

# CHAPTER 06

## DESIGN DEVELOPMENT

Chapter Six delves into the design process and development that was undertaken throughout this dissertation. The process commenced with applying the normative position expressed in Chapter One, the site-specific, contextual findings and issues raised in the user narratives from Chapter Two, the conceptual framework from Chapter Three and Four, as well as lessons learnt from the precedent studies in Chapter Five.

## CONTEXTUAL DESIGN

As the first step of the iterative design process, it was imperative to understand the current use and movement patterns of the site.

The images below illustrate the pedestrian axis that cuts across the site, creating a strong link from the taxi rank and northern suburbs towards the informal commercial sector and Bloed Street Mall located to the South of the site.

In keeping with a sensitive approach and incorporating movement patterns already prevalent on site, and the strong ceremonial and

processional element that a pathway such as this would contribute to the design intervention, it was one of the first and most important aspects to be taken into consideration when initiating the design process. The axis has the potential of creating a directional pull towards the design intervention denoting both a physical and visual gesticulation (Porter 2004:11) from the south to the most northern point of the site. This axis can also be used as a point around which the footprint geometries of the buildings can be articulated, either symmetrical or asymmetrical, dramatic or subtle.

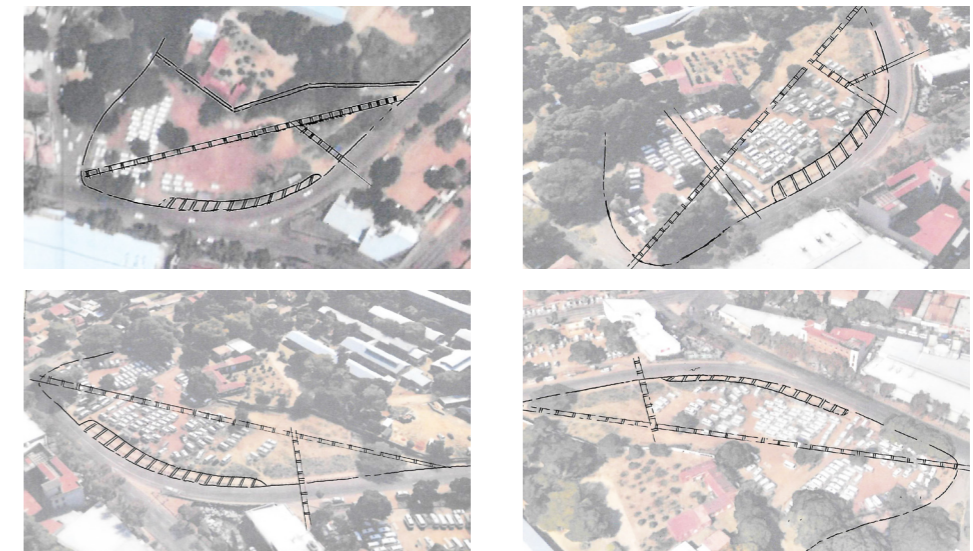


Figure 6.1-6.4 The pedestrian footpath that cuts across the taxi waiting area was observed to be the most direct route that links pedestrians from Southpansberg Road to the Bloed Street Mall, this is also evident by the soil erosion as a direct result of the heavy foot traffic (Google Maps 2021, sketched over by Author 2021).

The pedestrian walkway that cuts across the site in this fashion also emphasizes the importance of the pedestrian in this design intervention as well as the greater urban vision by encouraging walkability. Good walkability within a city, town or site means to stimulate healthy, safe, secure and pleasant pedestrian walkways and experiences, offering varying degrees of activity and social interaction, as well as being the most empowering form of travel to people, giving them the opportunity to move at their own pace, whether to stroll, pause, or run (Porter 2004:208).

The following step focused on the areas dominated by the minibus taxis. The images below illustrate the way in which the minibus taxi drivers currently occupy the site, the way in which the taxis manoeuvre and are parked. While at first, and particularly on ground level, the site might seem chaotic, upon further investigation and research into the background of the taxi industry, the realisation has been made that there exists an organic, yet structured way in how the site is currently being used.

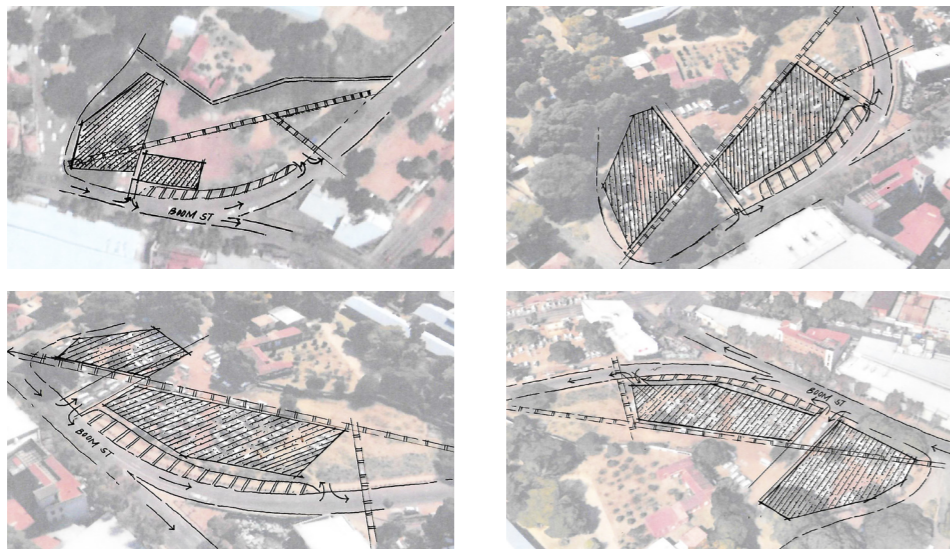


Figure 6.5-6.8 The minibus taxi drivers seem to favour the western and south-eastern areas of the site, this natural organisation of the site can be attributed to the main access routes to Boom Street being located to southern and western boundaries of the site, as well as where the majority of the vegetation is prevalent (Google Maps 2021, sketched over by Author 2021).

Considering the contextual and critical regionalist approach taken, the decision was made to suggest a very simple, tectonic, and light infrastructure onto the taxi area of the design intervention. These structures will provide shading, lighting and include freshwater points, while only lightly touching the site, on a single level, paved surface. The taxi drivers can therefore continue to use the site as they choose, encouraging the organic nature of the industry, while still providing the necessary infrastructure to enhance quality of life for the users of the site.

The images below illustrate the important vegetation currently present on site that should be considered to remain as part of the proposed design intervention. The trees marked in these images serve as active spots for socialising, resting and meeting as well as for the selling of goods to the surrounding community.

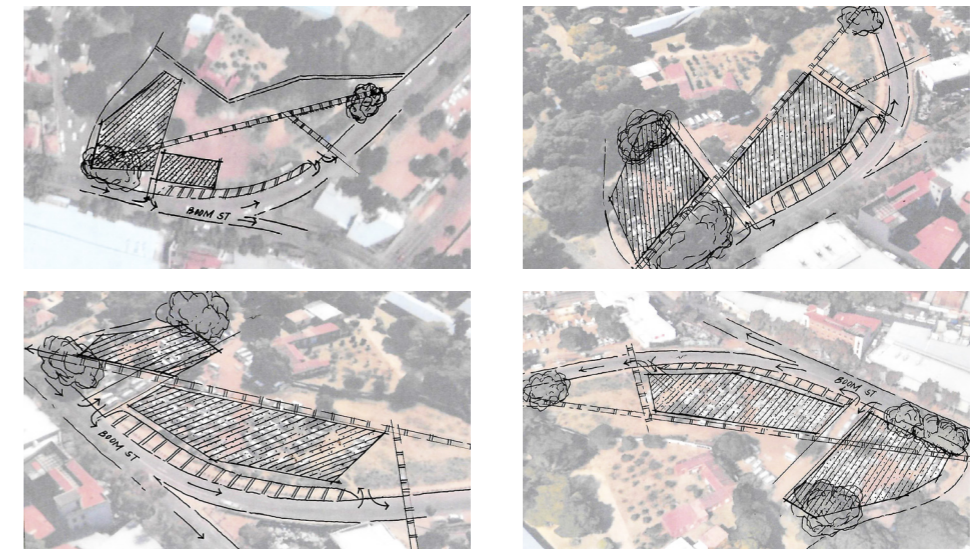


Figure 6.9-6.12 The trees currently present on site provide shading and a little bit of shelter to an otherwise harsh site. These few areas function as places for socialising, resting and meeting as well as informal trade (Google Maps 2021, sketched over by Author 2021).

Hereafter, a design workshop was undertaken, in which quick design sketches were made.

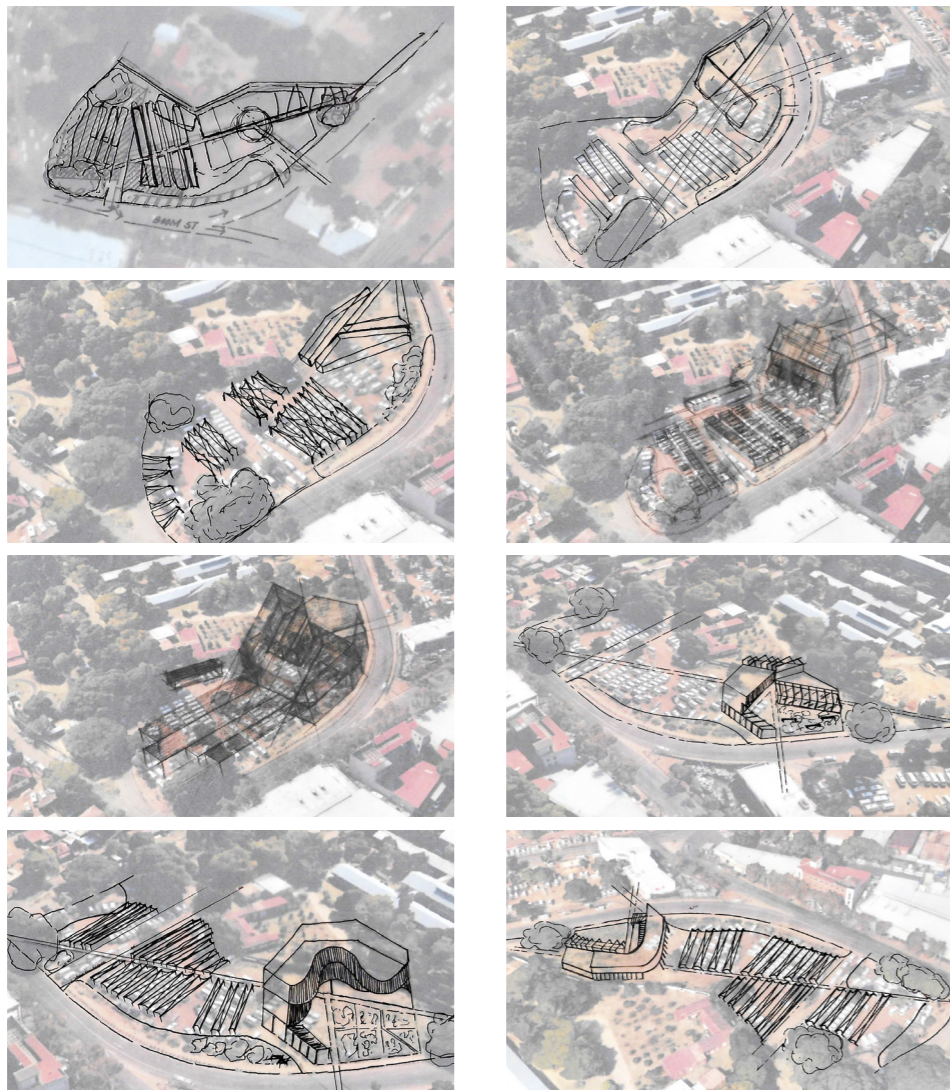


Figure 6.13-6.20 Quick workshop sketches. The pedestrian axis is becomes a pivotal point around which the design intervention is formed, the taxi rank is situated towards the western portion of the site, the transitional haven is placed on the northern boundary of the site, where the more private programmatic functions may take place (Google Maps 2021, sketched over by Author 2021).

The initial contextual analysis led to the decision to respect the existing use of the pedestrian axis that cuts through the site, and that the placement of the taxi shading structures should be erected where the majority of the minibus taxis are currently parked.

In keeping with contextualism and critical regionalism, principles referred to in Chapter 1 as part of the normative position, the top left-hand sketch was concluded to be the most contextually appropriate.

By composing three smaller building footprints articulated by the foot-path, a more subtle and inclusionary architecture can be developed.

This is strengthened by the architectural intention of this dissertation to create a place of safety, solace and provide aid to disenfranchised members of this community, namely the homeless, the sick, the elderly, the disabled, as well as drug-addicted and sexually victimised individuals. (Ots 2011:132).

## CHOREOGRAPHING ARCHITECTURE

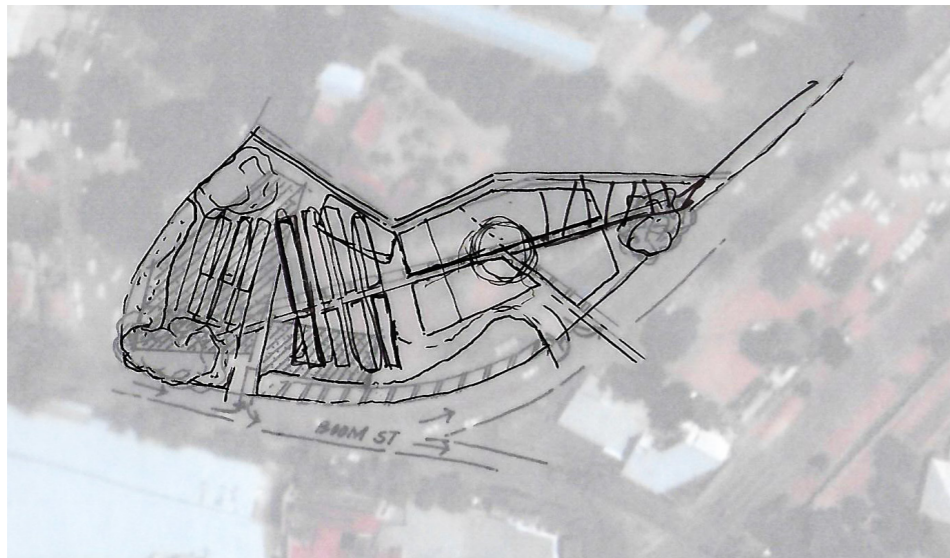


Figure 6.21 Workshop sketch chosen as being the most contextually appropriate and in line with contextualism, critical regionalism theories underpinned in Chapter 1 (Google Maps 2021, sketched over by Author 2021).

### 1. Design

There is an intrinsic sense of structure in human beings that have been gained from the battery of everyday life experiences with designs with which we are confronted. This sense is strengthened with the shape of objects, from something as small and inconsequential as a hairbrush to grandiose architectural designs or natural occurrences, such as the ocean or a mountain (Humphrey 1959:49).

Design is considered to fall into one of two major categories, symmetrical and asymmetrical (Humphrey 1959:50). Symmetry can be seen to suggest stability, security, comfort and repose, while asymmetry elicits stimulation, excitement and adventure.

Within these two categories, are two subdivisions – these patterns are either successional or oppositional (Humphrey 1959:57). Opposing lines emphasize ideas of force, aggression, vitality, exuberance or power; the closer the opposing lines come to form a right angle, the more power is suggested, enticing an idea of conflict, either emotive and intrinsic, or towards an exterior subject, while the more the angle is narrowed, the weaker the antagonism becomes (Humphrey 1959:58).

On the contrary, successional design is always milder and gentler; its unobstructed linear shape or curve flowing continually, uninterrupted. This renders the symmetrical design with a successional pattern as the most soothing interpretation, while an asymmetrical successional design becomes considerably more stimulating, providing an apt balance of amusing alertness with no opposing forces or the predictable balance of symmetry. The oppositional design interpretations however always seem to retain some or all of its power, with the crossing of opposing lines seemingly anchoring, or imprisoning the body onto the space (Humphrey 1959:58).

In the interest of designing for two opposing bodies, such as the case of the pedestrian walkway drawn through the taxi rank parkade, contrasting angles of the bodies to each other is advised. This allows for a three-dimensional, full impact observation to be made, while too-flat bodies can become two-dimensional in the user experience. A call for simpler lines is made when designing for multiple bodies, while the principle of contrast is emphasized (Humphrey 1959:64-65).

Maquette No. 1 and No. 5 can be seen to have few opposing lines

to the main axis or motivational thoroughfare across site, crossing the axis at softer angles, the building masses still come across as permeable while at the same time seemingly encircling and hugging the public piazza.

Maquette No. 2, 3 and 4 however, cross the main pedestrian walkway at right angles to the axis, strongly cutting the taxi standing area off from the traders market, public square and transitional haven, hereby creating a disconnect between the public transport operators, informal vendors and haven personnel.

## 2. Dynamics

Dynamics is the lifeblood of the dance (Humphrey 1959:102) and should be regarded as the ingredient which adds variety and texture, the 'spice' if you will, to the dance. These dynamics may include terms such as sharp, smooth, fast, slow, tension, relaxation, but it should be considered that these indications are all subject to individual interpretation (Humphrey 1959:97). It has been proven that overall, a combination of alternate dynamics that result in a variety of timing or phrasing as well as dynamics are

found to be rich in interest and refreshing, as people are likely drawn to variety in colour and texture (Humphrey 1959:102), however, it must be noted that the subtle and apt use of dynamics within certain programmatic spaces have the potential to elicit a specific mood the architect wishes to instil within the user.

The dynamic element of Maquette No. 1 – No. 5 remain the same for the most part. The dynamic range starts off at the south-western corner of the site and systematically progresses through the taxi resting area, the user constantly in contact with the ambient sounds and activities of the taxi parkade. Once the user reaches the traders market and public piazza however, the dynamics of the space change drastically, firstly as a result of the change in programme – moving through and past the traders market, the user is drawn toward the central public piazza – secondly, as the frequency of personal interaction intensifies and thirdly, the change in building typology, building height, and surface materials.

## 3. Rhythm

Rhythm is ingrained in every human being, and "might be compared to the ambience of existence" (Humphrey 1959:104), reaching as far back as that remarkable creation of nature – man - within whom can be found, four sources of rhythmic organization. The first can be referred to as the breathing-singing-speaking instruments, secondly, the unconscious beats of function, such as the heartbeat, peristalsis, the contraction and relaxation of muscles, and waves of sensation through the nerve ends. The third rhythmic system, the legs, is the driving mechanism, propelling and supporting man through space in the continuous transferring of weight from one leg to the other, and finally, the emotional rhythm, the swelling and ebbing tides of emotion and feeling within each and every individual (Humphrey 1959:105). Rhythm can be considered to be the most persuasive and most powerful element of the dance, and yet it remains one of the most unappreciated tools, having the capability of relaxing, soothing, or driving and rushing an individual to the next space or step. The rhythm is introduced through the columns or other vertical structural elements or possibly ground

surface material introduced on site. As seen in Maquette No. 1 – No. 5, the concrete and steel columns of the taxi shading structures are what continuously drive the user from the south-eastern point of the site to the public meeting area and market place. Once the market and public space has been reached, the rhythm calms to allow the user to feel comfortable and at ease, eliciting the sense to wander, and pause and communicate. The biggest difference between the rhythms induced onto the user between the five maquettes rest on the frequency of the taxi shading structure columns. Maquette No. 1, 3, 4 and 5 have a greater intensity of columns that push the drawer forward than shown in Maquette 2. Of these, Maquette 1 has the most irregular pattern, while Maquette 3's rhythm only begins halfway into the taxi resting area, and consistently and regularly continues until the traders market. Maquette 4 is almost a combination of 1, and 3, the rhythm already starting at the most south-western point of the site and consistently continuing throughout until the market space is reached. A slower and once again regular rhythm is created in Maquette 5, while the result of Maquette 2

proves to be quite different. Because the taxi shading structures cross over the pedestrian walkway unlike in any of the other maquettes, the columns are placed further from the pedestrian user and therefore the rhythmic arcade effect felt with the others, is not so evident in this example. The taxi structures instead create a over-arching umbrella effect under which the pedestrian is sheltered.

4. Motivation and Gesture  
 While design may be striking, rhythm, triggering and the dynamics a subtle colouring, movement without motivation is inconceivable, and while a change in position induced by some force may be understandable or not, the conscious motivation for movement is favoured no matter how simple it may seem to be (Humphrey 1959:110), movement should be underpinned by purpose. “I live, therefore I move!” beautifully captures not only the thoughts and motivations of the dancer but of the activities of everyday life as well. Movement is life, and the cessation thereof is death. Motivation is the essential core of dance composition, the necessity or urge to move driving a body to move from one place to another,

while gesture, a sort of recognizable patterned language of movement is a branch of thereof (Humphrey 1959:112, 114-115). These gestures involve the movement of the face, hands and body and are meant to assist in the understanding of other people, as well as defining those relationships, reinforcing the communication of thought and emotion (Porter 2004:90). Examples of gestural movements in dance can be shown in drawing near to, close but not touching, touching, surrounding without touch, and with touch, carrying, addressing, greeting, parting, holding and lifting (Haupt 1997:54). In architectural terms, gesture may convey motion or action, the way in which a building may ‘hug’ a landscape, ‘embrace’ the visitor or may even take on physical attitudes as in the stylized gestures of ballet, where architectural forms can ‘lean’, ‘arch’, ‘point’ and ‘pirouette’. Gesture can therefore be regarded as the embodiment of human presence in architectural built form, similarly to how there is a expectation to establish human scale in a building, drawing back to the human origins of architecture (Porter 2004:90). The main motivation to move through and into the site remains to be defined by the strong pedes-

trian footpath that runs across the site, drawing the user in, as can be seen in the images to the left, and is evident in all five maquettes. To the right, as with the design of the building footprints, building masses tend to gesture and extend outward to the taxi rank across Dr Savage Dr to the south eastern edge of the site, as well as to the north, while at the same time housing and protecting the co-mingling and market place within.

While the building orientations of Maquette 1 extend to the most southern and northern edges of the site, extending outward, Maquette 2, 3 and 4 with their more angular building layouts, almost seem to keep the programmes hidden within, instead of reaching out.

Maquette 5, similarly to Maquette 1, the building masses are positioned in such a way as to seemingly gesture and extend outward to the taxi rank across Dr Savage Drive to the south eastern edge of the site, as well as to the north, hereby tying in more strongly with the proposed urban vision, of linking vital signs in the precinct to each other.

DESIGN RESOLUTION

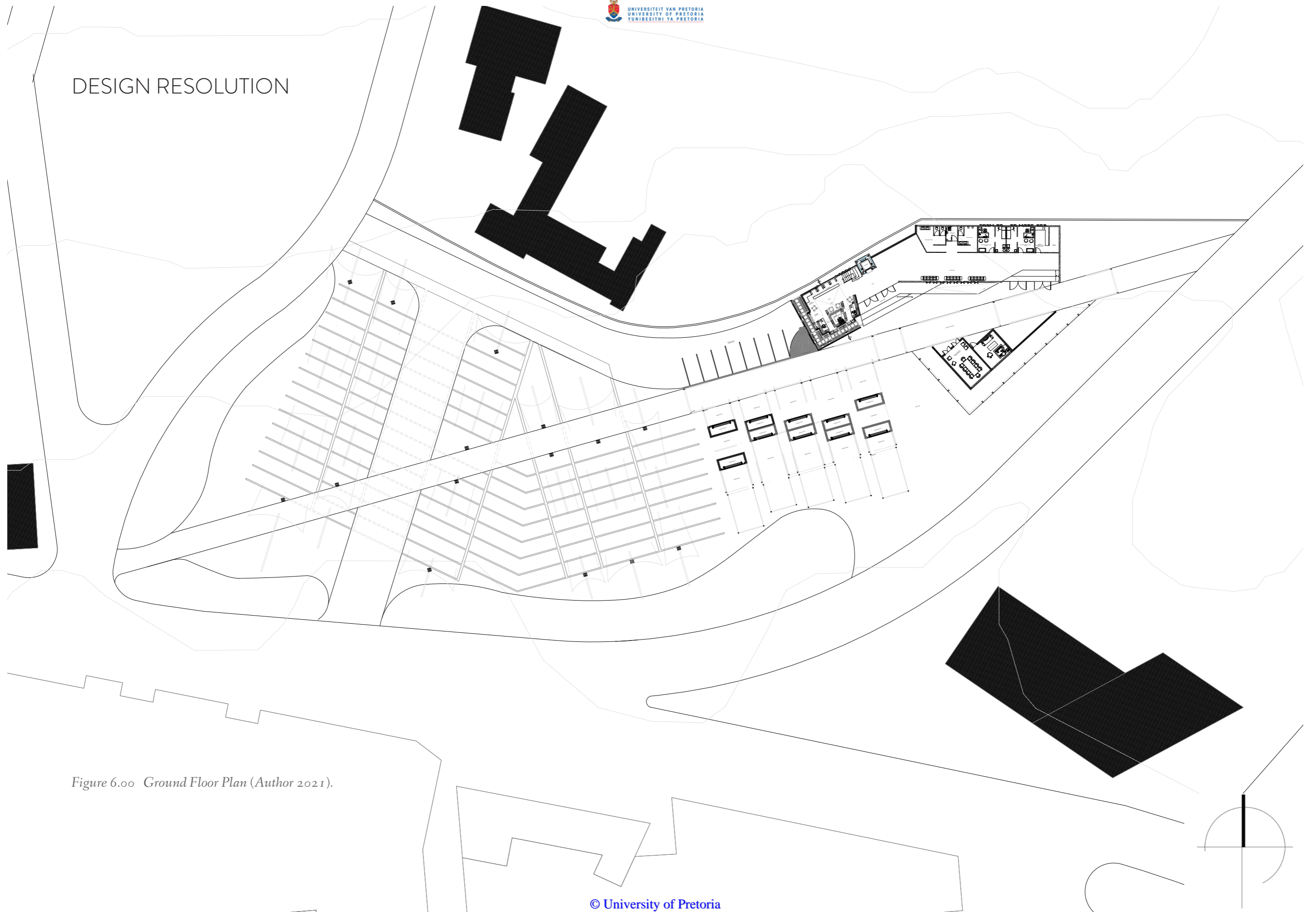


Figure 6.00 Ground Floor Plan (Author 2021).



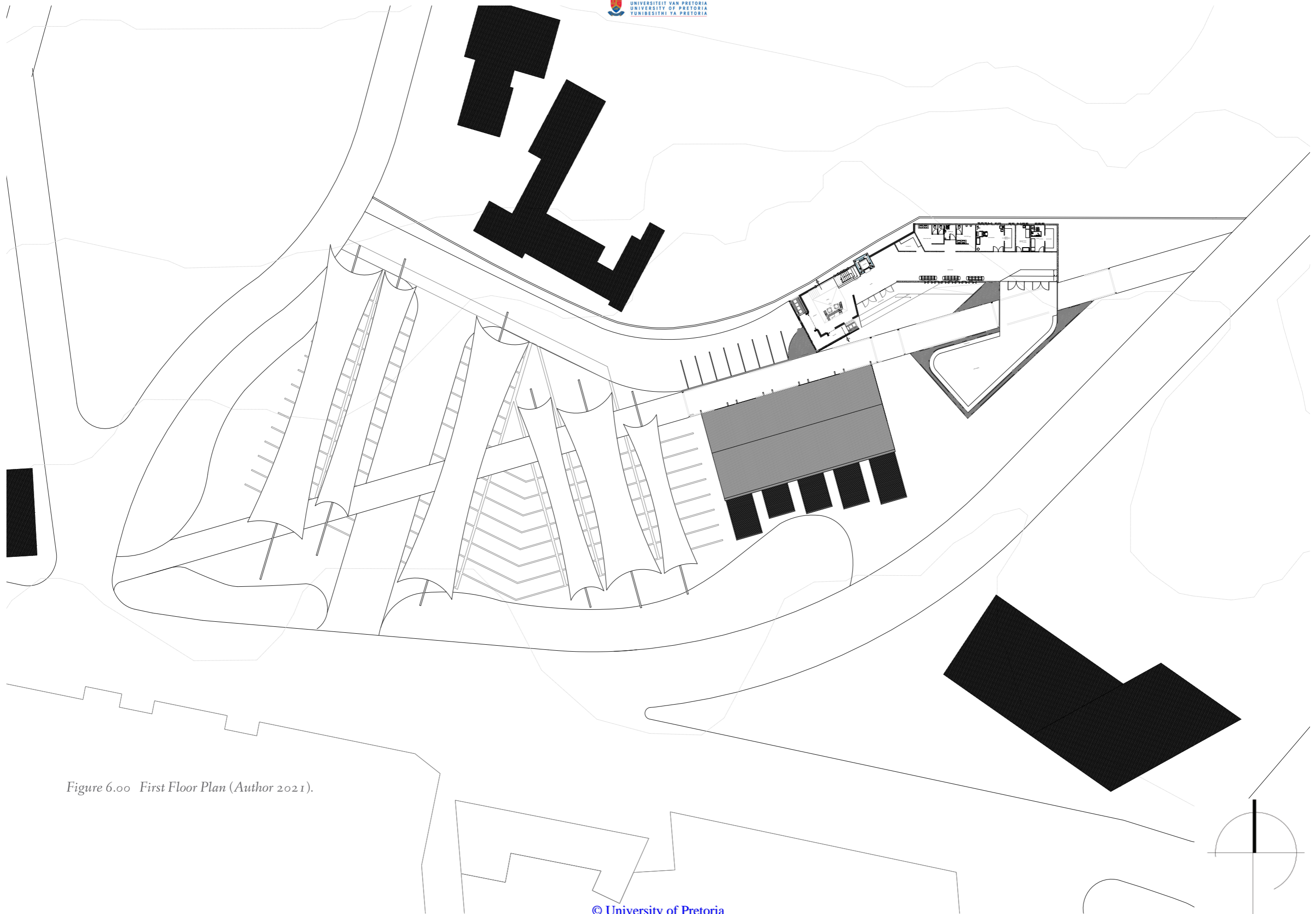
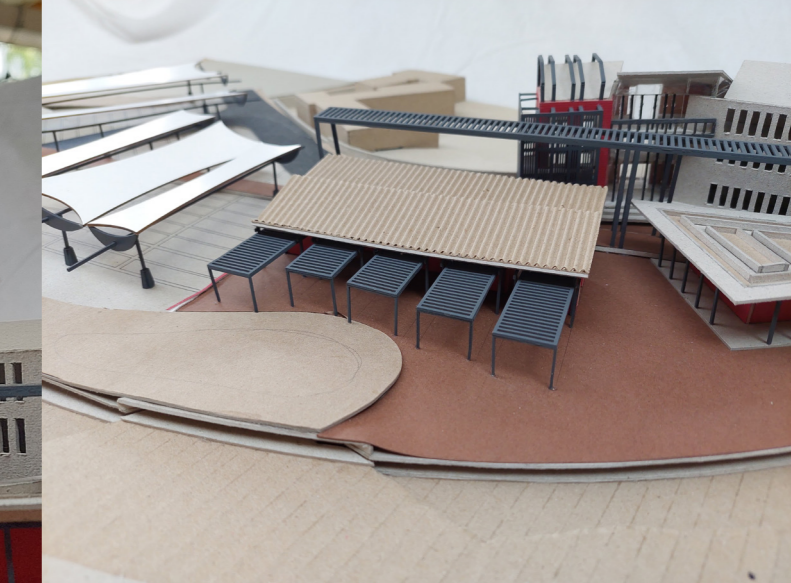
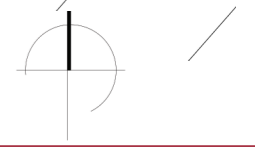


Figure 6.00 First Floor Plan (Author 2021).





BLOED STREET MALL - EXISTING BUILDING



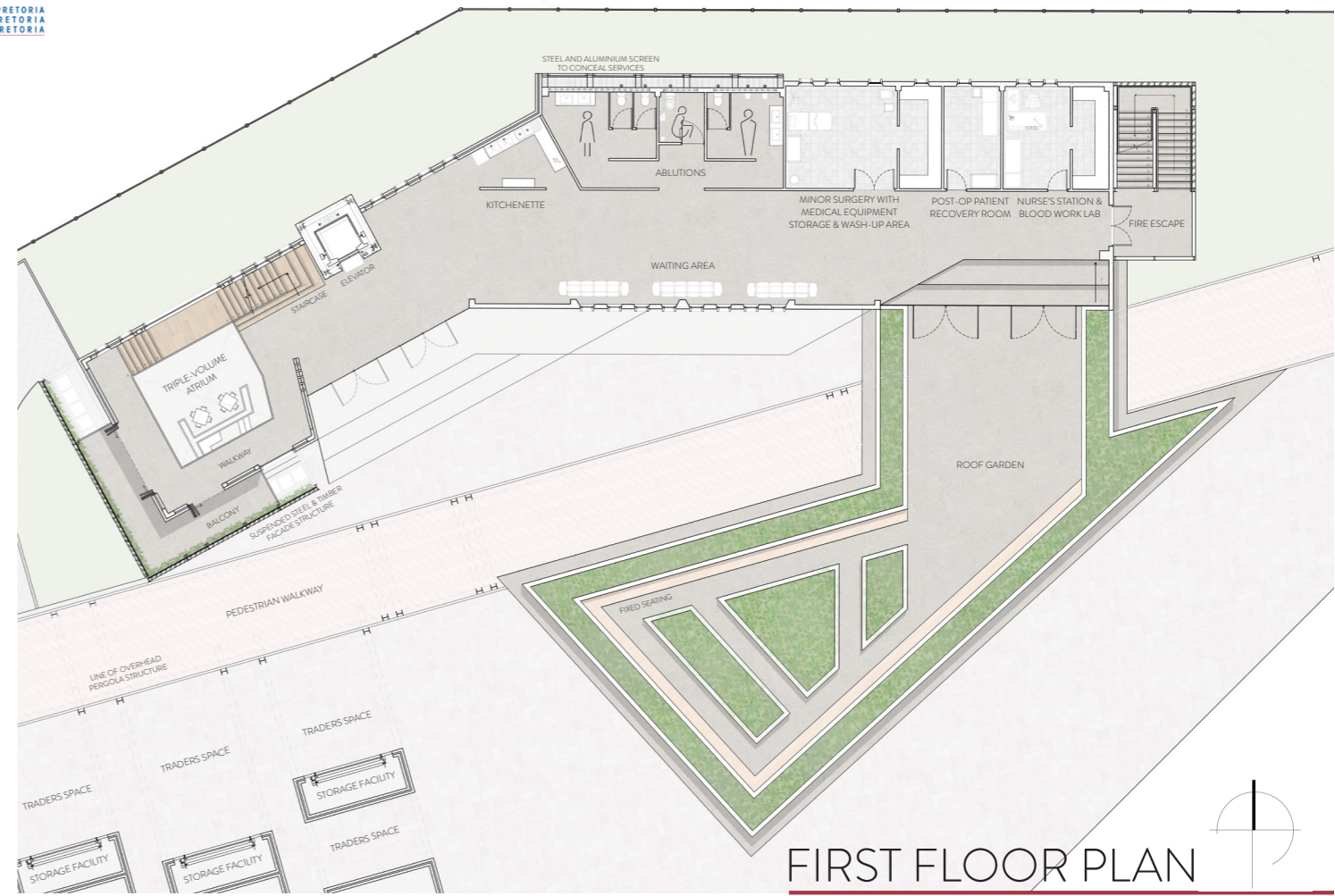


ATRIUM FLOOR PLAN

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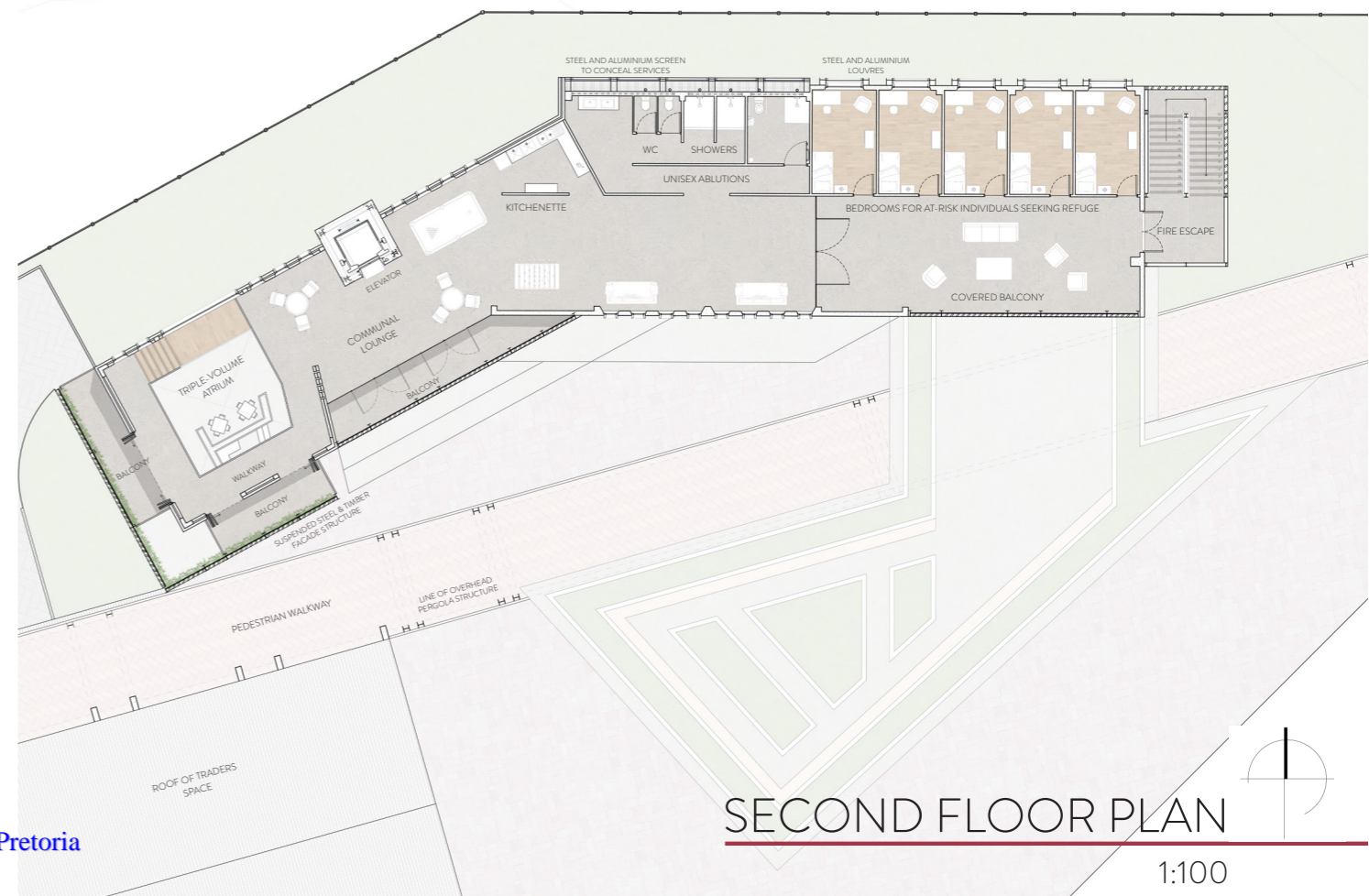
GROUND FLOOR PLAN

1:100



FIRST FLOOR PLAN

1:100



SECOND FLOOR PLAN

1:100



