

# SUSTAINABLE ENERGY TECHNOLOGIES CENTRE (SETC)



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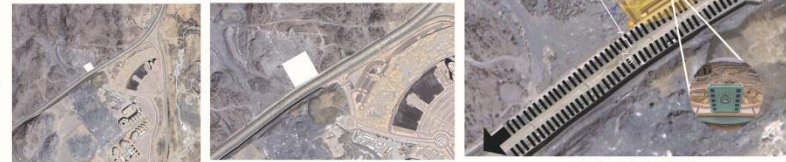
# INFORMATIONS AND ANALYSIS

## SUSTAINABLE ENERGY TECHNOLOGIES CENTRE (SETC)

**PROJECT BRIEF :** Distinguished universities are characterized by the existence of advanced research centers that contribute to the knowledge and economic development of any society. The impact of these research centers is positive not only on universities, the local community, but also on the global community. Many research centers are characterized by research in specific fields, making them specialized, experienced and world-renowned. Sustainable energy research is one of the most important disciplines for the importance and use of diverse energy.



LOCATION : AL-BAHA CITY  
 PLOT AREA : 10.000 sqm  
 BUILT-UP AREA : 13.166 sqm  
 BUILT-UP RATIO : 29.07 %  
 NUMBER OF STORIES: 6



SITE ANALYSIS

ACCESSIBILITY :



FROM AL-AQIQ

FROM KING SAUD LOCAL AIRPORT

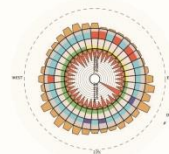
FROM AL-BAHA

LAND USES :

- AGRICULTURAL AREAS
- PARKINGS
- COLLEGES
- HOSPITAL



WIND MOVMENT



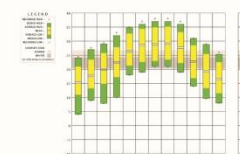
WIND COMES FROM TWO SIDES  
 -NAJIDIA WIND FROM SOUTH EAST  
 - MARINE WIND FROM SOUTH WEST

SUN PATH



IT IS NOTED THAT MOST FACADE INTERFACE SOLAR RADIATION IS SOUTHERN FACADE, WHICH ALSO LONGEST FACADE

TEMPERETURE RANGE



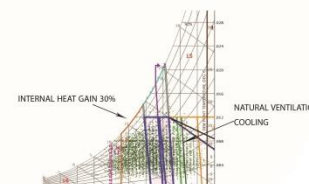
AS WE CAN SEE THAT THE HIGHEST TEMPRATURES RECORDED IN JULY AND THE HIGHEST MONTHS IN HIGH TEMPRATURES ARE FROM MAY TO SEPTEMBER

SIMILAR EXAMPLES

-URBAN WATERS CENTER



RAINWATER COLLECTION



INTERNAL HEAT GAIN 30%

NATURAL VENTILATION COOLING

-CENTRE FOR SUSTAINABLE ENERGY TECHNOLOGIES



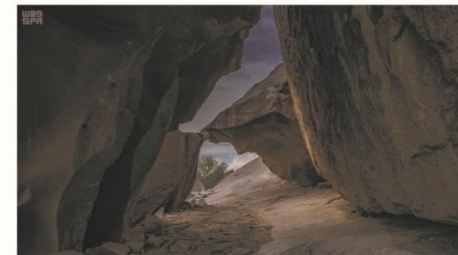
COMFORT ZONE

HIGH THERMAL MASS 33.1%

# CONCEPT AND PHILOSOPHY

**design philosophy :** Albaha mountains and flowers was the main inspiration in the design of the building where roses were taken as blocks and the raising and severity of the mountains .

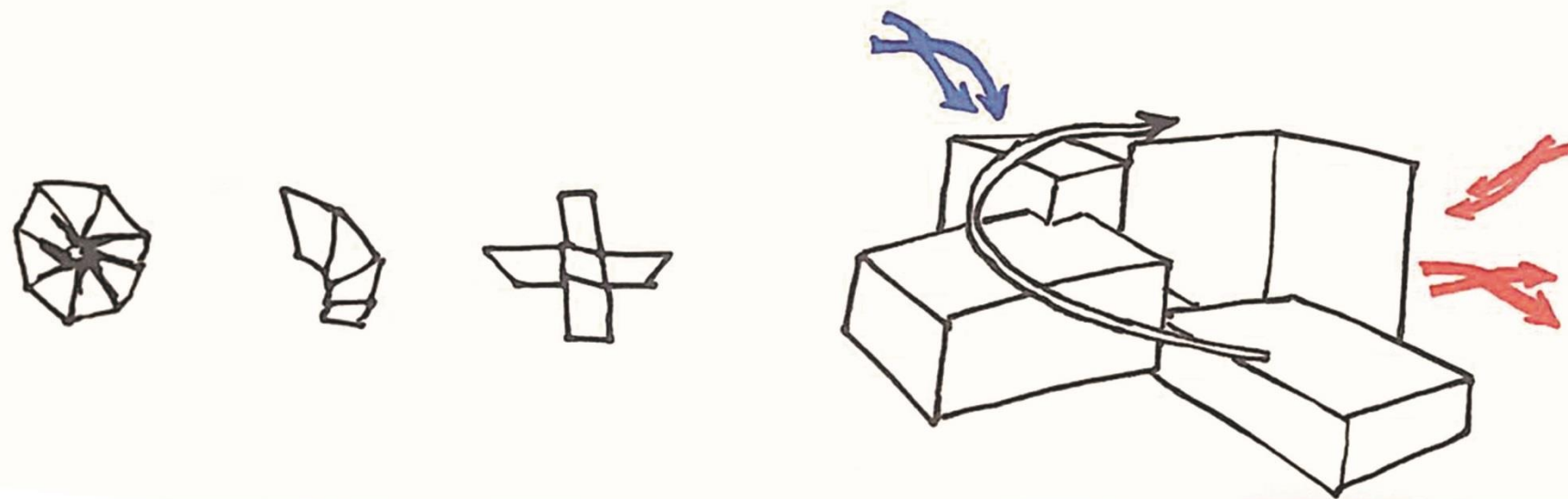
The rocks were the main inspiration in the design of the glass canopy as well as the landscape in the site .



**design concept :**

Direct the building so that the height of the building blocks the najdia wind at the same time lower corresponding building to introduce marine wind .

Separate the blocks from each other to create an internal courtyard with ventilation and natural lighting



# SITE PLAN



SITE PLAN SCALE 1:400



# GROUND FLOOR



G.FLOOR SCALE 1:200



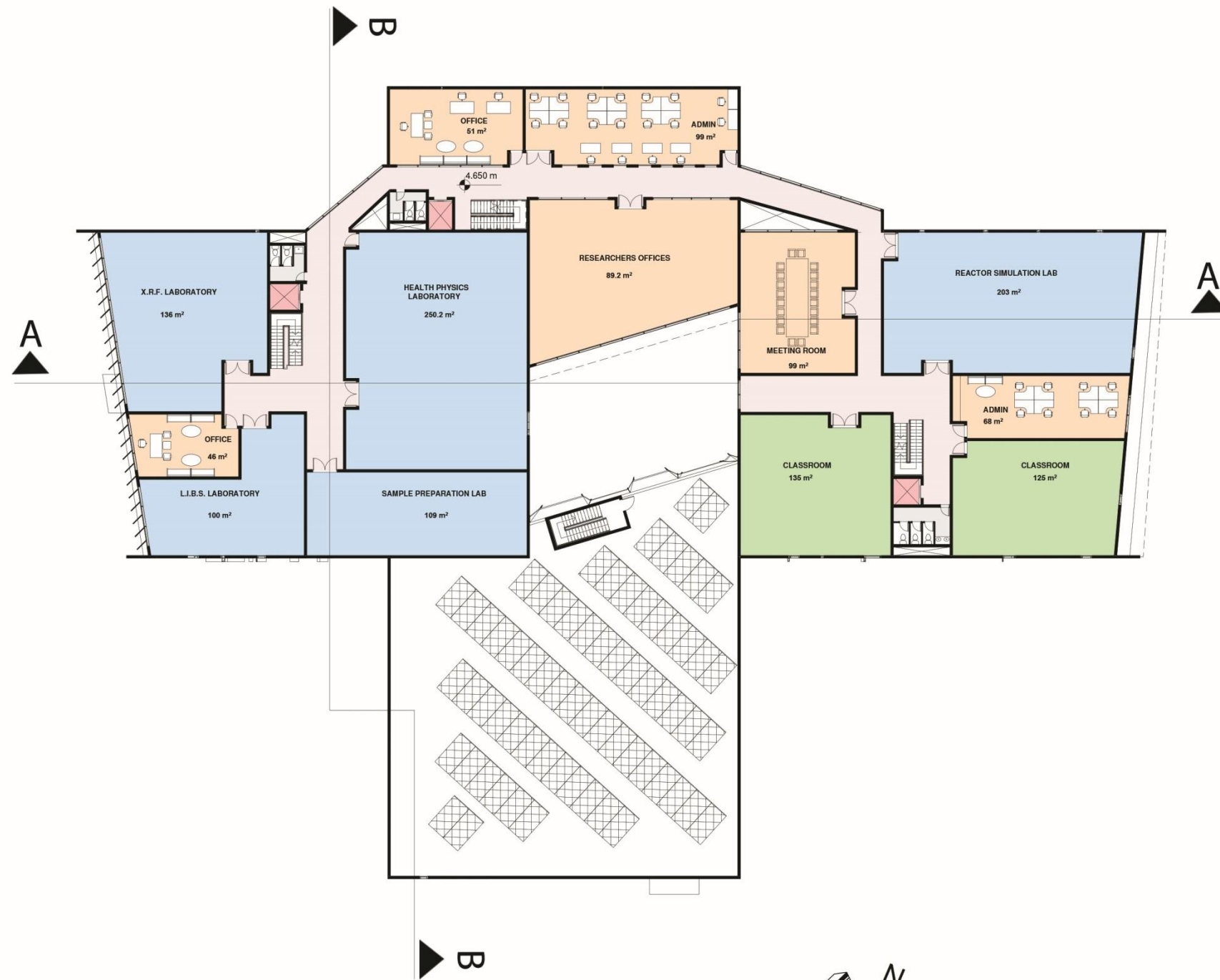
# BASEMENT FLOOR



BASEMENT.FLOOR SCALE 1:200



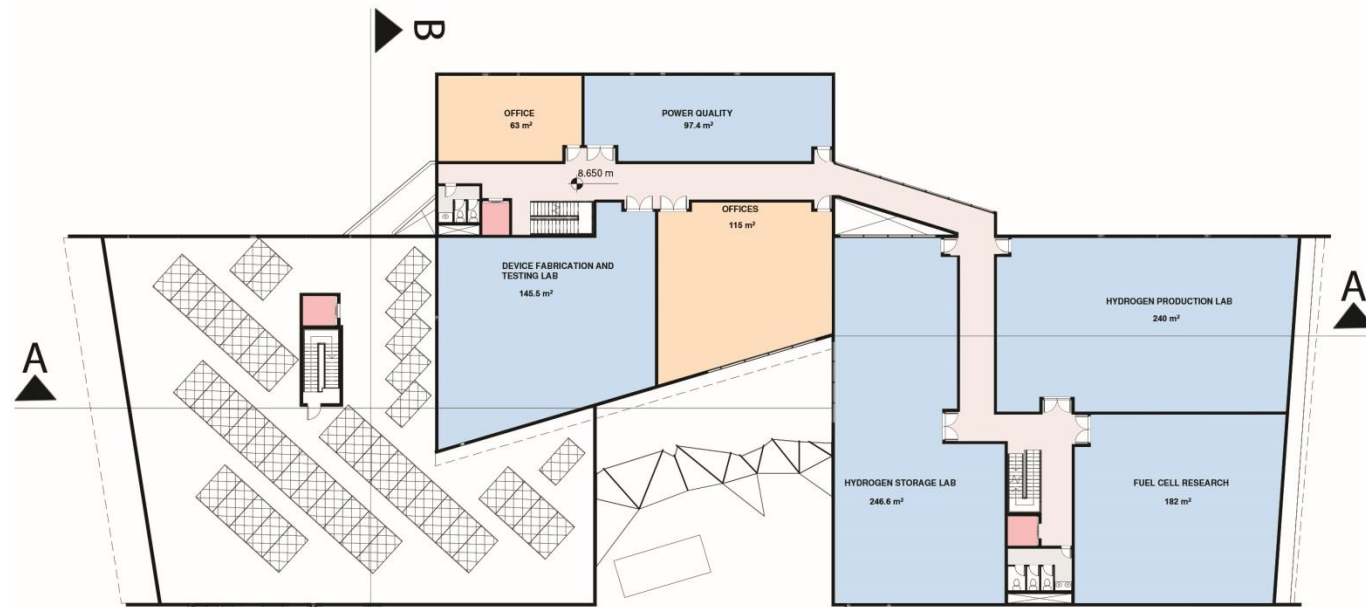
# FIRST FLOOR



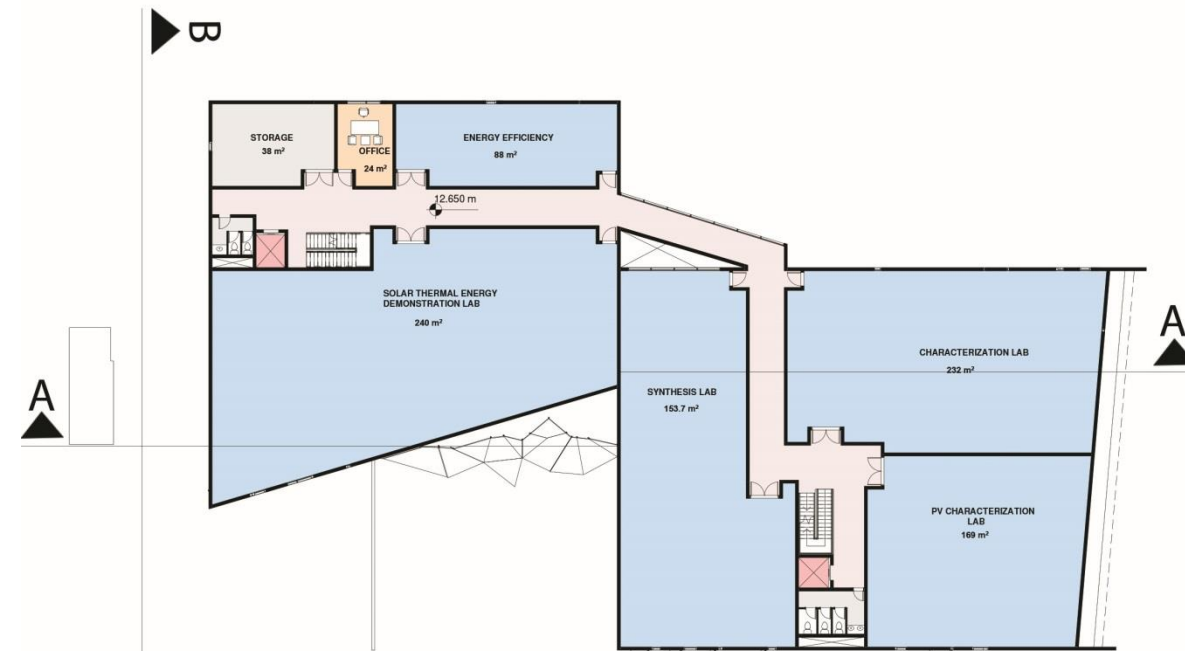
1st FLOOR SCALE 1:200



# SECOND + THIRD FLOOR



2nd FLOOR SCALE 1:200

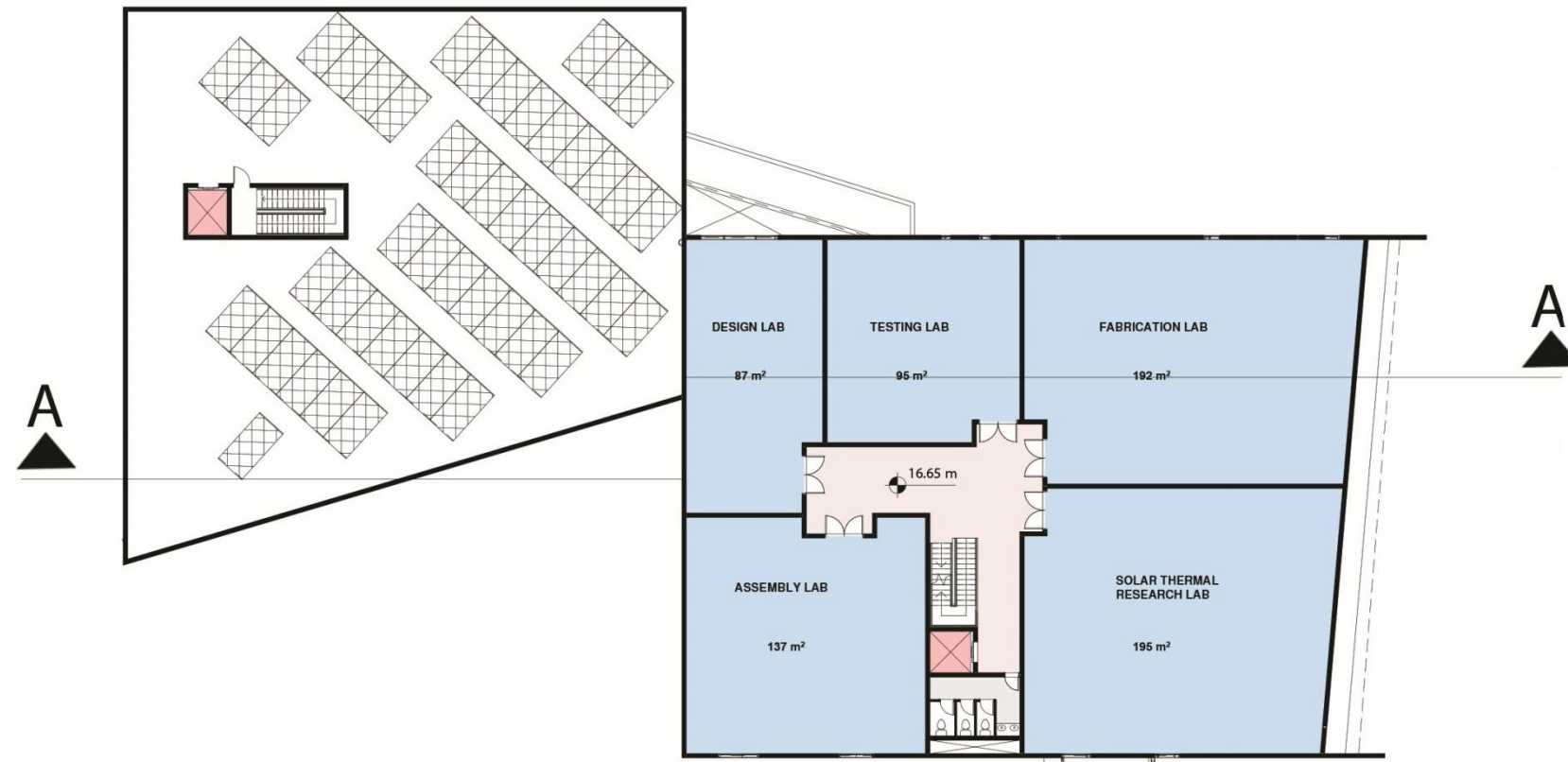


3rd FLOOR SCALE 1:200





# FOURTH FLOOR



4th FLOOR SCALE 1:200



# ELEVATIONS



SOUTH EAST ELEVATION SCALE 1:200



NORTH EAST ELEVATION SCALE 1:200

# SECTIONS

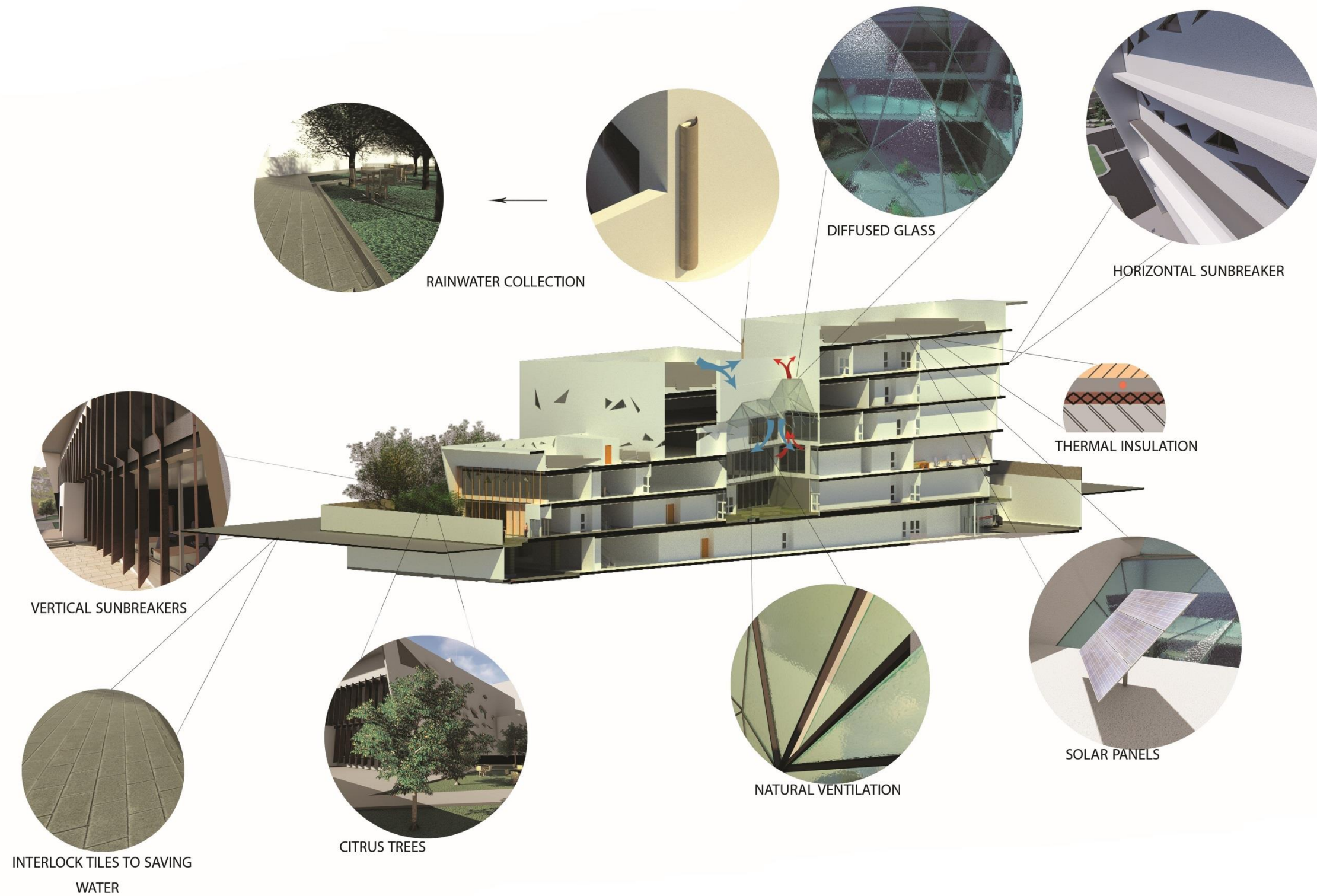


SECTION A-A SCALE 1:200



SECTION B-B SCALE 1:200

# ISOMETRIC SECTION



# PERSPECTIVES





