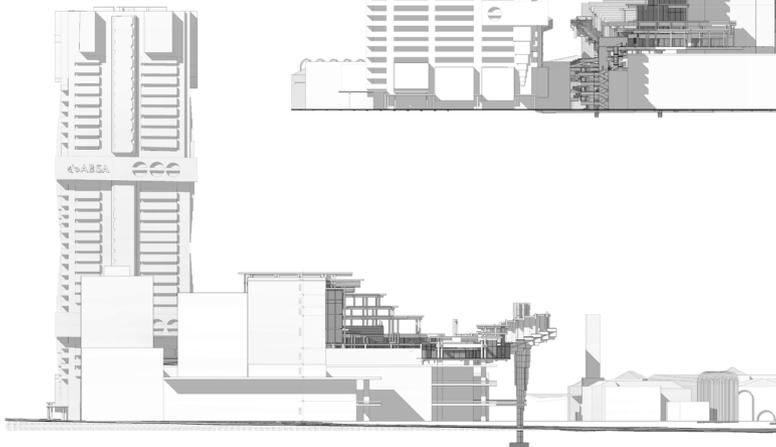
NORTHERN ELEVATION  
SCALE 1:500



WESTERN ELEVATION  
SCALE 1:500

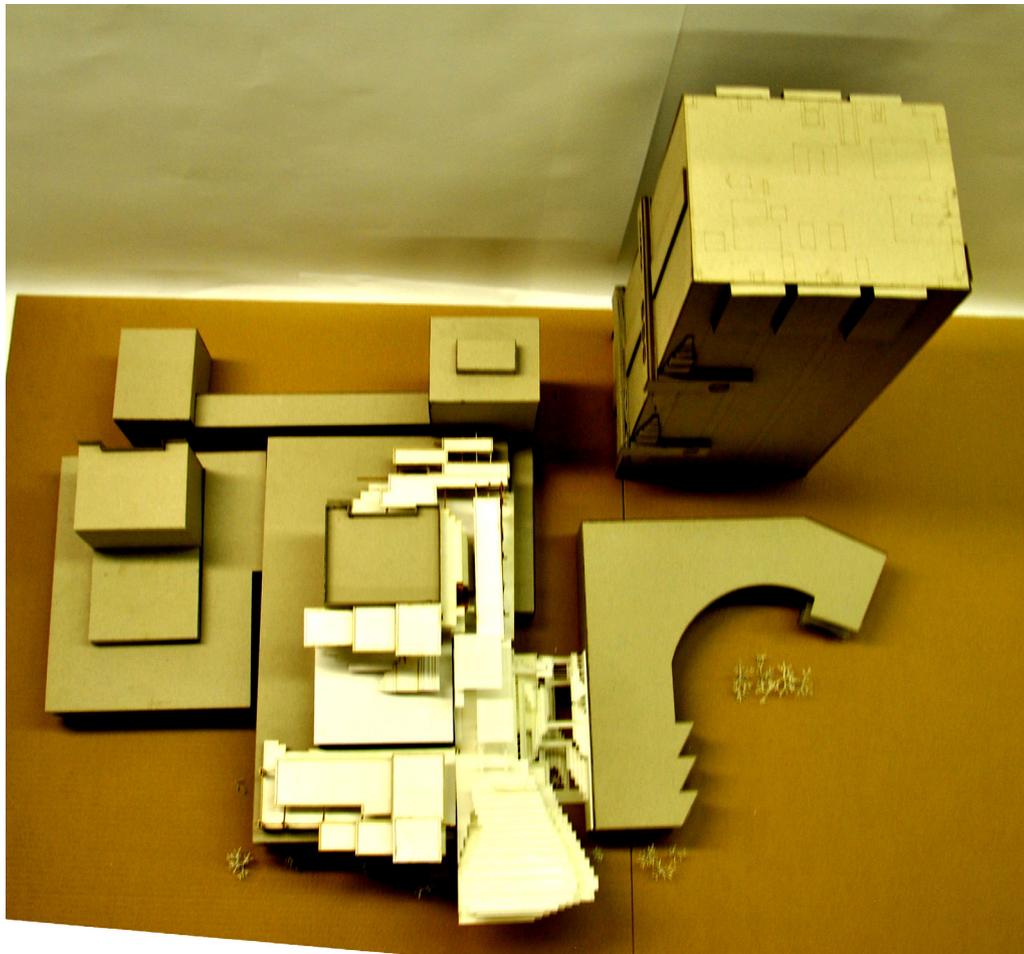


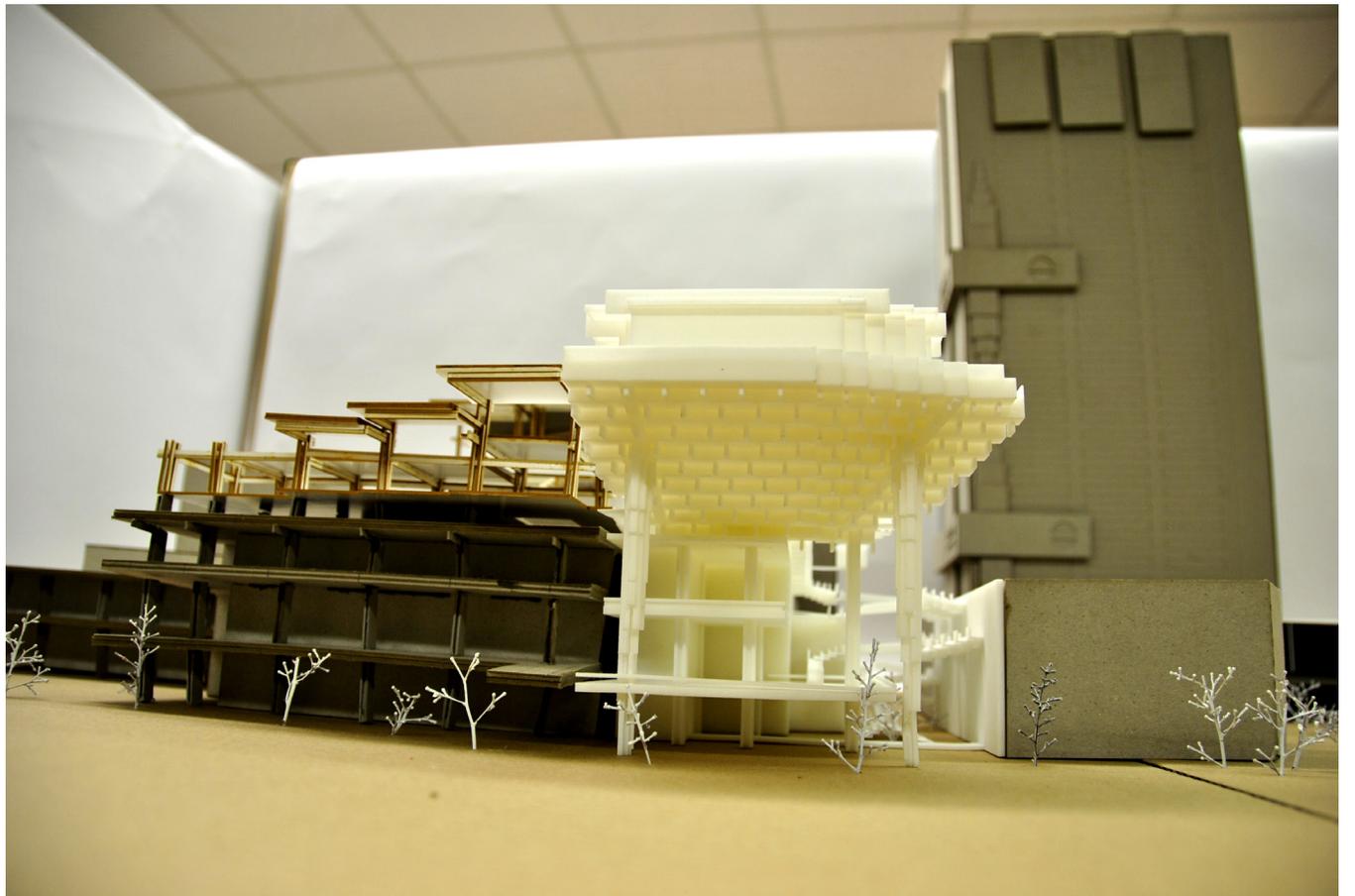
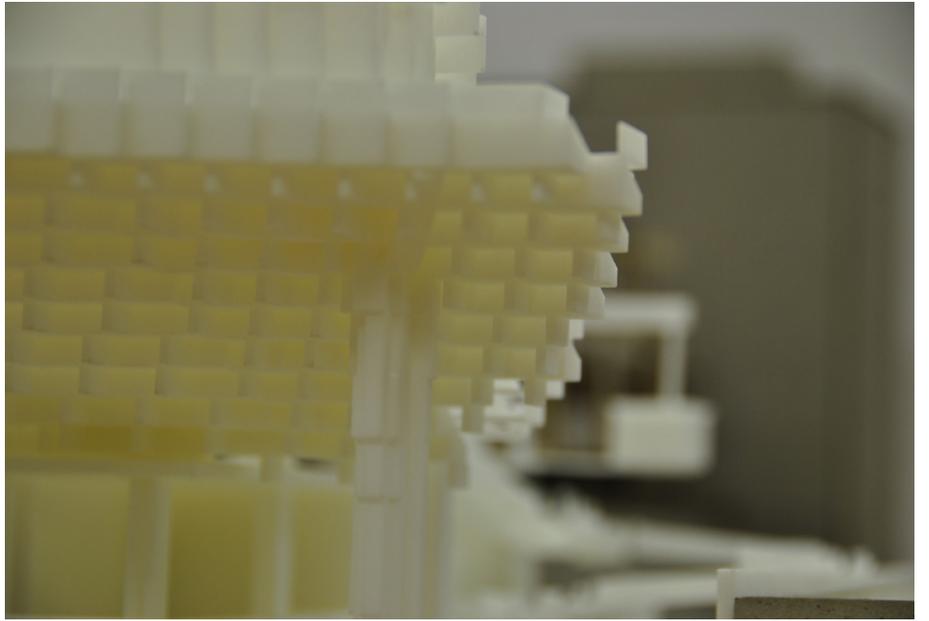
SOUTHERN ELEVATION  
SCALE 1:500

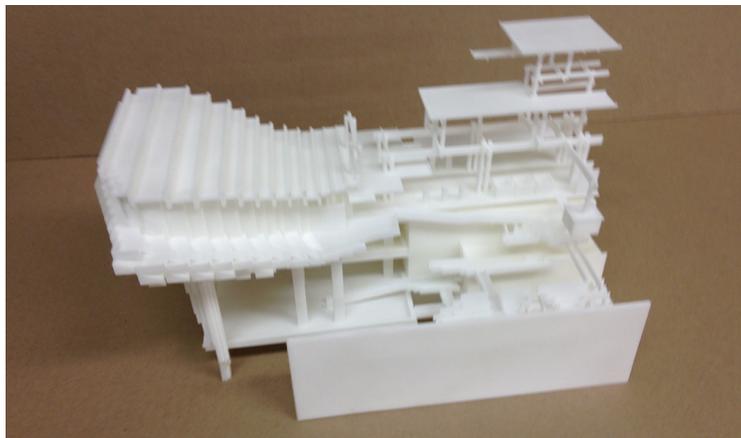
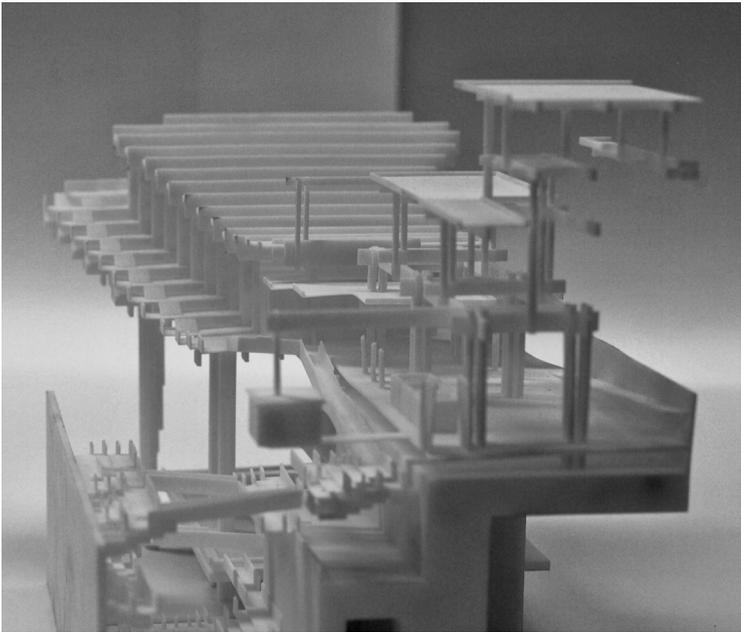
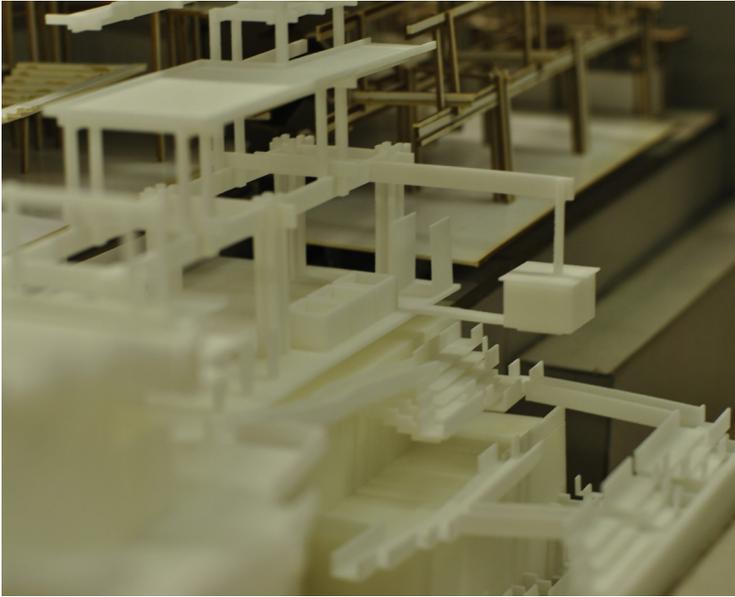


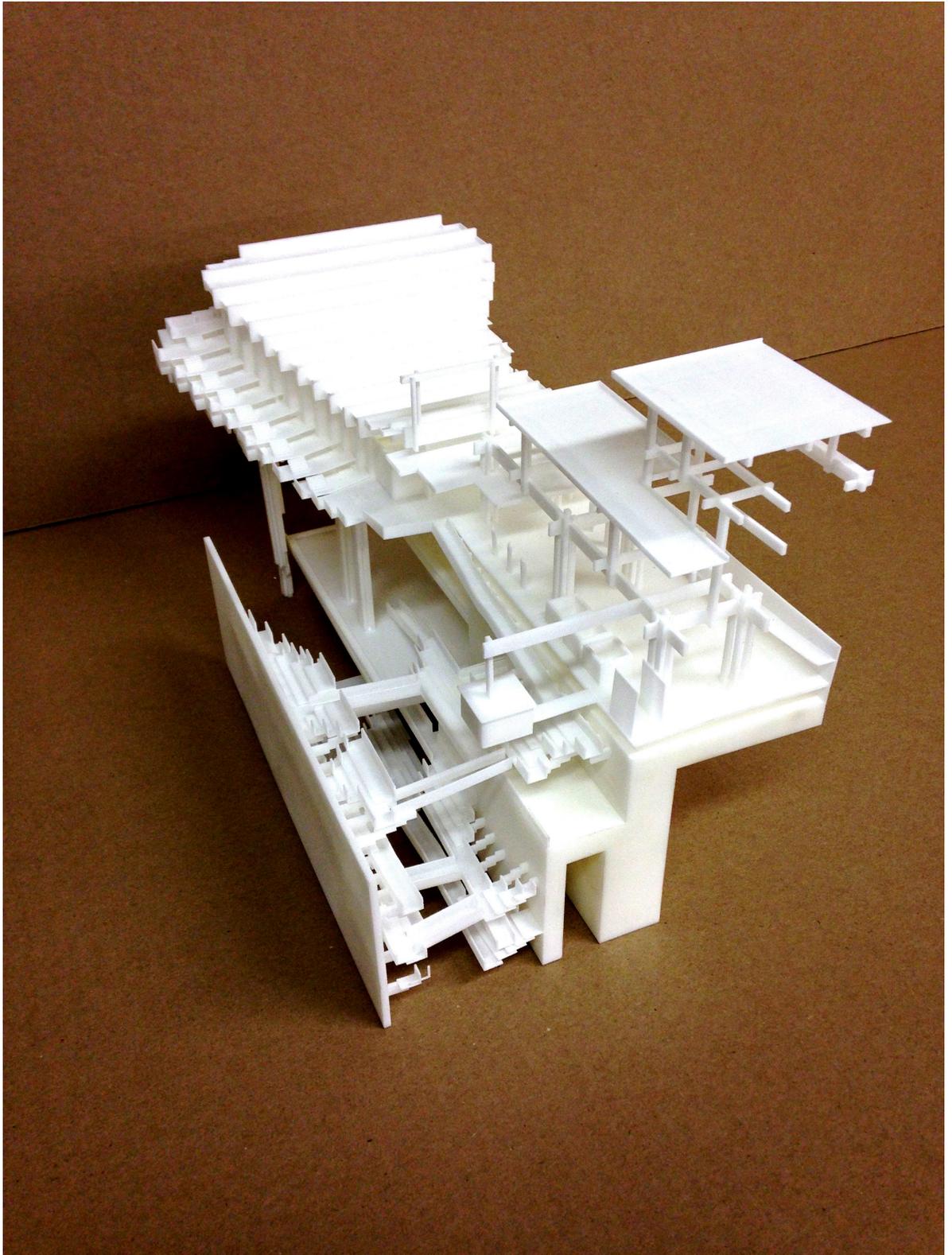
EASTERN ELEVATION  
SCALE 1:500

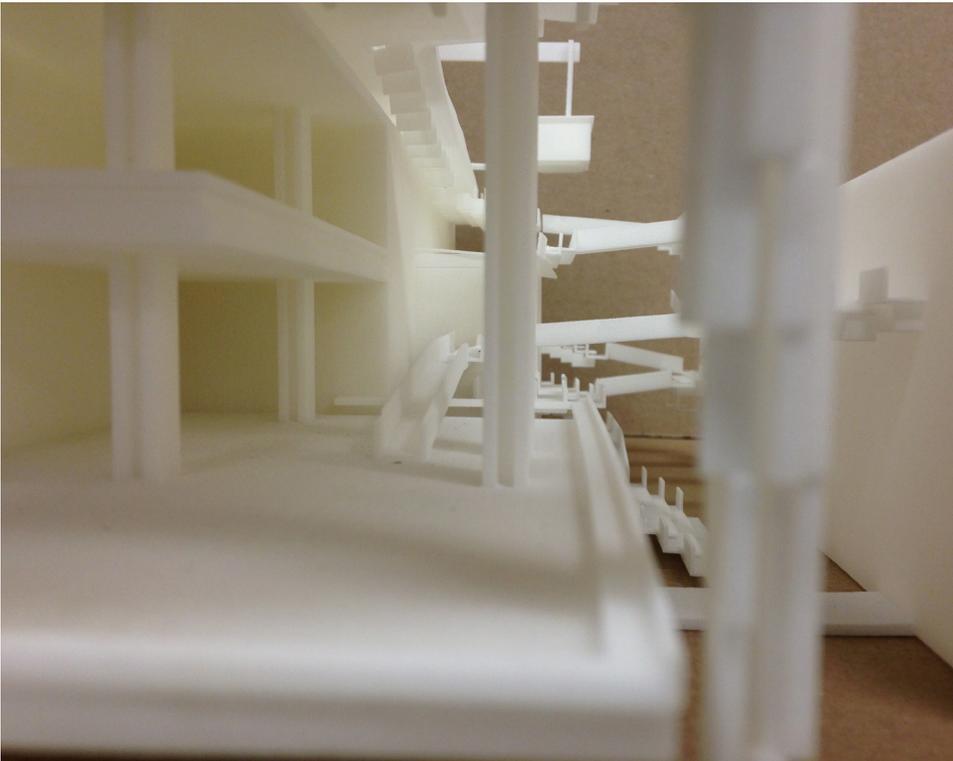
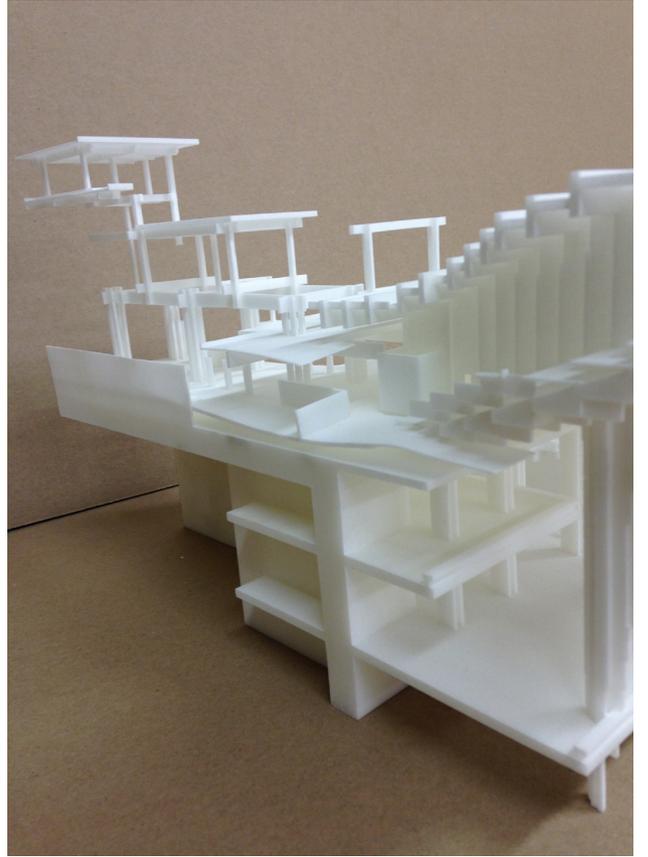
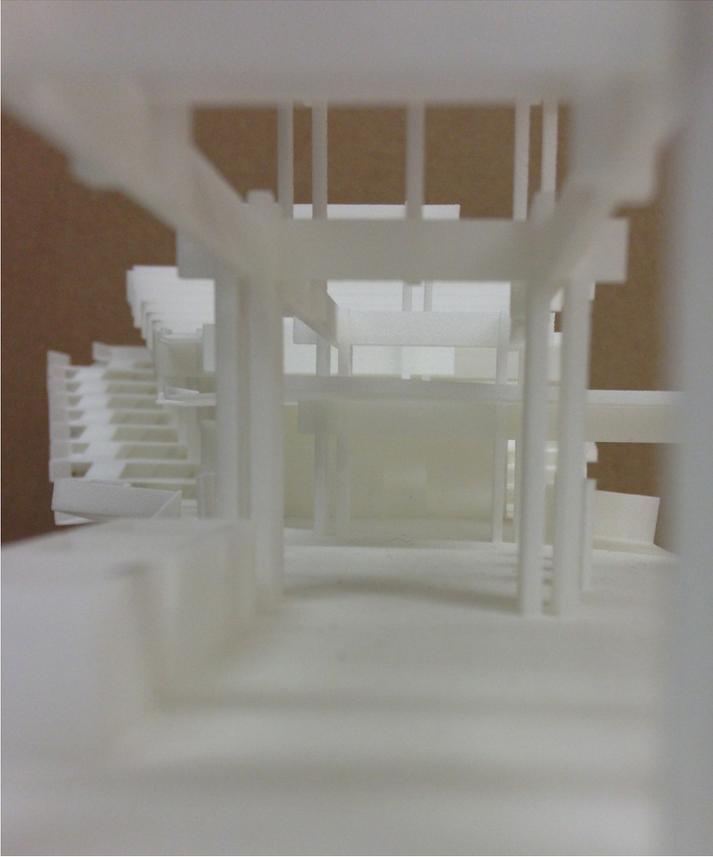


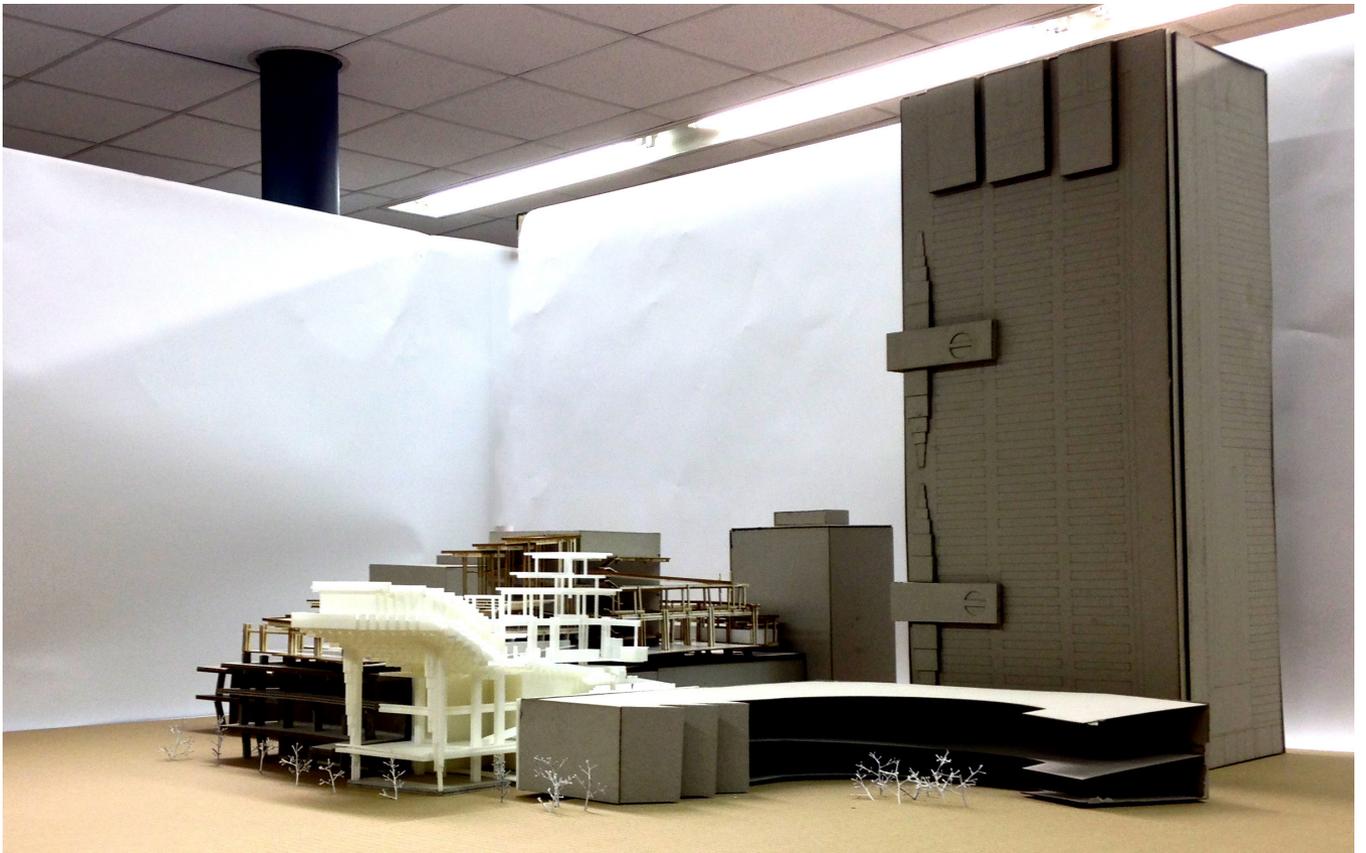
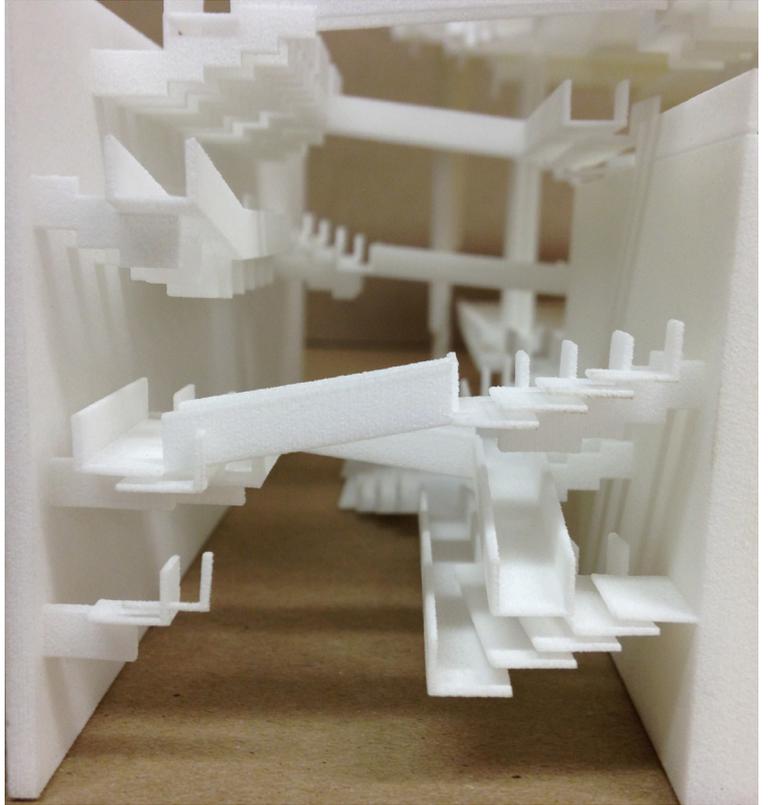










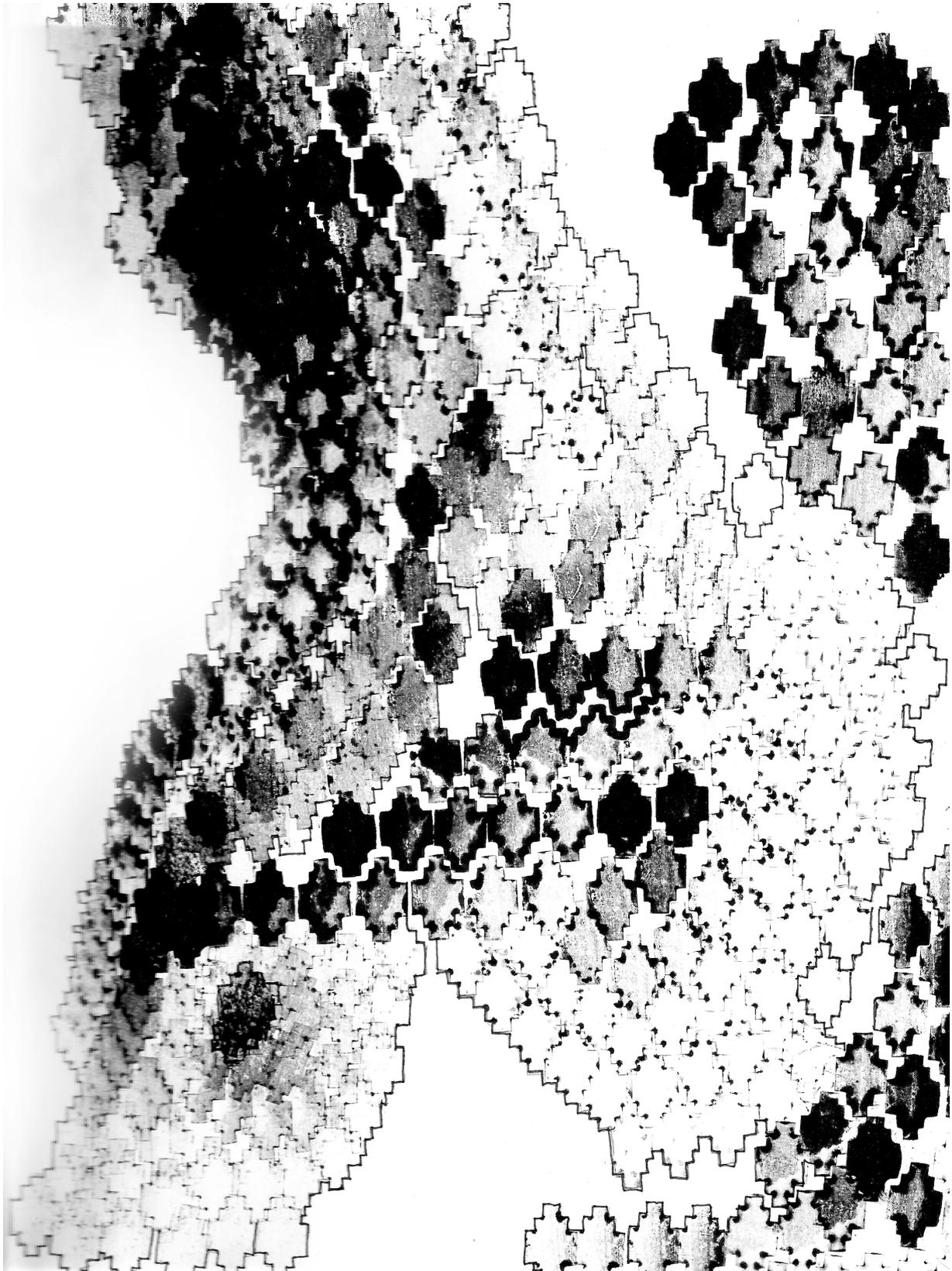


## Conclusion Beginning

The aesthetic essentially changes dependent on the scope or scale of perspective. Much like the idea of a fractal, which is derived from repeating elements. These elements are likewise perceived differently at different scales. Through a methodology: miming the original language is, extrapolate its meaning, and then mutate and dissolve it into its built context.

This premise allows the architecture to disintegrate into contextual insignificance, which is evident in isolation and significant as an understandable vernacular. In this microscopic view it dissolves into the context and loses its intrinsic meaning. This design feature of repetition of the architectural base elements in a simple process, over and over in an ongoing feedback cycle. There is a reverence of the original language indigenous and endemic to the site, as well as being self-referential across dissimilar scales simultaneously.

In this way, an endeavour at a plausible golden mean or a 'juste milieu' between an architecture that is contextually iconic and iconically contextual.



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