

# University of Pretoria etd – Pettey, R P (2005)

## SITE DESIGN

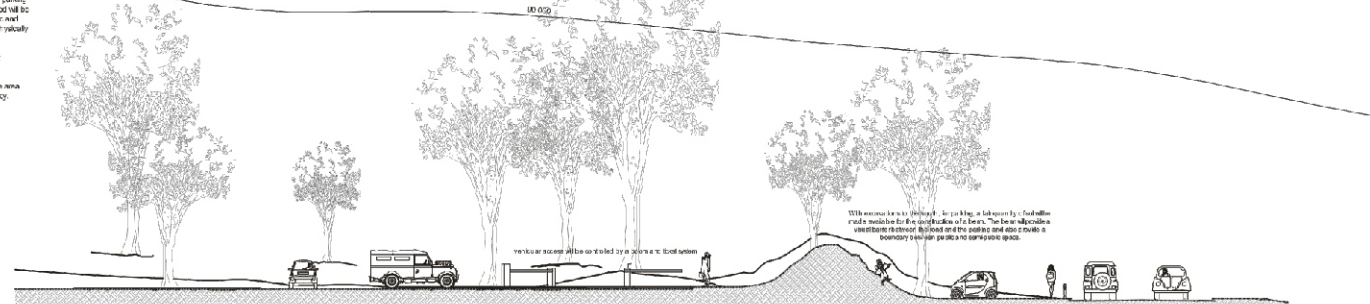
The site design developed according to natural site features, and promotes the conservation of existing indigenous vegetation.

## PARKING

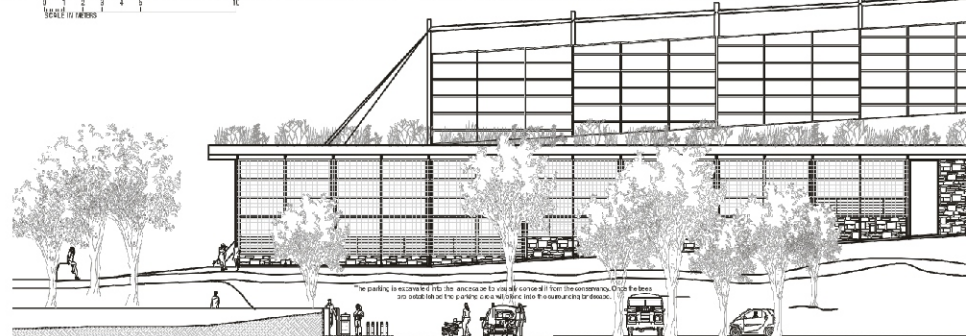
The parking is situated in the most of the most recently cleared section of the site, as identified in the context study. The parking area is enclosed and is to be developed so as not to disturb the line of sight from the conservation. All plants to be removed will be placed on the north side of the site to form a berm. The berm will be used as a natural barrier to delineate a public and semi-public zone. It is intended to be used for security fencing. There are 128 parking bays of which four are for privately owned cars. Four car bays are also covered.

The road surface is made of red form concrete rubble blocks at the parking bays and finished with gravel stone that functions as a sub-base surface zone.

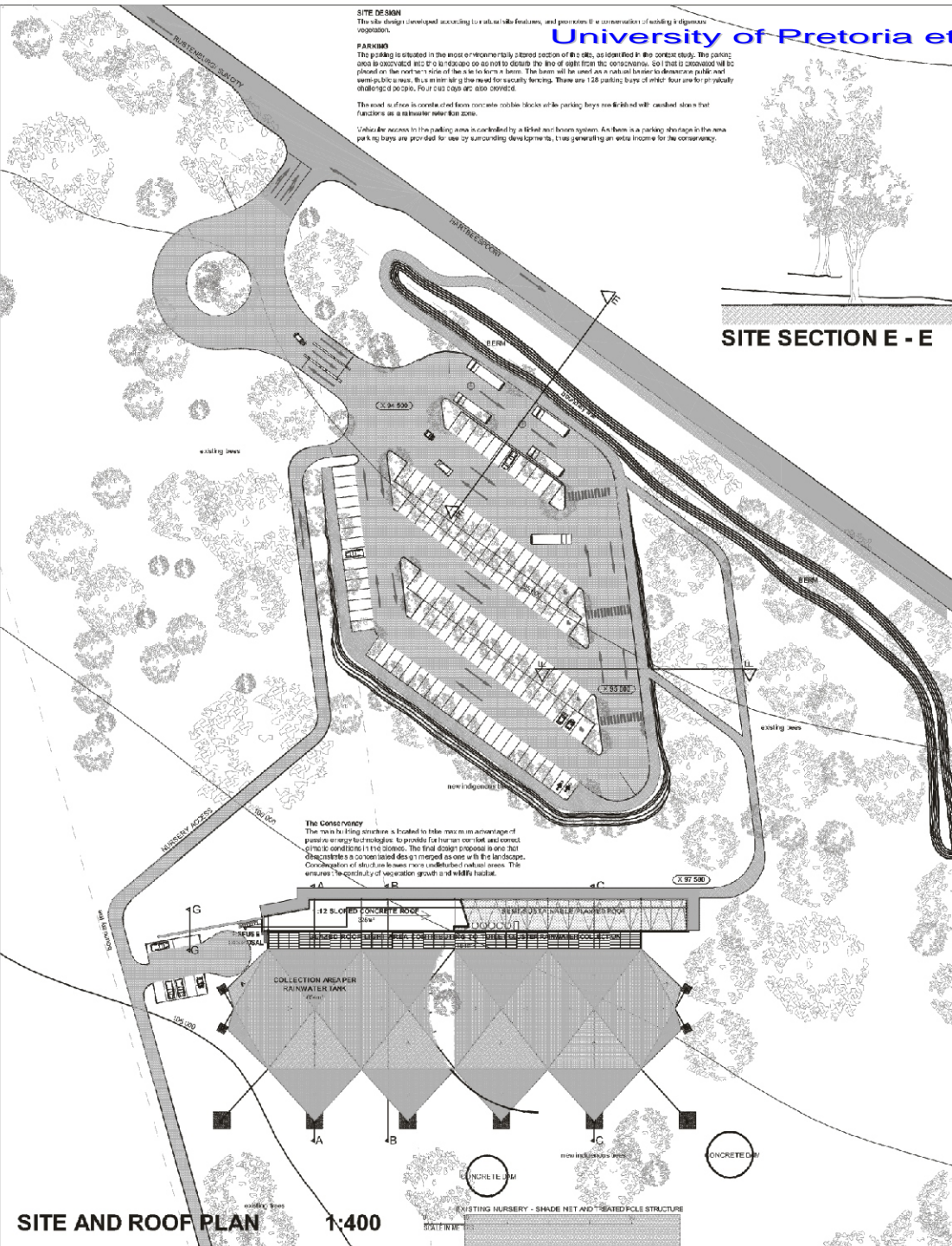
Vehicle access to the parking area is controlled by a ticket exit boom system. As there is a parking shortage in the area parking bays are provided for use by surrounding developments, thus generating an extra income for the conservancy.



SITE SECTION E - E 1:100



SITE SECTION F - F 1:100

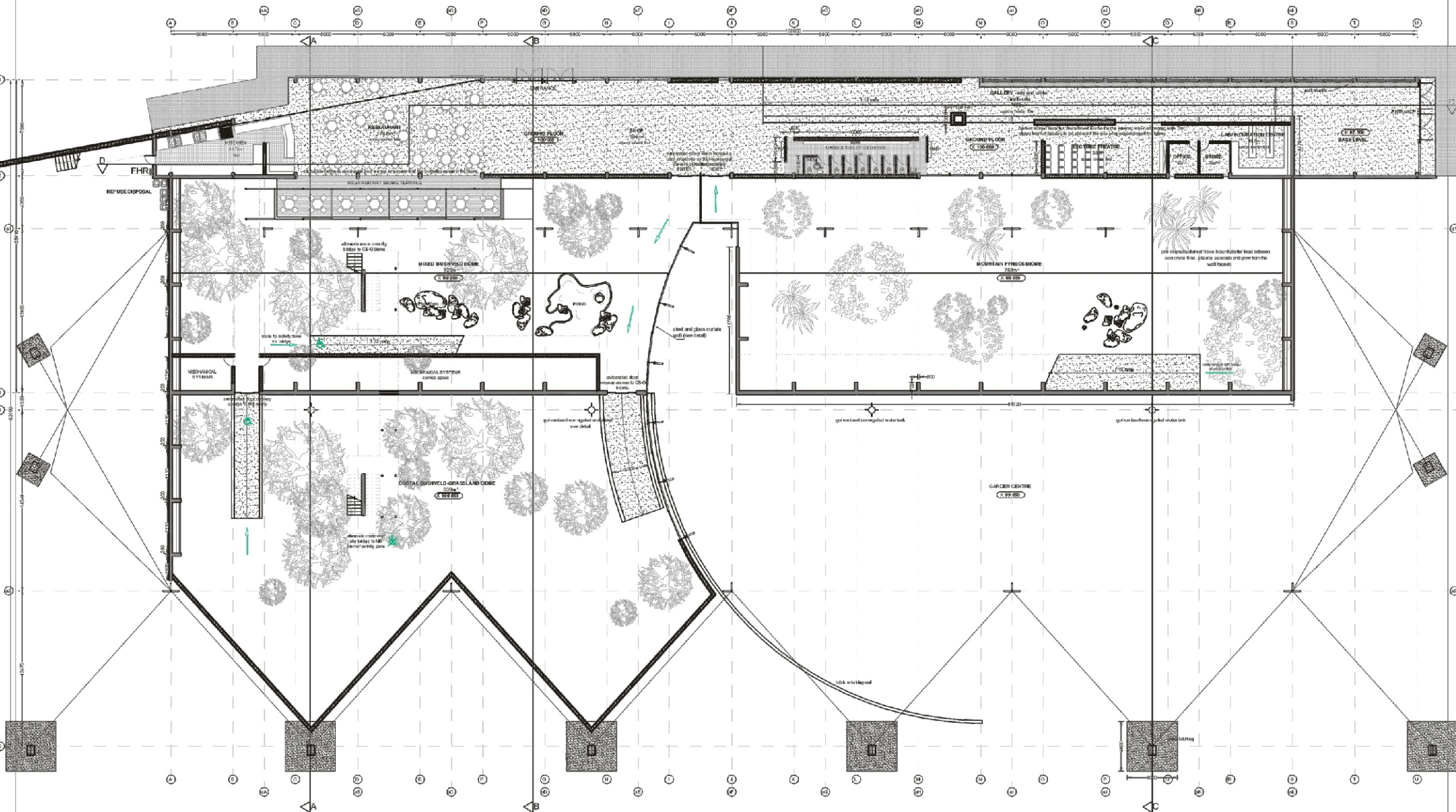


SITE AND ROOF PLAN 1:400

## The Conservancy

The main building structure is located to take maximum advantage of passive energy and solar radiation to provide for human comfort and correct climatic conditions in the climate. The final design proposal is one that demonstrates a conservation design integrated with the site design. Consideration of site factors is given more consideration than usual. The structure is designed to encourage growth and wildlife habitat.

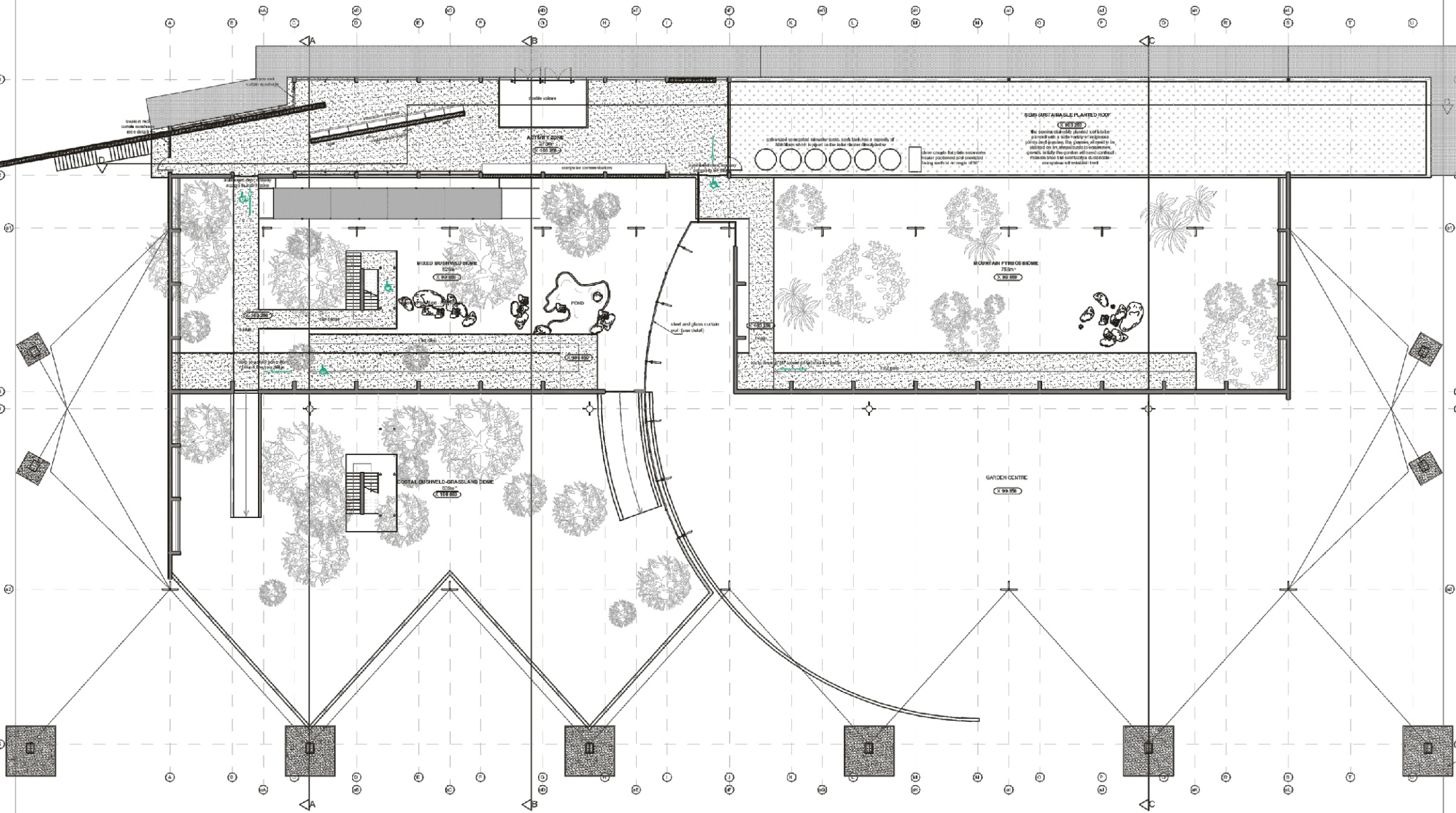
UNIVERSITY OF PRETORIA department of architecture and landscape architecture	200406848	Project: <b>AN ECOLOGICAL SPLURGE</b> Hartbeespoort Butterfly Conservancy	Name: RYAN PETTEY	Course: MArch (Prof)	Date: 2004-11-25	Sheet: 001	No. of drawings: 10	Drawing: SITE PLAN SECTION E - E SECTION F - F	NORTH
			Name: PROF ROGER FISHER						



GROUND FLOOR PLAN 1:100



UNIVERSITY OF PRETORIA department of architecture and landscape architecture	200406848	Project <b>AN ECOLOGICAL SPLURGE</b> Hartbeespoort Butterfly Conservancy	Name RYAN PETTEY	Course MArch (Prof)	Date 2004-11-25	Sheet 002	No of drawings 10	Drawing GROUND FLOOR PLAN	
			Supervisor PROF ROGER FISHER						

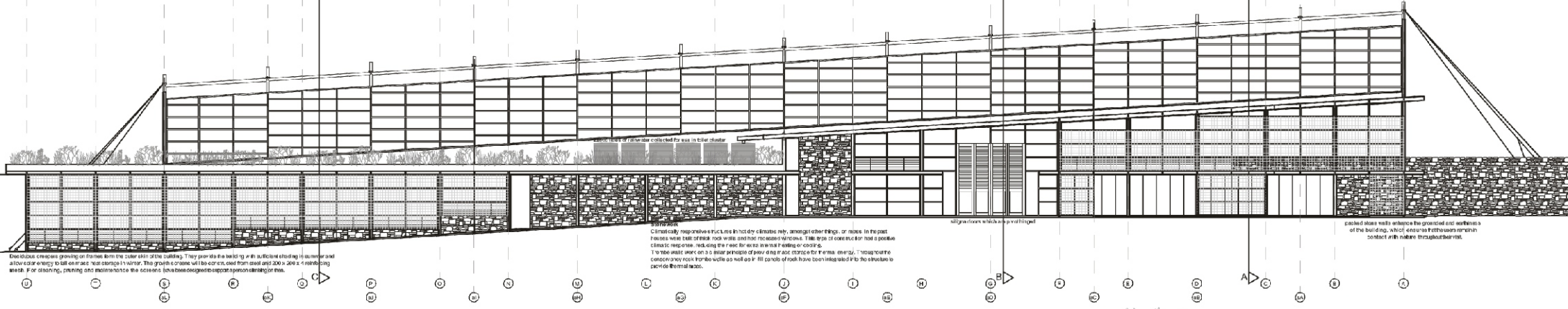


FIRST FLOOR PLAN

1:100



UNIVERSITY OF PRETORIA department of architecture and landscape architecture	200406848	Project <b>AN ECOLOGICAL SPLURGE</b> Hartbeespoort Butterfly Conservancy	Name RYAN PETTEY	Course MArch (Prof)	Date 2004-11-25	Sheet 003	No drawings 10	Drawing FIRST FLOOR PLAN	
			Mentor PROF ROGER FISHER						

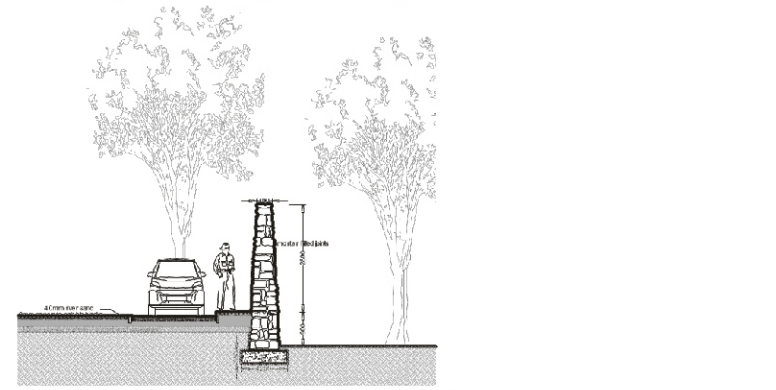
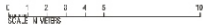


**NORTHERN ELEVATION** 1:100

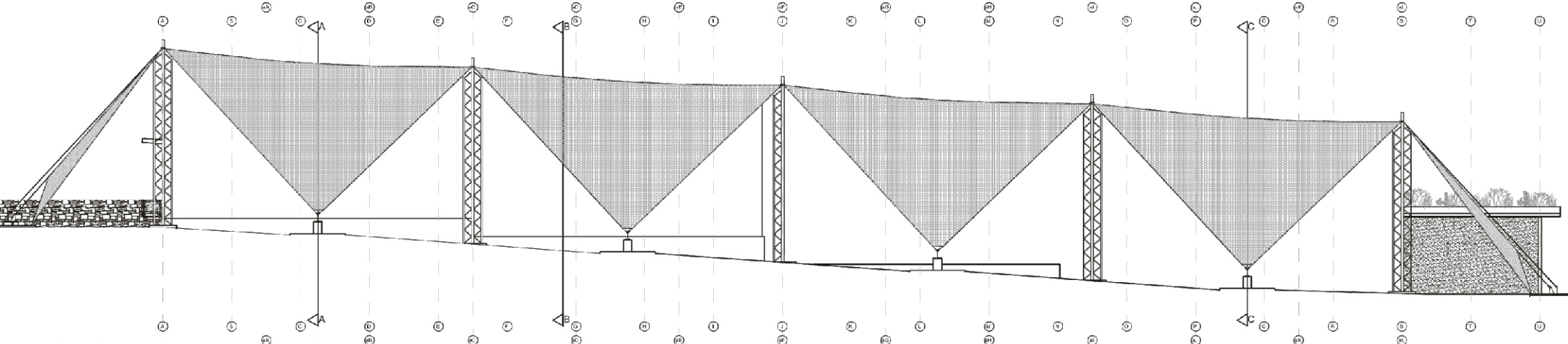
Overhanging concrete growing or frames form the exterior of the building. They provide the building with additional shading in summer and allow solar energy to fall on the glass facade in winter. This growth consists of 110 concrete, steel and steel and 200 x 200 x 4 reinforcing steel. If or finishing, pruning and maintenance the scheme has been designed to support a species diversity.

**Shade screen**  
Climatically responsive structures in hot dry climates rely, amongst other things, or shade in the past. Features were built of brick, rock walls and had the shade windows. The use of concrete for hot a possible climate response, reducing the need for air conditioning or cooling. To the water used on a 3.5 meter perimeter of paving in hot storage for thermal energy. The concrete concrete and rock for the walls as well as in all parts of both have been integrated into the structure to provide thermal mass.

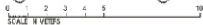
polished stone walls enhance the grounded and verticality of the building, which ensures the users remain in contact with nature throughout the year.



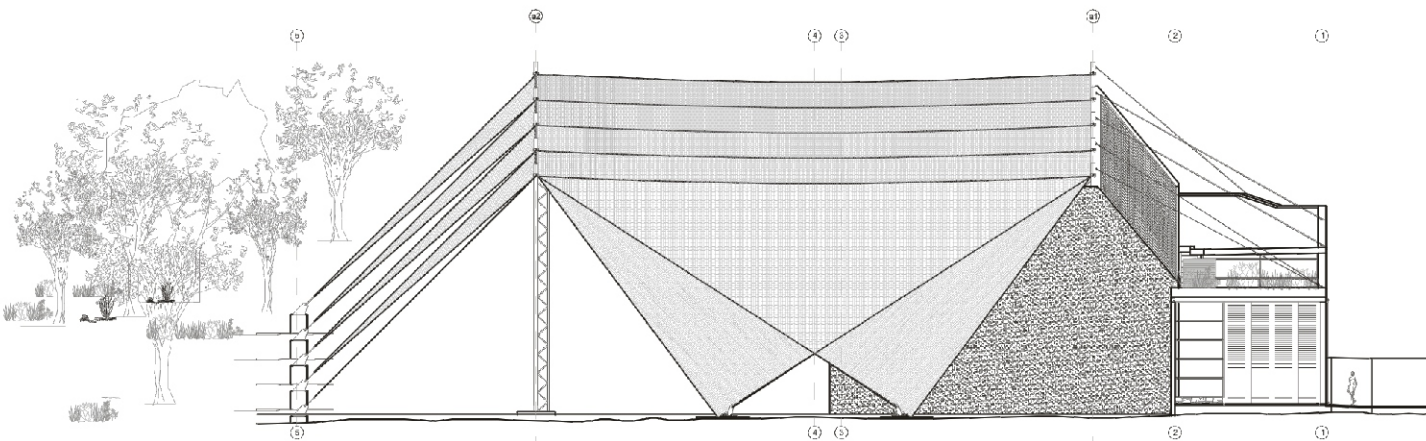
**SECTION G - G** 1:50



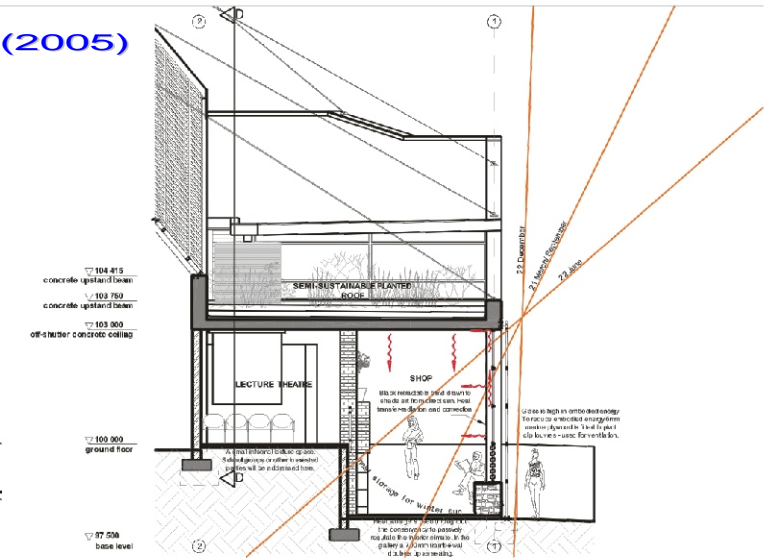
**SOUTHERN ELEVATION** 1:100



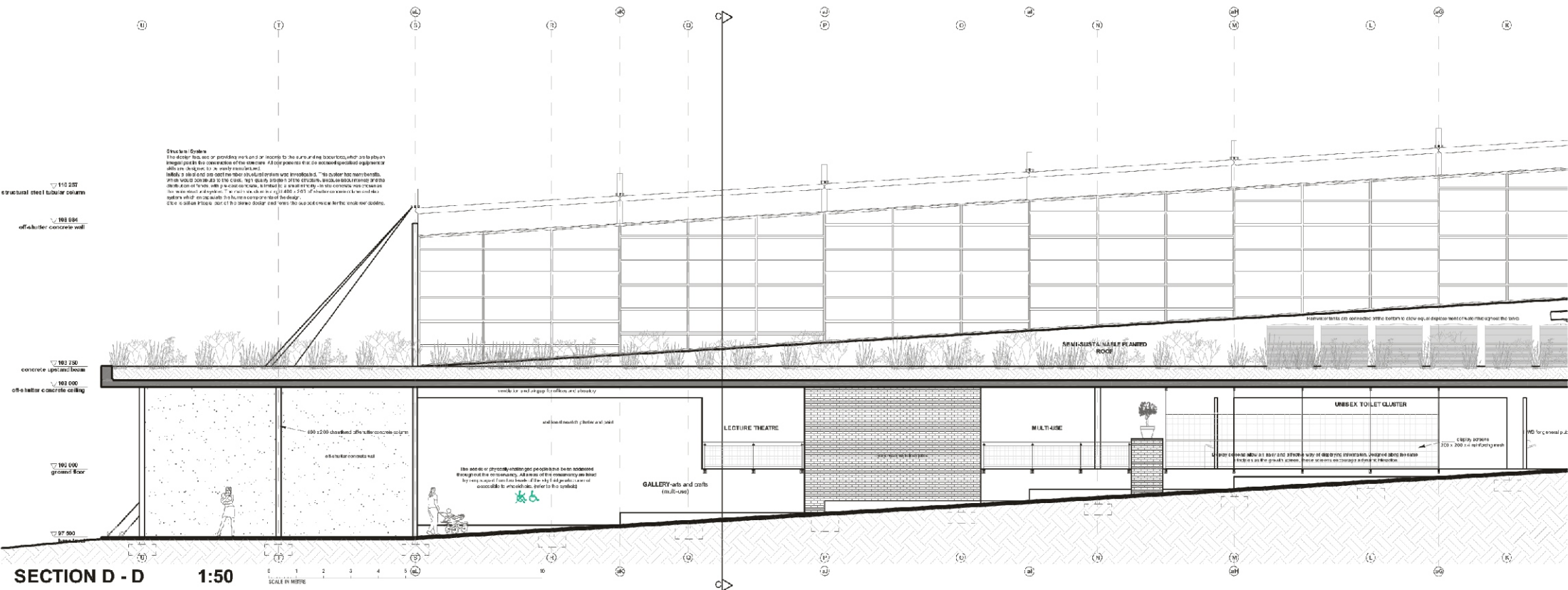
UNIVERSITY OF PRETORIA department of architecture and landscape architecture	200468848	Project <b>AN ECOLOGICAL SPLURGE</b> Hartbeespoort Butterfly Conservancy	Name RYAN PETTEY	Course MArch (Prof)	Date 2004-11-25	Sheet 004	No. drawings 10	Drawing NORTHERN ELEVATION SECTION G - G SOUTHERN ELEVATION
			Work by PROF ROGER FISHER					



EASTERN ELEVATION 1:100



SECTION C - C 1:50



SECTION D - D 1:50

UNIVERSITY OF PRETORIA department of architecture and landscape architecture 20046848	Project: AN ECOLOGICAL SPLURGE Hartbeespoort Butterfly Conservancy	Name: RYAN PETTEY Mentor: PROF ROGER FISHER	Course: MArch (Prof)	Date: 2004-11-25	Sheet: 005	No of drawings: 10	Drawing: EASTERN ELEVATION SECTION C - C SECTION D - D
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