



INITIATING STRATEGIES
FOR URBANIZATION AND HOUSING PATTERNS

JUBA, SUDAN

PROJECT LOCATION:

AFTER THE RESTORATION OF PEACE AND STABILITY IN THE REGION IN 2005, JUBA CITY HAS BECOME THE CAPITAL OF SOUTHERN SUDAN REGIONAL AUTONOMOUS GOVERNMENT. THE POPULATION OF JUBA IS ESTIMATED TO BE **340 000** , EXPECTED TO DRAMATICALLY INCREASE IN THE NEAREST FUTURE TO MORE THAN **750 000** DUE TO GROWTH AND CONCENTRATION OF URBAN FUNCTIONS AND AMENITIES COMBINED WITH THE LARGE INFLUXES OF IDPs (INTERNALLY DISPLACED PEOPLE) AND IMMIGRANTS RETURNEES. HOWEVER, SINCE NO INVESTMENT OR DEVELOPMENT INITIATIVES HAVE BEEN CARRIED FOR MORE THAN TWO DECADES; THE DURATION PERIOD OF THE THEN ON-GOING CIVIL WARS, JUBA'S PHYSICAL ENVIRONMENT HAS ALREADY DEVELOPED INTO DETERIORATING, INHUMANE URBAN CONDITIONS .

SITE ENVIRONMENTAL CHARACTERISTICS:

THE CITY OF JUBA IS LOCATED AT 4° 52' NORTH OF THE EQUATOR AND 31°36' EAST OF GREENWICH, AT 460 M. ABOVE SEA LEVEL.

THE NATURAL ENVIRONMENT AROUND JUBA IS AMAZINGLY BEAUTIFUL; THE VARIETY AND THE RICHNESS OF NATURAL POTENTIALS IS ITS DISTINCTIVE CHARACTERISTICS (HILLY AREAS, THE RIVER, THE PLAINS, THE WOODED AREAS, THE ROCKY AREAS, ETC.).

CLIMATE: AVERAGE MINIMUM TEMPERATURE: 19.4 C TO 23.7 C (DEC.)

AVERAGE MAXIMUM TEMPERATURE :31.5 C TO 37.9 C (JAN. & FEB.)

ANNUAL PRECIPITATION : 1000 MM RAINY SEASON (MAY TO OCTOBER), DRY SEASON (NOV, APRIL)

RELATIVE HUMIDITY: MINIMUM VALUES FROM 49% TO 50% IN (JAN. TO FEB.)

MAXIMUM VALUES FROM 87% TO 88% IN MONTHS OF (JULY AND AUGUST)

PREVAILING WIND: MAINLY FROM THE SOUTH AND FROM NORTH-NORTH-WEST IN DEC., JAN & FEB.

TOPOGRAPHY: THE MAIN FEATURE OF JUBA IS LARGE ALLUVIAL PLAIN WHICH SLOPE FROM SOUTH-SOUTH WEST TO NORTH-NORTH EAST

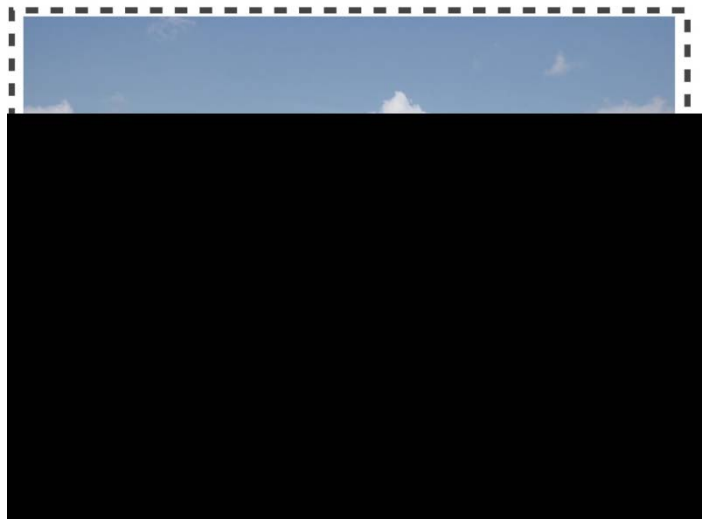
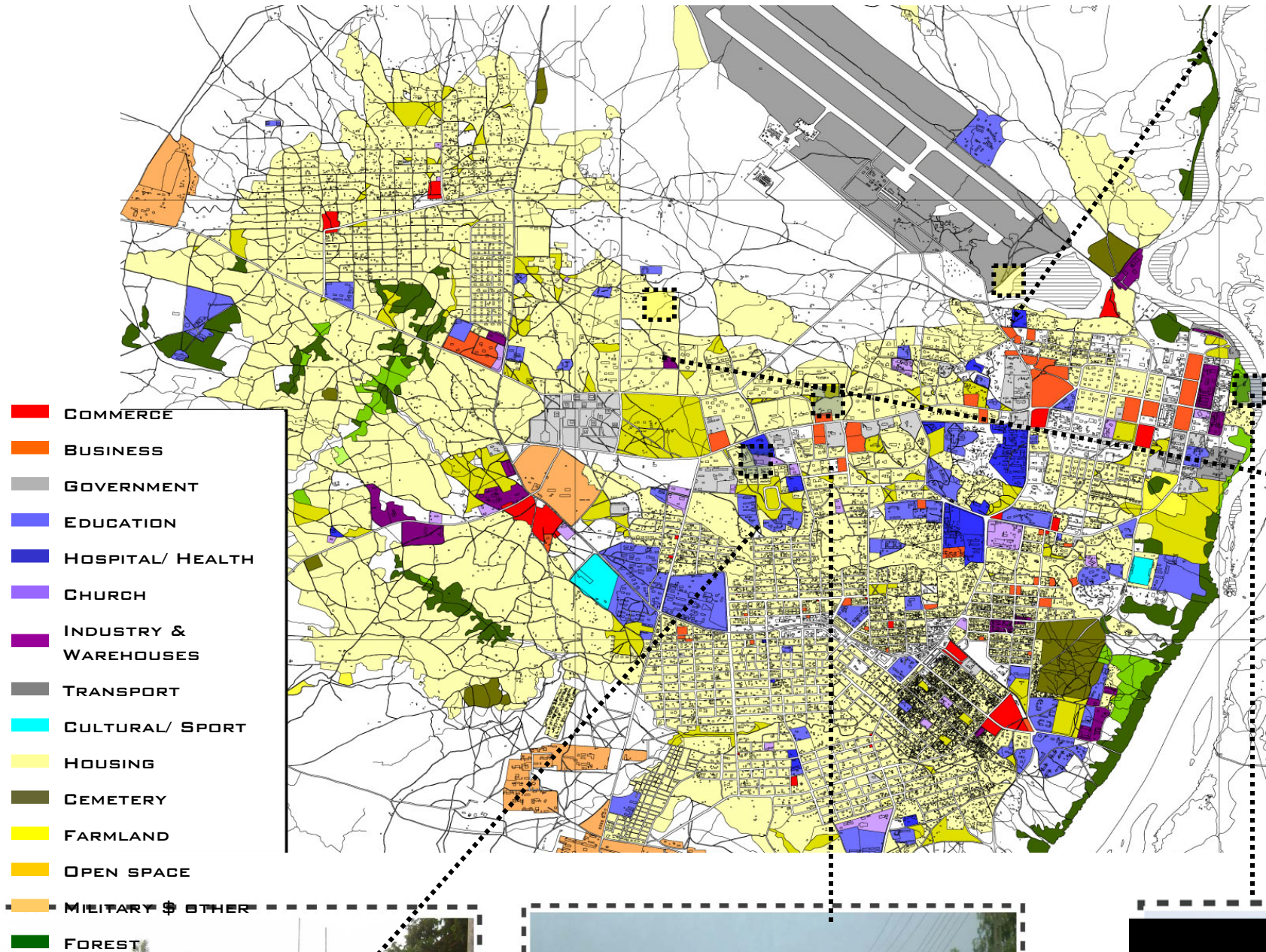


PROGRAM STATEMENT:

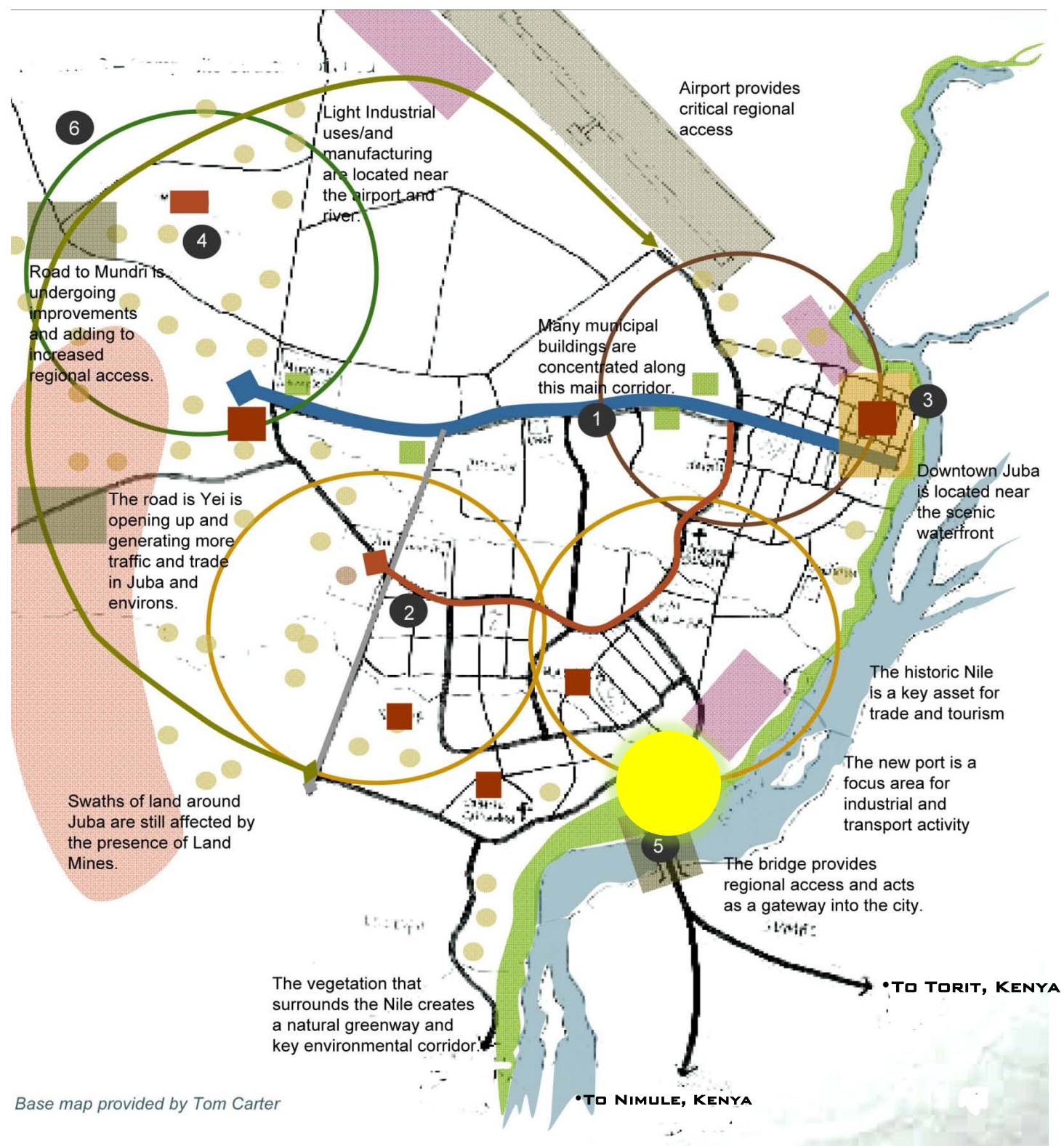
•THE PRESENT URBAN ENVIRONMENT IN JUBA IS GENERALLY CHARACTERIZED AS A DISCONNECTED, SCATTERED AND UNHOLISTIC URBAN SETTLEMENT WHICH LACKS THE BASIC SOCIAL AMENITIES IN MOST ITS MOST PARTS. DESPITE ITS RICH AND DIVERSE RESOURCES AND PHYSICAL ENVIRONMENT, THE CURRENT URBAN MORPHOLOGY HARDLY REFLECTS NOR CELEBRATE ITS UNIQUE ATTRIBUTES.

•INITIATING URBAN DEVELOPMENT STRATEGIES THROUGH A PILOT COMMUNITY DESIGN PROJECT WILL PROVIDE JUBA MUNICIPALITY AUTHORITIES WITH UNPRECEDENTED OPPORTUNITIES TO PROPERLY AND EFFECTIVELY ADDRESS THE GROWING POPULATION NEEDS FOR IMPROVED QUALITY LIFESTYLE AND TO ACHIEVE A CONTEMPORARY SELF-SUSTAINING TOWNSHIP THAT WILL GENERATE SURPLUS FUNDS NOT ONLY FOR ITS OWN DEVELOPMENTS AND GROWTH, BUT TO HELP SUBSIDIZING THE SURROUNDING RURAL AREAS AS WELL.

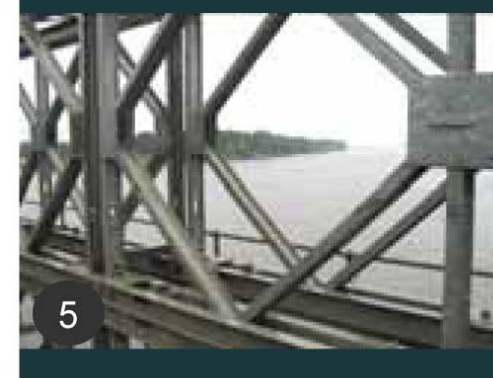
•THE PROPOSED DEVELOPMENT STRATEGIES AIMS AT FORGING AN INDIGENOUS VISION THAT IS COGNIZANT TO THE CITY DIVERSE AND RICH NATURAL HABITAT (NILE RIVER AND WILDLIFE.. ETC).



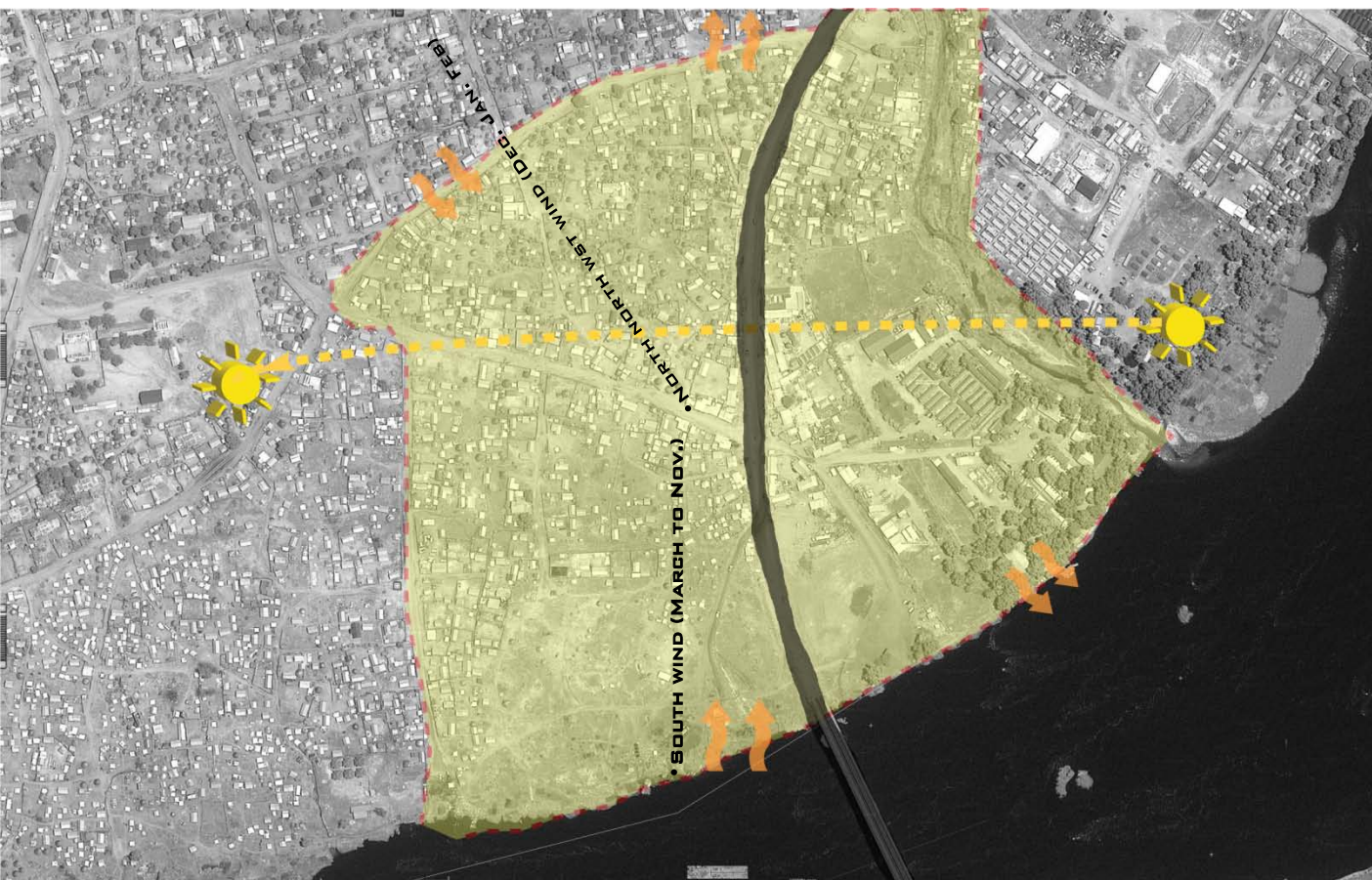
SITE ANALYSIS:



Base map provided by Tom Carter



SITE ANALYSIS:



■ *TOURISM SETTLEMENT ALONG THE NILE

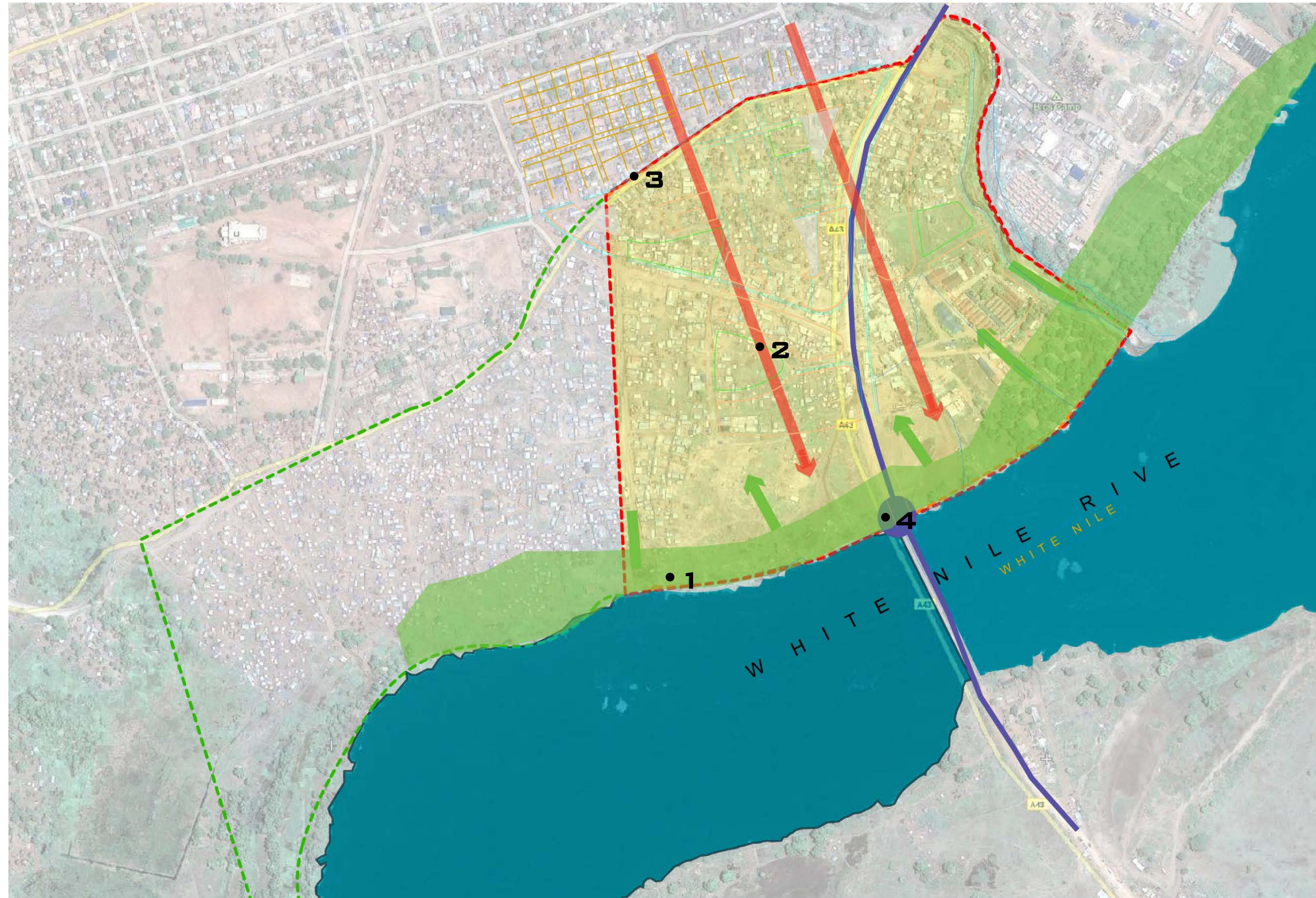
● *LOW INCOME TRADITIONAL UNIT (THATCH HUTS)

■ *COMMERCIAL SHOPS

■ *LOW INCOME GROUP RESIDENTIAL UNIT



SITE ANALYSIS: GUIDING PRINCIPLES



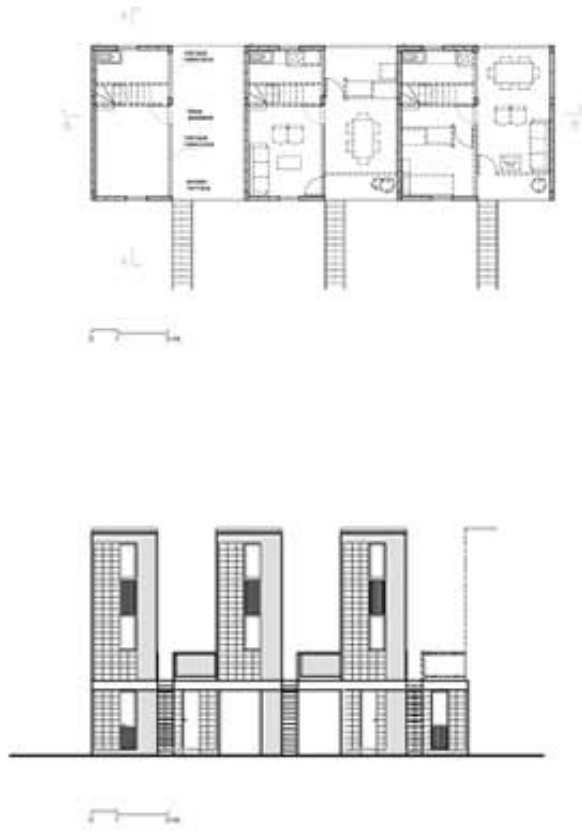
1. EXTEND THE RIVERFRONT PARK TO THE NEIGHBORHOOD

2. EXTEND THE STREETS AND NEIGHBORHOOD ACTIVITIES TO THE RIVERFRONT.

3. ESTABLISH DIVERSE NEIGHBORHOOD OF MIX-USE, MIX-INCOME

4. ENCOURAGE AND ACCOMMODATE TRAFFIC

PRECEDENTS STUDIES:



Elemental housing-Chile- Alejandro Aravena

Density approx. 120 households/ hectare
Unit Area Is Expandable to 75 square meter



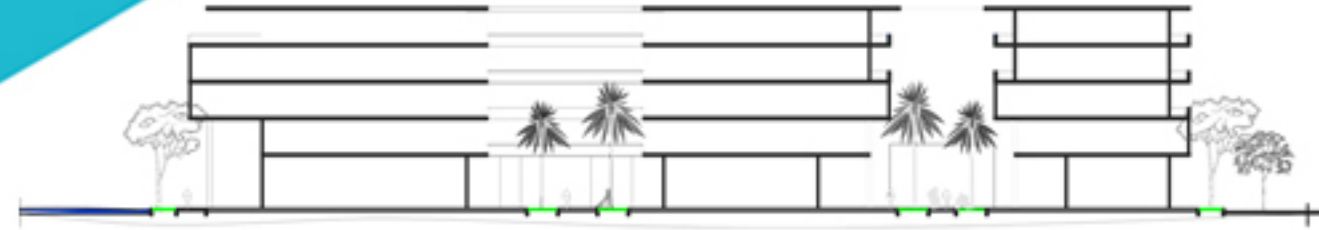
Experimental housing-Chile-Lima,Peru

Density approx. 100 households/ hectare
Unit area is expandable to 206 square meter starting from
91 square meter.

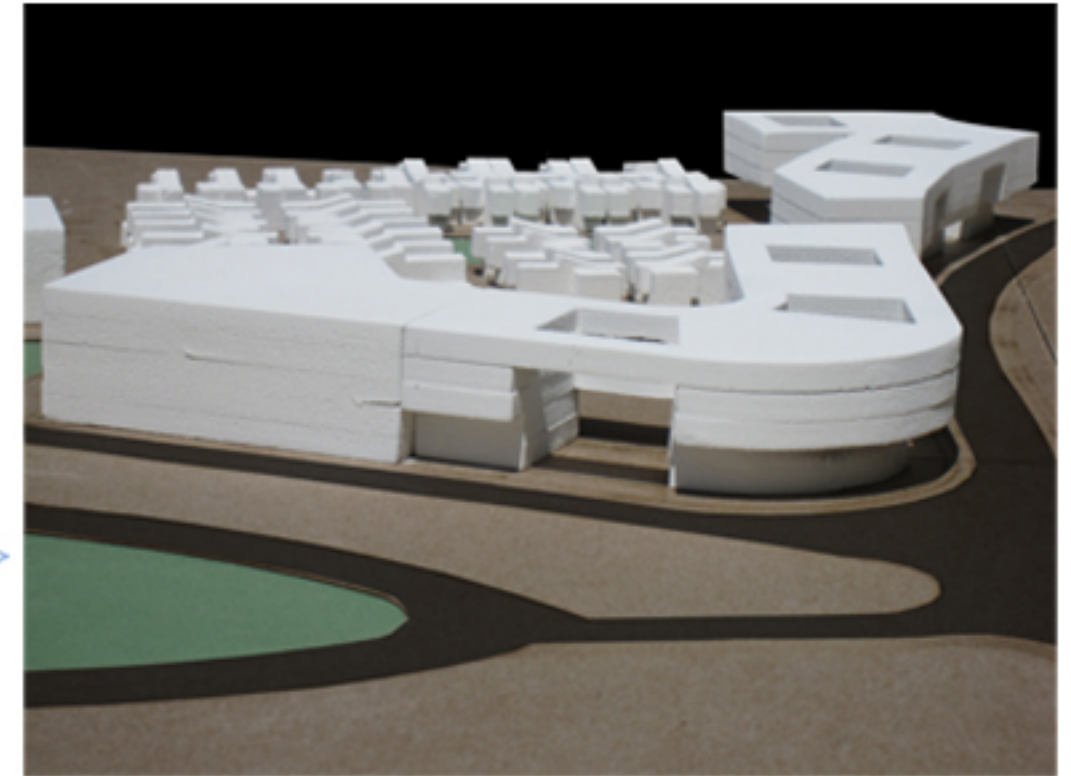







Quinta da Malagueira, Portugal-Alvar Siza

STREET HEIRARCHY



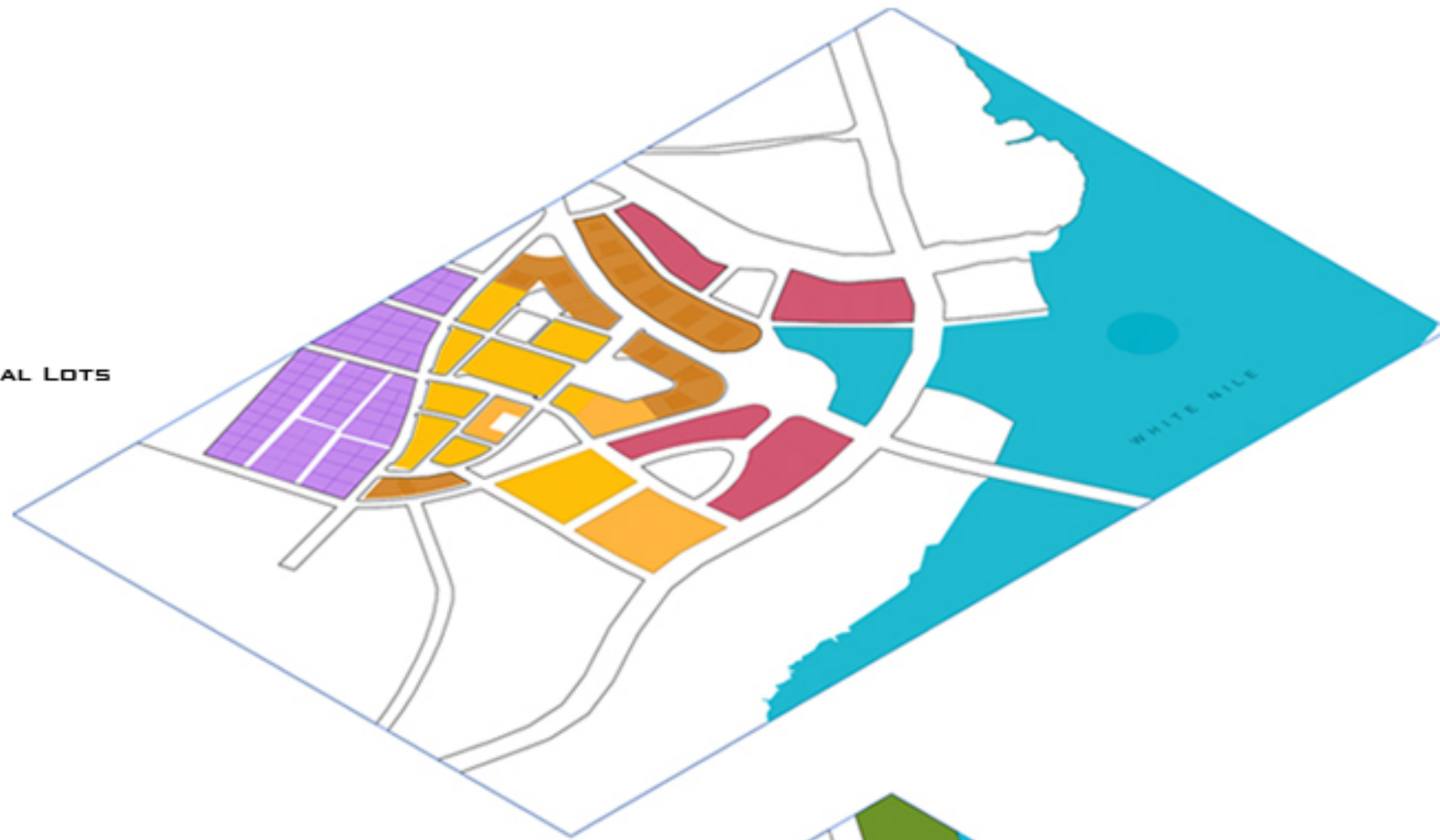
PRPOSED LANDUSE PATTERN



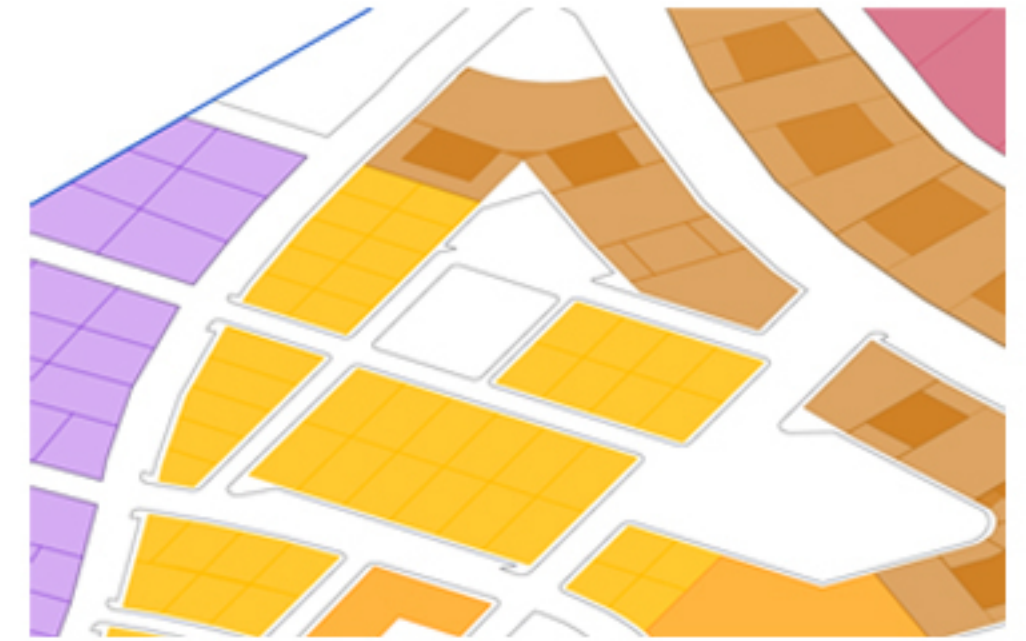
-  COMMERCIAL FACILITIES
-  RESIDENTIAL USE
-  MIX-USE FACILITIES
-  EXISTING LOW INCOME RESIDENTIAL AREA
-  CIVIC AND PUBLIC FACILITIES



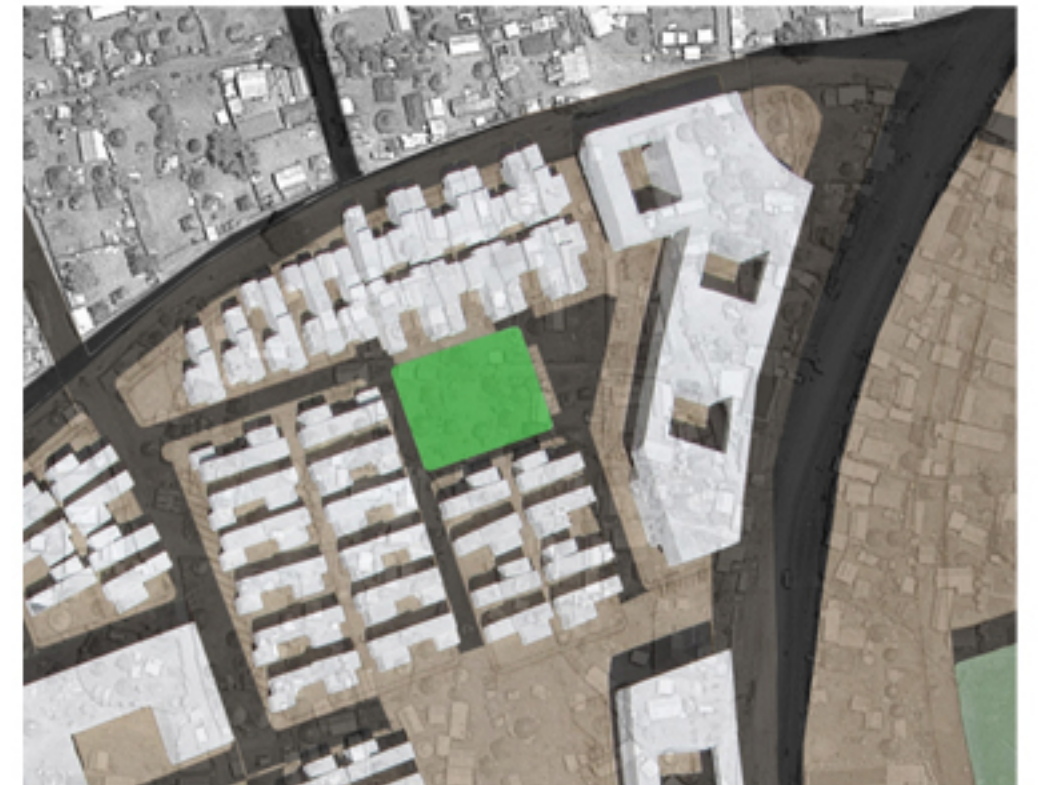
REIDENTIAL LOTS



RESIDENTIAL CLUSTER

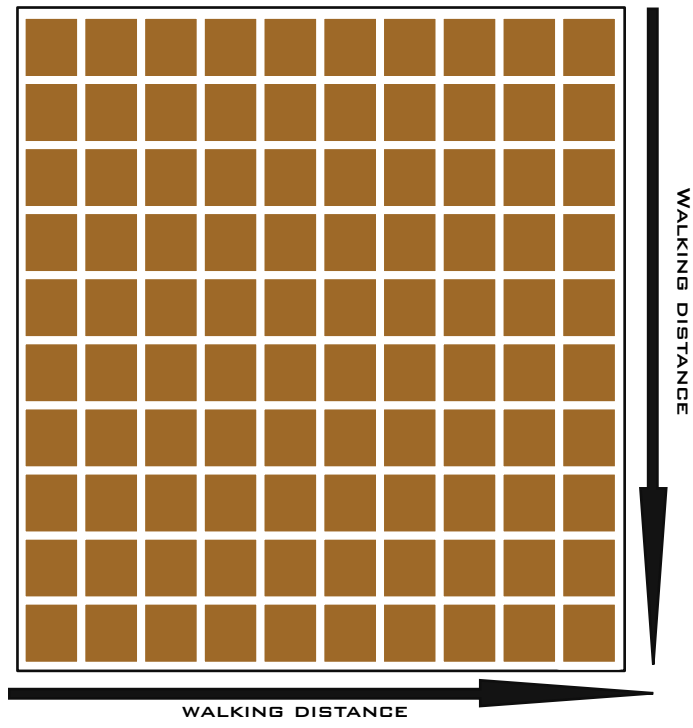


PUBLIC OPEN SPACES & CIVIC BUILDING

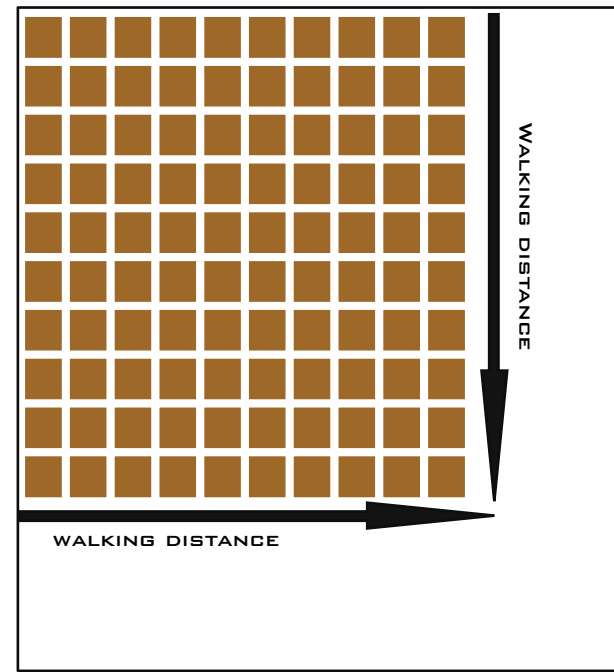


- COMMERCIAL FACILITIES
- RESIDENTIAL USE
- MIX-USE FACILITIES
- EXISTING LOW INCOME RESIDENTIAL AREA
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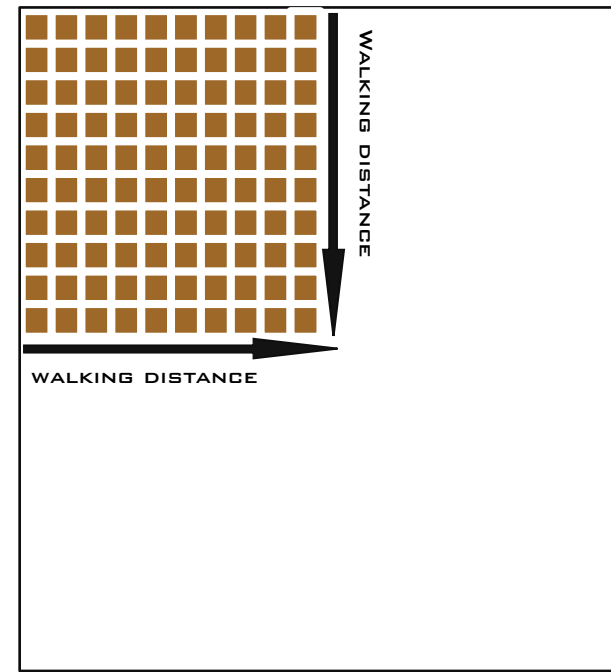
DIAGRAMS ILLUSTRATING RELATIONSHIPS OF LOT SIZES ,DENSITY, AND WALKING DISTANCE WITHIN ONE HECTARE BLOCK



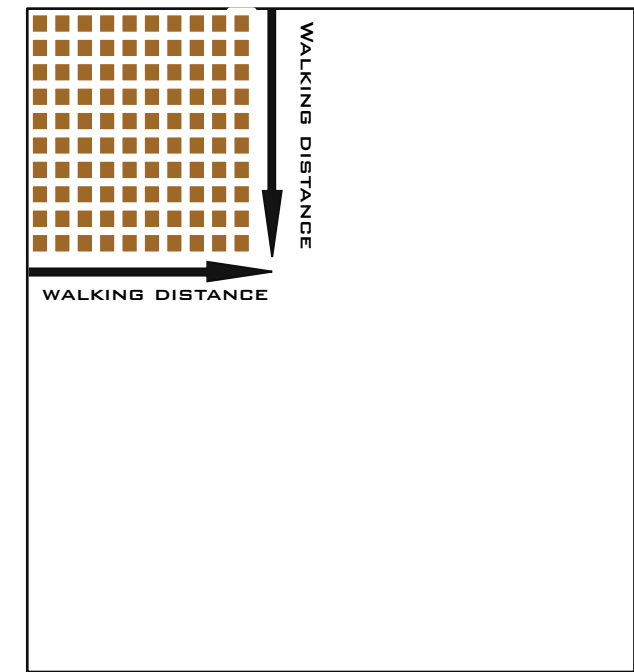
LOT SIZE 20 X 20 M



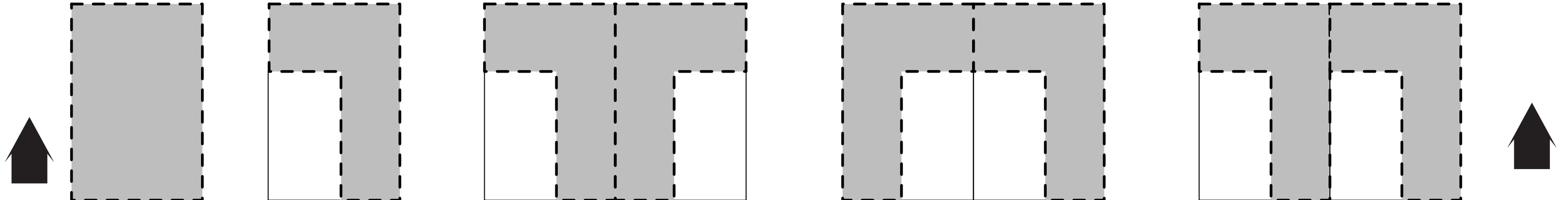
LOT SIZE 20 M X 15 M



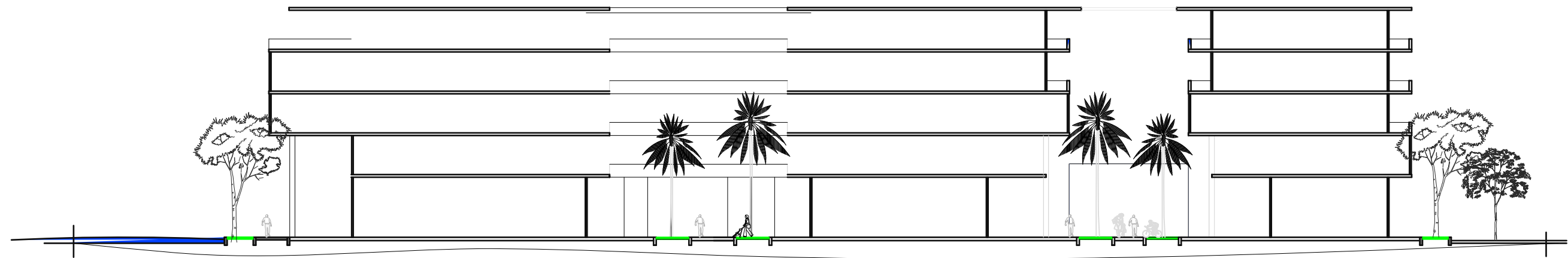
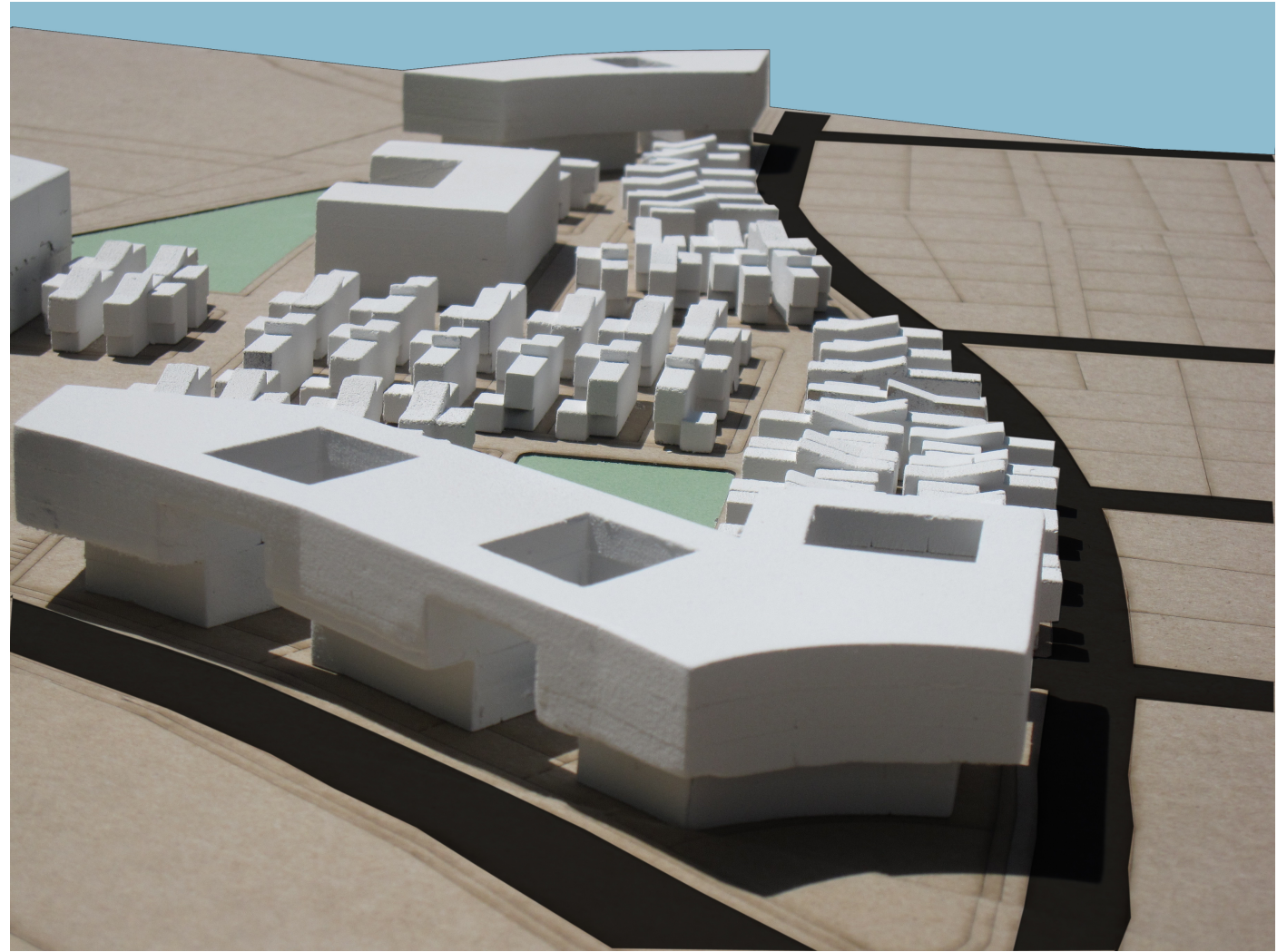
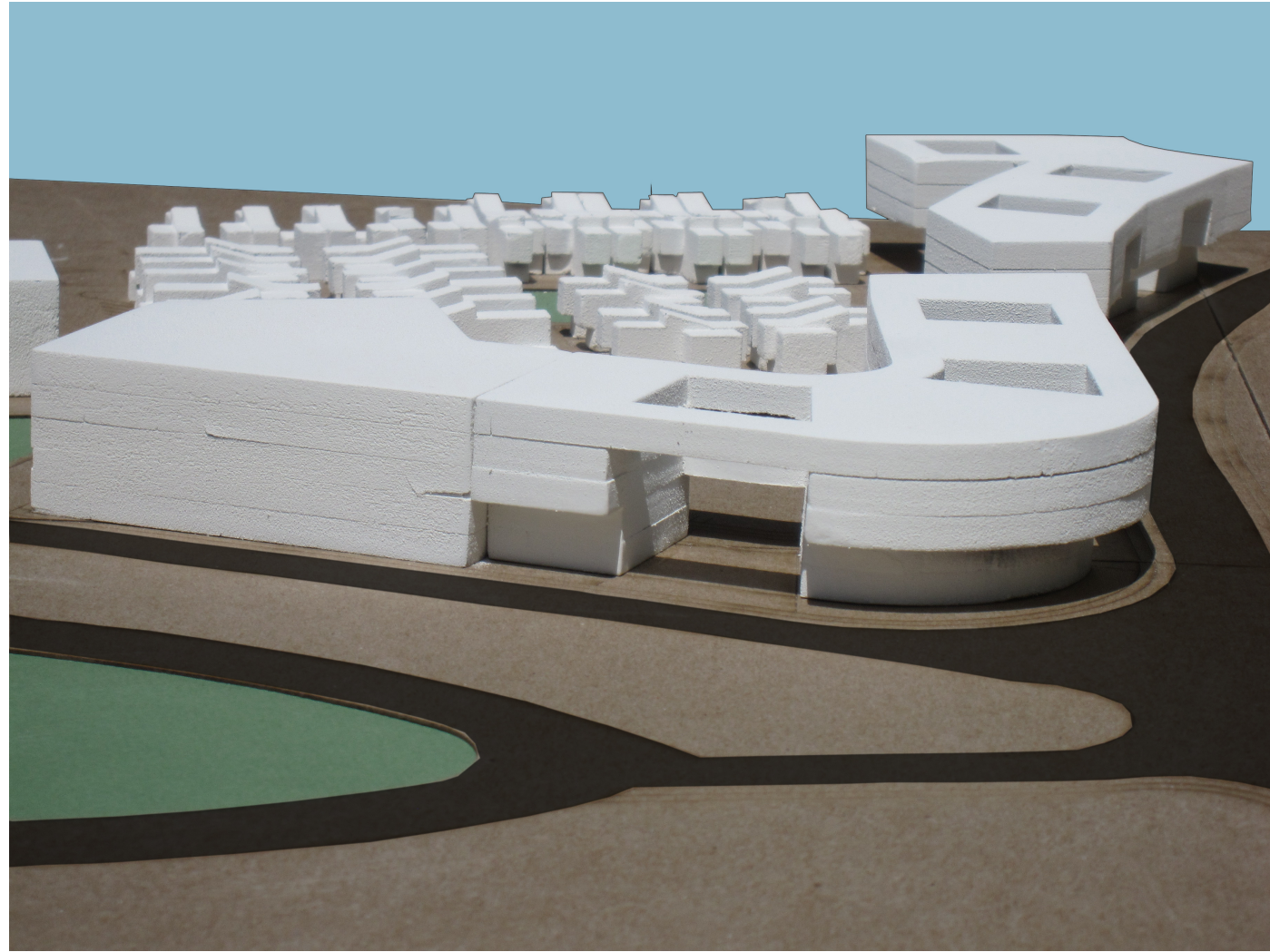
LOT SIZE 20 M X 10 M



LOT SIZE 15 M X 10 M

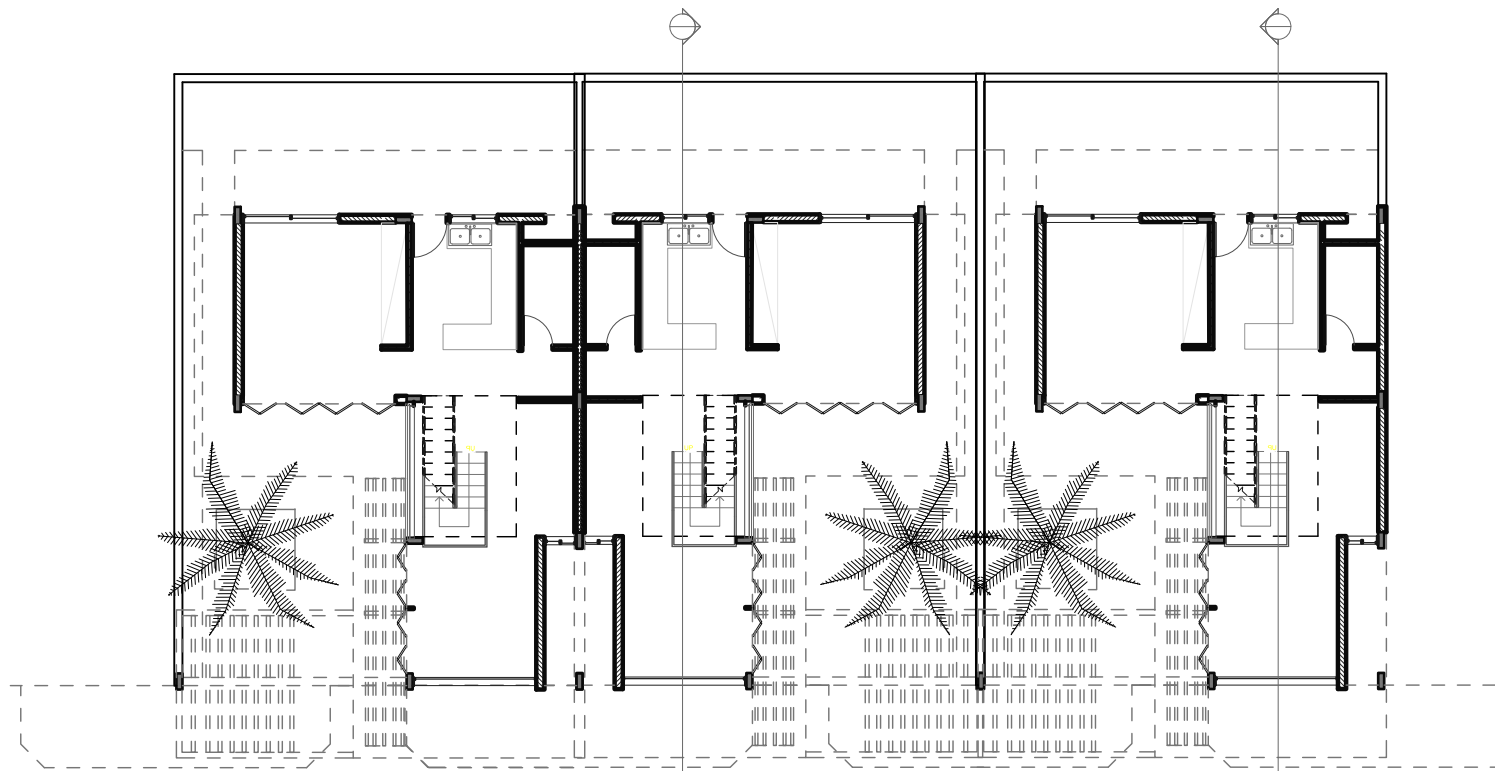


DIAGRAMS ILLUSTRATING RELATIONSHIPS OF COURTYARD AND LOT ORIENTATION TO ACHIEVE NATURAL VENTILATION AND SHADING



SECTION_MAIN STREET & MIX-USE CLUSTER

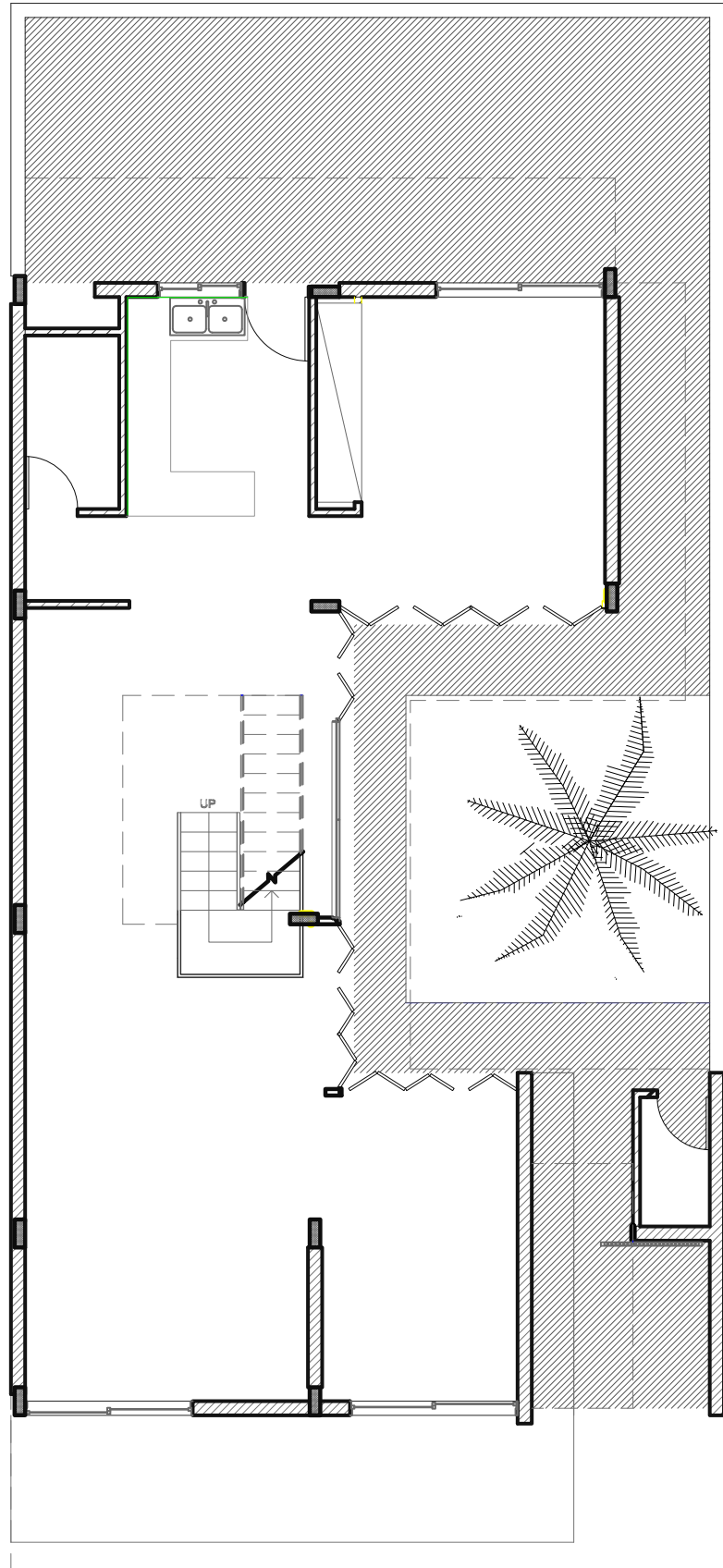
CLUSTER PLANS



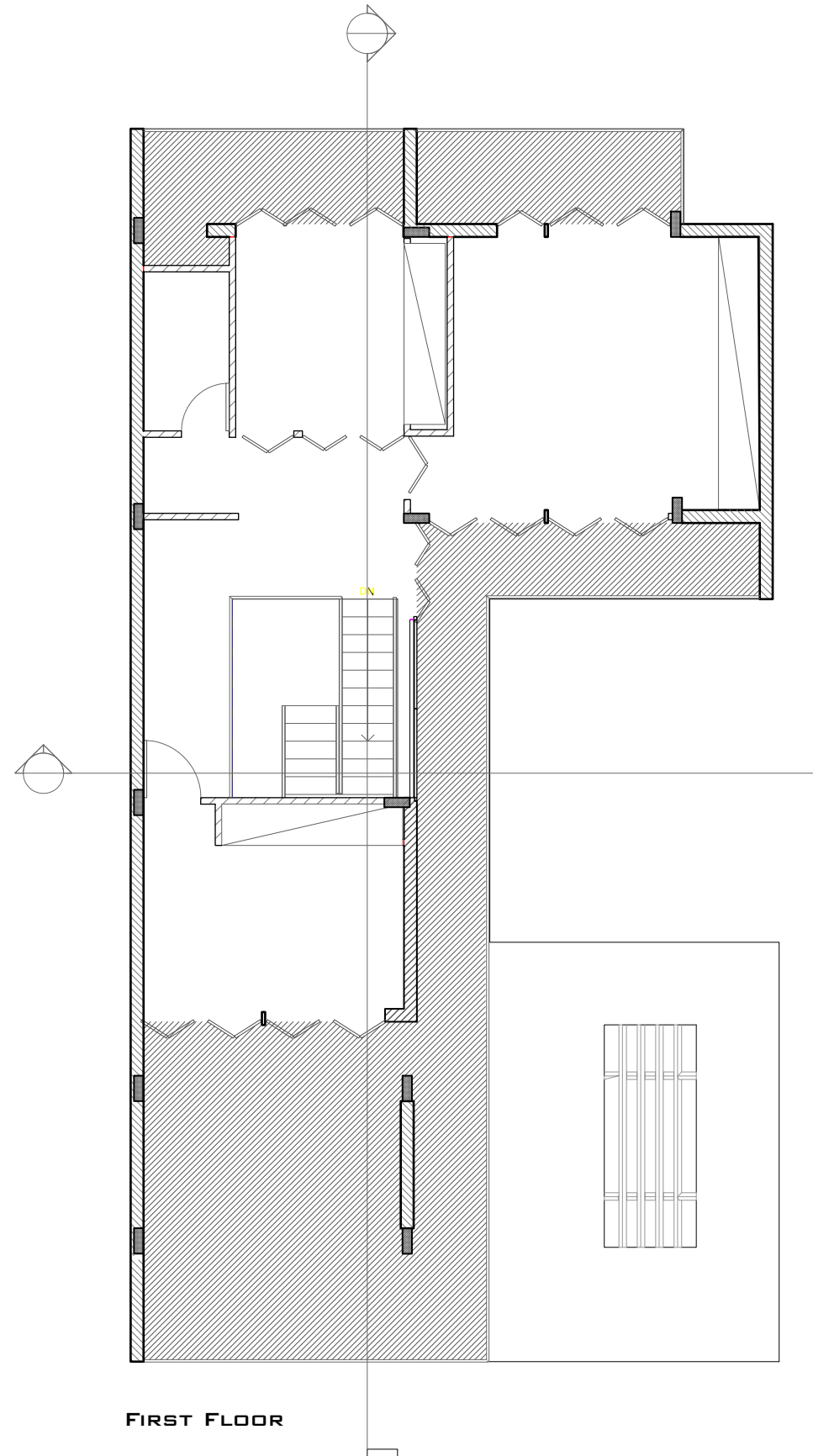
NEIGHBOURHOOD COURTYARD



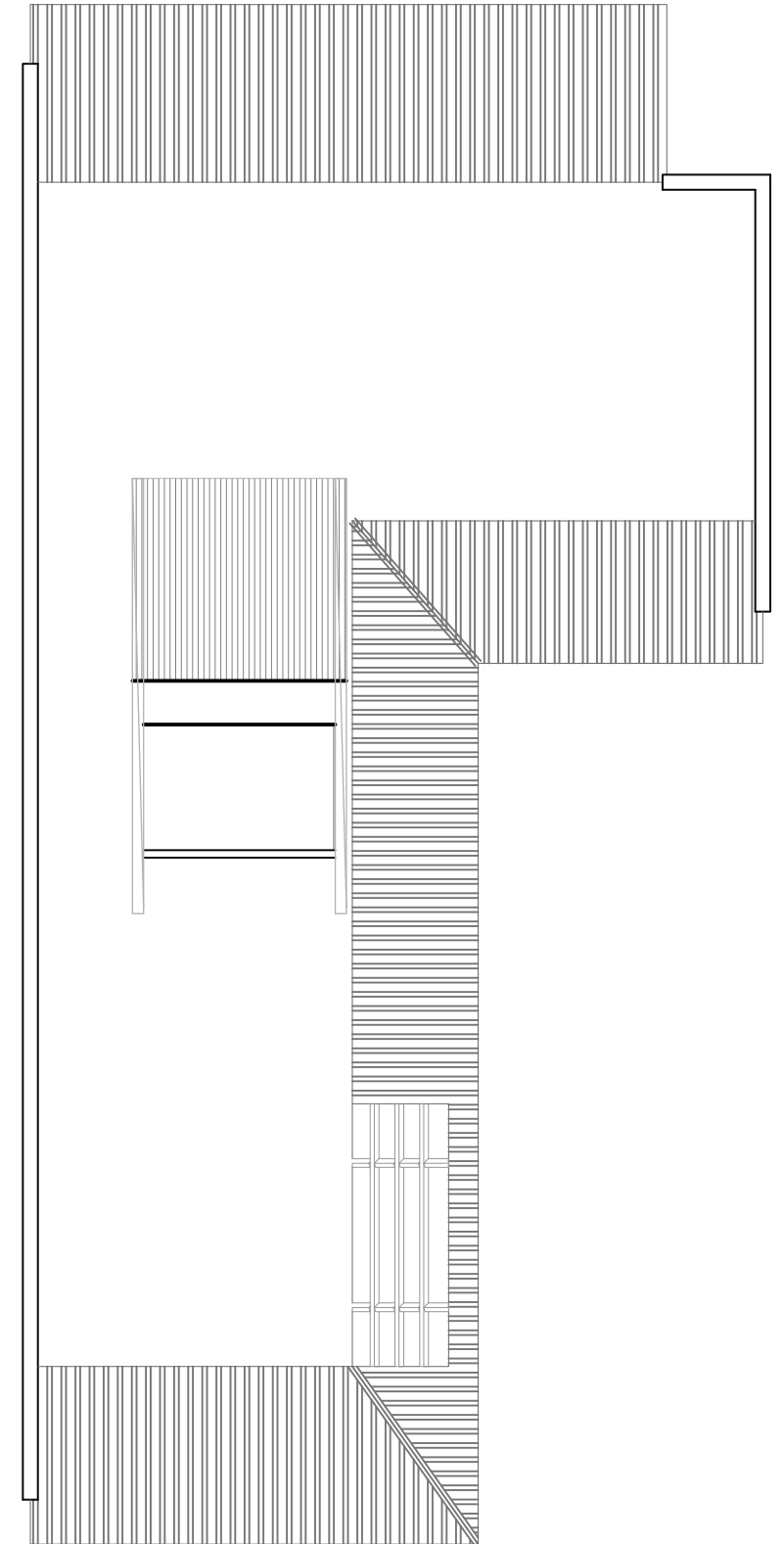




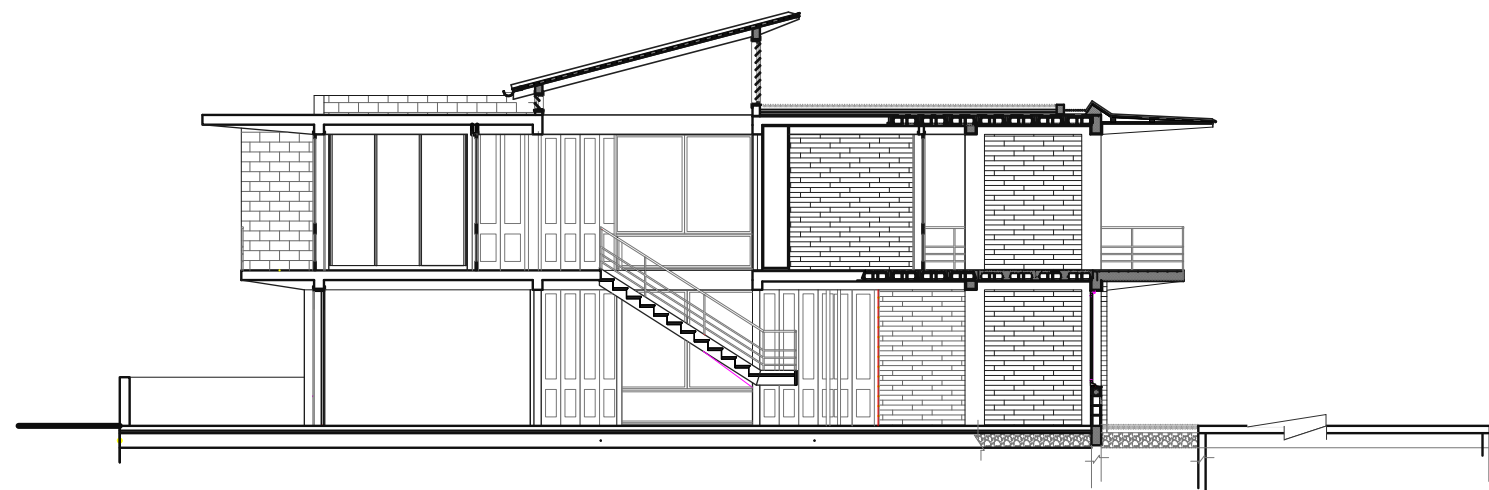
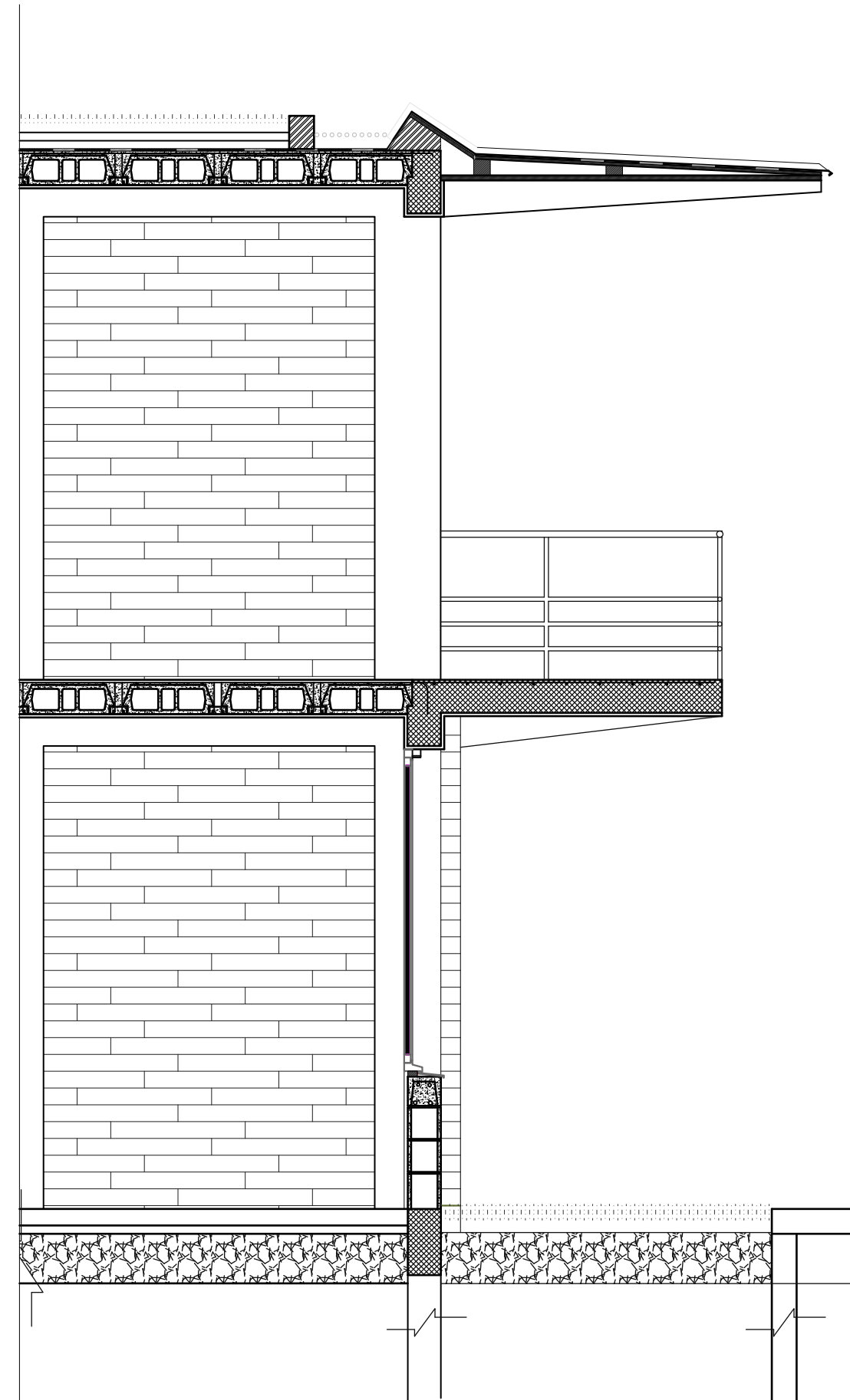
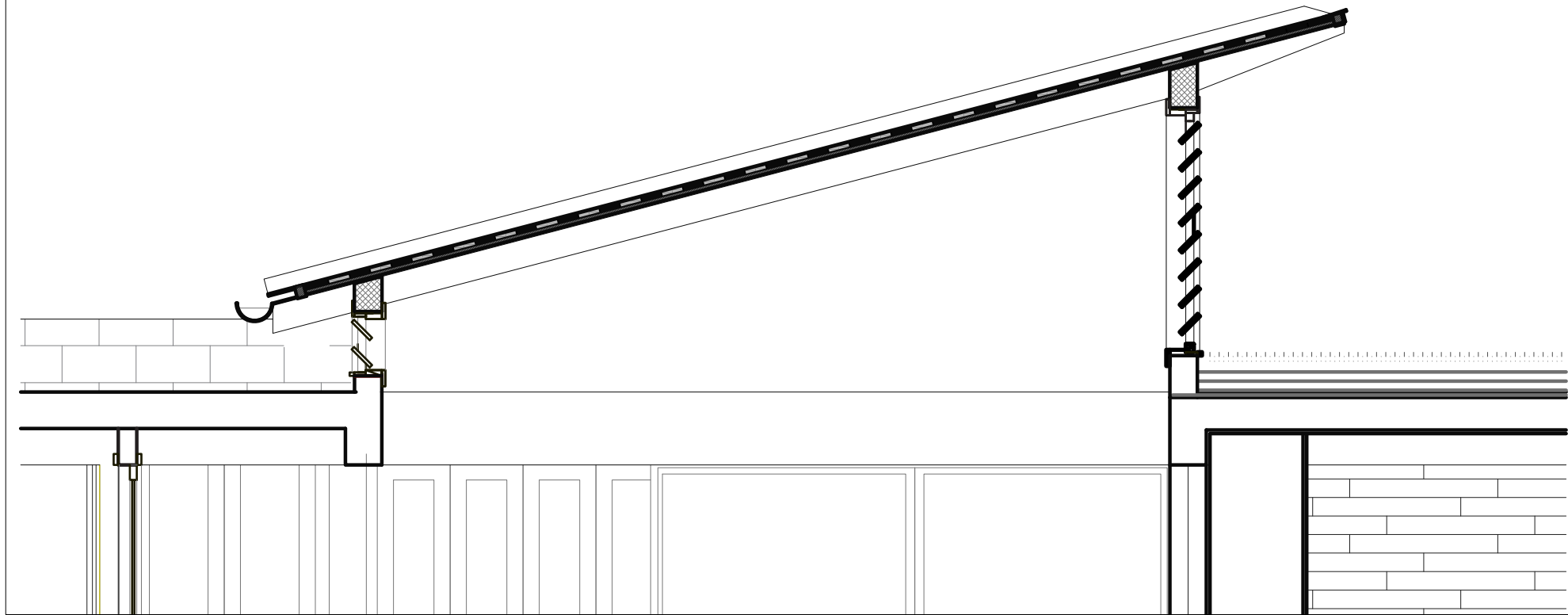
GROUND FLOOR



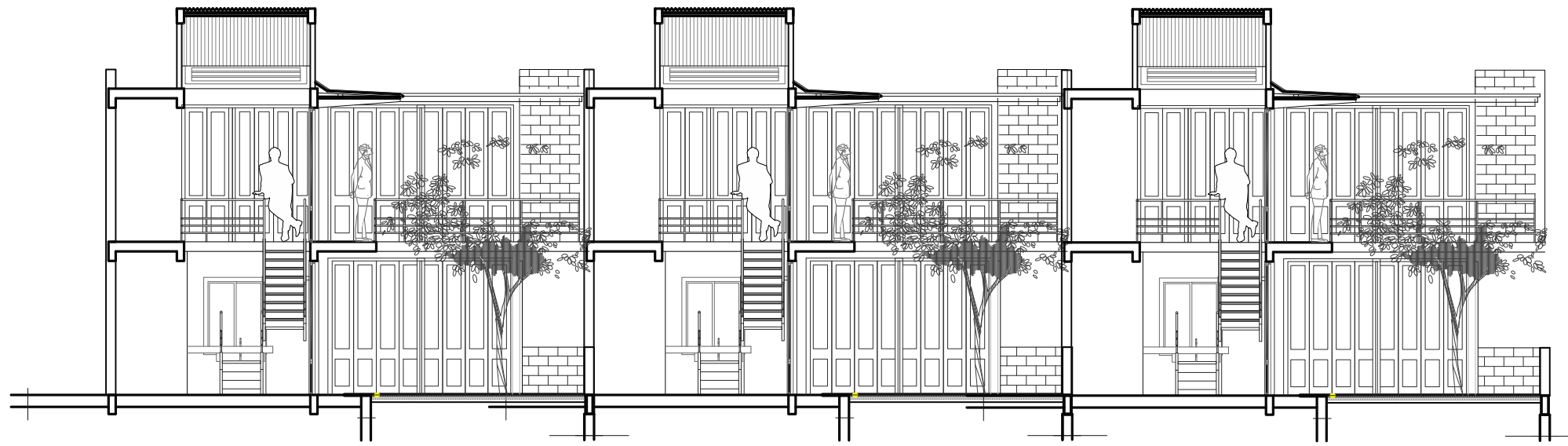
FIRST FLOOR



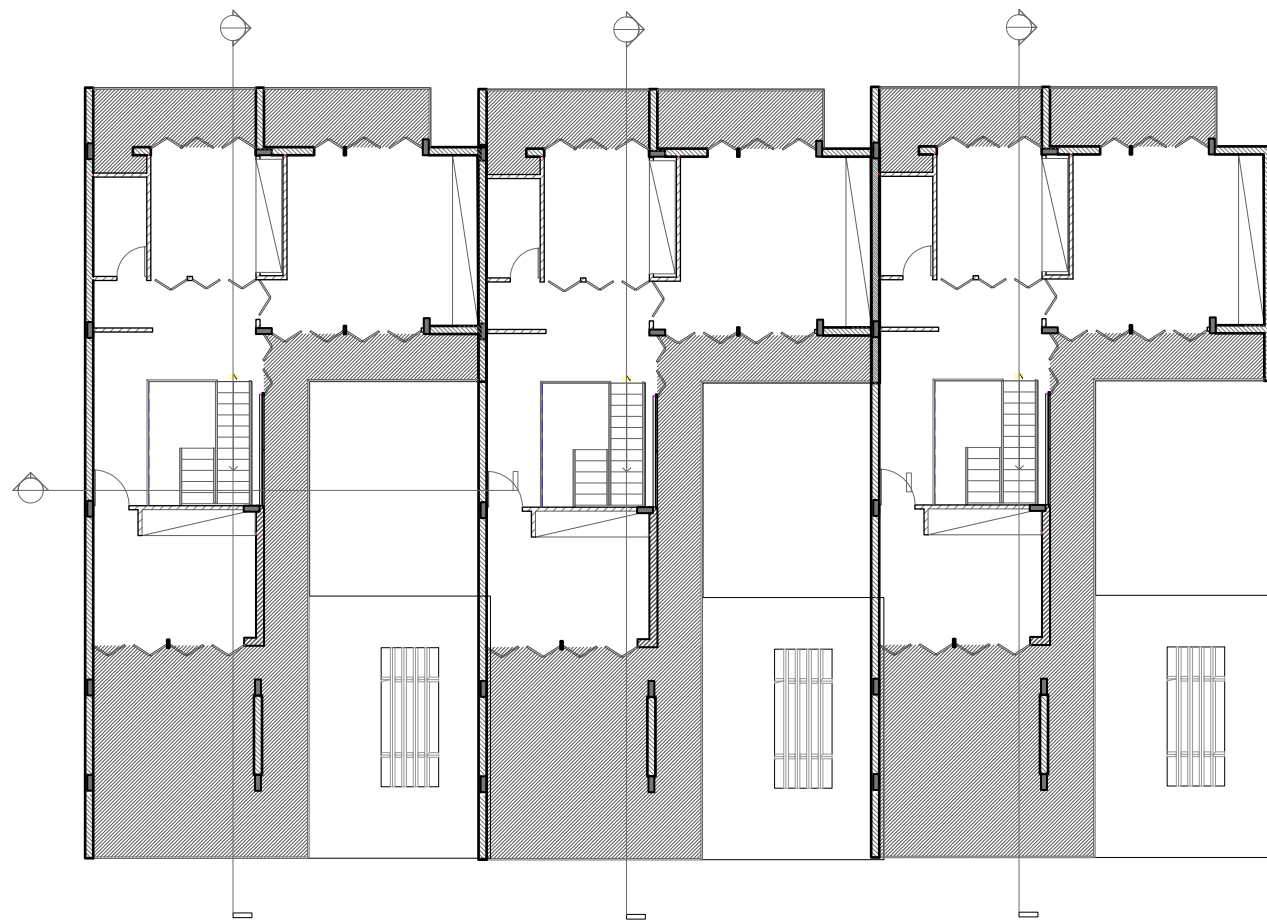
ROOF PLAN

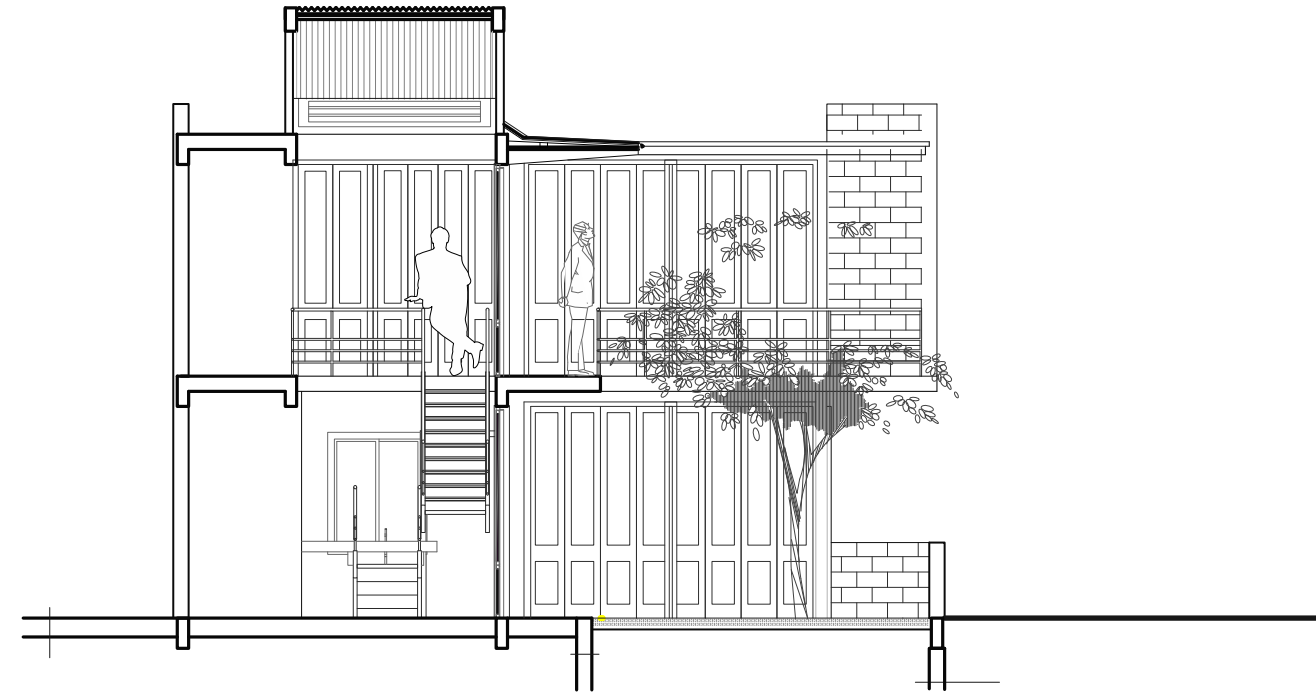


SECTION

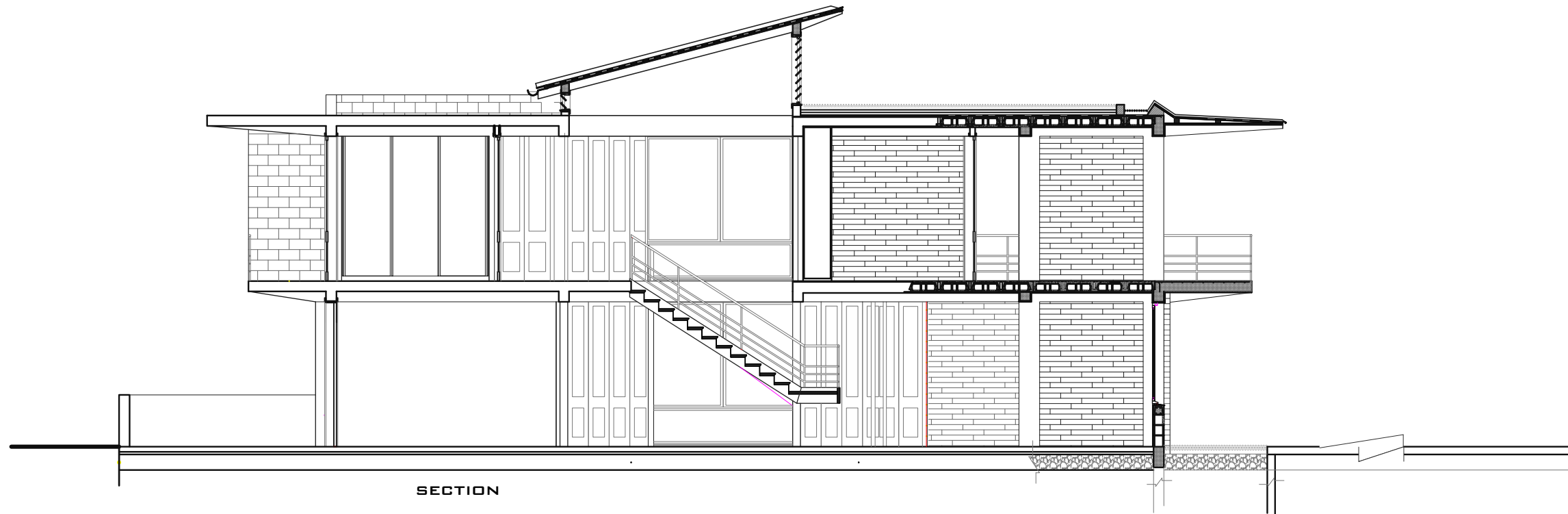


SECTION

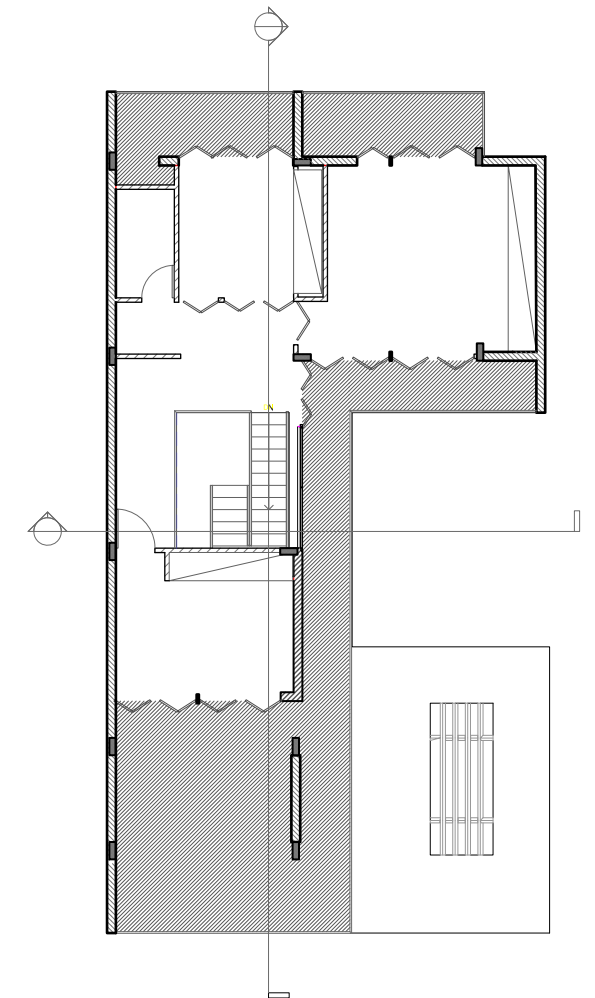




SECTION

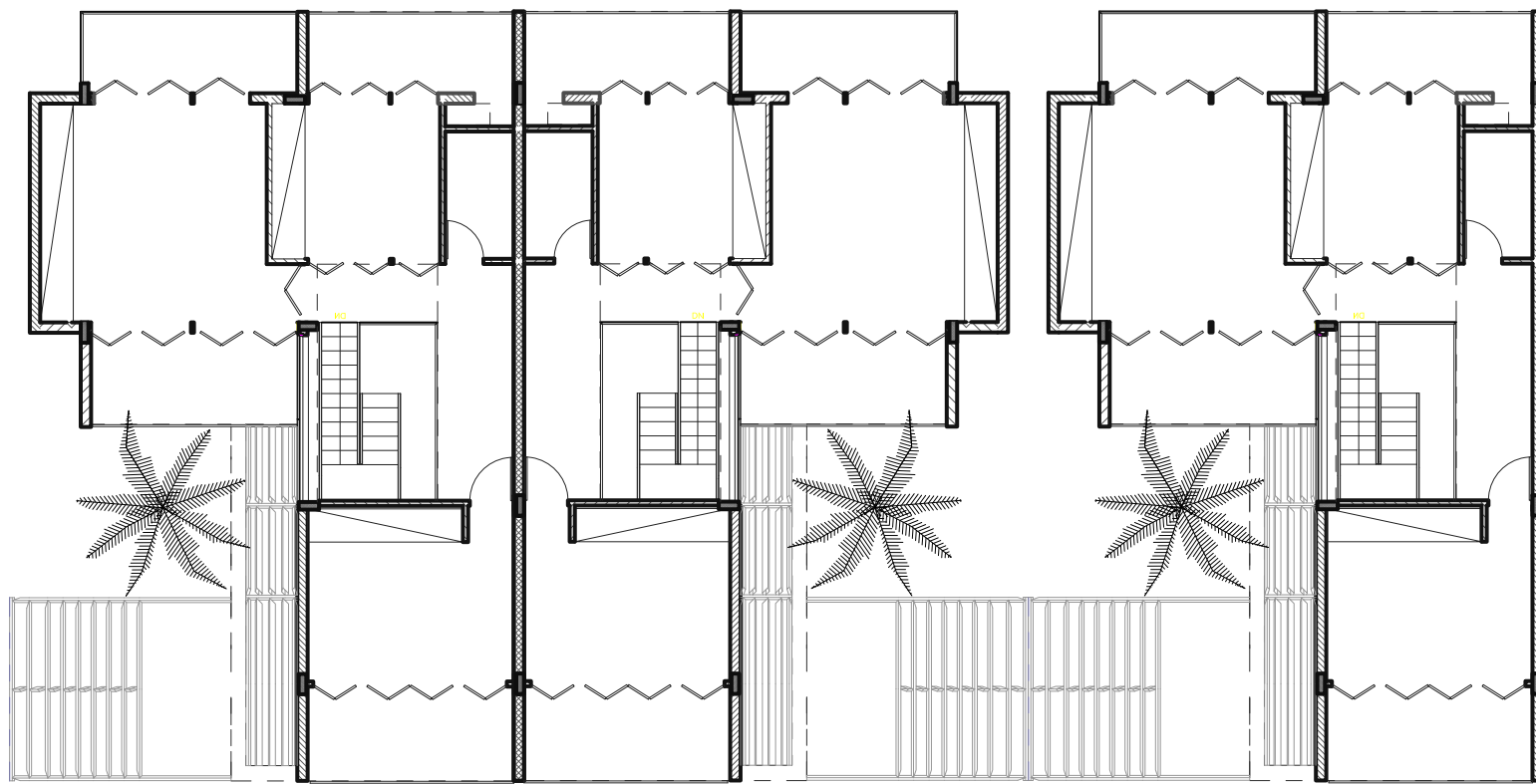


SECTION

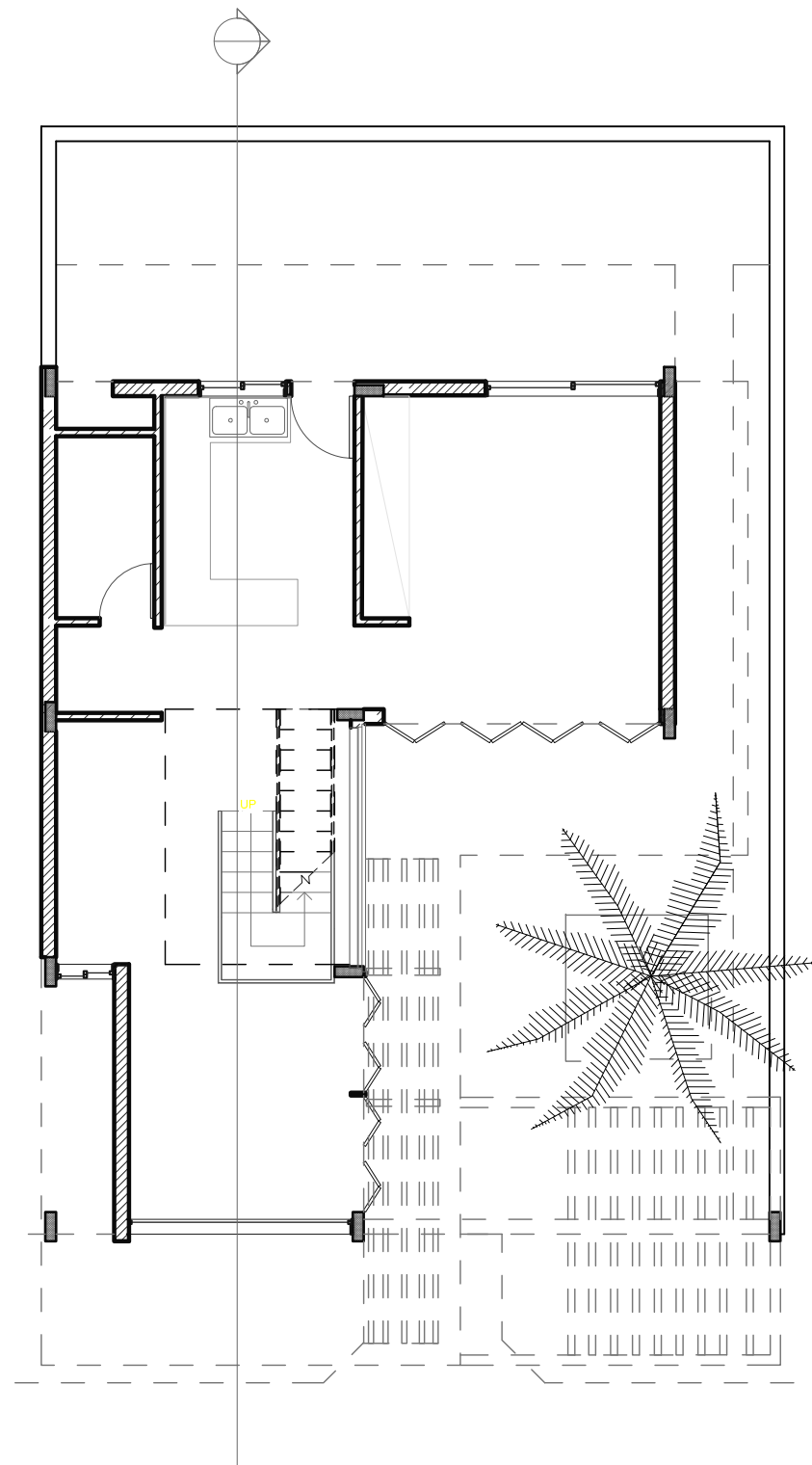




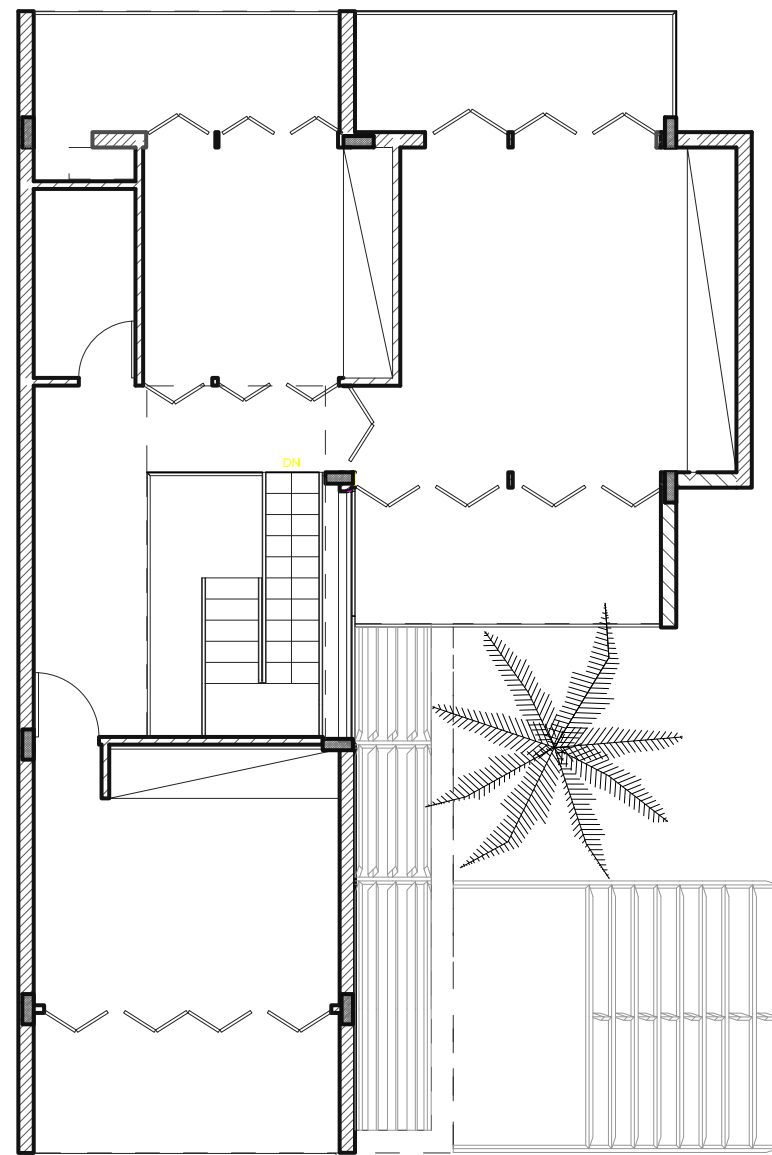
CLUSTER SECTION



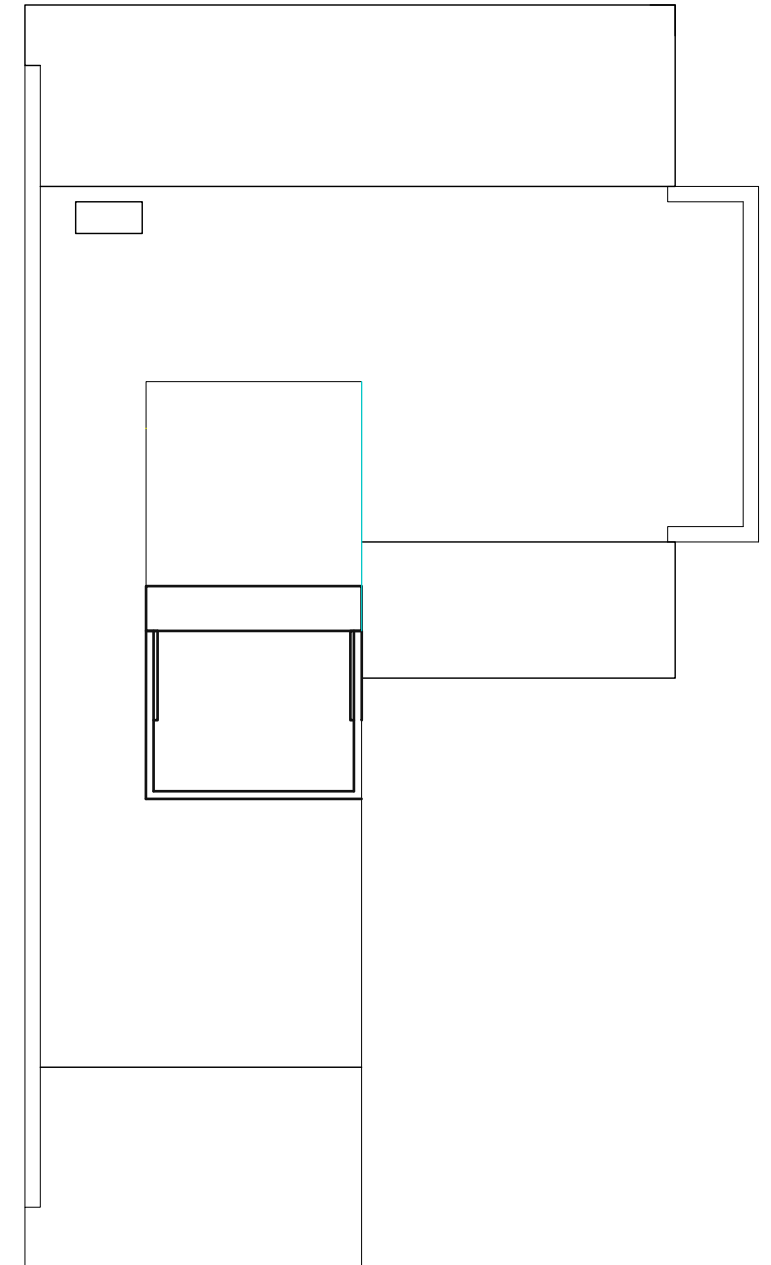
FIRST FLOOR PLAN



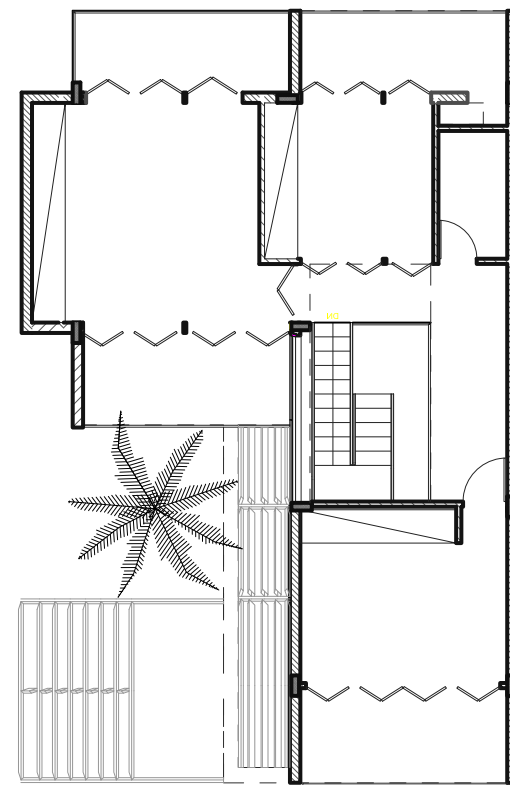
GROUND FLOOR PLAN



FIRST FLOOR PLAN



ROOF PLAN



PLAN

