

# SPHERA

## SUSTAINABLE DESIGN AND CONSTRUCTION BASELINE

### 1. SITE & LANDSCAPE

- + Runoff should be treated on site. At least 75% of the pre-development infiltration rate should be achieved post-development to reduce rainwater discharge peak
- + Pervious pavements should be used
- + Parking spaces should be kept to the minimum required by law
- + Bike racks and showers accessible to all the users
- + Heat island effect should be minimized
- + Existing trees should be protected and cutting trees should be minimized
- + Creating small permanent water systems to attract animals
- + Erosion and Sedimentation control plan should be implemented in every project
- + Exterior lights should be full cutoff
- + Joint Use Facilities should be promoted across projects
- + Habitat should be protected and restored where it was affected, conditions for animals should be better than before the development. Including biological corridors
- + Topsoil must be recovered and reused
- + Integration of edible and usable plant material

### 2. WATER

- + No potable water should be used for irrigation
- + No sprinklers should be used for irrigation
- + All residual waters to be treated and reused on site
- + Water closets maximum consumption 0.8 GPF
- + Urinals maximum consumption 1/8 GPF
- + Showerheads maximum consumption 1.5 GPF
- + Rainwater harvesting must be used in every project to reduce potable water consumption
- + Process water to be reused in the project

### 3. ENERGY

- + At least 30% of electricity should be produced on site through renewable and sustainable sources
  - Interconnection should be preferred over batteries
- + No electricity should be used for heating water
- + No refrigerants with CFC's or HCFCs
- + Every building should include a metering system for energy and water
- + Lighting fixtures should be governed by presence & daylight sensors and timers
- + Air Conditioning, when required, should have a minimum efficiency of SEER 20
- + Electromechanical equipment should be commissioned before the substantial completion
- + Light fixtures should be LED

### 4. MATERIALS

- + Reuse of materials should be preferred
- + Wood should be sustainably harvested and from responsible plantations
- + At least 30% of the construction materials should be extracted and manufactured in Costa Rica
- + Interior paints should have 0 VOCs
- + Sealants and adhesives VOC level should be under those stated by the Green Seal Standard
- + Materials with recycled content should be preferred
- + Areas dedicated to collecting recyclable materials
- + At least 50% of construction waste should be diverted from the landfill

### 5. OTHER

- + Electric car recharge stations in every parking lot – if possible powered by photovoltaic panels
- + Existing buildings that are no longer needed should be deconstructed instead of demolished
- + Construction indoor air quality plans should be implemented in every stage of the construction
- + Passive design should be a priority over active design
- + Buildings should educate the users