

06

DESIGN

DEVELOPMENT

fig.6.1. FIRST DRAWINGS OF IRENE DAIRY FARM



DESIGN DEVELOPMENT

The following chapter depicts the development of the design from the inception of the concept for the Agricultural Education and Training Facility. Included is the development of the Masterplan for the school and the informants which were discovered through the mapping and research exercises.

The images have legends that elaborate on the content of the specific image and what effect it had on the development of the overall design.

All the images are that of the author, whether it is hand drawn or aided with digital means.

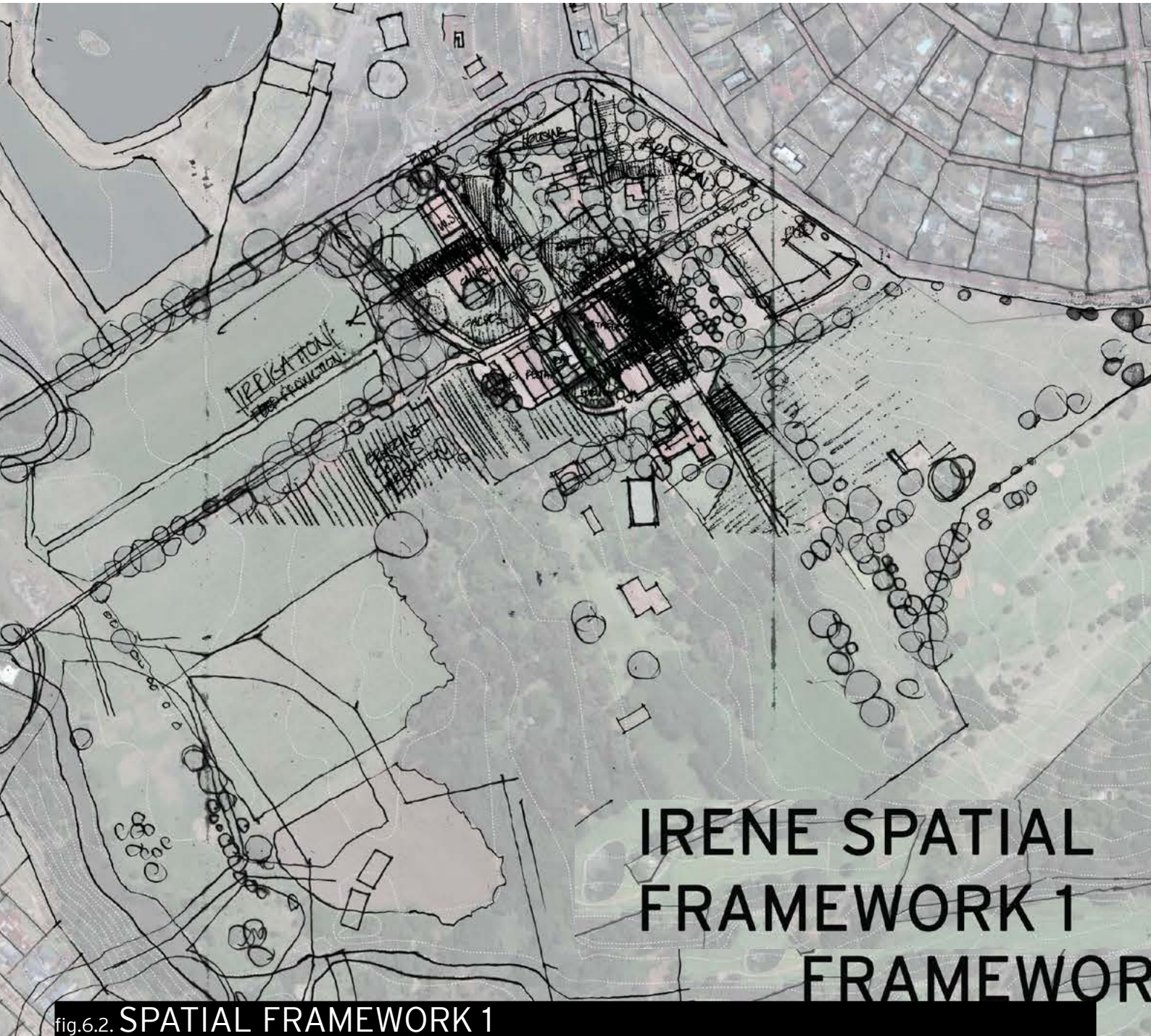
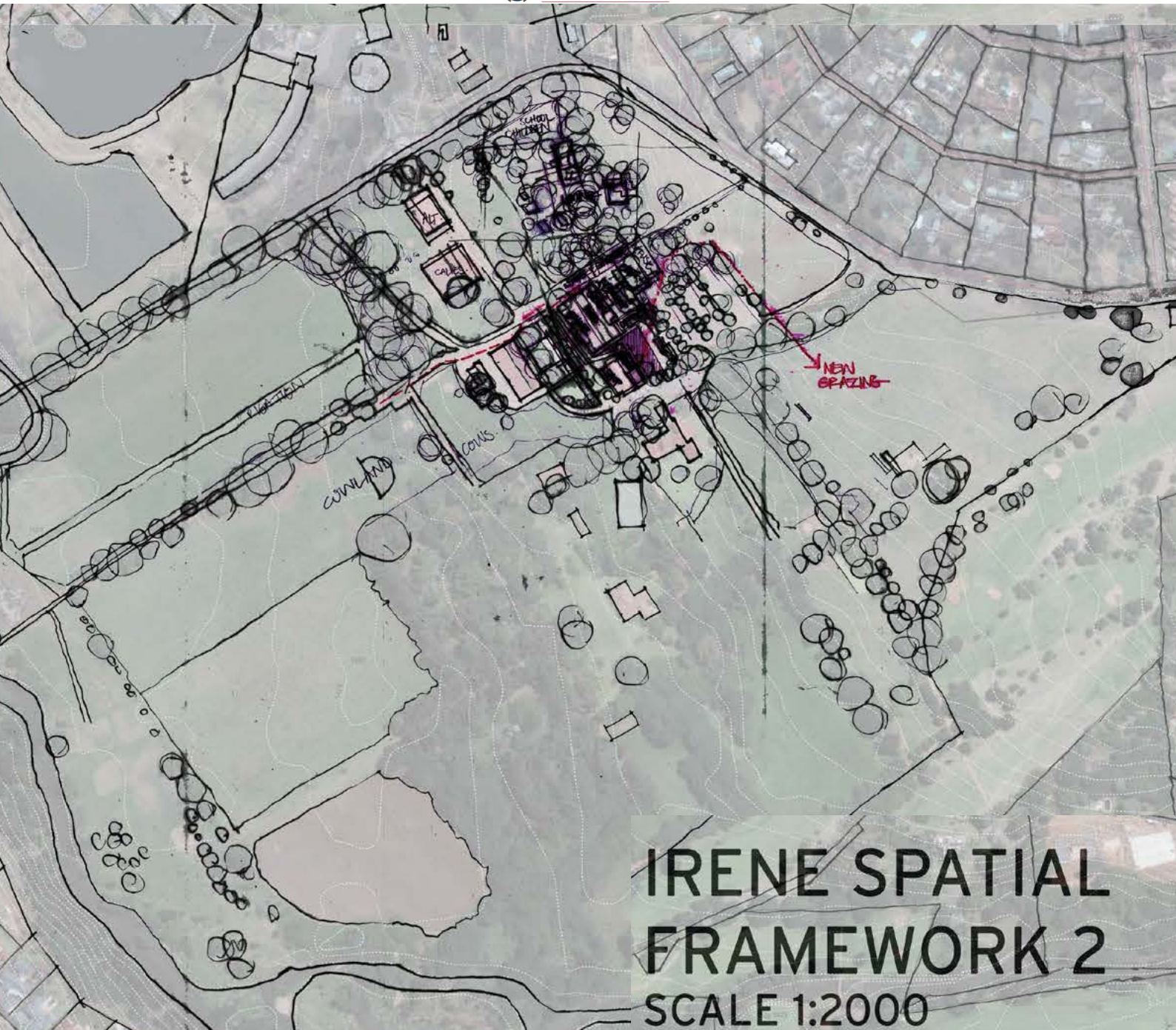


fig.6.2. SPATIAL FRAMEWORK 1



IRENE SPATIAL FRAMEWORK 2

SCALE 1:2000

fig.6.3. SPATIAL FRAMEWORK 2

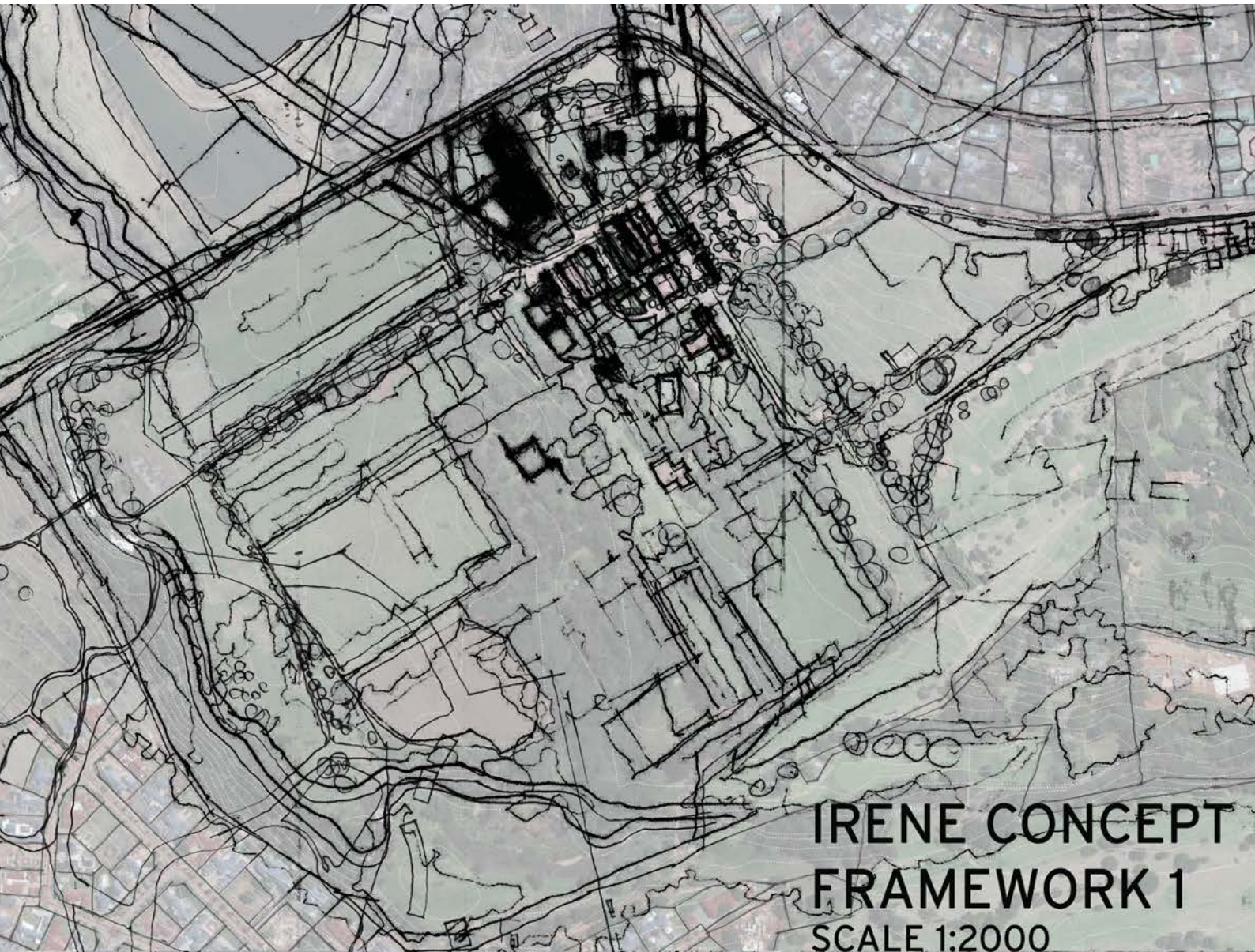


fig.6.4. CONCEPTUAL FRAMEWORK 1

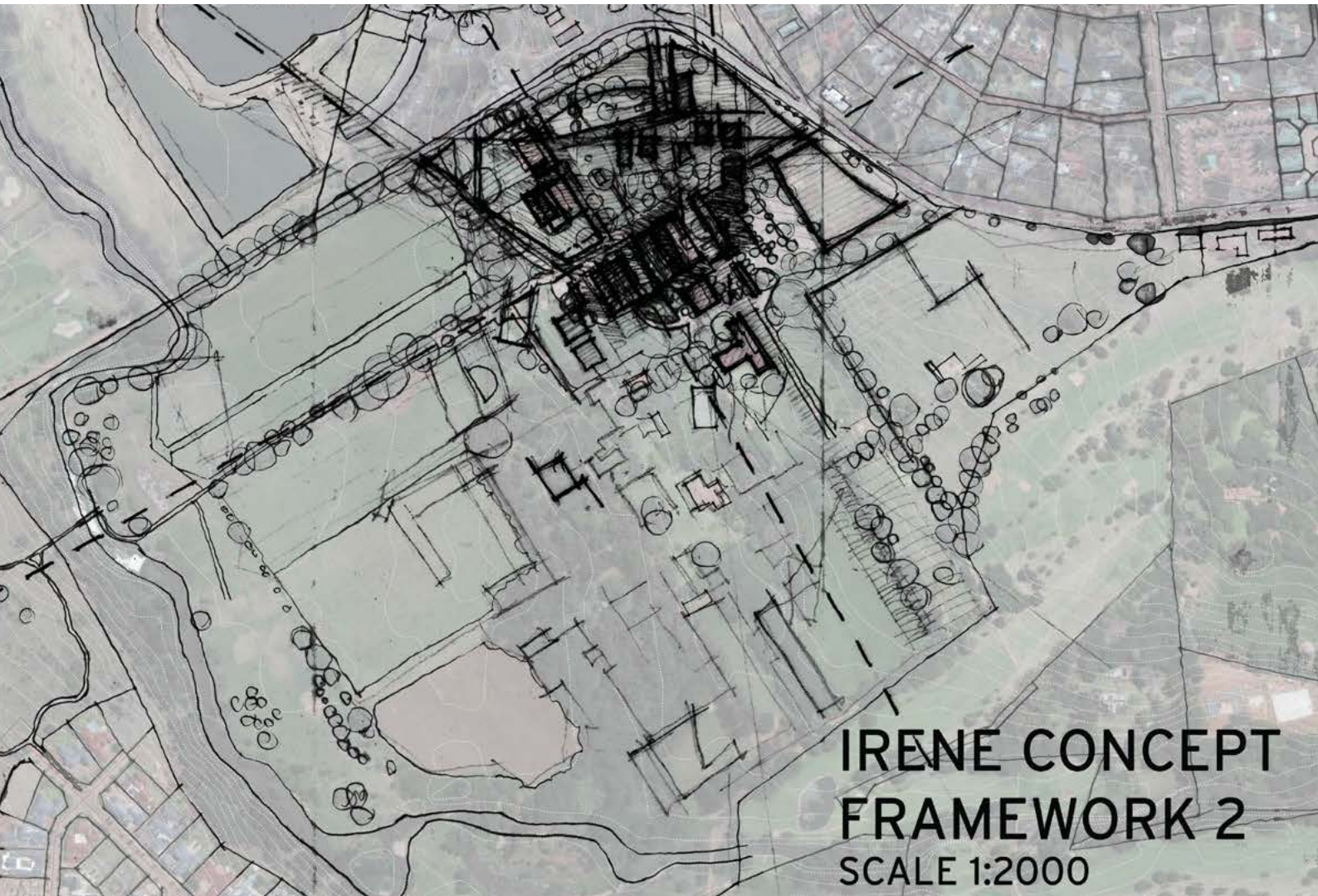
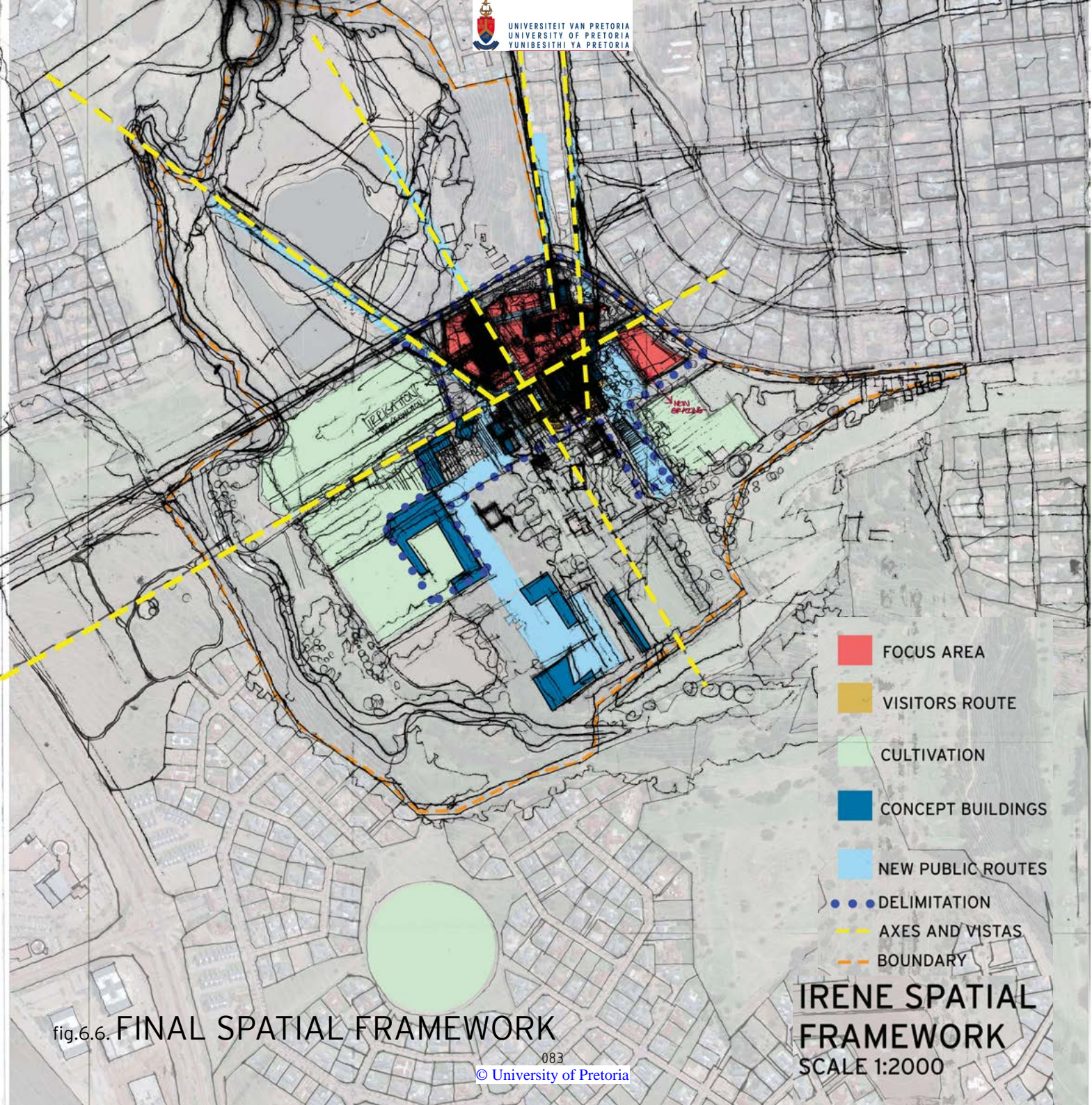


fig.6.5. CONCEPTUAL FRAMEWORK 2



- FOCUS AREA
- VISITORS ROUTE
- CULTIVATION
- CONCEPT BUILDINGS
- NEW PUBLIC ROUTES
- DELIMITATION
- AXES AND VISTAS
- BOUNDARY

fig.6.6. FINAL SPATIAL FRAMEWORK

IRENE SPATIAL
FRAMEWORK
SCALE 1:2000



fig.6.7. PERSPECTIVES 1

The initial architectural response for the context was the product of purely intuitive reaction to what the context allowed.





fig.6.8. PERSPECTIVES 2

Placing new buildings next to the existing architecture without being too sympathetic to the sensitivity of the significant historic fabric.



fig.6.9. HISTORIC MAPPING

Through the historic mapping exercise the most important informant that was discovered was that the original entrance of the farm was not in use any more and that it should be re-instated as such. Informing the pedestrian movement on the site.



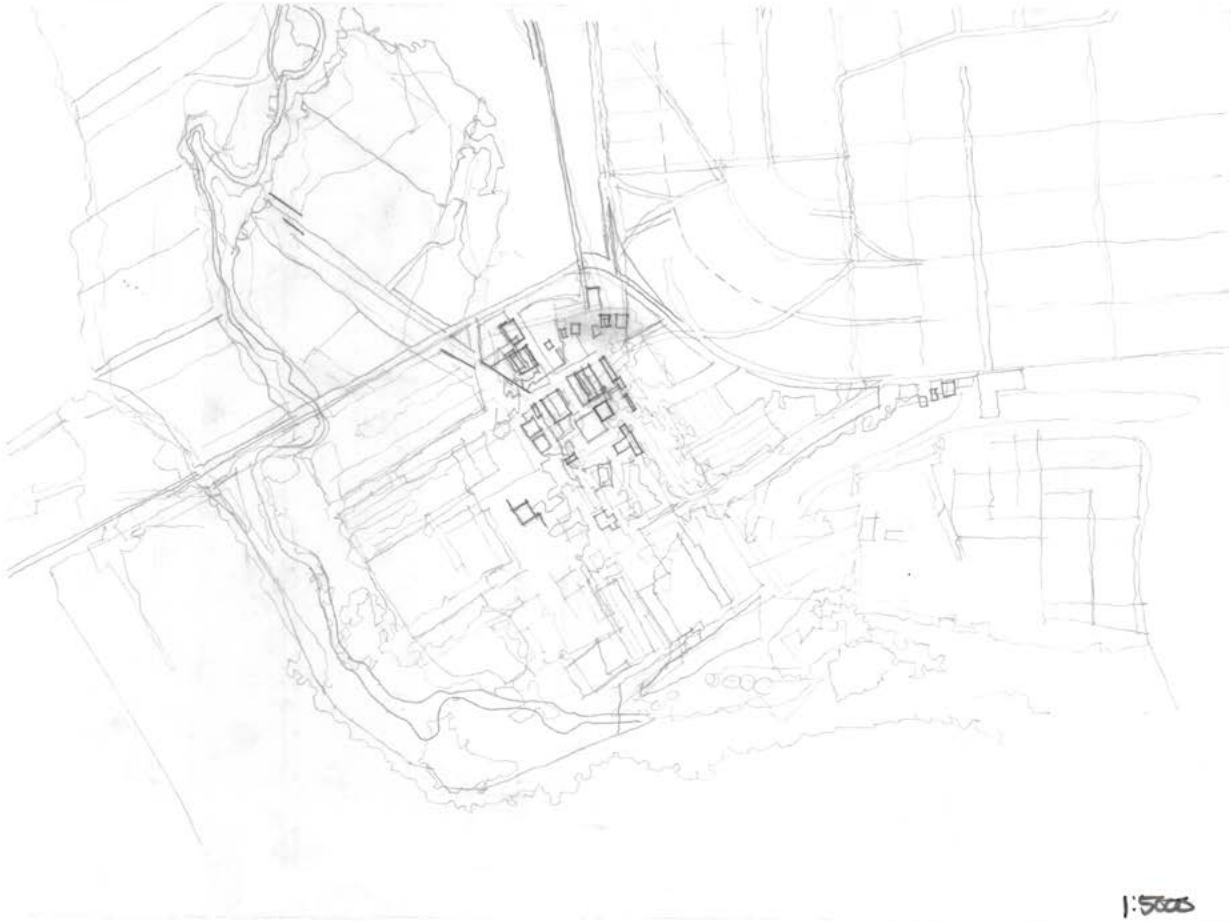


fig.6.10. **BUILT FABRIC ON THE SITE**

The image above shows the built fabric on the site, all of which are closely knit together in the northern top corner. The importance of the irrigated croplands dictated that the architecture could not develop on the productive land.

fig.6.11. **HISTORIC AXES**

This shows the historic axes on the site within the context of the built fabric. The remnants of these historic axes are still visible today, integrated in the suburban development that happened over the past century.

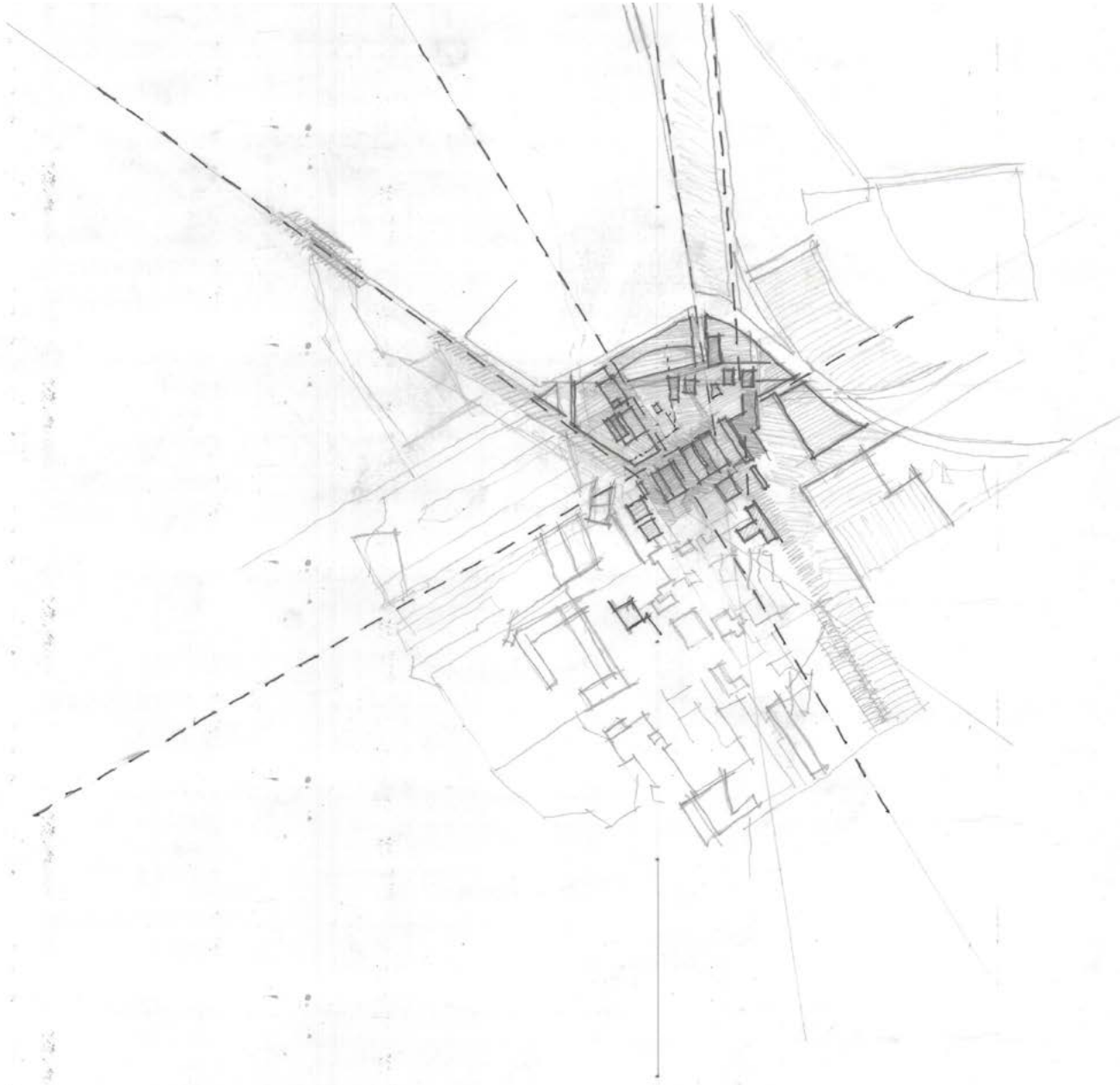




fig.6.12. **FIRST PROGRAMME ON SITE**

The first programmatic response to the framework and the historic mapping of the Irene Dairy Farm. One of the very first limitations set out was to retain the existing trees on the terrain, the result of the first owner's vision for the farm. All these trees would be kept inside courtyards that would be formed by the architecture around these trees.

fig.6.13. TREE CANOPIES

This image shows the outlines of the canopies of these trees and the courtyards that would be formed around these trees.



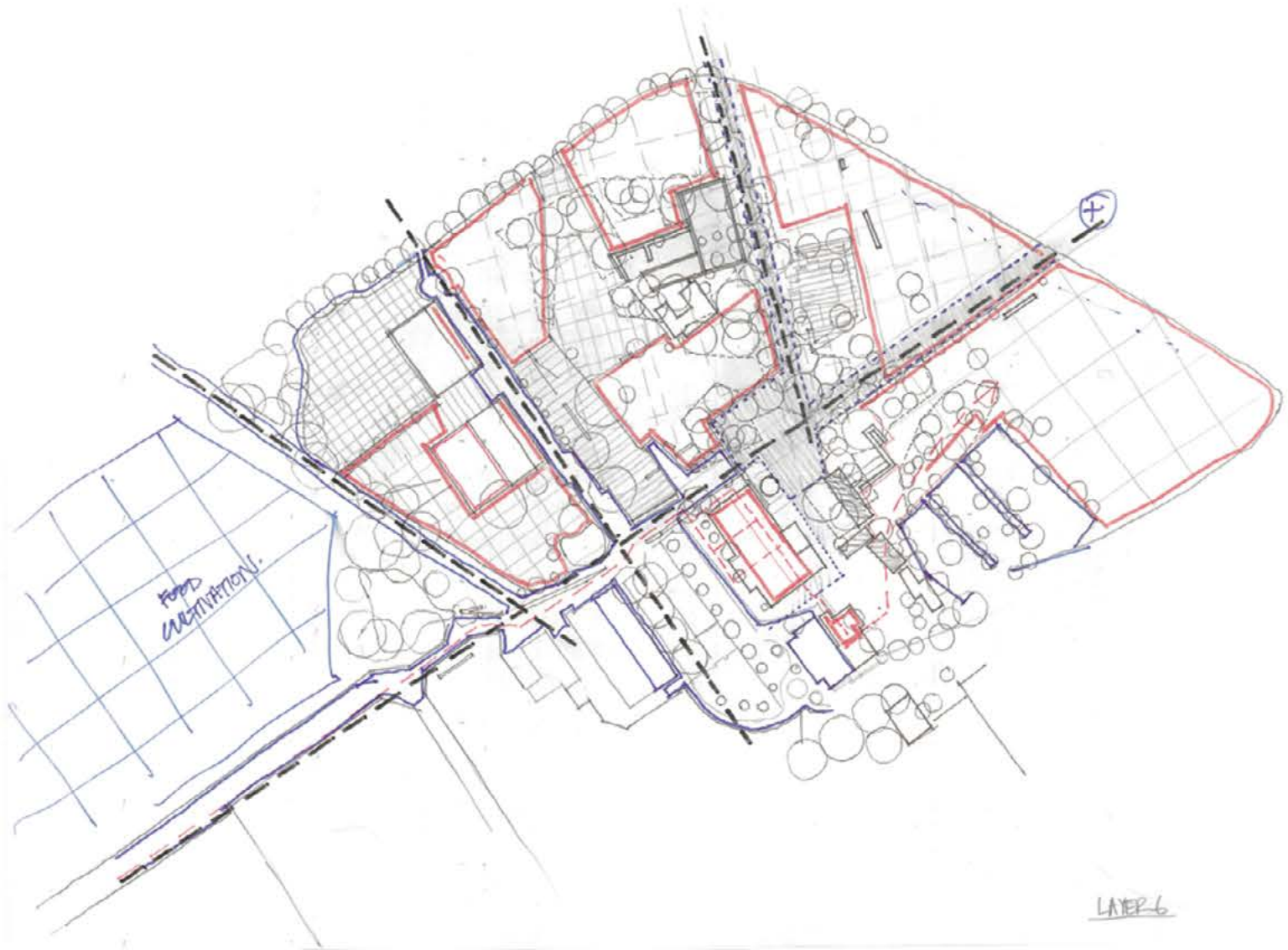
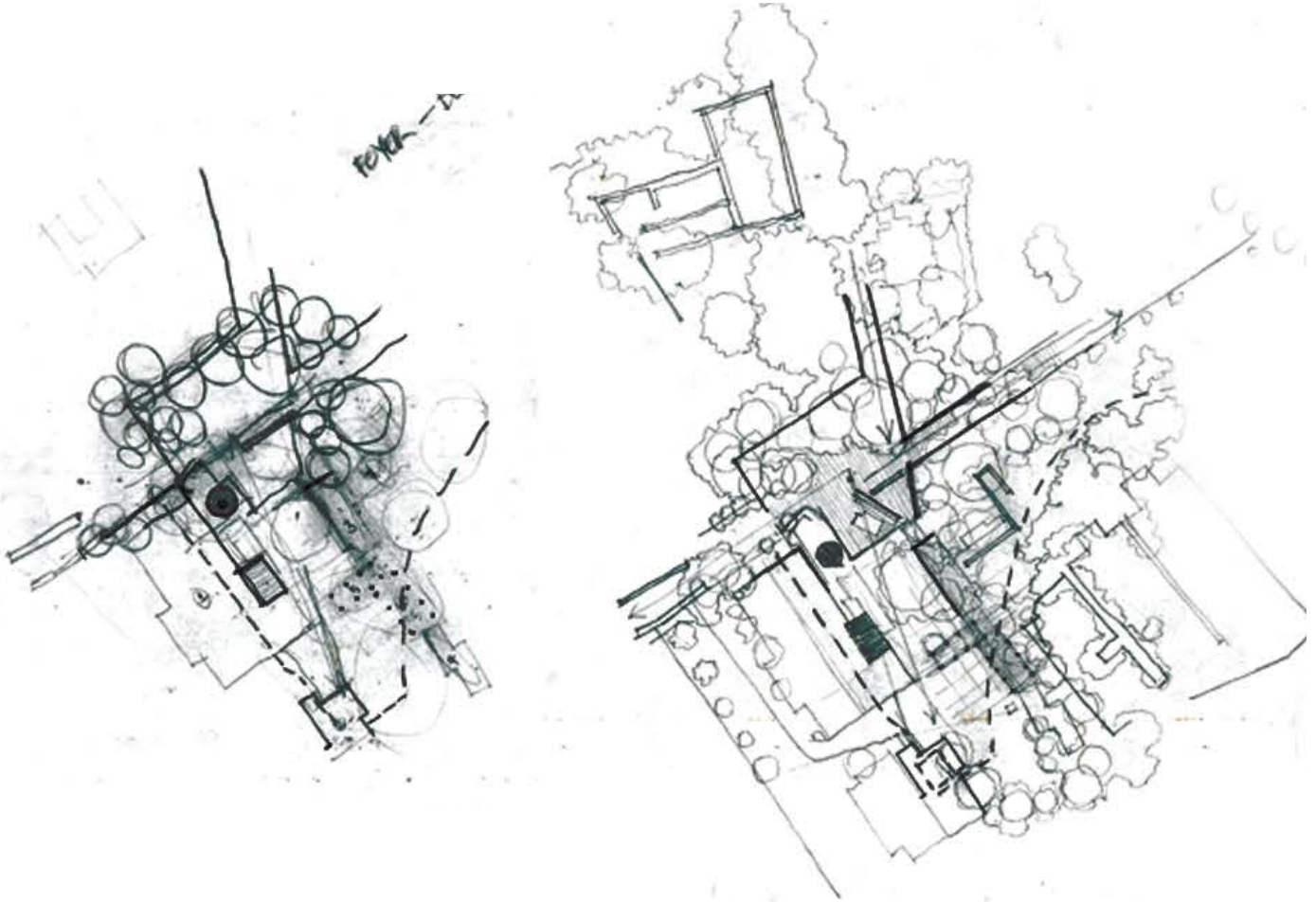


fig.6.14. ZONING

This image shows the zoning for the various users of the Agricultural school.
Red: cows district; blue: visitors; hatch: cultivated land and feeding experiments.

fig.6.15. FOCUS AREA

These two images are both of the focus area for the dissertation. Showing the built fabric and the elements that define the spaces in the focus area. Historically this is also the most important space on the farm, the farmyard, or as it is known in Afrikaans: "die plaaswerf". The significance of the main stable on the farm informed the choice for the focus area.



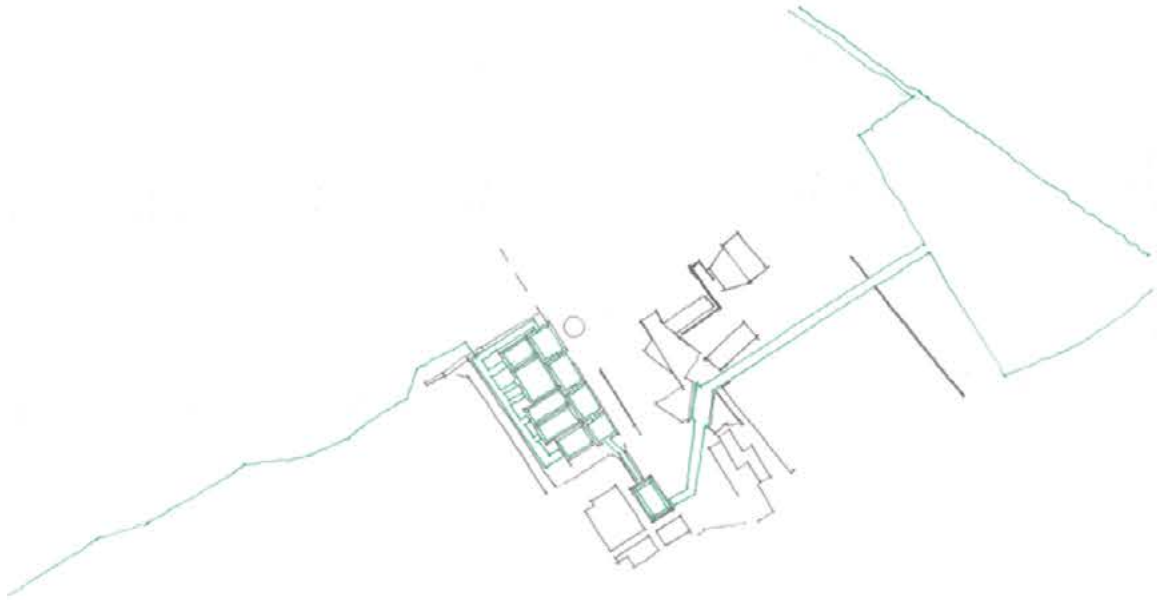


fig.6.16. **ZONING ELABORATION**

These images elaborate on the zoning of the new agricultural training facility.

Green: cows district

Red: visitors

Blue: students and staff

Black: built fabric



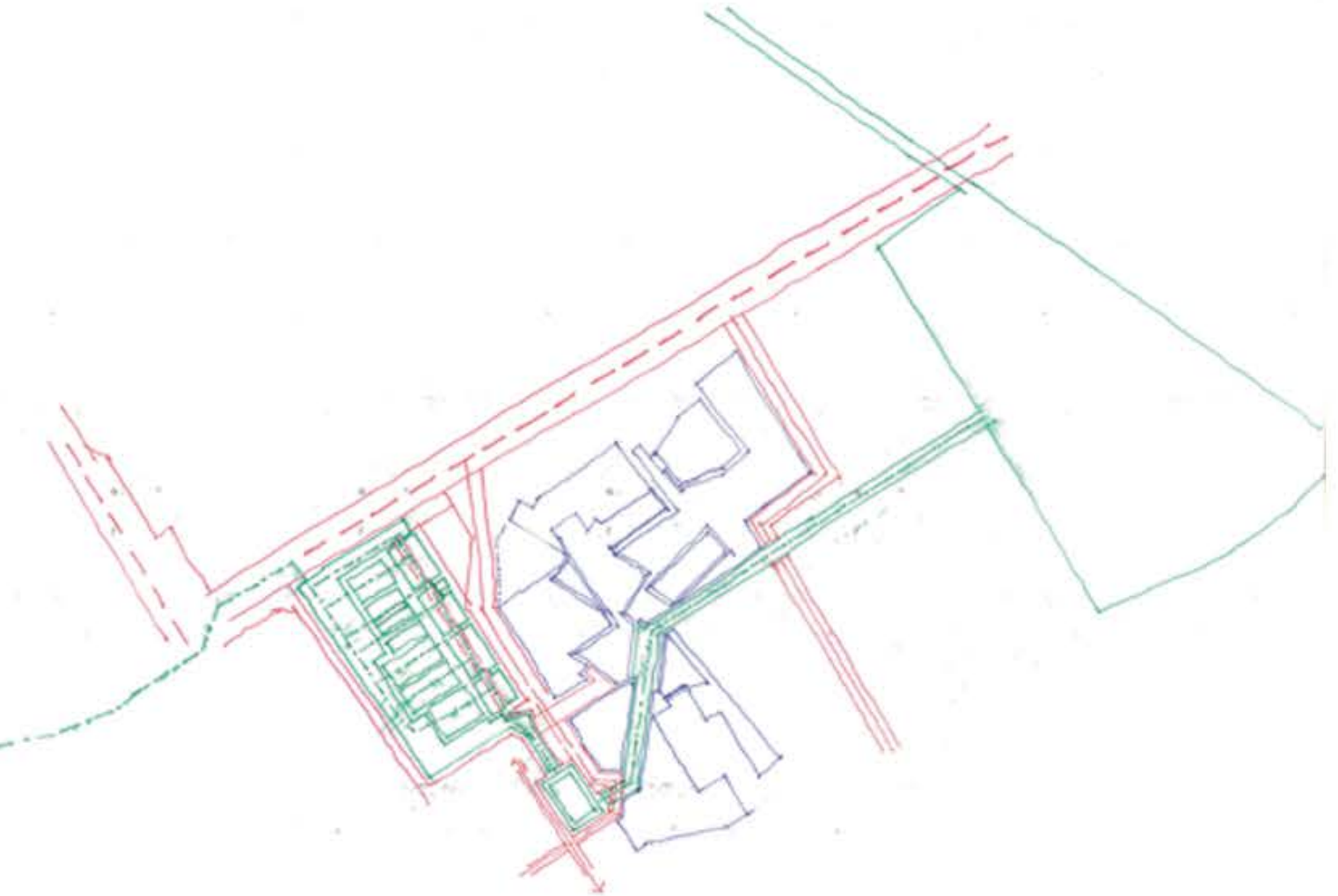


fig.6.17. ZONING LEGEND

Red: visitors

Blue: students and staff

Green: cows district

VISITORS
STUDENTS+STAFF
COWSDISTRICT



fig.6.18. MASTER PLAN OF THE AGRICULTURAL EDUCATION AND TRAINING FACILITY.

Where new fruit bearing trees will be planted to further define the space of the focus area.

fig.6.19. COMBINATION OF MASTER PLANS

This image is a combination of all the exploration that was done on a master plan scale. Which is clearly visible from this image is the emphasis that is placed around the main stable, the focus area of this dissertation.

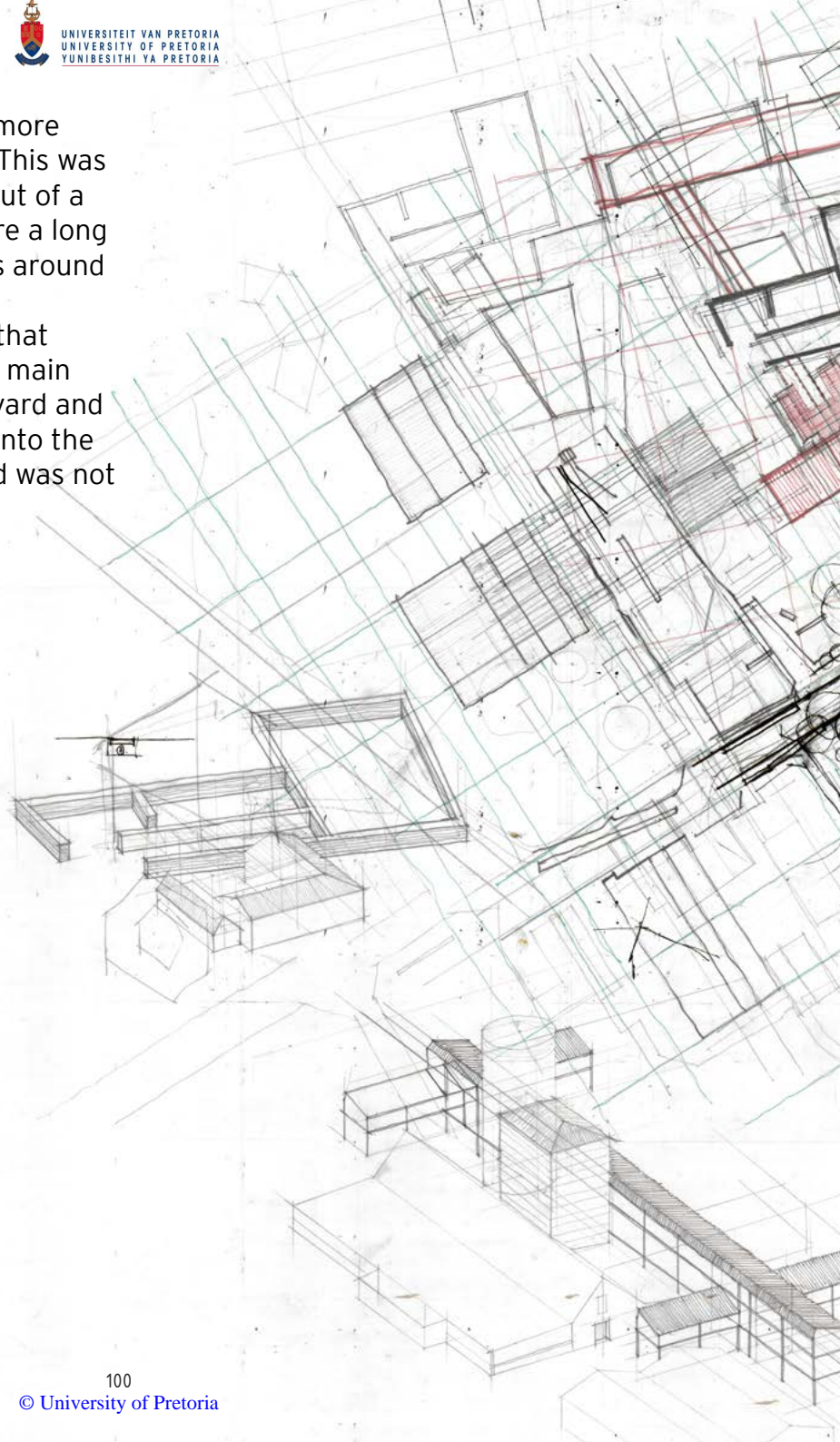


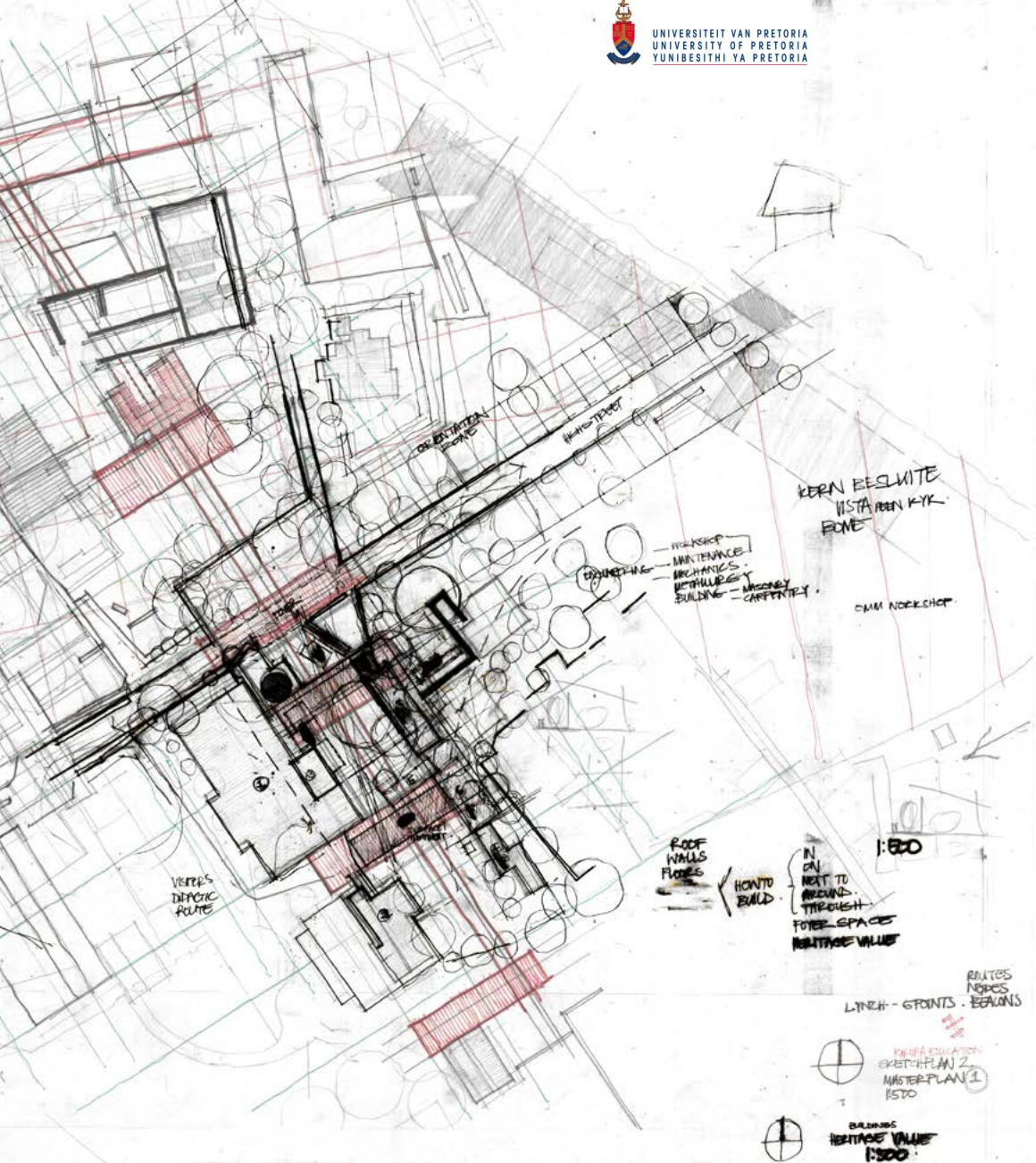
SKETCH PLANS


fig.6.21. **SKETCH PLAN 2**

The second sketch plan utilised a more controlled nature of architecture. This was informed by the stereotypical layout of a conventional school building, where a long corridor connects all the functions around it, in this case, the classrooms.

The problem with this option was that the architecture overwhelmed the main space in the focus area, the farm yard and as a result the intention of fitting into the existing fabric with a delicate hand was not achieved.







 1ST SKETCHPLAN
 1:500


 BUILDING
 HERITAGE VALUE
 1:500


 UNIVERSITY OF PRETORIA
 SKETCHPLAN 2
 MASTERPLAN 1
 1500


 1ST SKETCHPLAN
 1:500

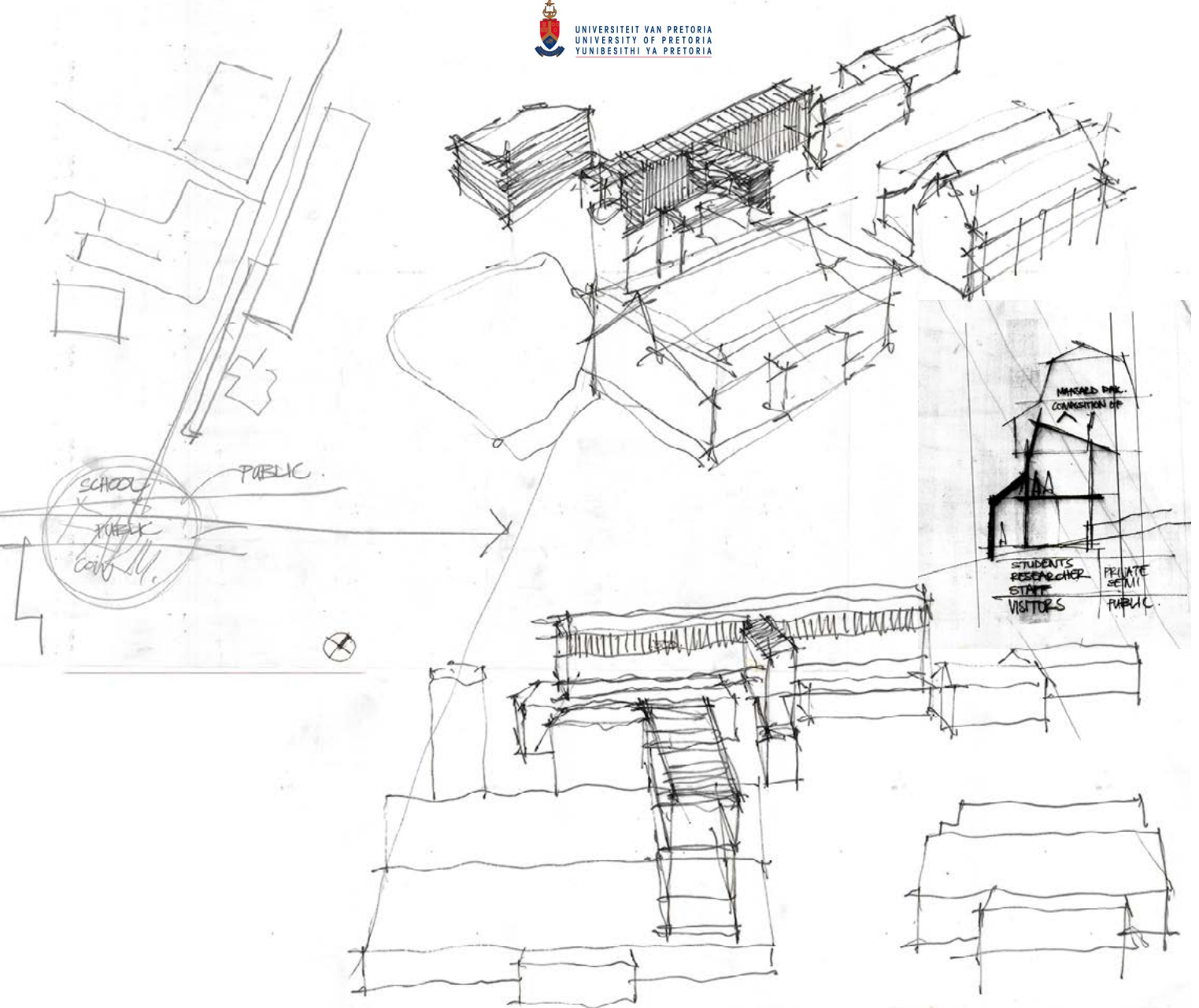


fig.6.22. **RECONSIDERATION**

After reconsidering the intention of the new architecture suggested for the farm, the third sketch plan had a more subtle approach to where it would manifest in the focus area. As a result, the architecture was informed by the footprints of the existing buildings on the terrain, morphing and manipulating these existing structures to create more controlled forms in and around the farmyard.



fig.6.23. SKETCH PLAN 3

The critique of the third sketch plan was that it was too reserved as clearly new architecture on the context of the farm. By simply morphing the existing buildings on the farm made no statement about the possibilities on the farm.

The intention is to create a new face of agriculture on the Irene Dairy Farm which the previous version evidently did not achieve.

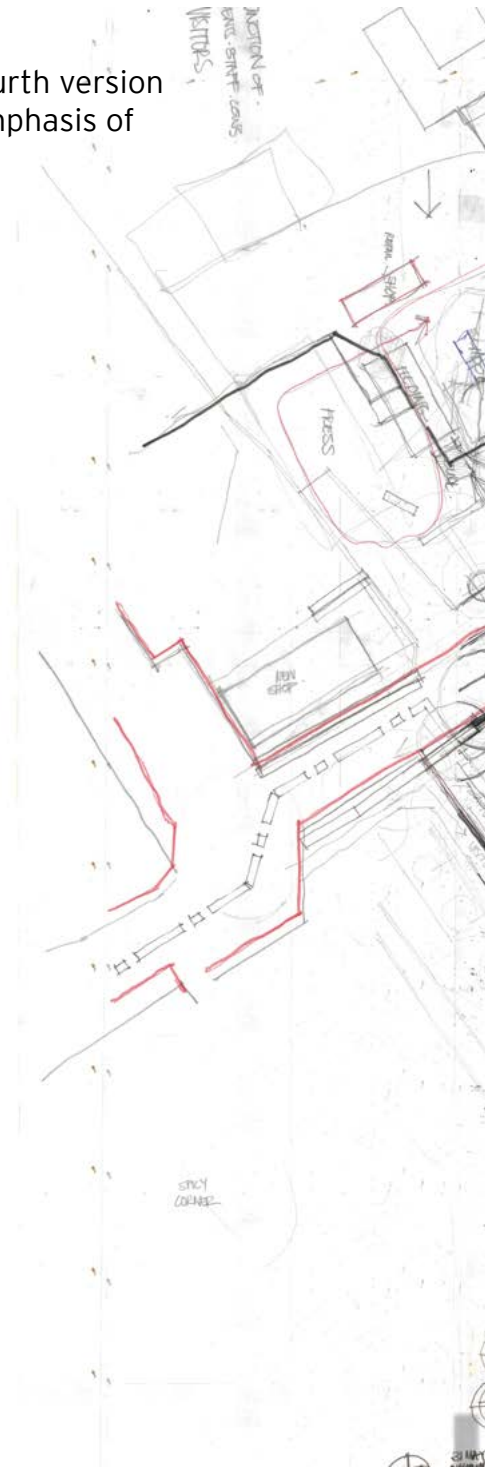
fig.6.24. **MANIPULATING GEOMETRY**

The response was then a much more radical approach, informed by manipulating the geometry of the existing structures, intentionally striving to be different from the existing fabric.

The result was architecture that had no uniformity in its form or definition of space and again had a rather alien characteristic which clearly did not suit the context of the Irene Dairy farm. A comment made by a critique was that it looks as if five different architects designed the buildings on the plan.

fig.6.25. **SKETCH PLAN 4**

This image is the combination of all the planning done for the fourth version of the sketch plan. The product of these images is the evident emphasis of the architecture being formed around the focus area.



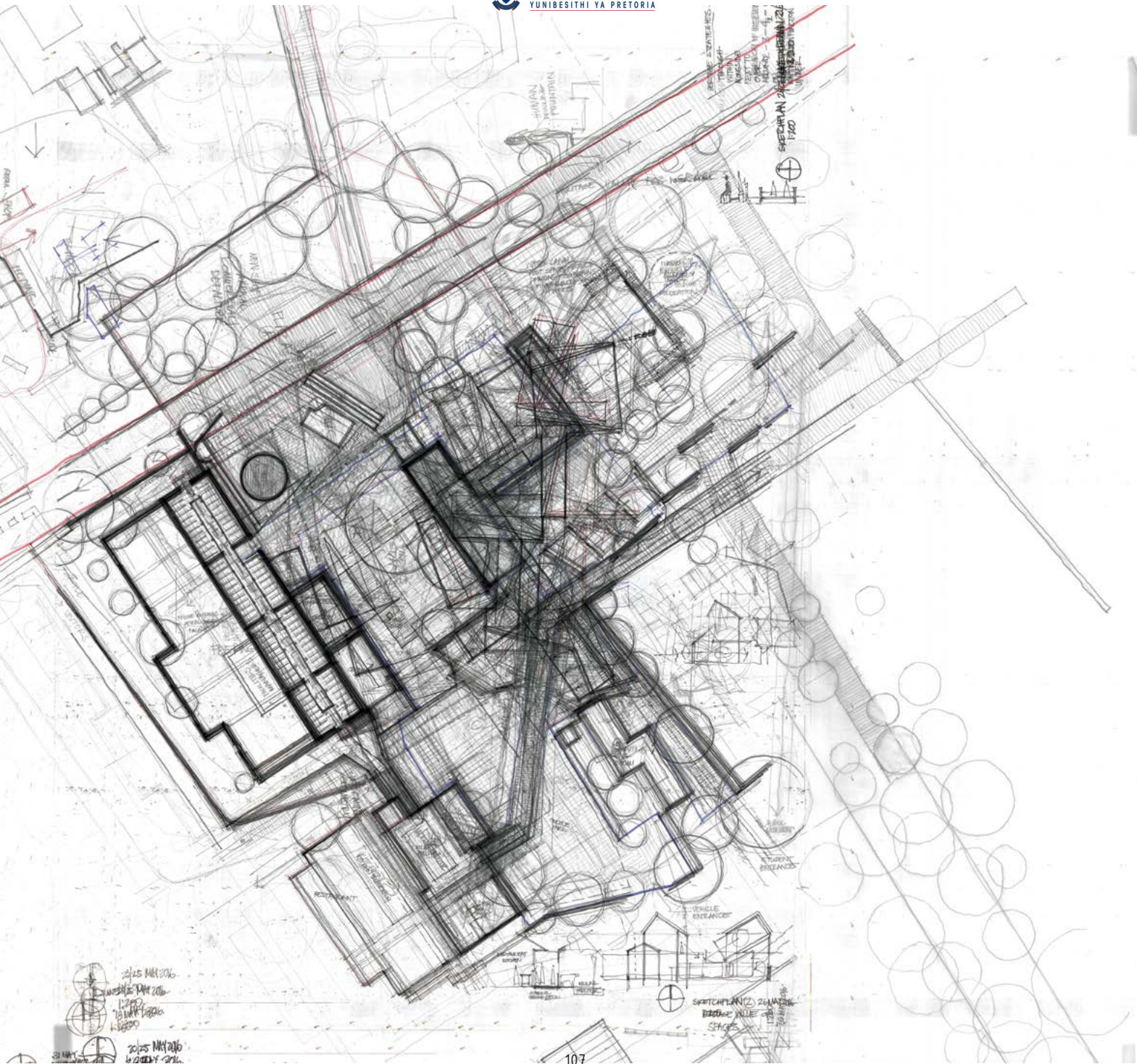


fig.6.26. SKETCH PLAN 4, JUNE AXONOMETRIC

The product that was presented in the June exam was developed from the fourth sketch plan. The image below shows the axonometric of the architecture formed around the focus area. It is clear that the alien nature of this suggested architecture would not suit the existing architecture on the farm.



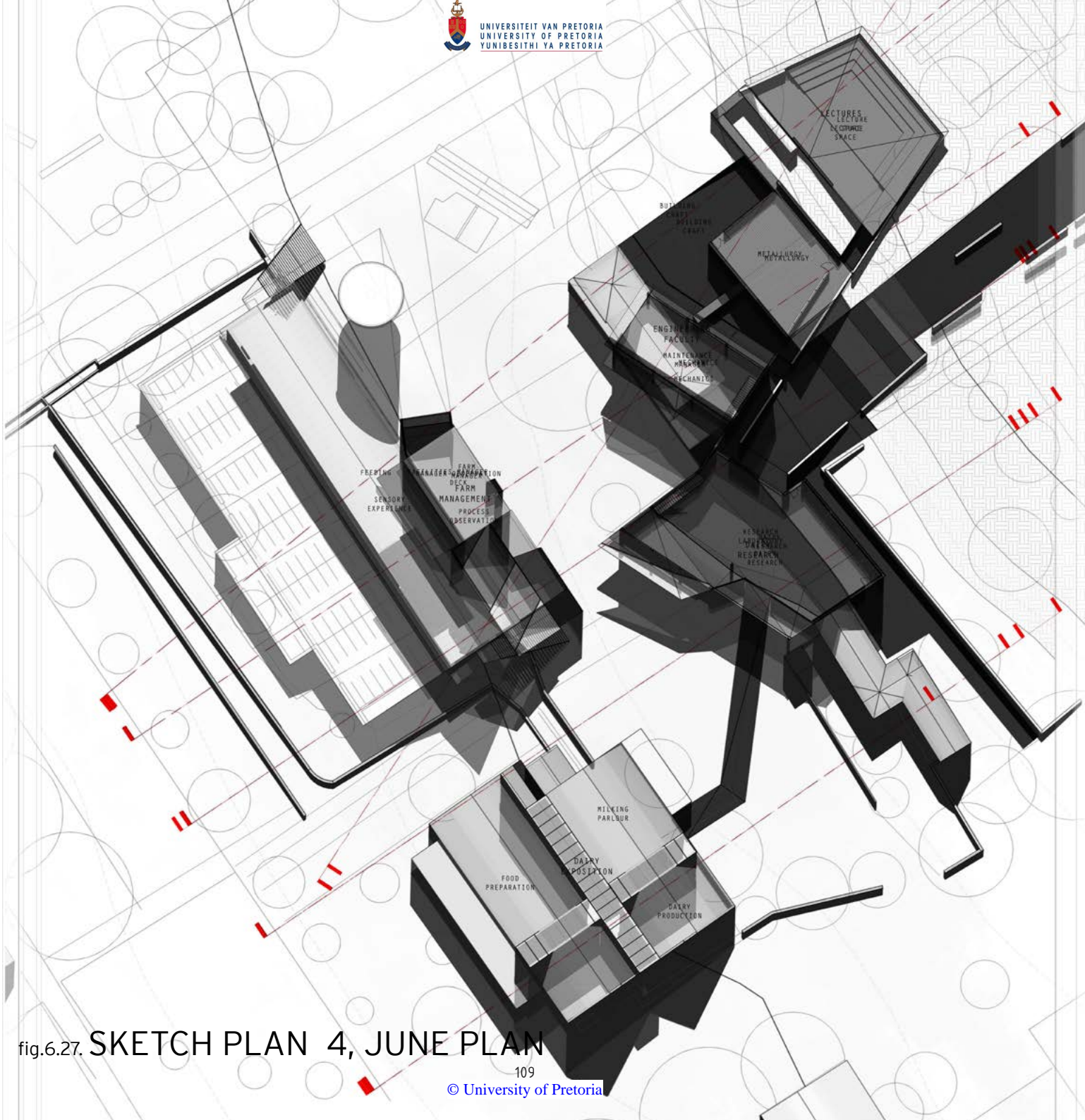


fig.6.27. SKETCH PLAN 4, JUNE PLAN

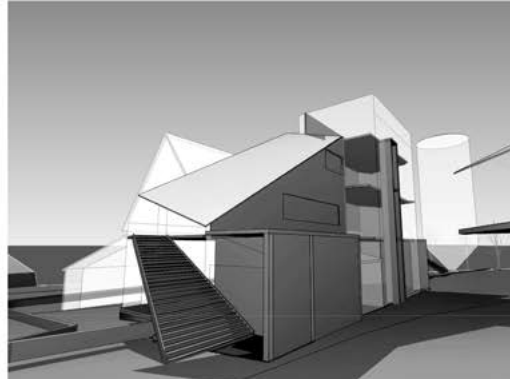
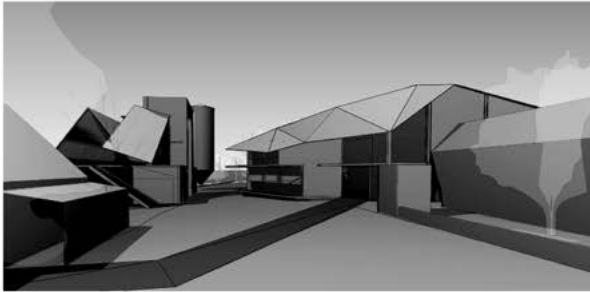
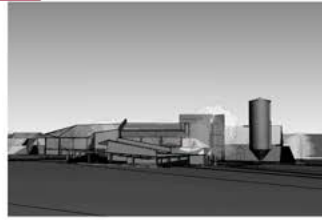


fig.6.28. PERSPECTIVES 3

These images show the suggested architecture of the fourth sketch plan in context. The form of the architecture is clearly in conflict with the existing architecture and had to be reconsidered to achieve the intention of sympathetic architecture for the Agricultural Education and Training Facility.

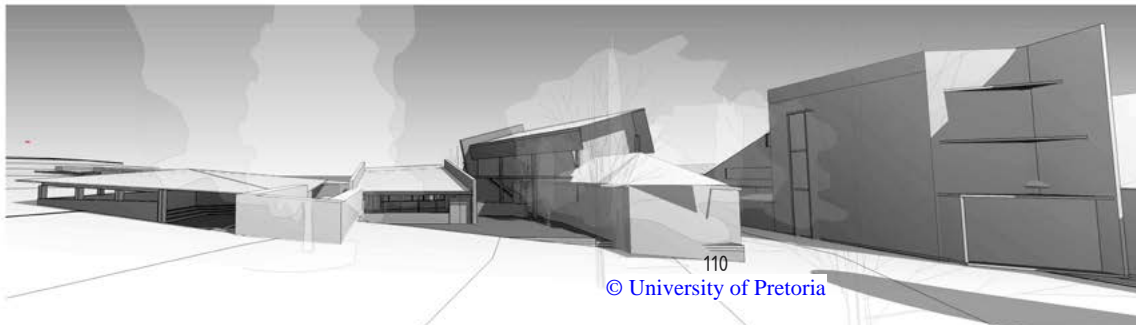
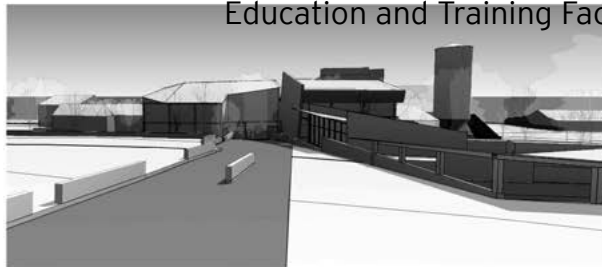
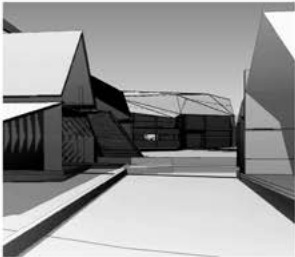
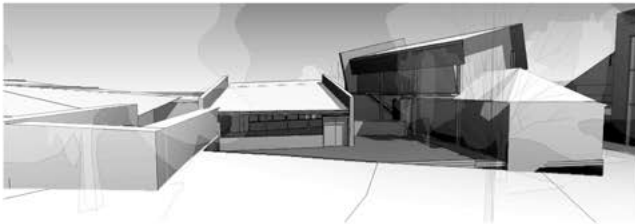
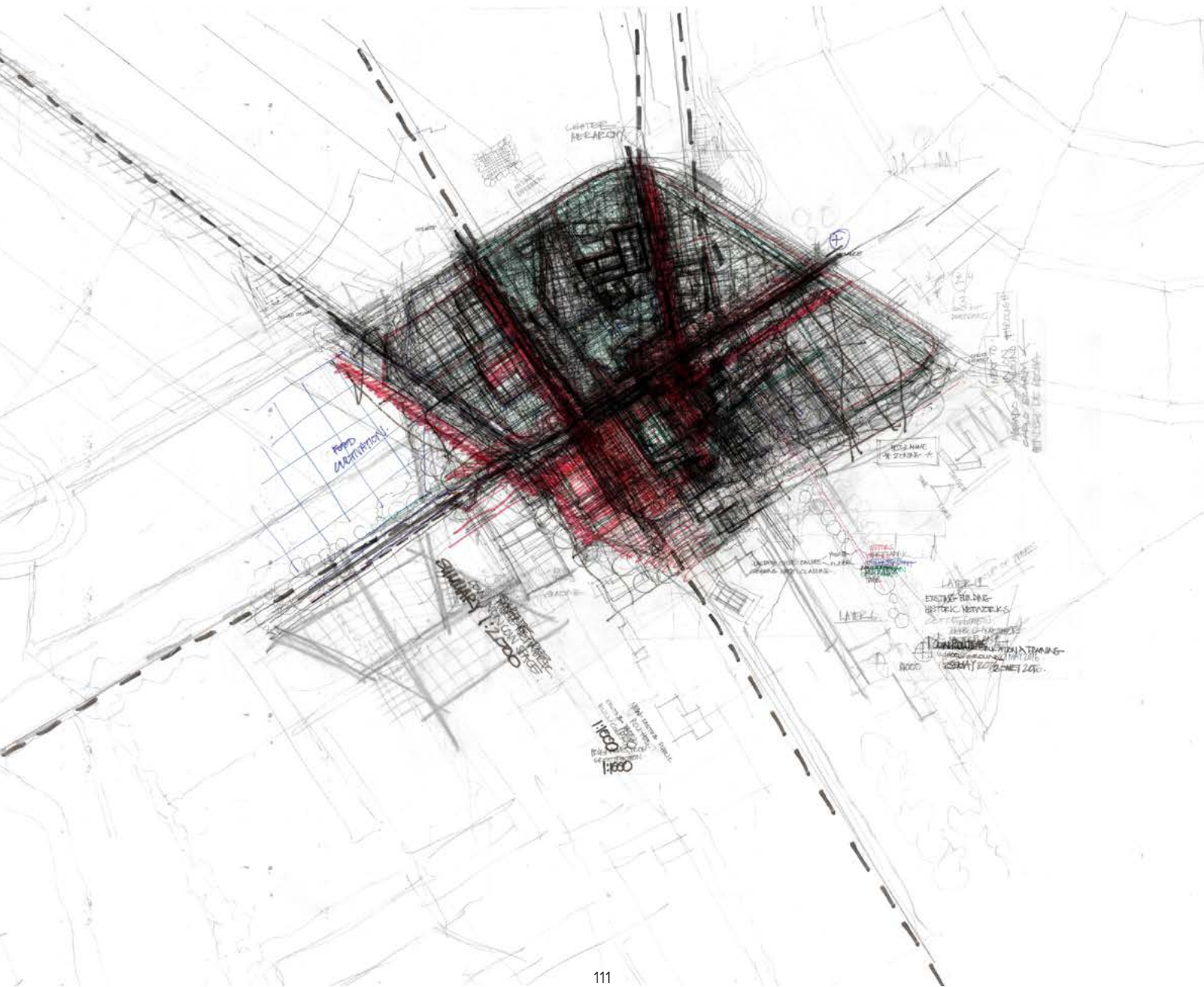
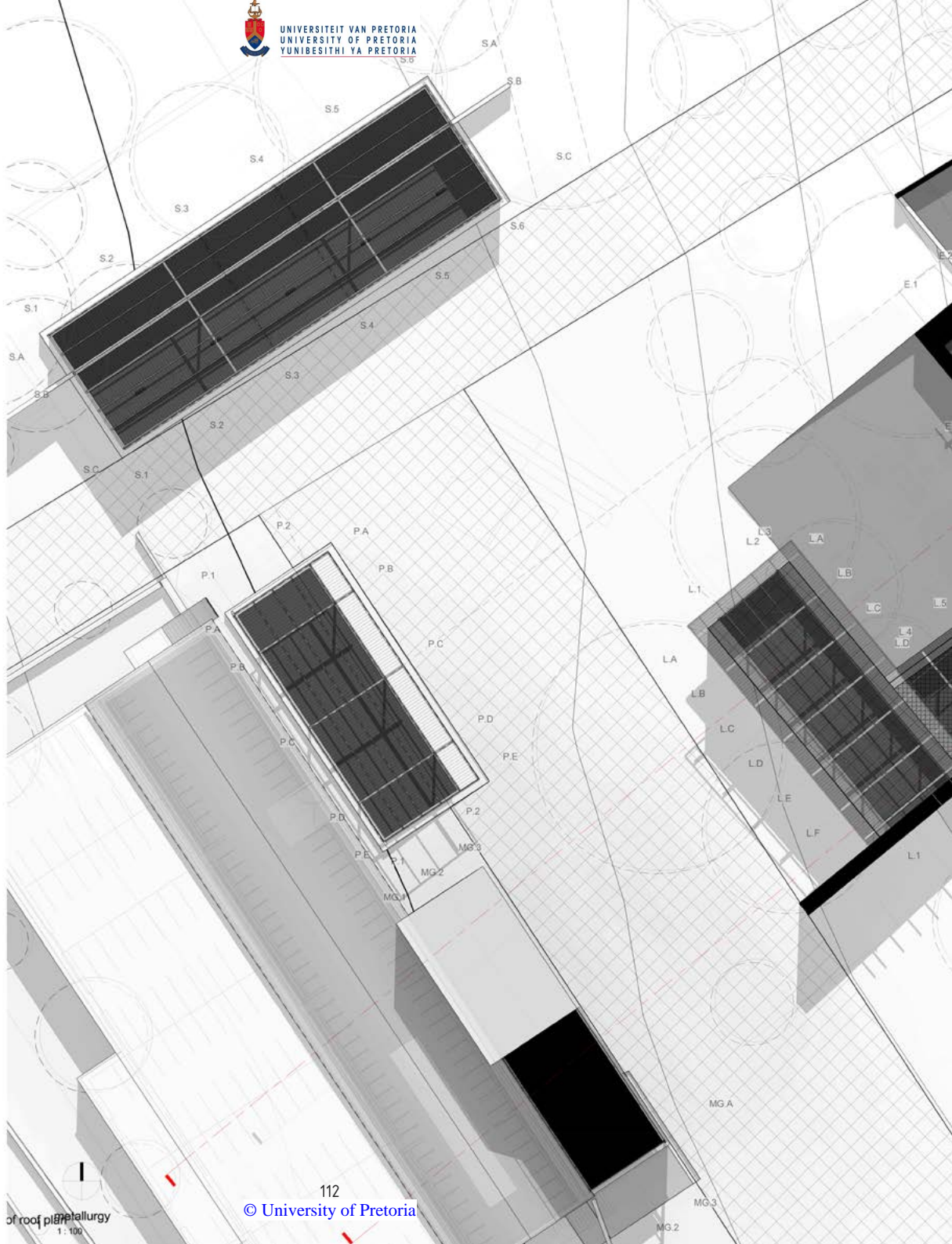


fig.6.29. **COMBINED MASTER PLAN**

The combined master plan for the Agricultural Education and Training facility.





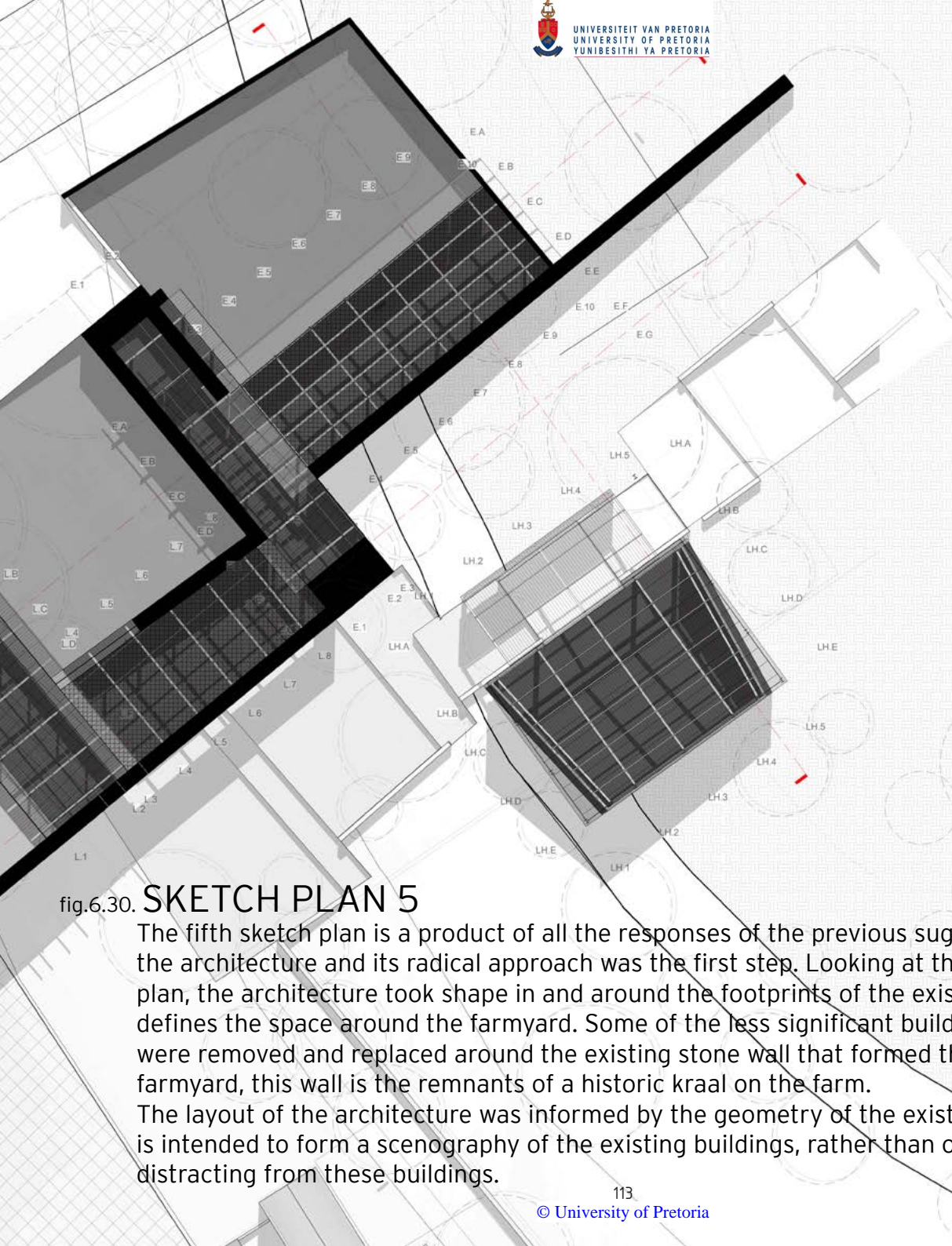


fig.6.30. **SKETCH PLAN 5**

The fifth sketch plan is a product of all the responses of the previous suggestions. To tame the architecture and its radical approach was the first step. Looking at the second sketch plan, the architecture took shape in and around the footprints of the existing structures that defines the space around the farmyard. Some of the less significant buildings and structures were removed and replaced around the existing stone wall that formed the edge of the farmyard, this wall is the remnants of a historic kraal on the farm.

The layout of the architecture was informed by the geometry of the existing architecture and is intended to form a scenography of the existing buildings, rather than overwhelming and distracting from these buildings.

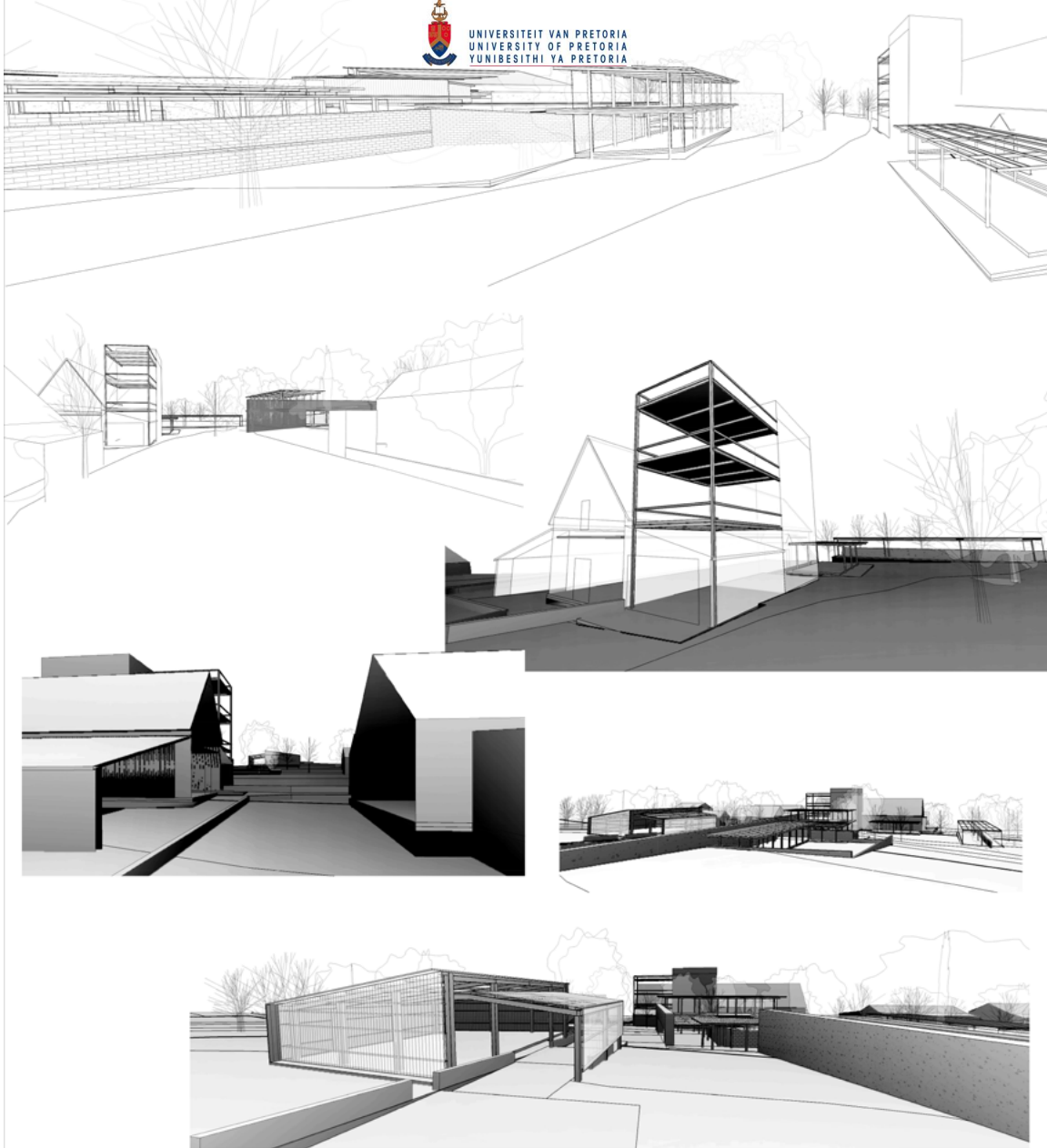
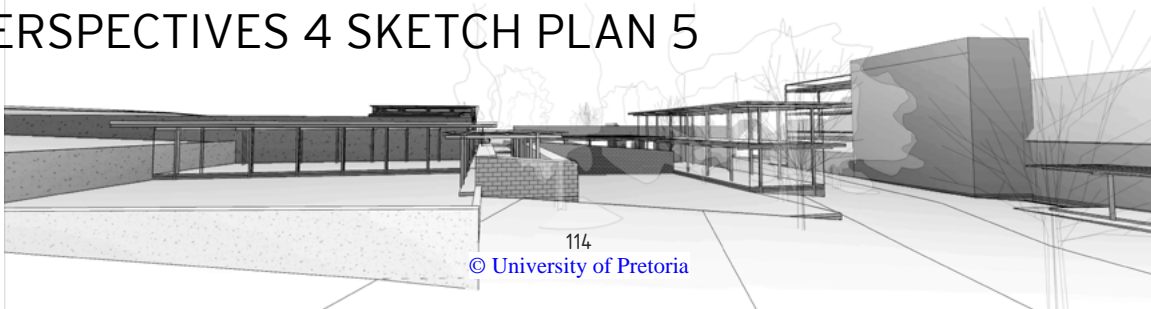


fig.6.31. PERSPECTIVES 4 SKETCH PLAN 5



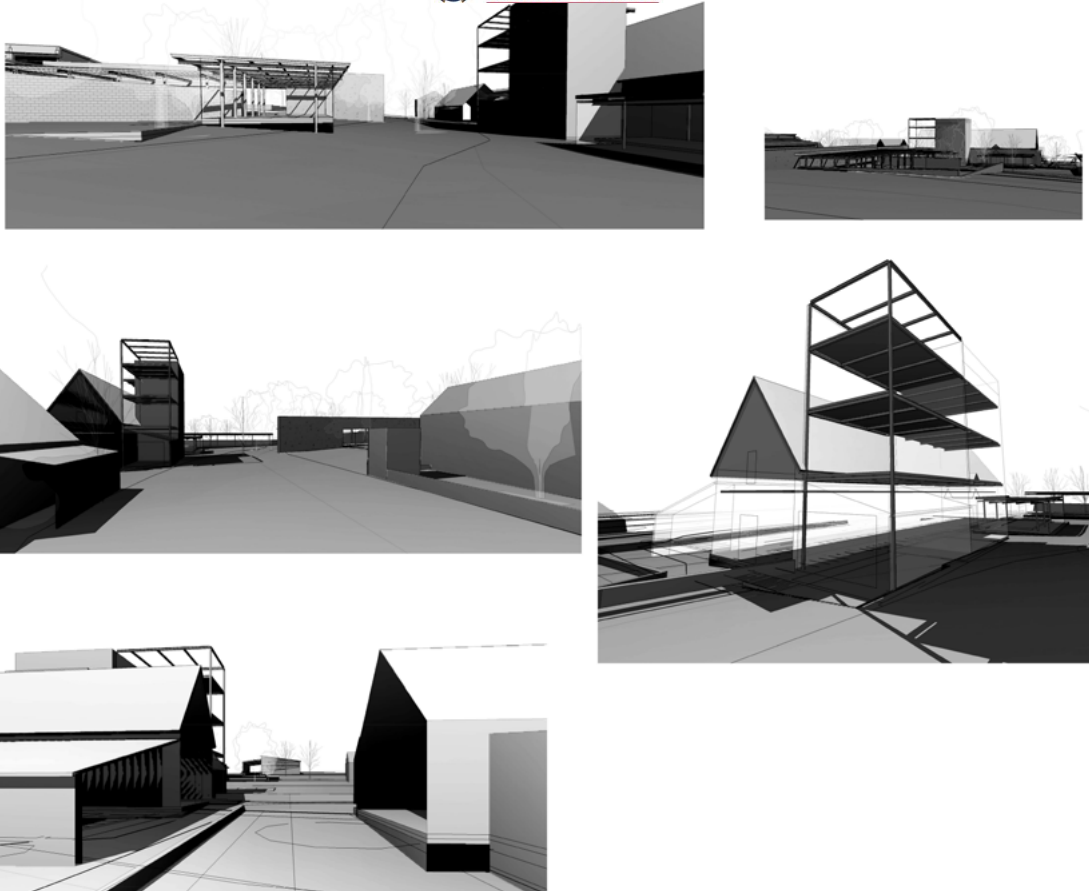


fig.6.32. **PERSPECTIVES 5**
SKETCH PLAN 5

The fifth sketch plan buildings in the context of the focus area. The new architecture had a greater sympathy towards the existing architecture, although some of the buildings are not achieving the intention of being clearly new, striving to be the new face of agriculture.

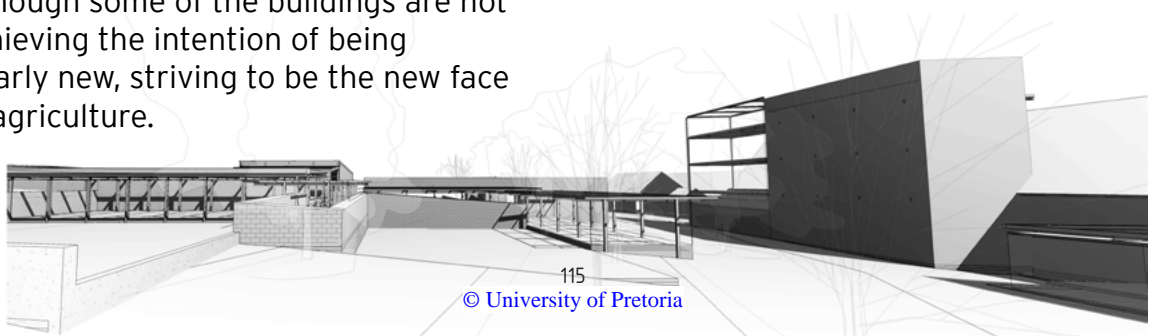
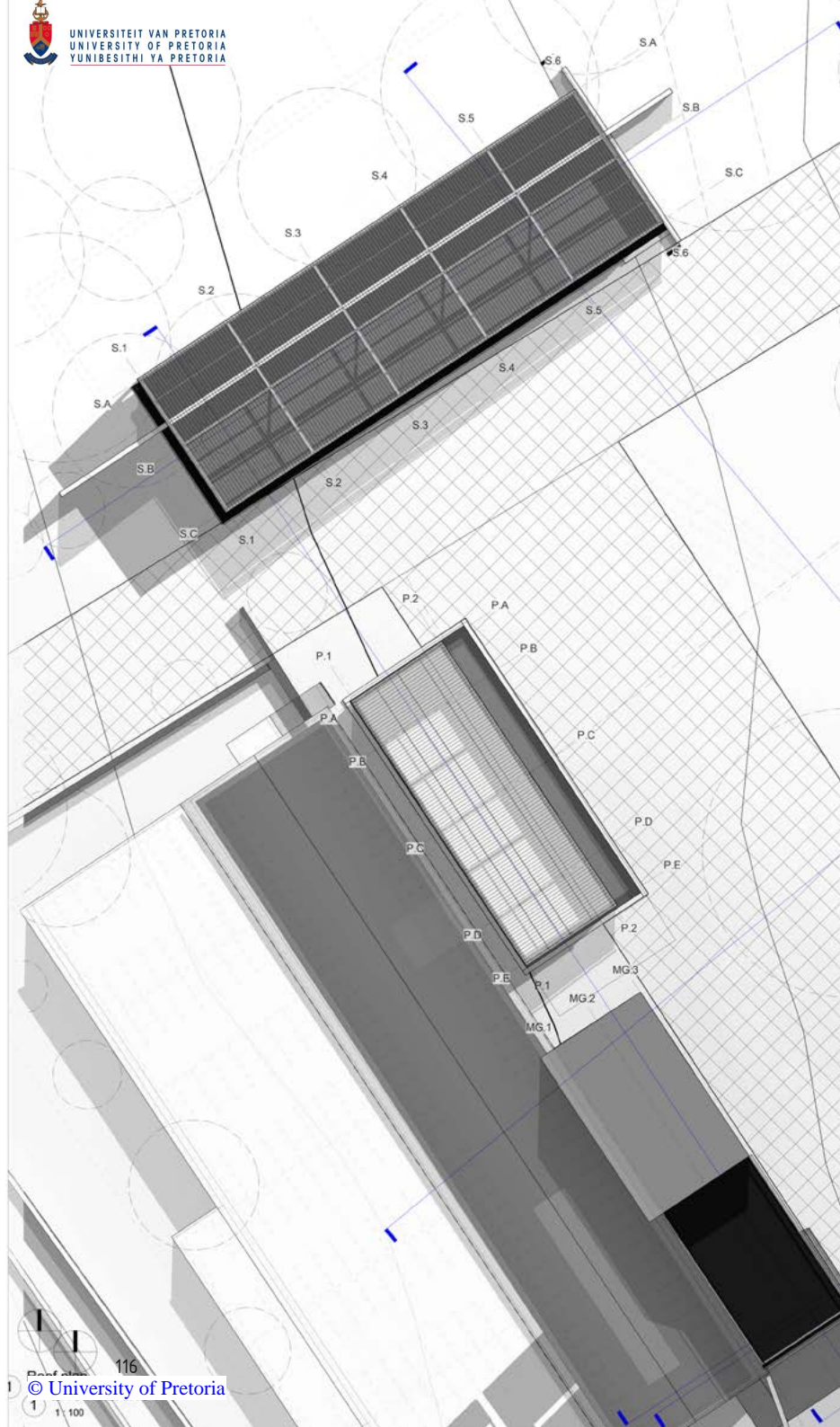
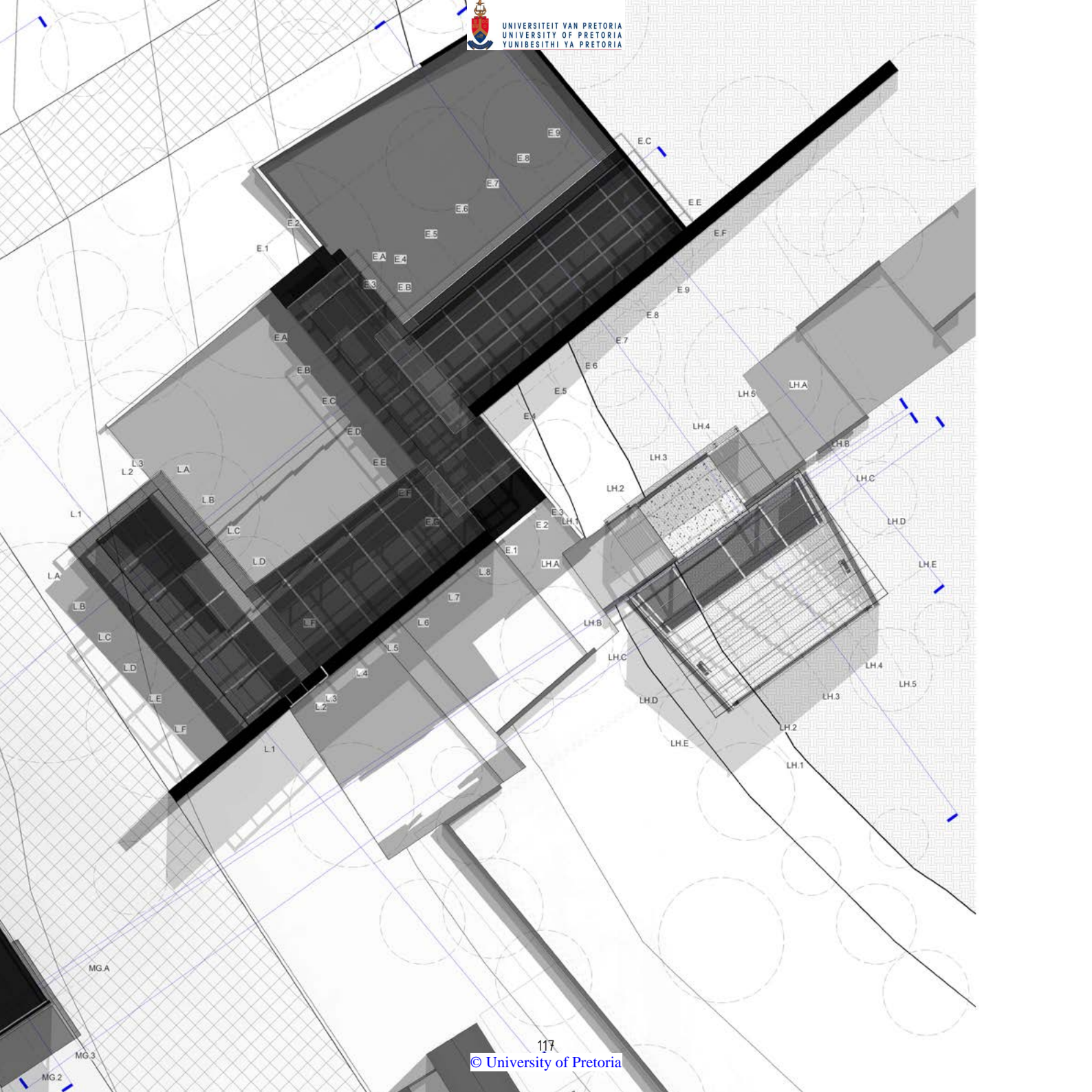


fig.6.33. SKETCH PLAN 5
The final layout of sketch plan 5





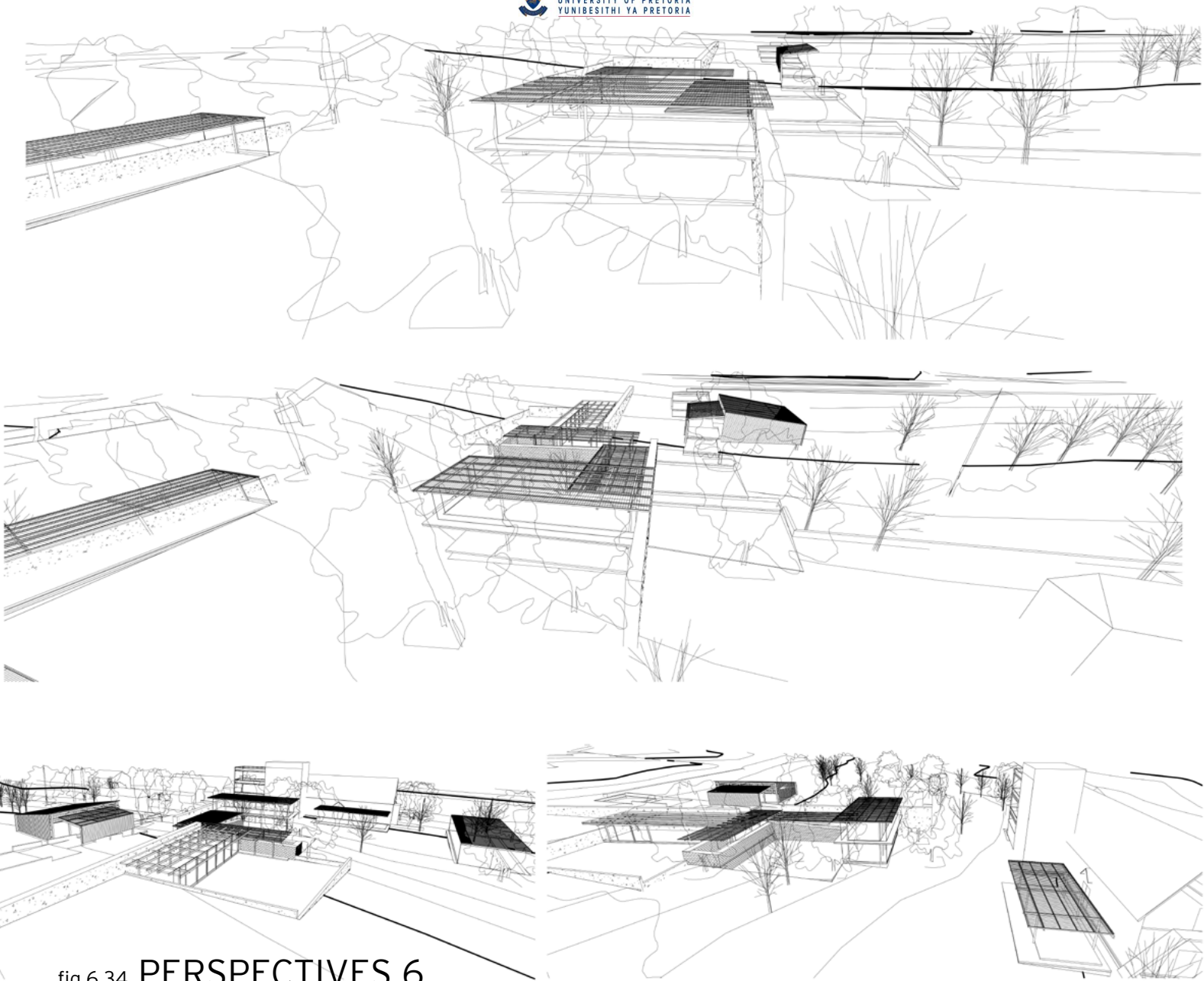


fig.6.34. **PERSPECTIVES 6**

These perspective drawings depicts the new architecture in the context of the focus area. The relationship of the new architecture to the existing buildings has a much more sympathetic character and start achieving the initial intentions for the agricultural education and training facility.

fig.6.35. PERSPECTIVES 7

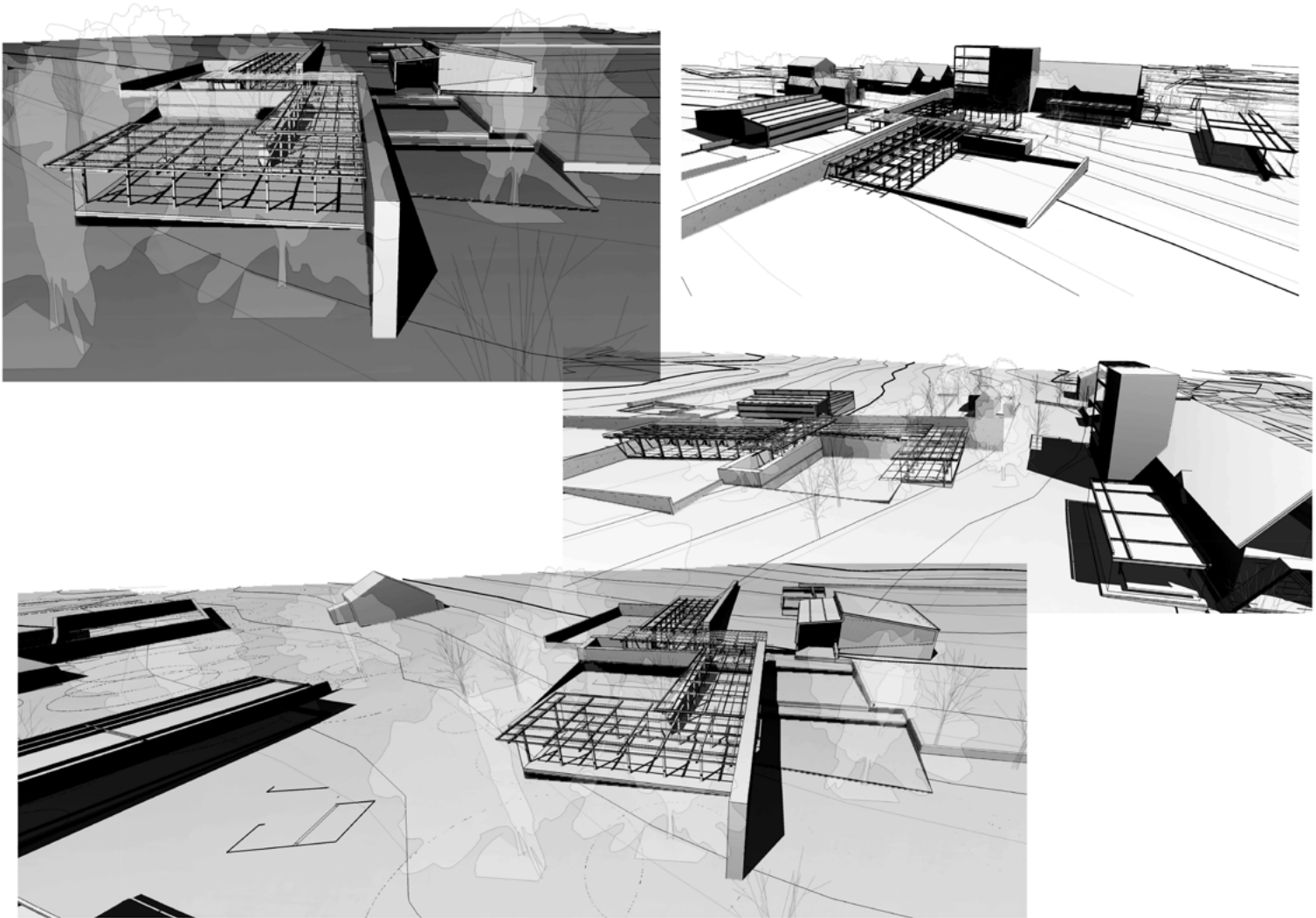
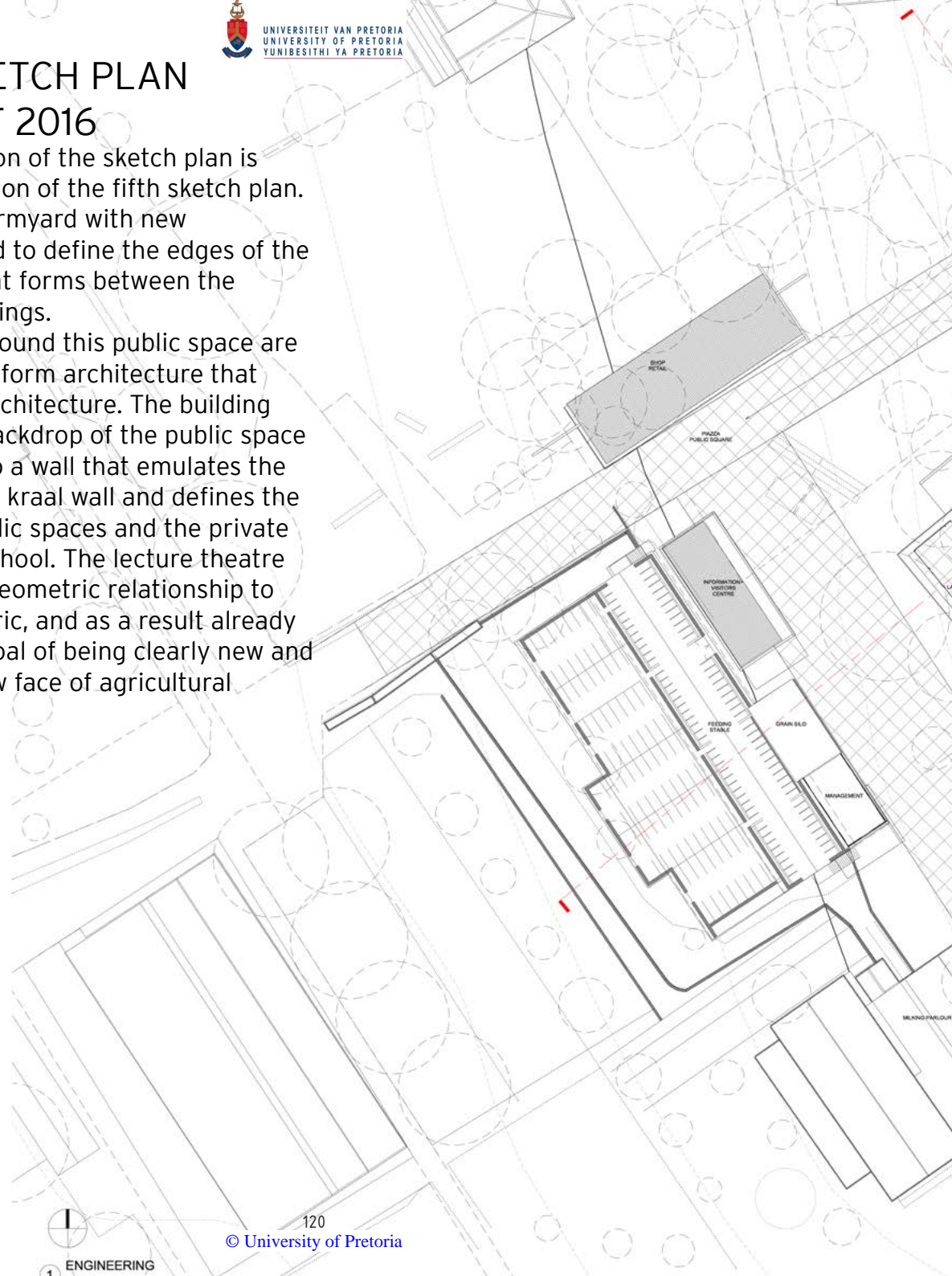
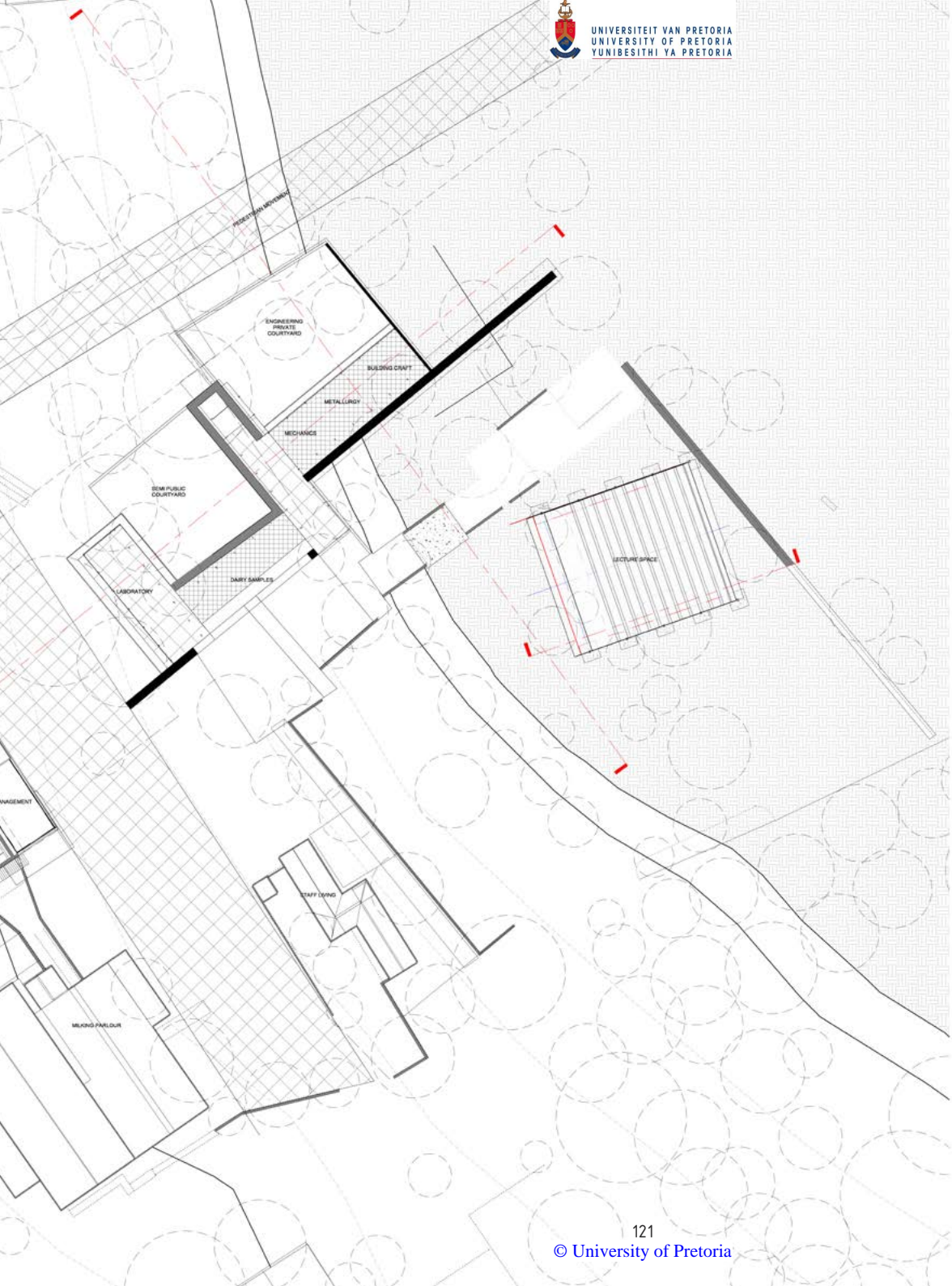


fig.6.36. **FINAL SKETCH PLAN**
31 AUGUST 2016

The latest version of the sketch plan is simply an iteration of the fifth sketch plan. To define the farmyard with new architecture and to define the edges of the public space that forms between the significant buildings.

The pavilions around this public space are merely there to form architecture that relates to the architecture. The building that form the backdrop of the public space is placed next to a wall that emulates the remnants of the kraal wall and defines the edge of the public spaces and the private spaces of the school. The lecture theatre changed in its geometric relationship to the existing fabric, and as a result already achieving the goal of being clearly new and defining the new face of agricultural education.





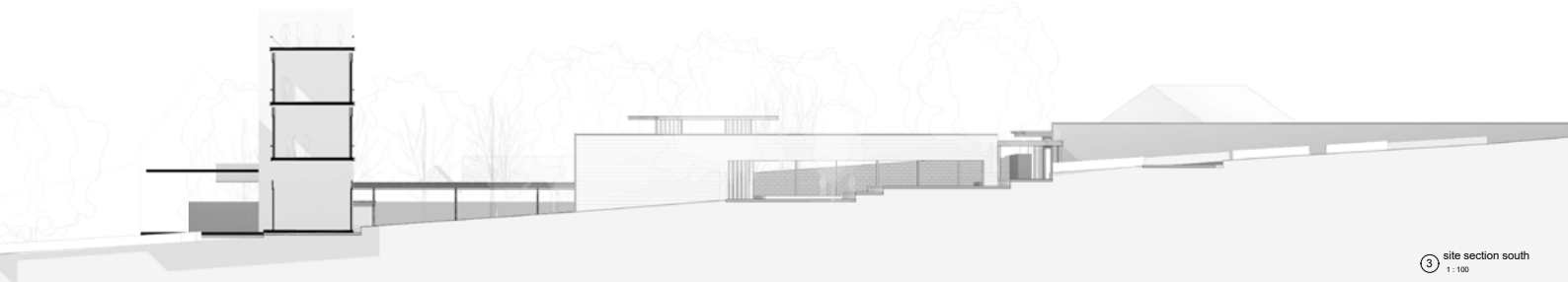
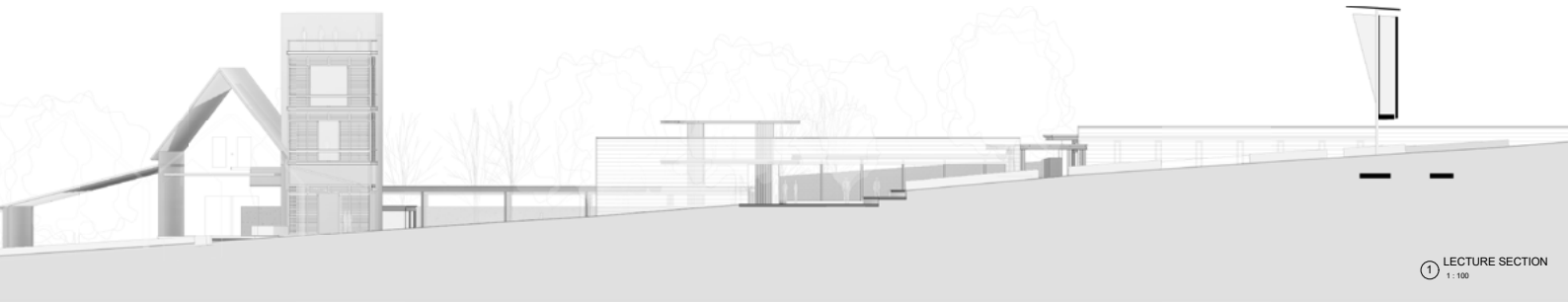
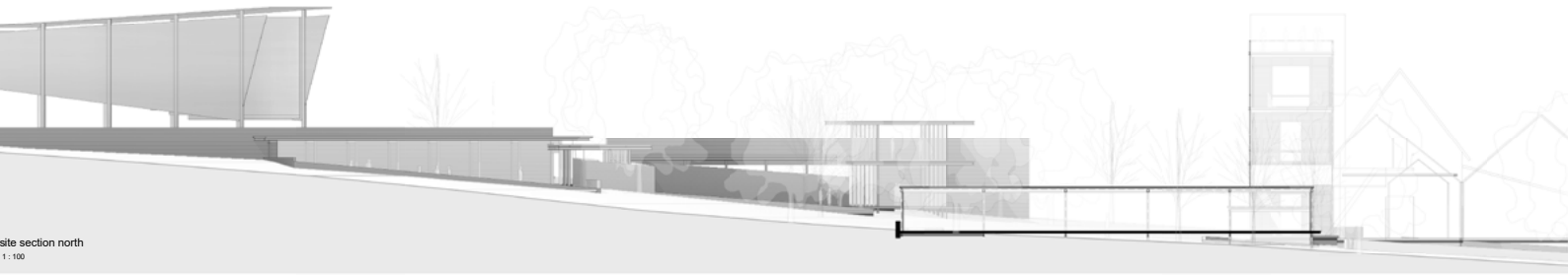


fig.6.37. LONGITUDINAL-SECTION 31 AUGUST 2016

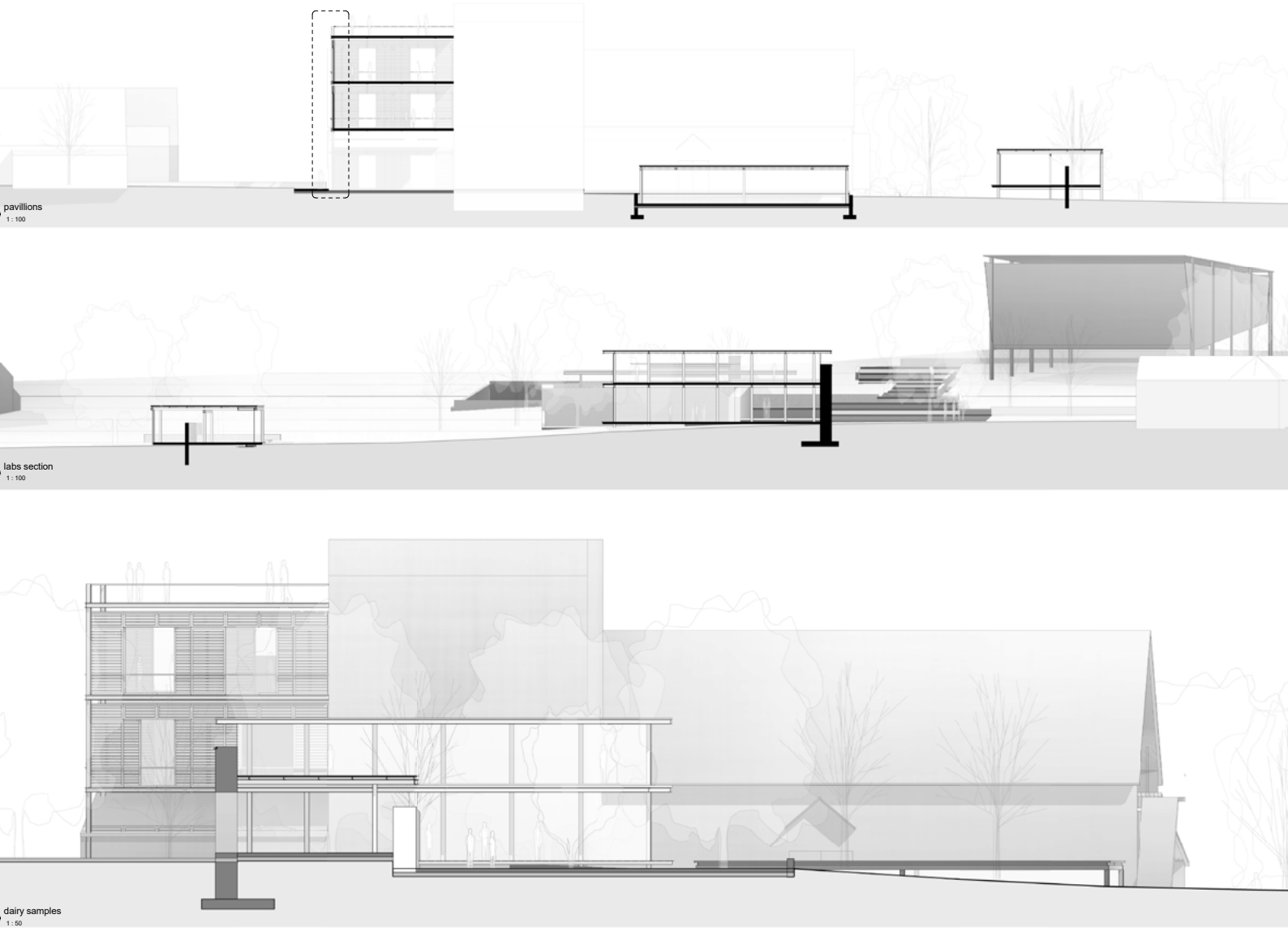


fig.6.38. CROSS-SECTION 31 AUGUST 2016

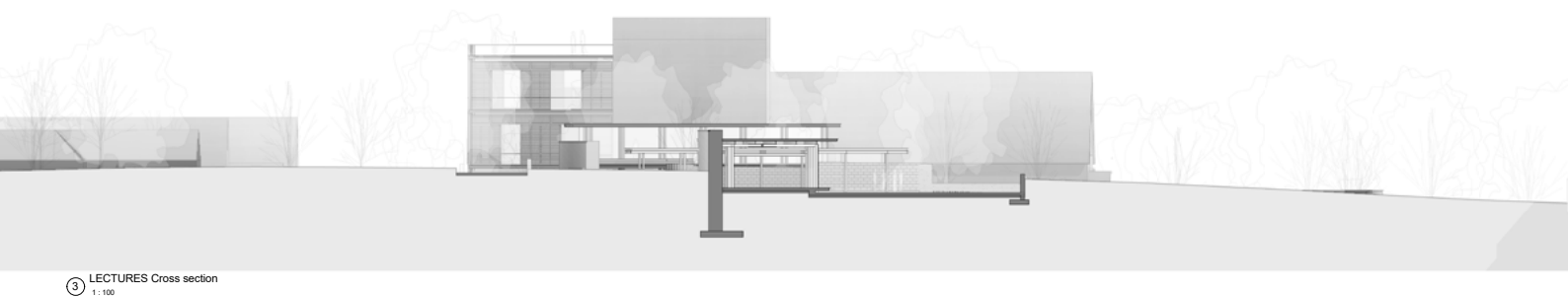
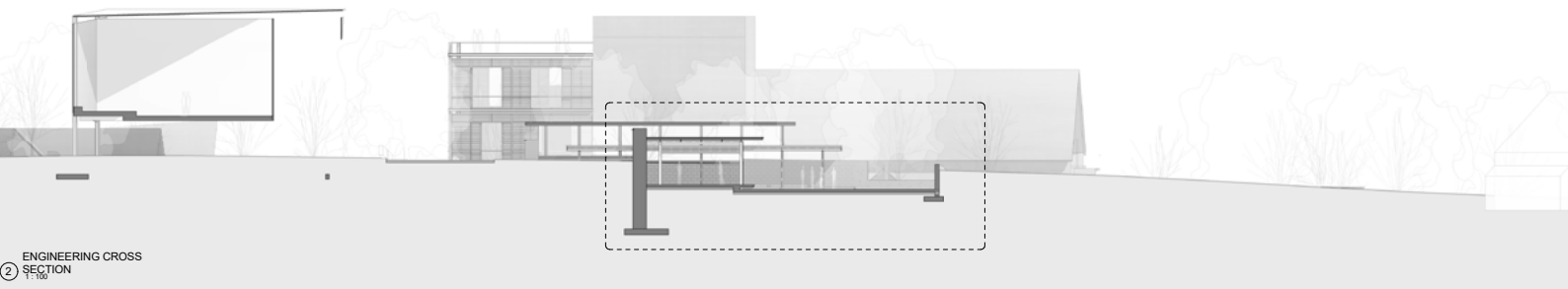
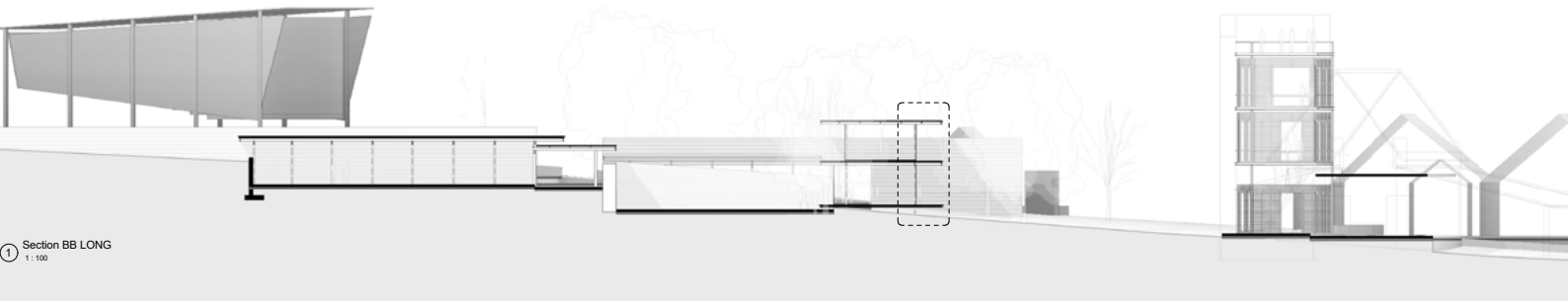


fig.6.39. SECTION: ENGINEERING DEPARTMENT 31 AUGUST 2016

