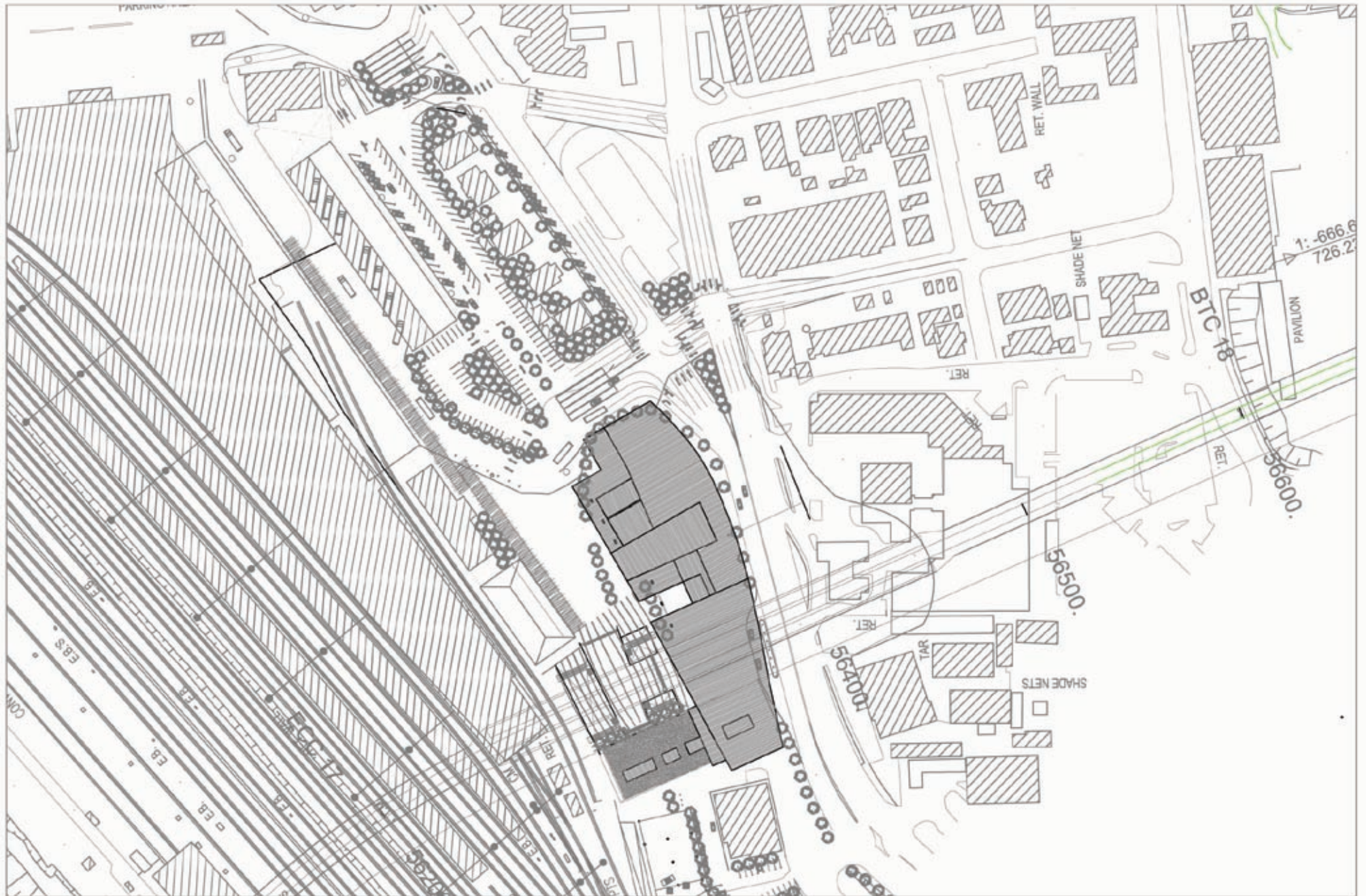
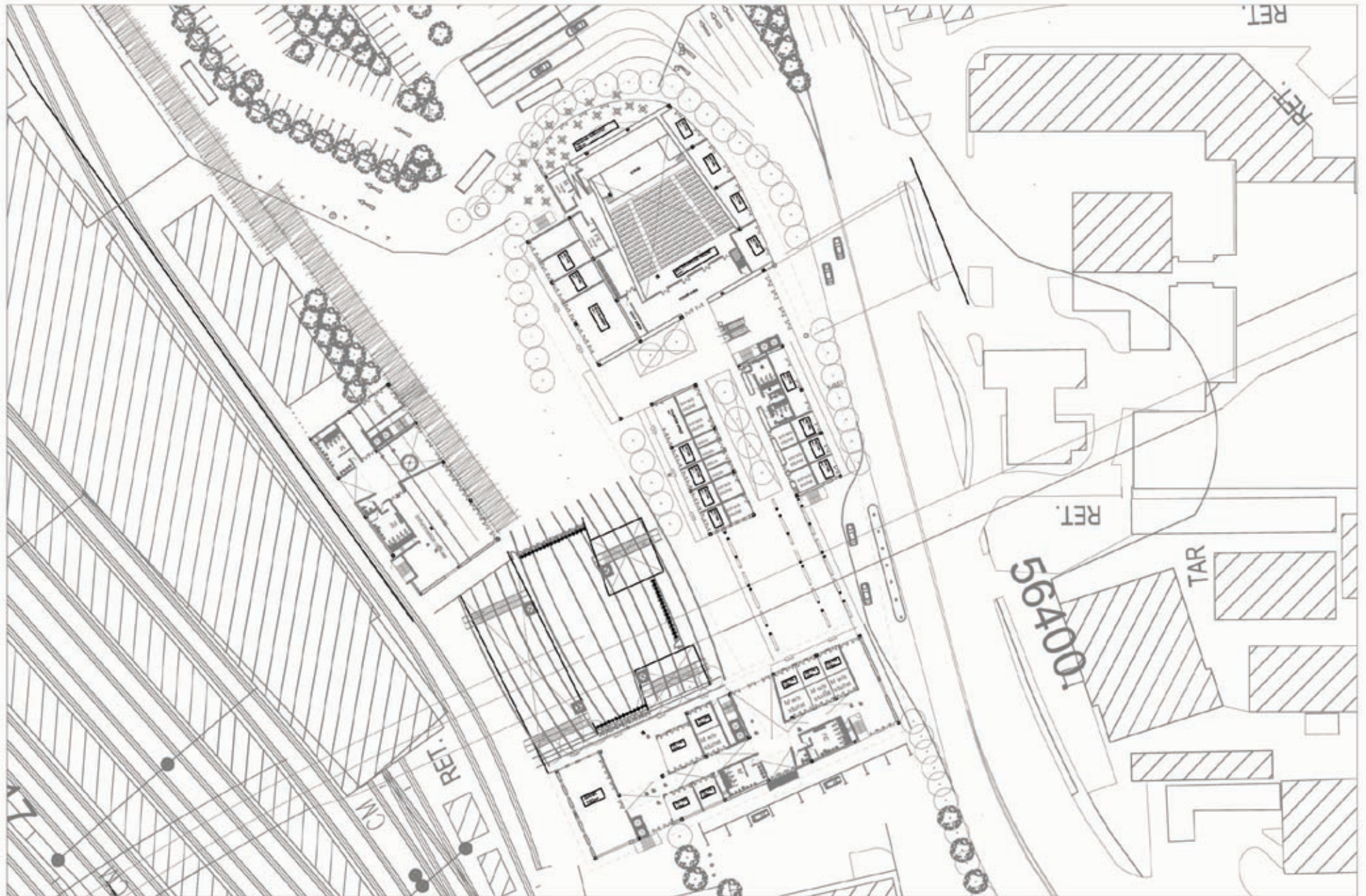


CHAPTER SIX

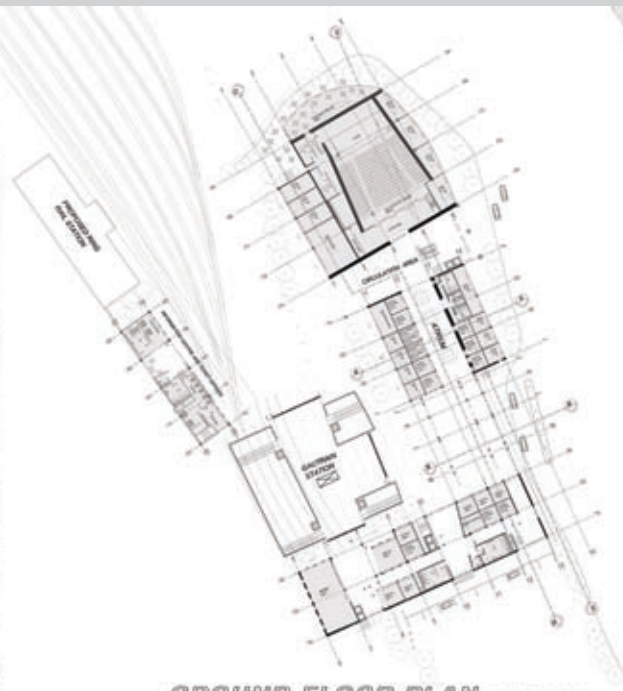




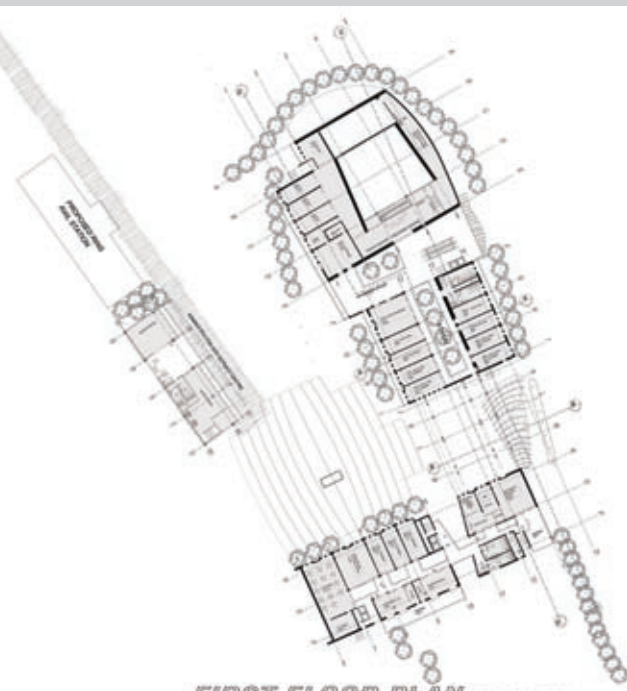
SITE PLAN



SITE PLAN
SCALE 1: 1000



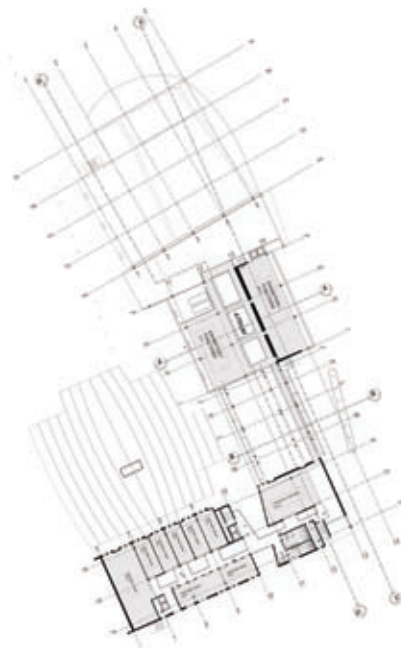
GROUND FLOOR PLAN SCALE 1: 500



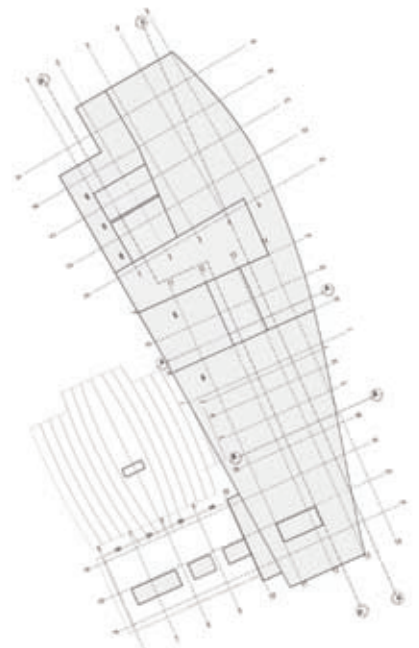
FIRST FLOOR PLAN SCALE 1: 500



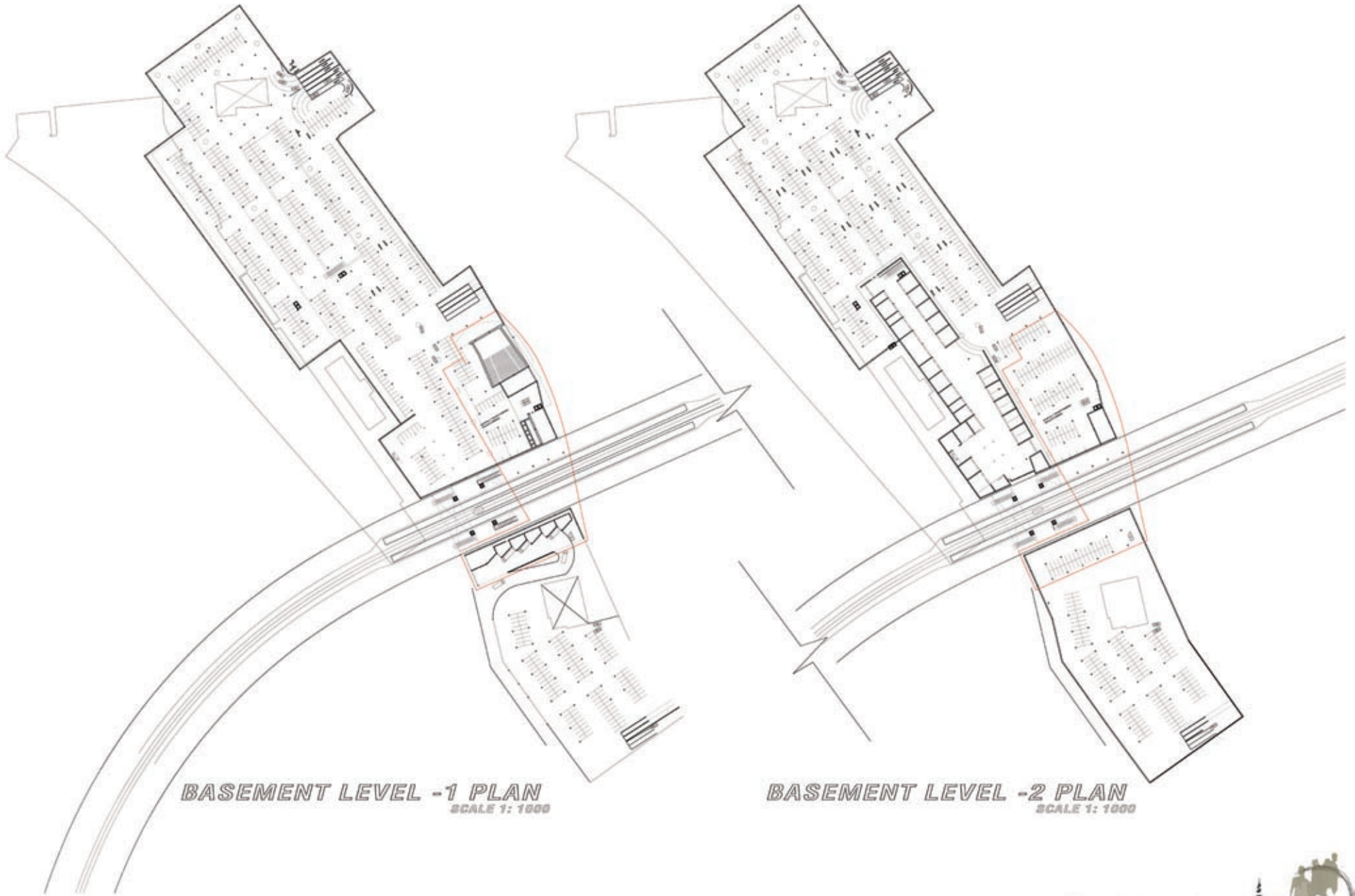
SECOND FLOOR PLAN
SCALE 1: 500



THIRD FLOOR PLAN
SCALE 1: 500



ROOF PLAN
SCALE 1: 500

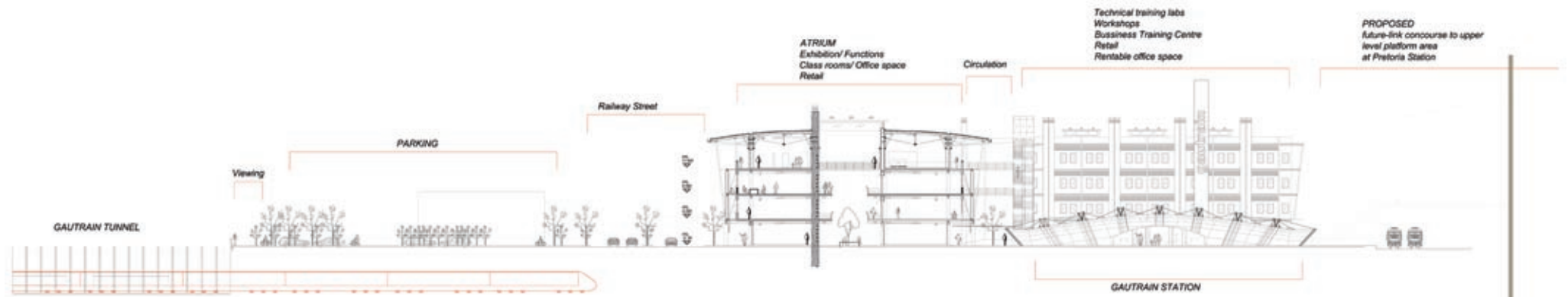


BASEMENT LEVEL -1 PLAN
SCALE 1: 1000

BASEMENT LEVEL -2 PLAN
SCALE 1: 1000

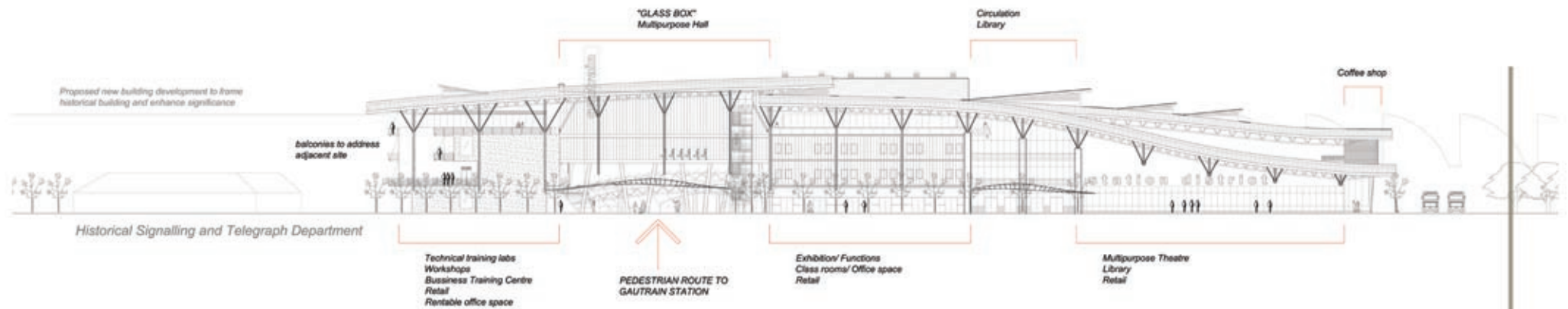
PRETORIA STATION PRECINCT





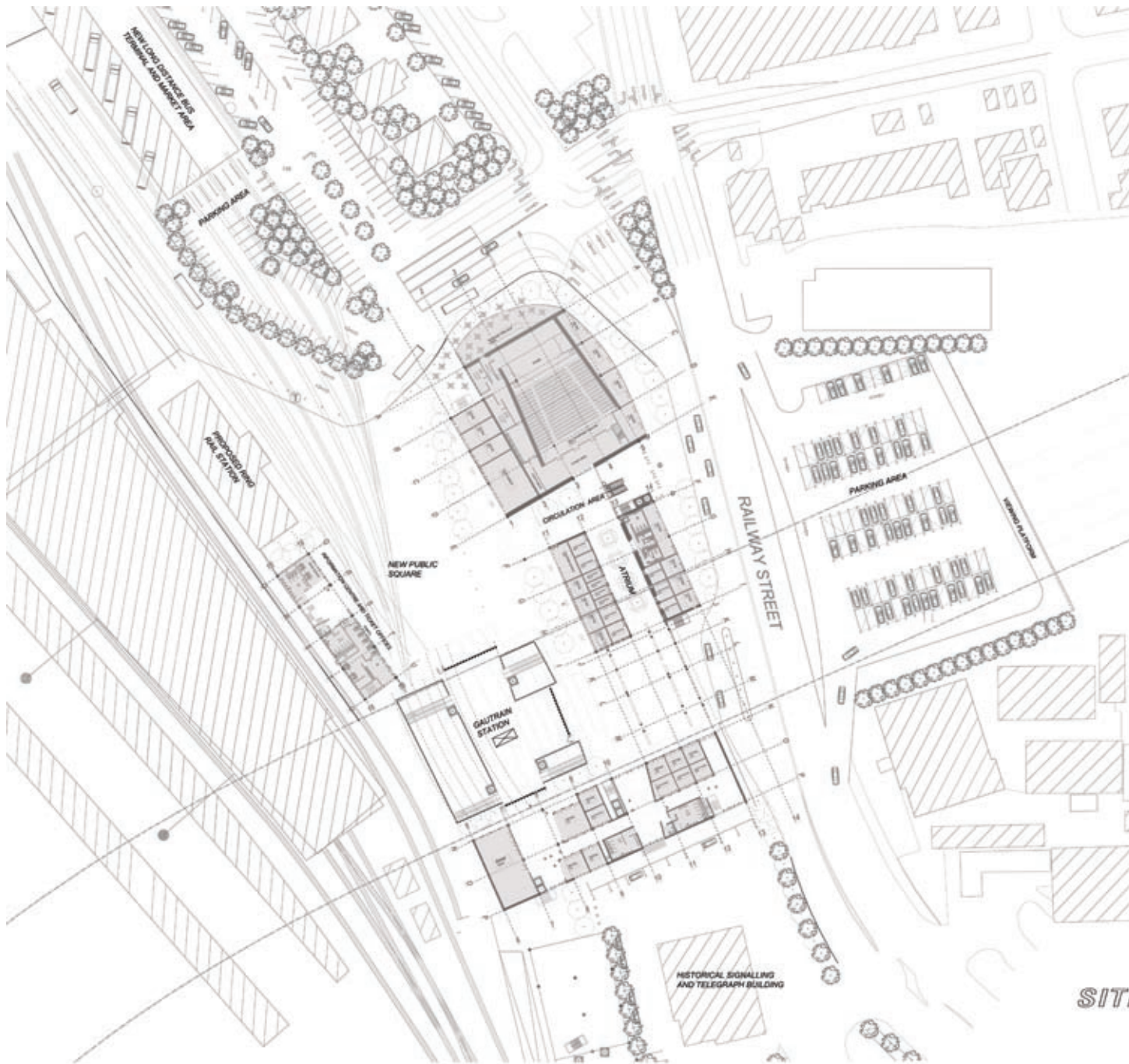
NORTHERN SECTIONAL ELEVATION SCALE 1:200

PRETORIA STATION PRECINCT



DESCRIPTIVE EASTERN ELEVATION SCALE 1:200

PRETORIA STATION PRECINCT

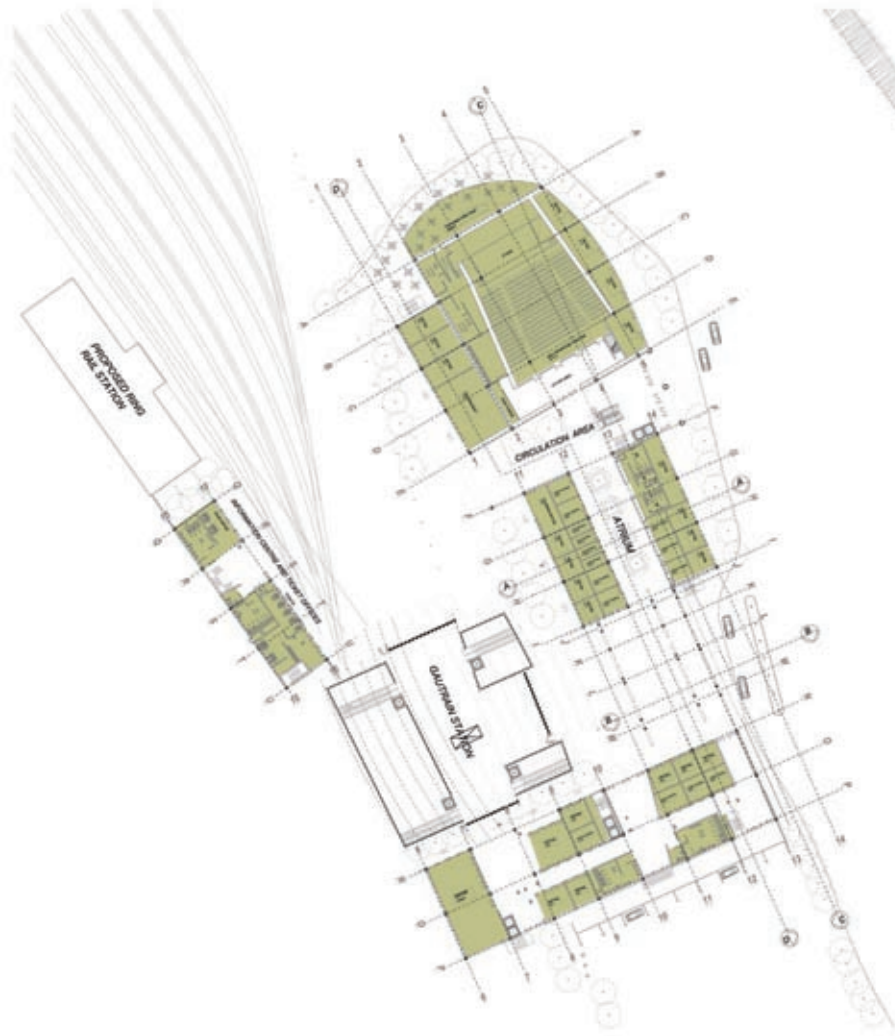


URBAN DESIGN DEVELOPMENT

SITE PLAN
SCALE 1: 500

PRETORIA STATION PRECINCT





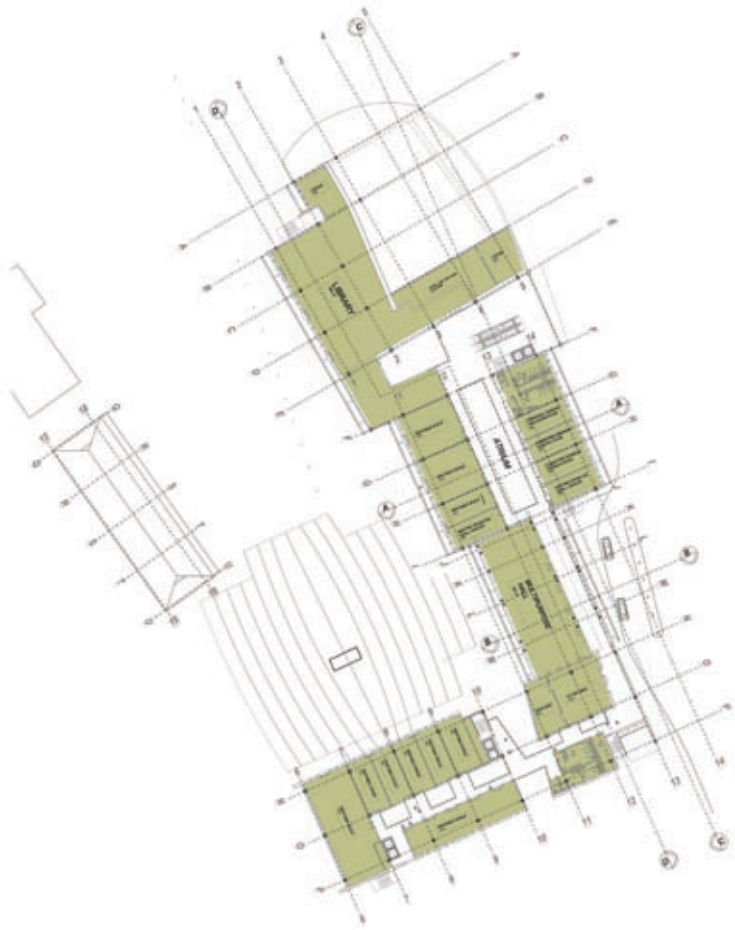
GROUND FLOOR PLAN
SCALE 1: 500



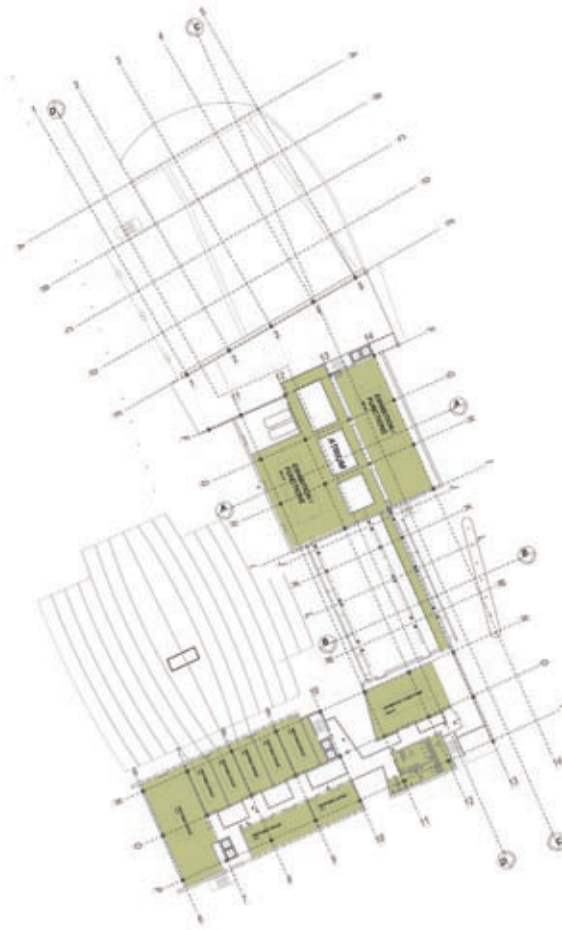
FIRST FLOOR PLAN
SCALE 1: 500

PRETORIA STATION PRECINCT

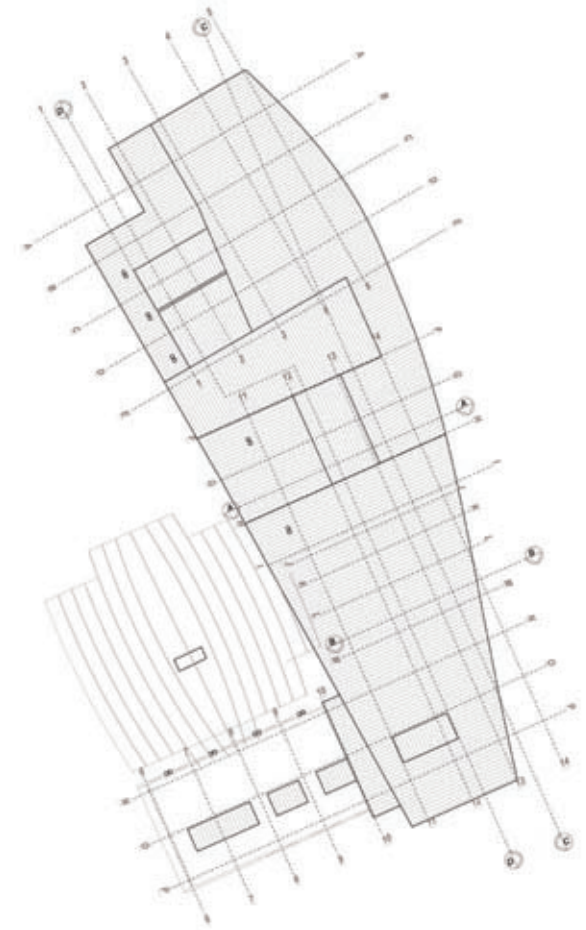




SECOND FLOOR PLAN
SCALE 1: 500



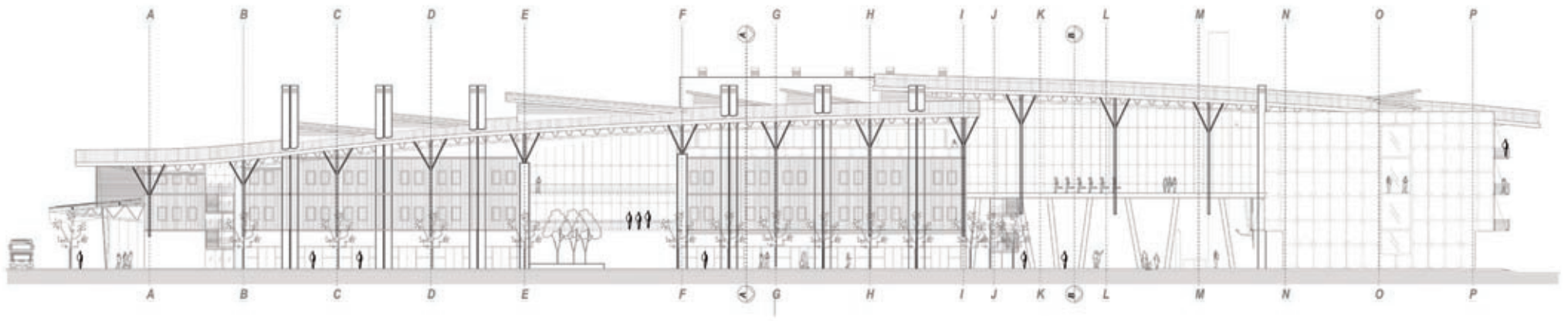
THIRD FLOOR PLAN
SCALE 1: 500



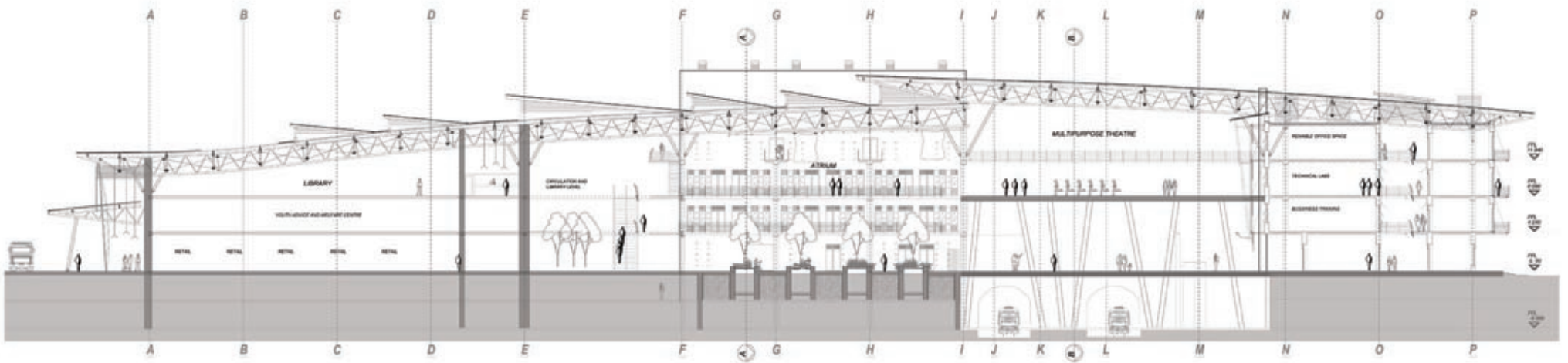
ROOF PLAN
SCALE 1: 500



PRETORIA STATION PRECINCT



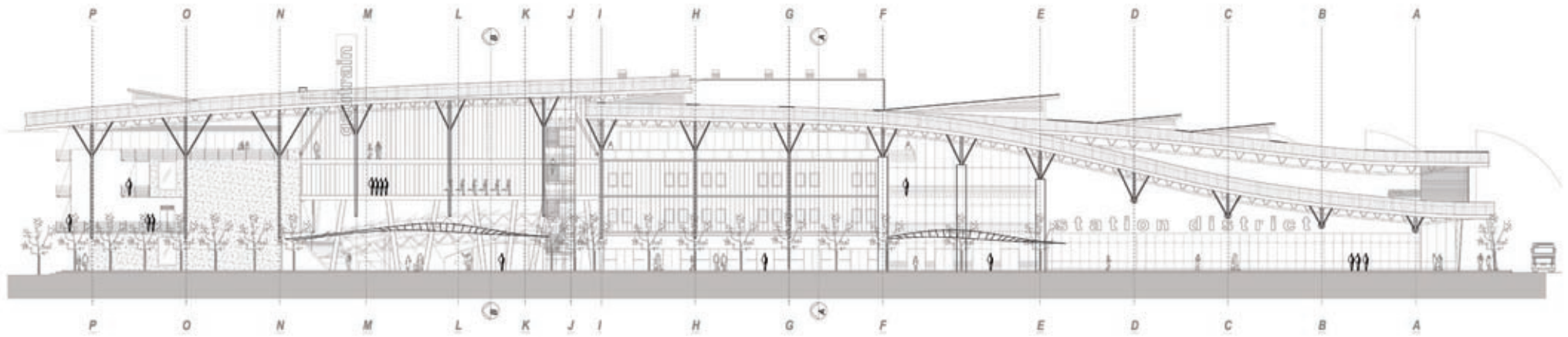
EASTERN ELEVATION AT RAILWAY STREET SCALE 1:200



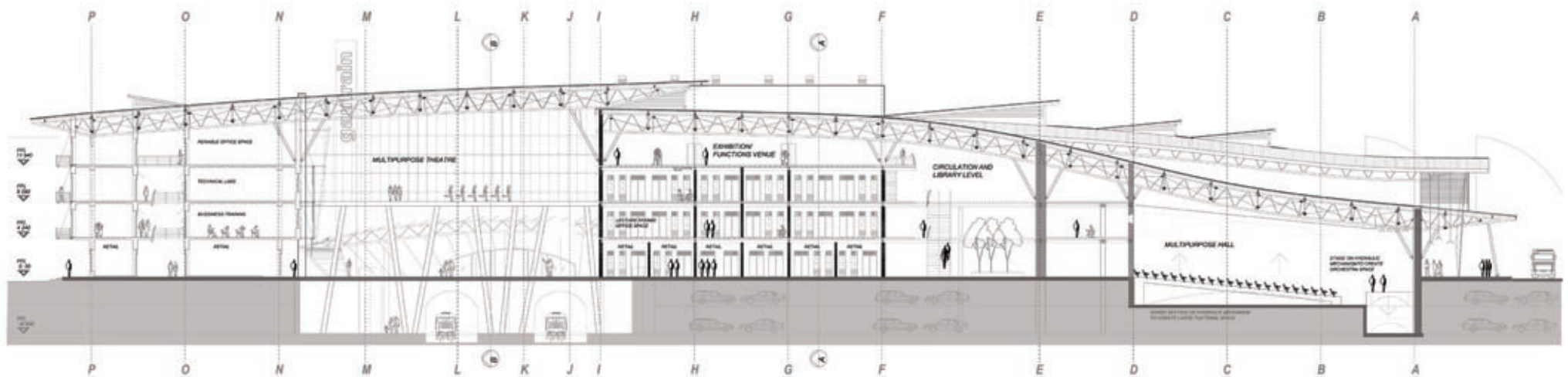
EASTERN SECTION C - C SCALE 1:200

PRETORIA STATION PRECINCT





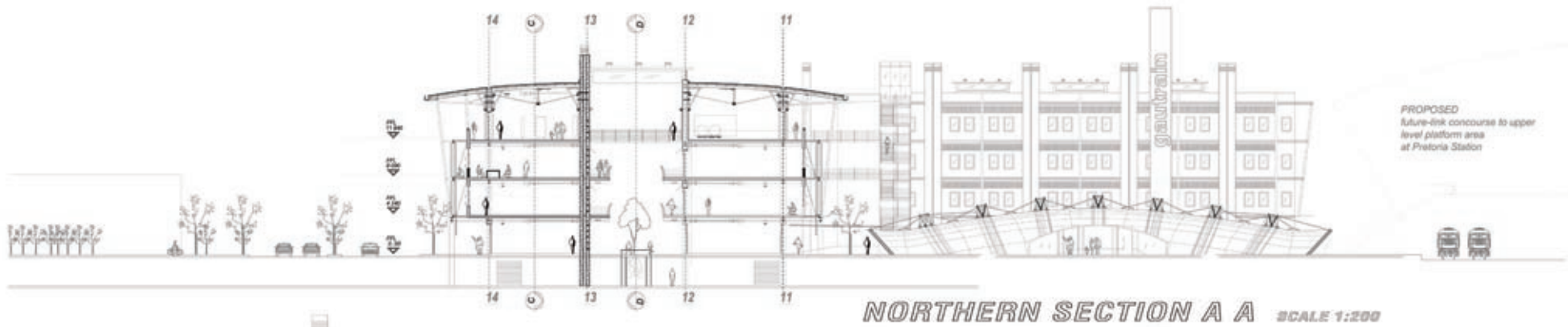
EASTERN ELEVATION AT RAILWAY STREET SCALE 1:200



EASTERN SECTION C - C SCALE 1:200

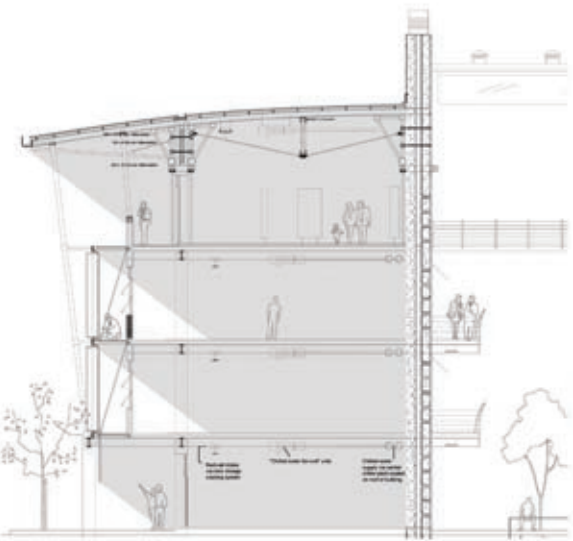
PRETORIA STATION PRECINCT



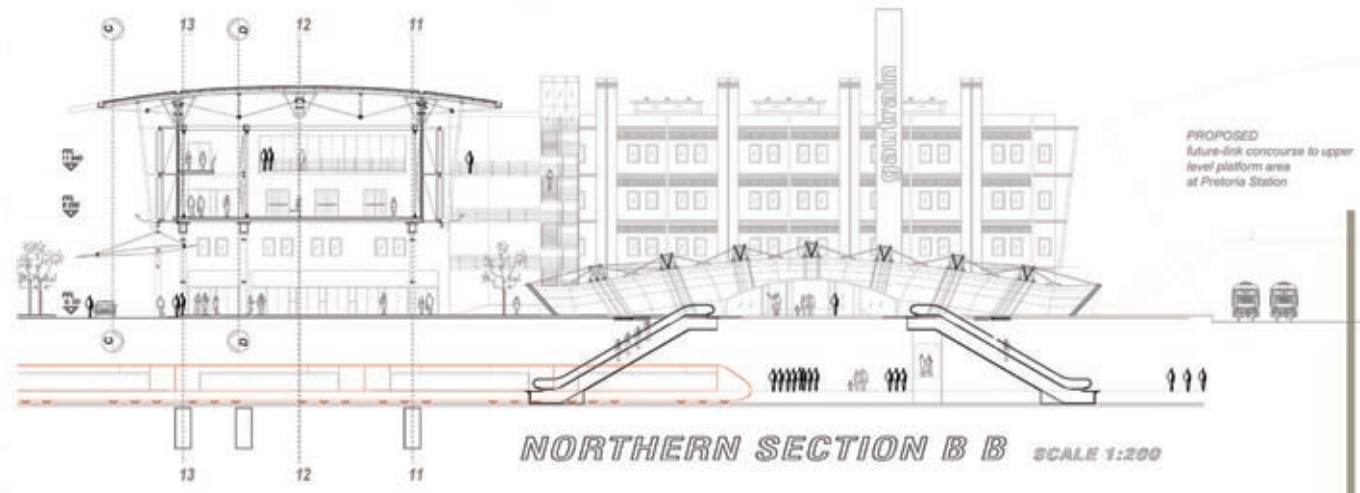


NORTHERN SECTION A A SCALE 1:200

PROPOSED future-link concourse to upper level platform area at Pretoria Station

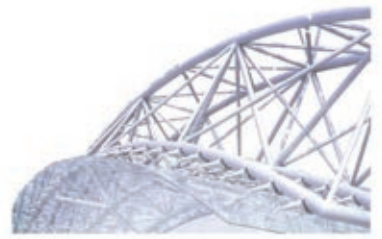


SUN PENETRATION TO EASTERN ZONE SCALE 1:100

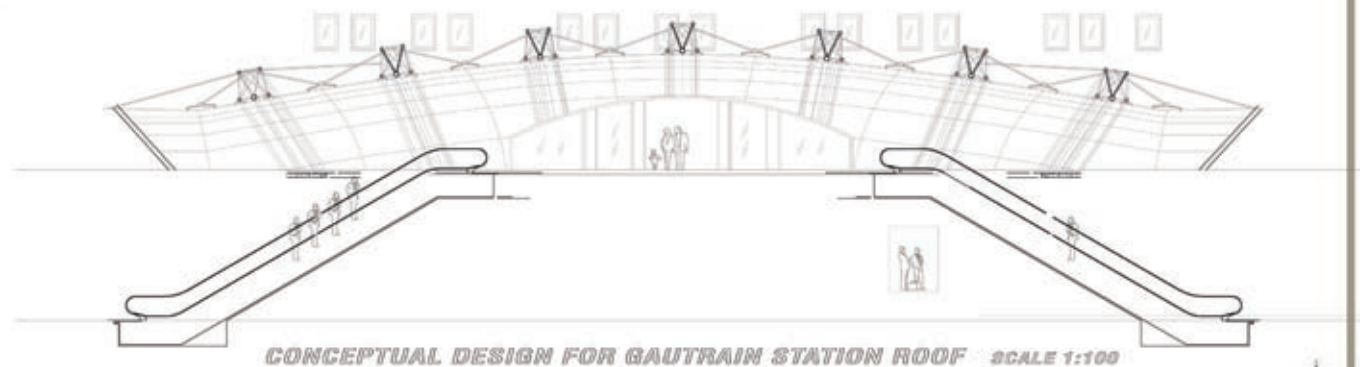


NORTHERN SECTION B B SCALE 1:200

PROPOSED future-link concourse to upper level platform area at Pretoria Station



PROPOSED GAUTRAIN ROOF STRUCTURE

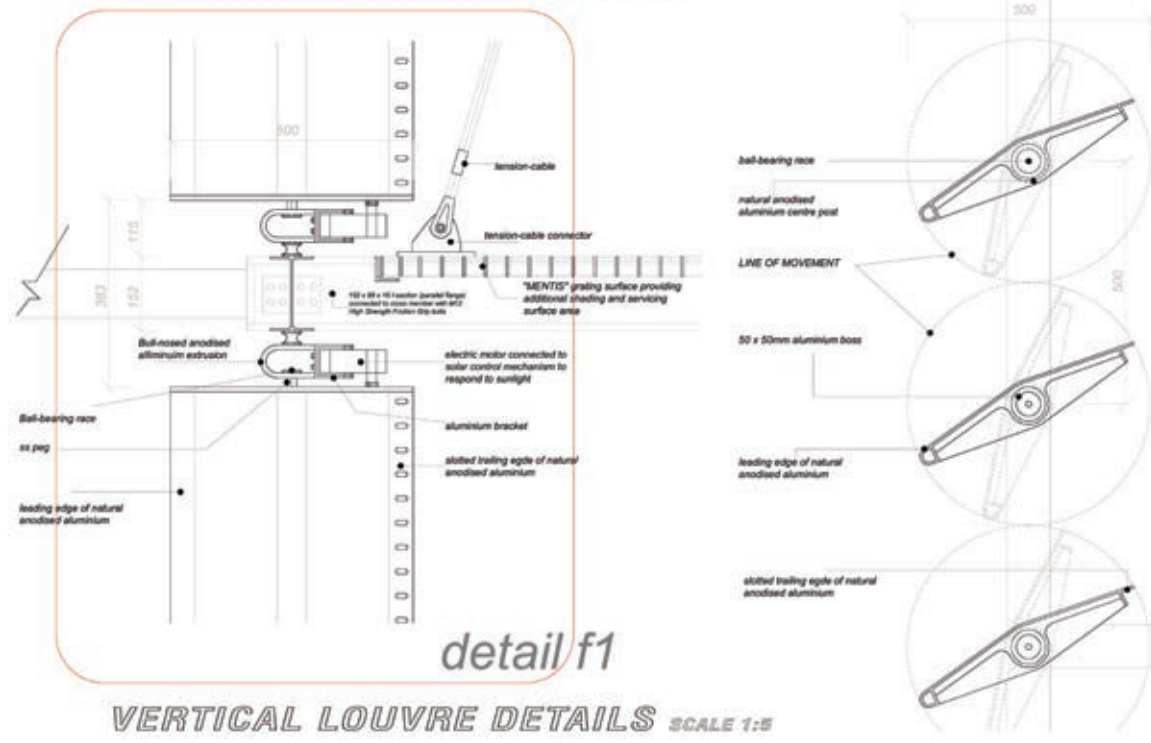
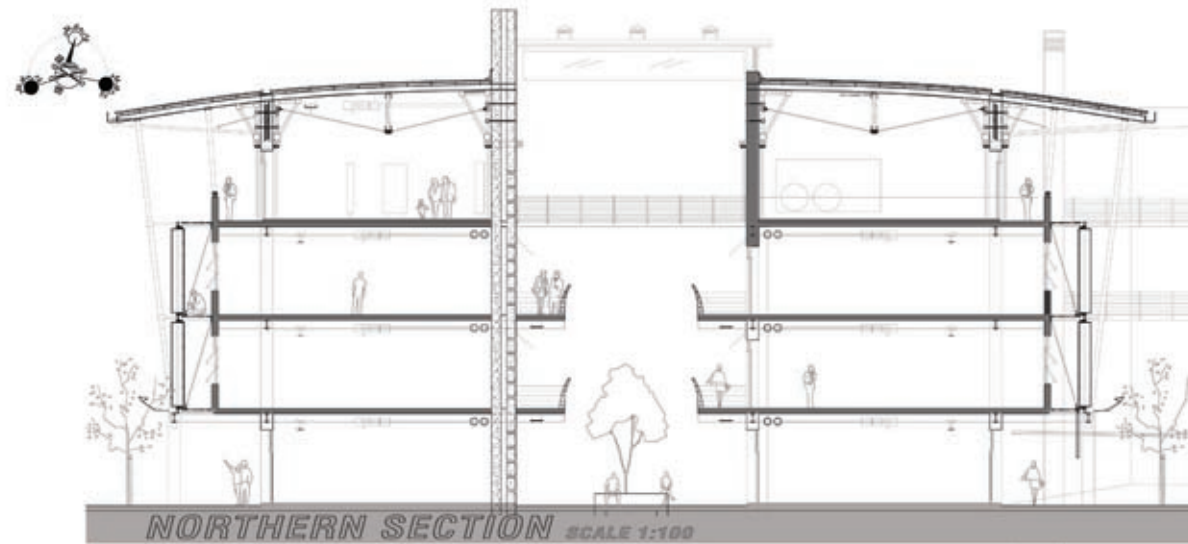
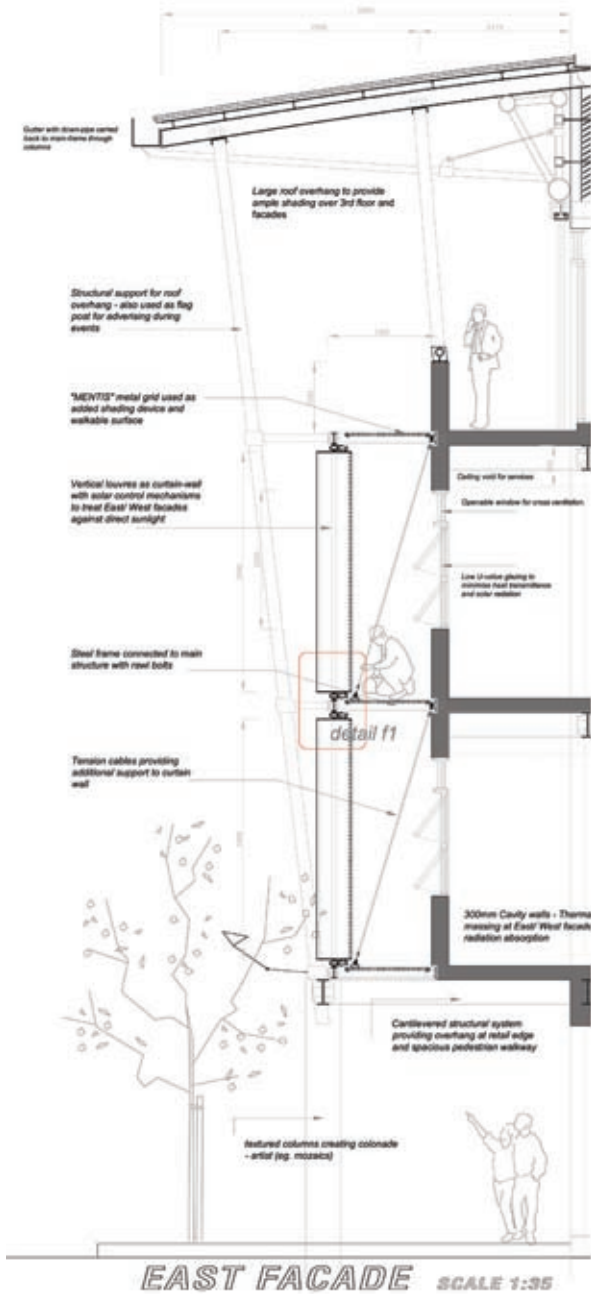


CONCEPTUAL DESIGN FOR GAUTRAIN STATION ROOF SCALE 1:100

SECTIONS AND ELEVATIONS

PRETORIA STATION PRECINCT





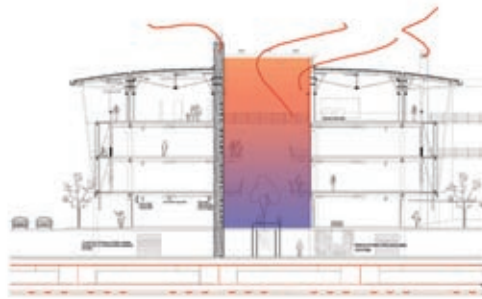
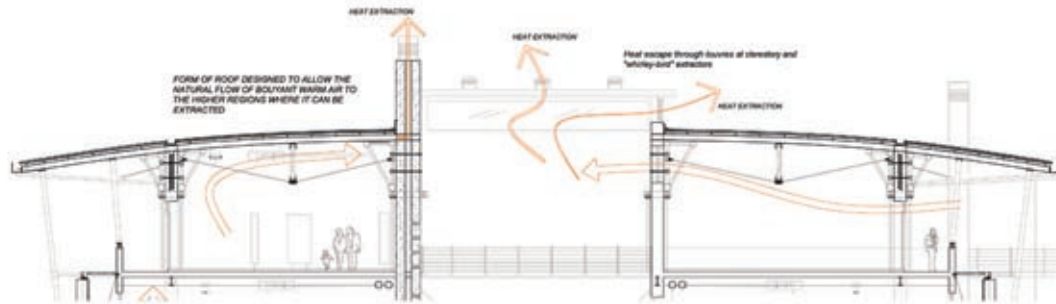


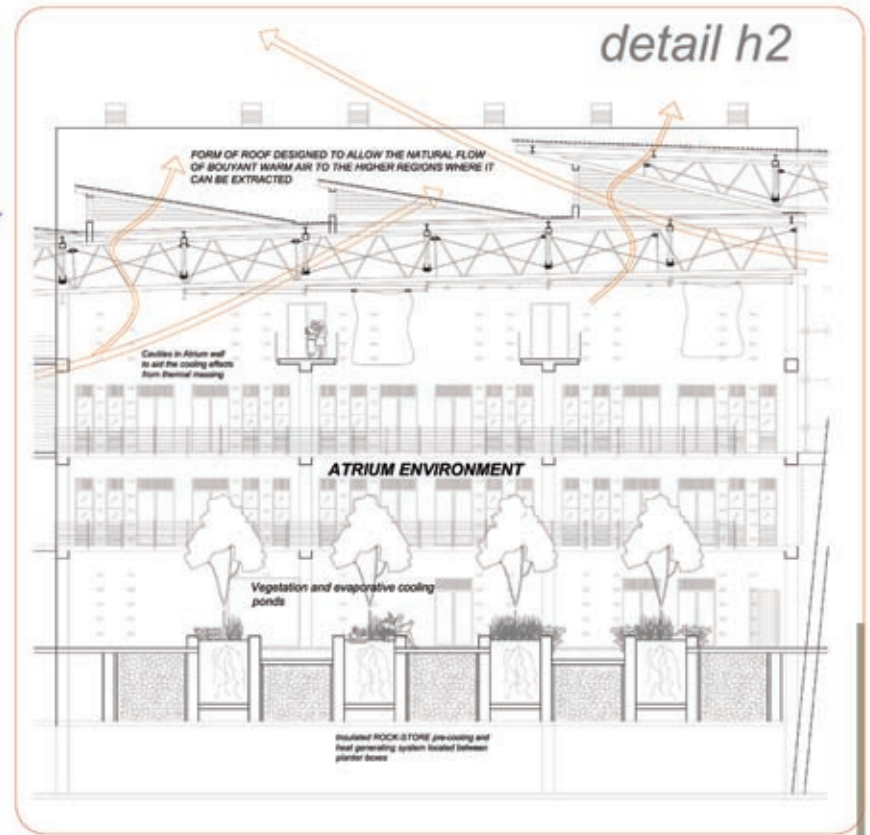
FIG. 9.3.4.1.8 Northern section of building showing the positioning and temperature gradient of the atrium



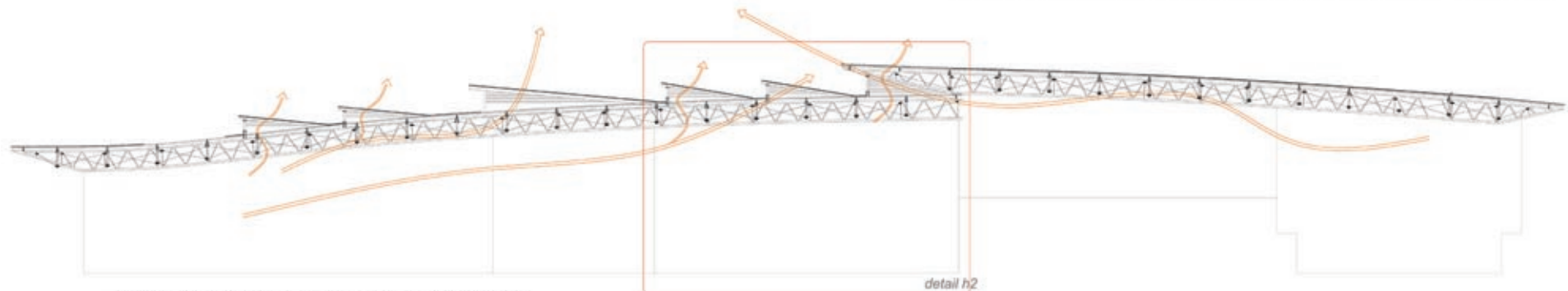
FIG. 9.3.4.1.7 Elevation and section right of ATRIUM well as a measuring element to absorb thermal energy and act as a ventilator



NORTHERN ROOF SECTION SCALE 1:100



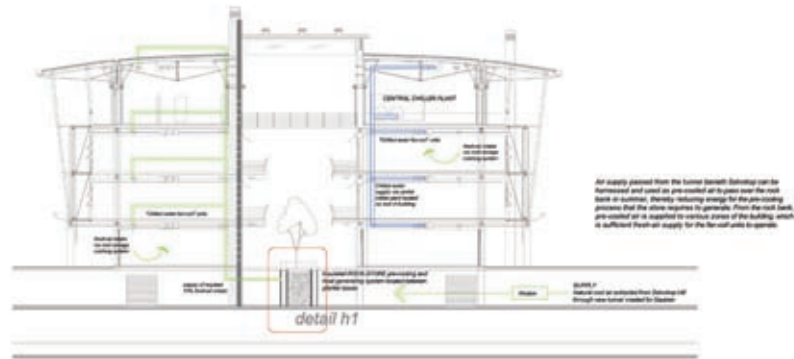
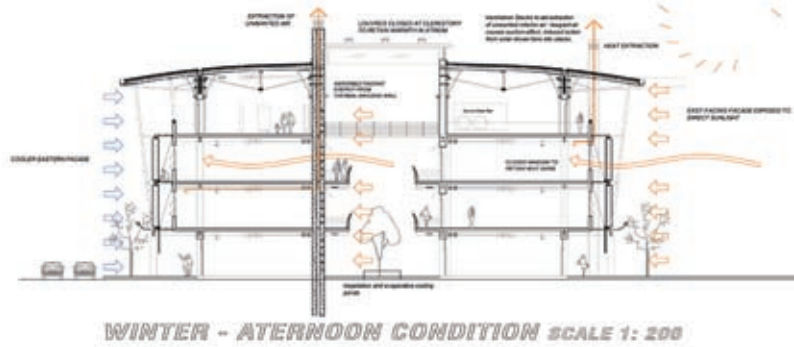
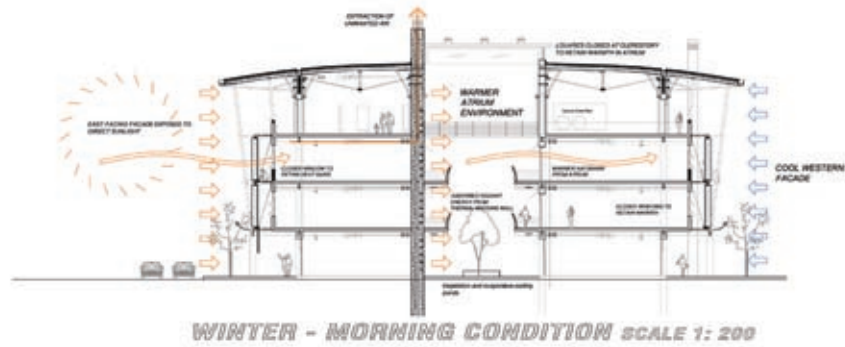
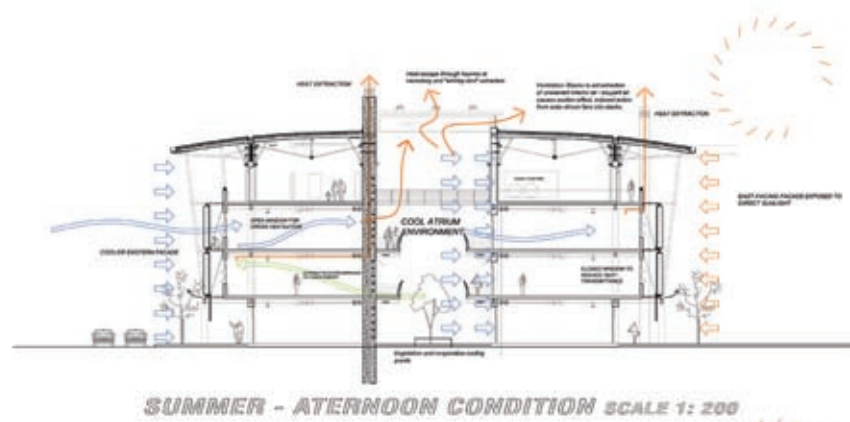
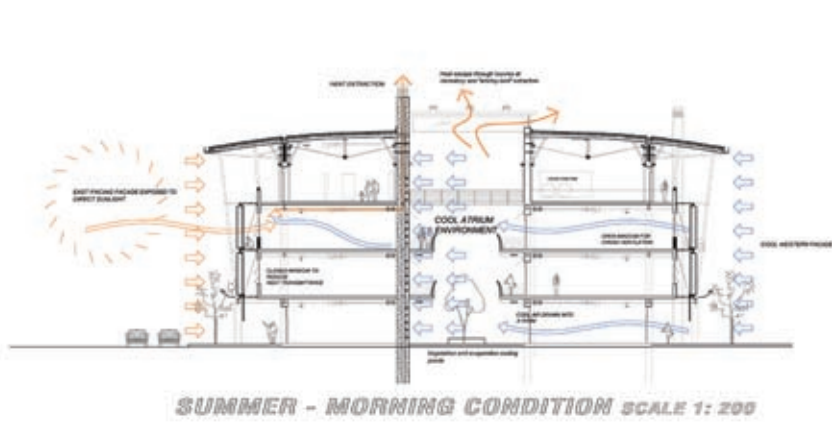
WESTERN ELEVATION ATRIUM SCALE 1:100



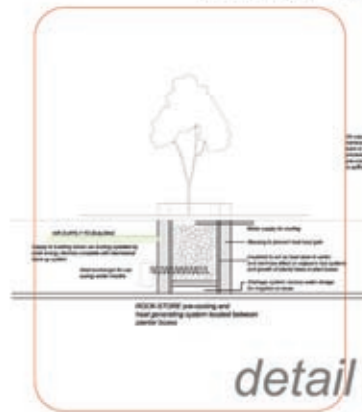
WESTERN ROOF SECTION SCALE 1:200

PRETORIA STATION PRECINCT





MECHANICAL COOLING SYSTEM SCALE 1: 200



ROCK STORE SYSTEM SCALE 1: 100

APPLIED METHODS OF ACTIVE AND PASSIVE THERMAL CONTROLS

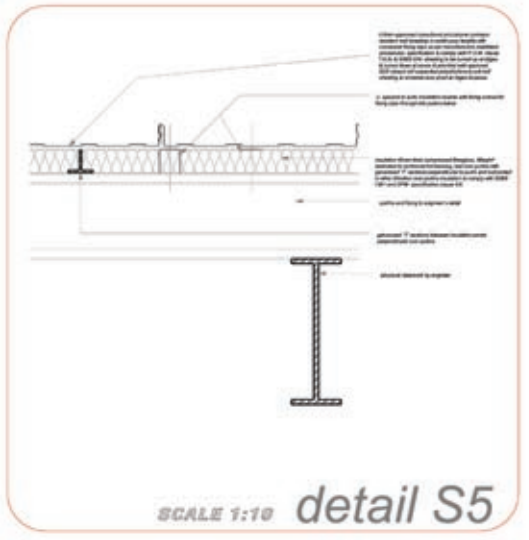
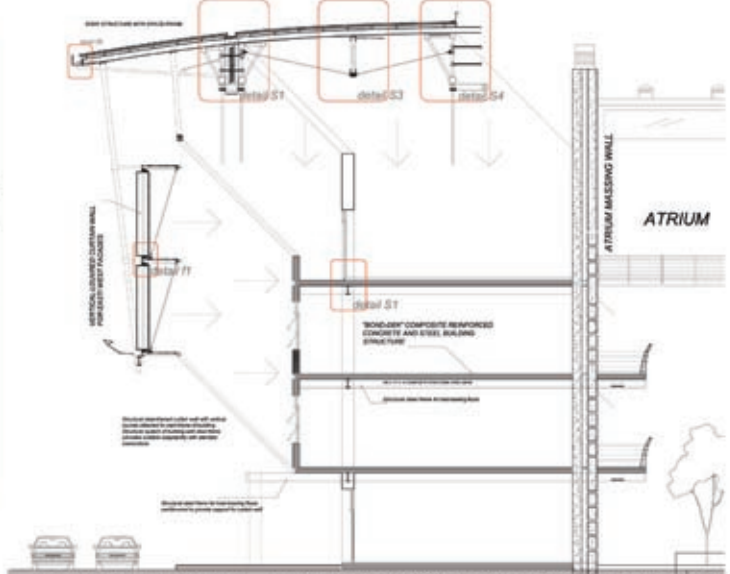
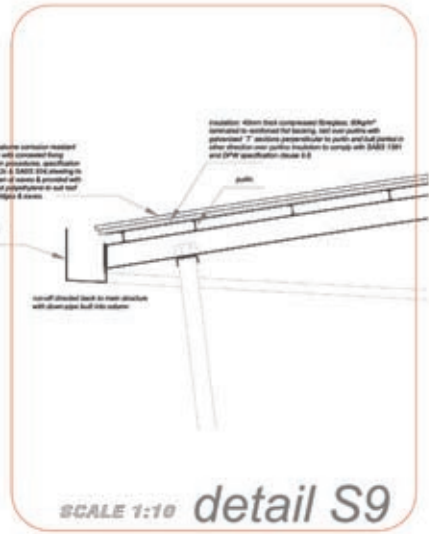
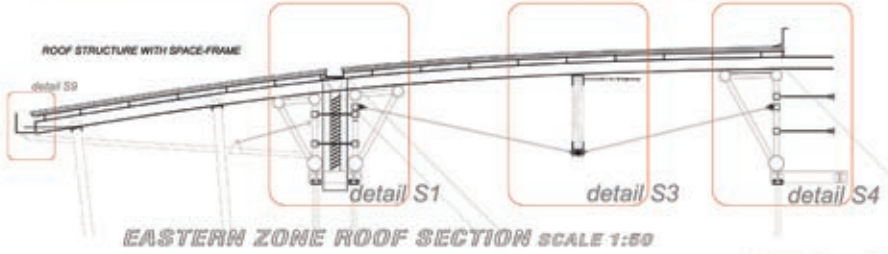
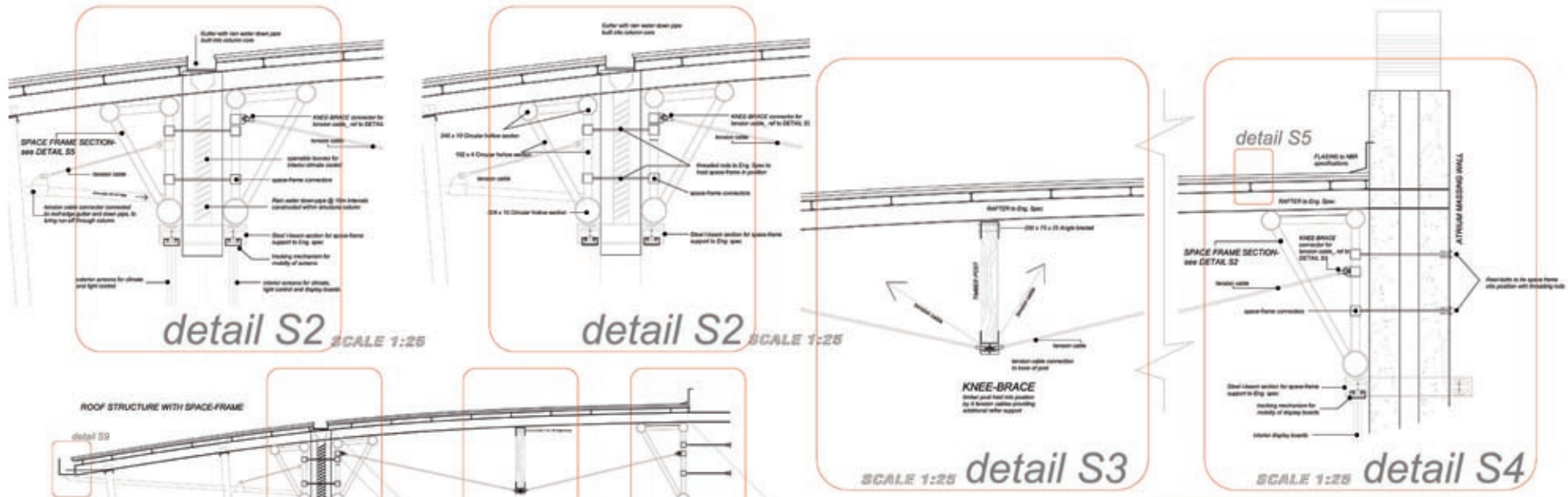
- ROCK STORAGE as thermal batteries for heating and cooling
- ATRIUM with green space and evaporative cooling ponds
- MASSING provided by thick reinforced concrete wall with cavities to assist air flow within atrium space and assist cellular zones
- VENTILATION STACKS situated primarily on Western & Northern facades to act as heat extractors assisted by solar-energy and mechanical back-up systems
- SUNSCREENS
- VERTICAL LOUVRES as curtain wall on East and West facades with solar control mechanisms
- HIGH CEILING in occupied spaces to assist temperature gradients
- ROOF DESIGN to assist in the natural movement of air flow to create a functional structural element that acts as a ventilator
- VAV Centralized Chilled Water handling units with VAV diffusers

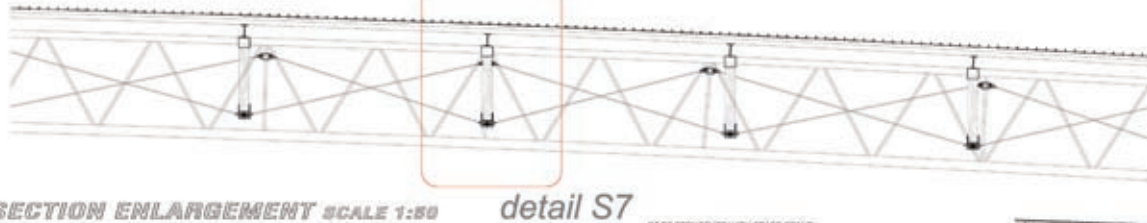
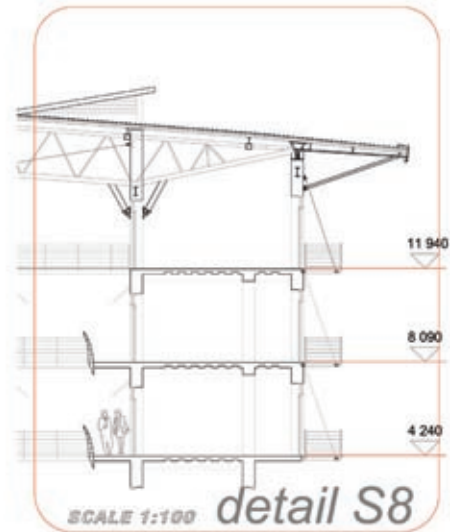
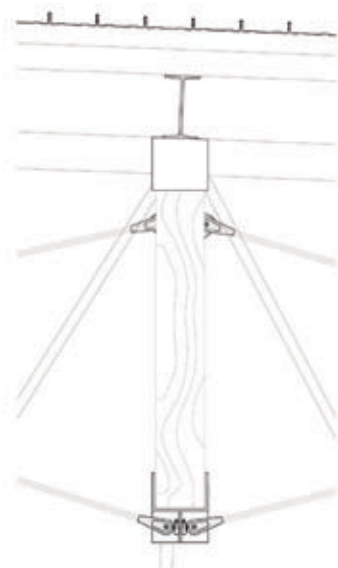
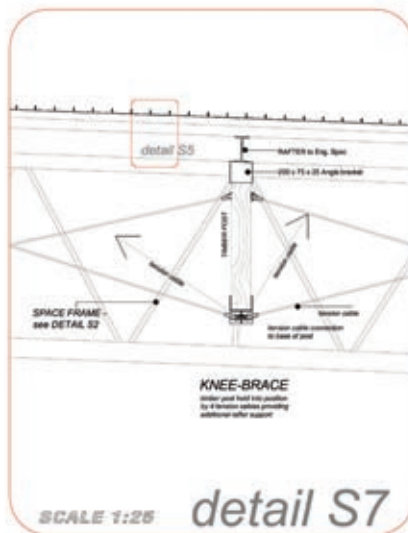
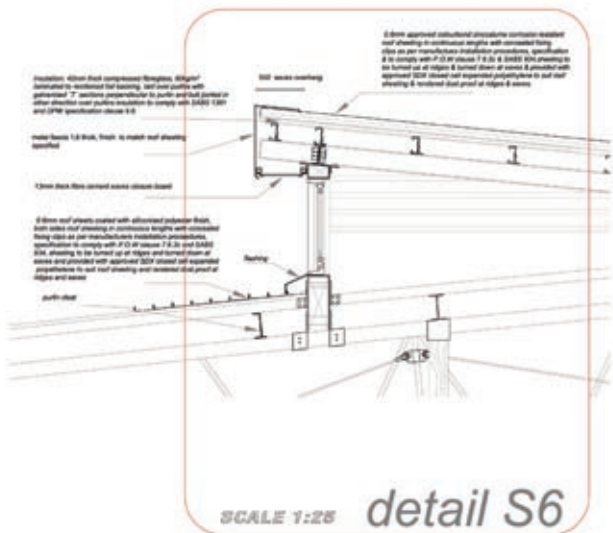
detail h1

PRETORIA STATION PRECINCT

HVAC - HEATING VENTILATION AND COOLING







WESTERN EXTRUSION OF ROOF SCALE 1:200

PRETORIA STATION PRECINCT

STRUCTURAL SYSTEMS - ROOF ELEMENT

