

‘EMBU – A stream of lush’ represents a concept that came out as a result of the analysis of an existing urban planning (buildings, roads and green areas), and an attempt to provide a space with large residence quality, both indoor and outdoor. The goal is to respect the existing urban core, by pointing out the historical urban stratification, but also to propose new urban markers and new urban relations.

Analyzing the broader area, two significant vertical green corridors were identified, that were also the main starting point for the plan. They are located on the east and the west of the border areas of coverage. Existing natural corridor, surrounding linear waterfront and passing the eastern edge of Embu center, hides a great potential for Tram railway. Tram rail system shows great benefits of transportation in dense cities, capable of carrying large number of people and achieving considerable speed. Proposed tram railway would serve as a major public transportation, connecting main points of Embu: proposed bus and Matatu terminal and proposed railway line - Center of Embu with the belonging CBD - University of Embu.

The west side of the location is characterized by the green corridor along the river. **Waterfronts of Embu** share a common defect - they are depending on harsh rainfalls, which makes them unfitting for a typical waterfront design. However, they do carry a great potential as a reservoir of greenery, and thus it makes them suitable for linear corridors. That potential is used by placing urban gardens in that region. Their assignment is to lift up awareness of benefits of community gardens. Some of the urban gardens are placed near primary educational institutions.

The other goal was to connect these natural corridors with larger green spots in the existing urban structure (proposed center with the belonging square and a promenade, existing school yard, proposed parks etc.). This network would enable space for public use and offers a pedestrian and bicycle friendly network of greenery.

Central promenade aims to connect two listed corridors and it has more of a social than a natural value. The promenade connects main tram station and the market with the outer ring of the CBD. It anticipates a pathway alley surrounded with green-roofed out-door shopping malls. Shopping malls themselves have smaller inner roads and squares with greenery, keeping pedestrians safe from the sudden weather changes. Promenade is connected to the main city markers (such as the stadium) and spreads to the Main square. Throughout the site this concept allows **street marketing**. Besides the Main market, it is planned for street marketing to take place in small kiosk modules that can be connected and form units with their own squares. Apart from the housing and CBD planning, existing dispersed medical ambulant system is now replaced with one big medical center to simplify medical care infrastructure and make it more accessible for the citizens.

In the proposed solution, the main **transport routes** are retained but improved, and the necessary new ones are established. Main roads (mostly placed in the CBD) suggest separation of different types of transportation: pedestrian path divided with an alley (2,5, + 1,5m, both ways), bicycle track divided with a rain canal (1,5m + 1,5m, both ways), and a 2-way double-stranded road divided by a linear rain garden (6m + 2m + 6m). Secondary roads (wider city center) presuppose lower traffic density and narrower street profile: pedestrian path divided with an alley (2,5, + 1,5m, both ways), bicycle track divided by a linear rain garden (1,5m + 1,5m, both ways), and a 2-way road (6m).

Parking lots are divided from the main roads with greater green barriers, guiding the motorized vehicles through the entrances. Three main **parking zones** are planned – one for each part of the CBD: one as a garage above the bus station that would contain several floors of parking spaces; one near the stadium; and the third one as a part of the green corridor with its green roof). The residential areas have their own shaded parking lots placed nearby the buildings.

Central parking lot (next to the stadium) is divided by a rain garden, allowing aggregation of the excess water from the roads. **Raingarden** has a role to provide a sustainable treatment of the storm water. Linear raingardens should be capable of retaining the excess water from the roads. Collected water then slowly evaporates during the periods of droughts. Canals vary in size: the ones closer to the pedestrians are narrower than the ones in the center of the road. This project proposes the main canal in the center, surrounding the main parking lot and the stadium. Canals are planted adequately.

This concept recognizes qualities of the location and its predispositions for becoming an **ecologically designed place** favorable for living and working. Creating such an ecologically oriented CBD would increase the contentment of employees and residents, and would have a positive effect on their work, as well as on their mental and physical health. ‘EMBU – A stream of lush’ offers a solution that would contribute to the further development of Embu.