IMPLEMENTATION PLAN

BRIMA ATTOUGA STADIUM

Freetown , Sierre leone

Reinventing Cities

a C40 cities contest • Universidad de América

DEFINITION OF INTERVENTION PHASES

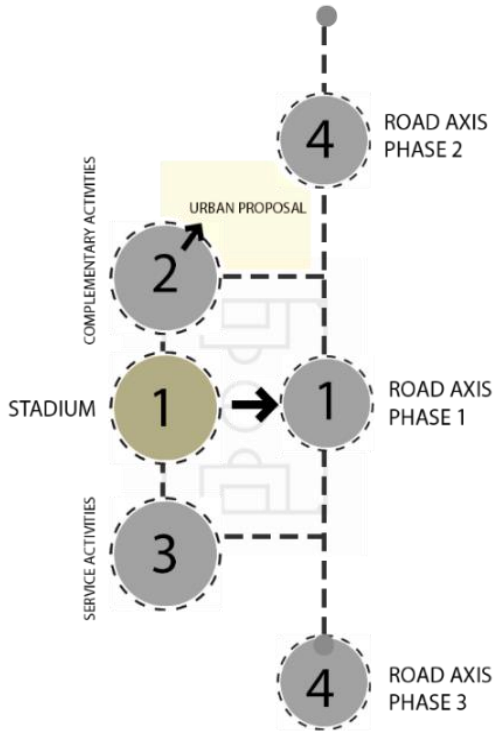
How are we going to divide the intervention phases?

Phase 1. Macro-scale urban intervention

- Consolidation of the road axis (Projection boundary)
- Modification of existing road network (approaches and accessibility)
- Public transportation approaches (incorporation of transportation modes)
- Effective public space planning (urban proposal)

Phase 2. Development of land occupation, uses and economic viability.

- Action units
- Activities of interest approach
- Scope of income from activities by stage of development
- Incorporation of sustainable development, by means of design strategies



DEFINITION OF DEVELOPMENT STAGES

STAGE 1 ACCESSIBILITY OF THE SIMULTANEOUS AXIS TO THE STADIUM

PHASE 1

- A detailed evaluation of the accessibility requirements of the Brima Attogua Stadium is carried out, based on the needs of the community and the regulations applied in the sector; this includes considerations on public transportation, parking, green spaces and accessibility for people with disabilities, among others.
- Preliminary investigation and requirements analysis this stage involves a detailed evaluation of the stadium requirements based on the characteristics of the terrain, approaches and accessibility, the actions and activities to be practiced the architectural object, number of spectators, among others.

PHASE 2

- The second phase of intervention involves the creation of an initial stadium design that reflects identified requirements such as building permits, zoning permits and environmental approvals.
- A design is developed that includes an overview of the stadium considering the location, orientation, access and effective public space; accessibility for people with limited mobility, inclusion of green spaces and open public areas should also be considered.

PHASE 3

- This phase involves the physical construction of the stadium, which includes site preparation, development of structures, installation of utilities (electricity, water and sewage) and the detailed design of the stadium, including: technical specifications for construction, size and shape of the stands, location of accesses and pedestrian circulation; elevators, ramps and restrooms, internal spatial distribution, emergency exits, among others.

***STAGE 2* COMPLEMENTARY ACTIVITIES AND SERVICES SIMULTANEOUS PROPOSAL FOR PUBLIC SPACES**

PHASE 1

- Accessibility points and public transport bays in the vicinity of the stadium along the main axis bai bureh road

PHASE 2

- Accessibility and development of the commercial platform simultaneously with the complementary stadium activities proposed in the first module of activities

PHASE 3

- Approximation of the proposal for the public space surrounding the stadium facilities where the different sustainable aspects are implemented and incorporated into the space with high pedestrian flow.

***STAGE 3* COMPLEMENTARY ACTIVITIES AND SERVICES**

PHASE 1

- Development of spaces for services and complementary activities in the second module with accessibility points in the vicinity of the stadium on a secondary road.

PHASE 2

- Connection of accessibility between the environmental axis bai rueh road and the secondary road by means of a commercial platform in order to generate a transition space.

***STAGE 4* PHASES OF INTERVENTION OF THE ROAD AND ENVIRONMENTAL AXIS**

PHASE 1

- Development of sections 2 and 3 of the environmental and main axis of bai rueh road incorporating the urban proposal that links accessibility in transportation and the incorporation of the green axis as a shadow generation of the circulation space.

CONSTRUCTION STAGES					
UA	**%**	**DESCRIPTION**	**M2**	**COST / UA**	
UA-1	43%	Accessibility and income	10672,25	44%	$ 10.672.250,00
UA-2	22,5%	Complementary activities and urban proposal	5492,82	23%	$ 5.492.820,00
UA-3	11,7%	Service activities	2855,25	12%	$ 2.855.250,00
UA-4	22,8%	Projection of the limits of intervention of the road axes	5354	22%	$ 5.354.000,00
		TOTAL	**24374,32**	**100%**	**$ 24.374.320,00**

UA	INCOME SOURCES	ANNUAL INCOME (USD)	MAINTENANCE (10%)	INCOME % ANNUAL RESPECT
UA-1	First level commercial modules, ticket office	$1.728.000,00	$1.555.200,00	88%
UA-2	Complementary activities block N°1, western grandstand	$162.000,00	$145.800,00	8%
UA-3	Complementary activities block N°2, south grandstand, trade modules	$84.000,00	$75.600,00	4%
UA-4	N/A	0	0	0%
	TOTAL	**$1.974.000,00**	**$1.776.600,00**	**100%**

PROFITABILITY			
Time /construction	**V/Project (USD)**	Annual income (-10%) * number of Years (after construction) =	**13,7**
3 YEARS	24.374.320,00	Number of years of construction + revenue recovery = reinstatements	**16,7**

SUSTAINABILITY INDICATORS (radius for 350M stadium-centered study)			
AMBIT	**GREEN SPACES AND URBAN BIODIVERSITY**	**URBAN COMPLEXITY**	**GREEN SPACES AND URBAN DIVERSITY**
ASPECT	SPATIAL PERCEPTION OF URBAN GREEN SPACE	SPATIAL AND FUNCTIONAL CONTINUITY OF THE STREET	GREEN AREA PER INHABITANT
FEATURES	The indicator refers to the fraction of the visual field space occupied by vegetation in the street. This fraction is calculated from the volume represented by trees, shrubs and flowerbeds according to their type and size. The unit in which it is expressed is in percentage of green volume per street section.	Creation of urban spaces with spatial and functional continuity and conformation of attractive and safe pedestrian trajectories of flow channeling	The coverage of green areas in the city is of great importance to maintain a good quality of life, the squares, gardens and urban parks have a fundamental role in the biodiversity of the city as well as being spaces for leisure, recreation and walking. They are essential spaces for the well-being of the urban actor, making the city more livable.
FORMULA	**PEgreen (%)=** [area of public roads with green volume higher than 10%/total area of public roads] x 100	**Street %**= street section (M) with high interaction / total street section (M)	**S green (m2 per inhabitant):** green surface area / number of inhabitants
RESULT	**Before: 0%** **NOW:** 840.07 / 9875.5 = **8.5%** (insufficient perception)	BEFORE 40.6% high interaction 59.4% low interaction AFTER 52.4% high interaction 12.4% improvement	Before: 114808m2 / 90.000 (approx) = 1.27m2/inhab. After:122823m2/90.000 (approx) = 1.35m2/inhab.