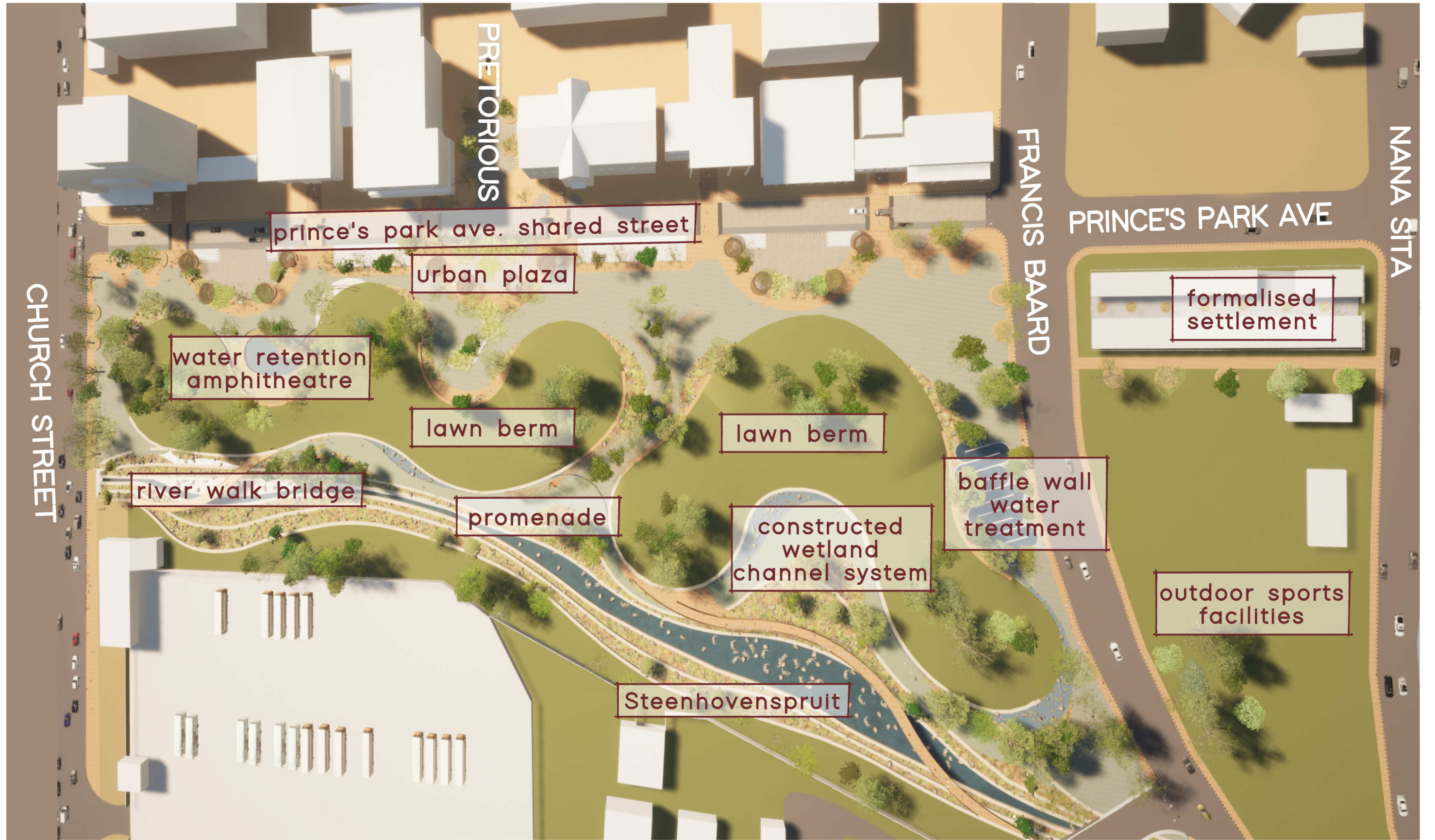


MASTERPLAN | URBAN SCALE

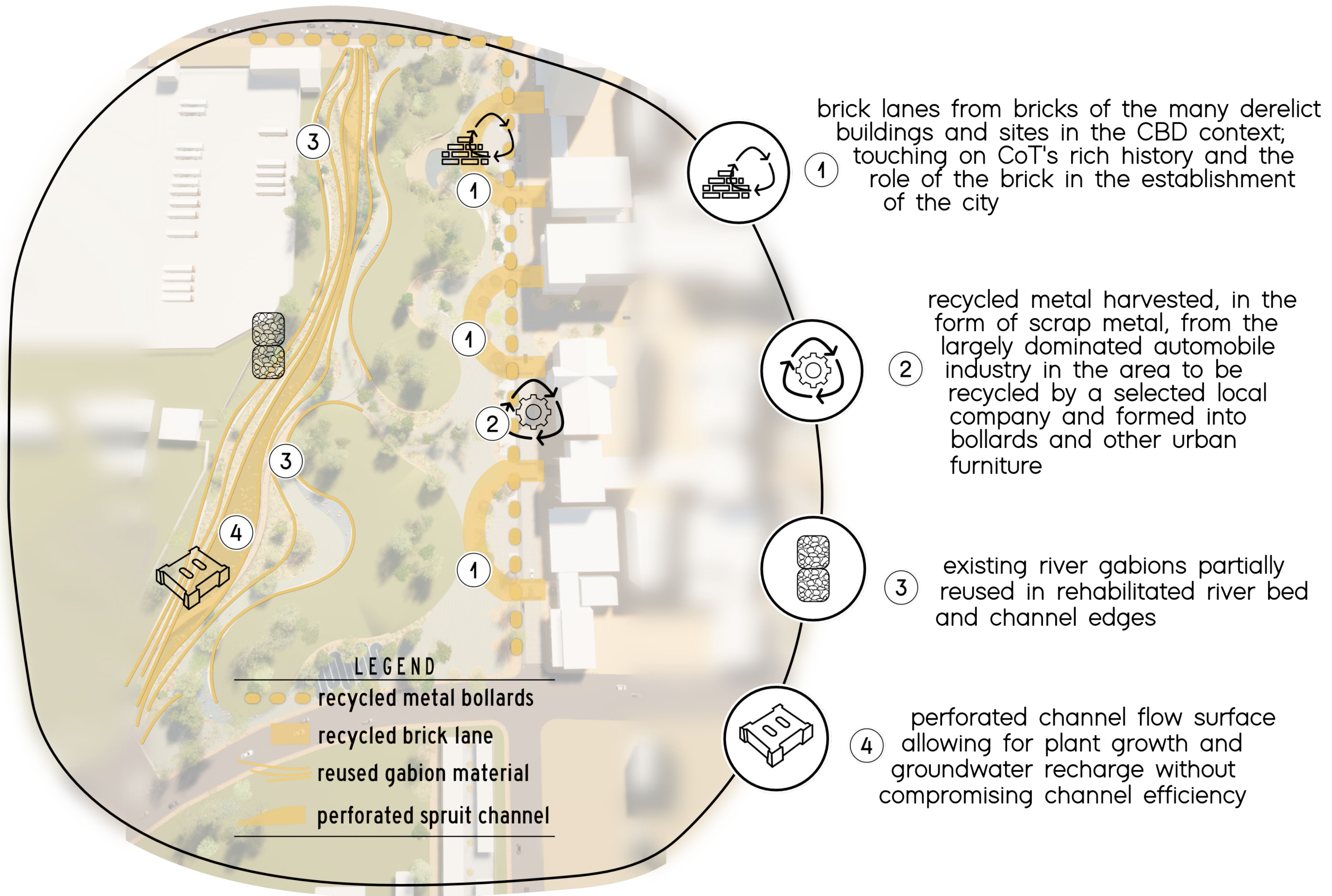


MASTERPLAN | PARK SCALE

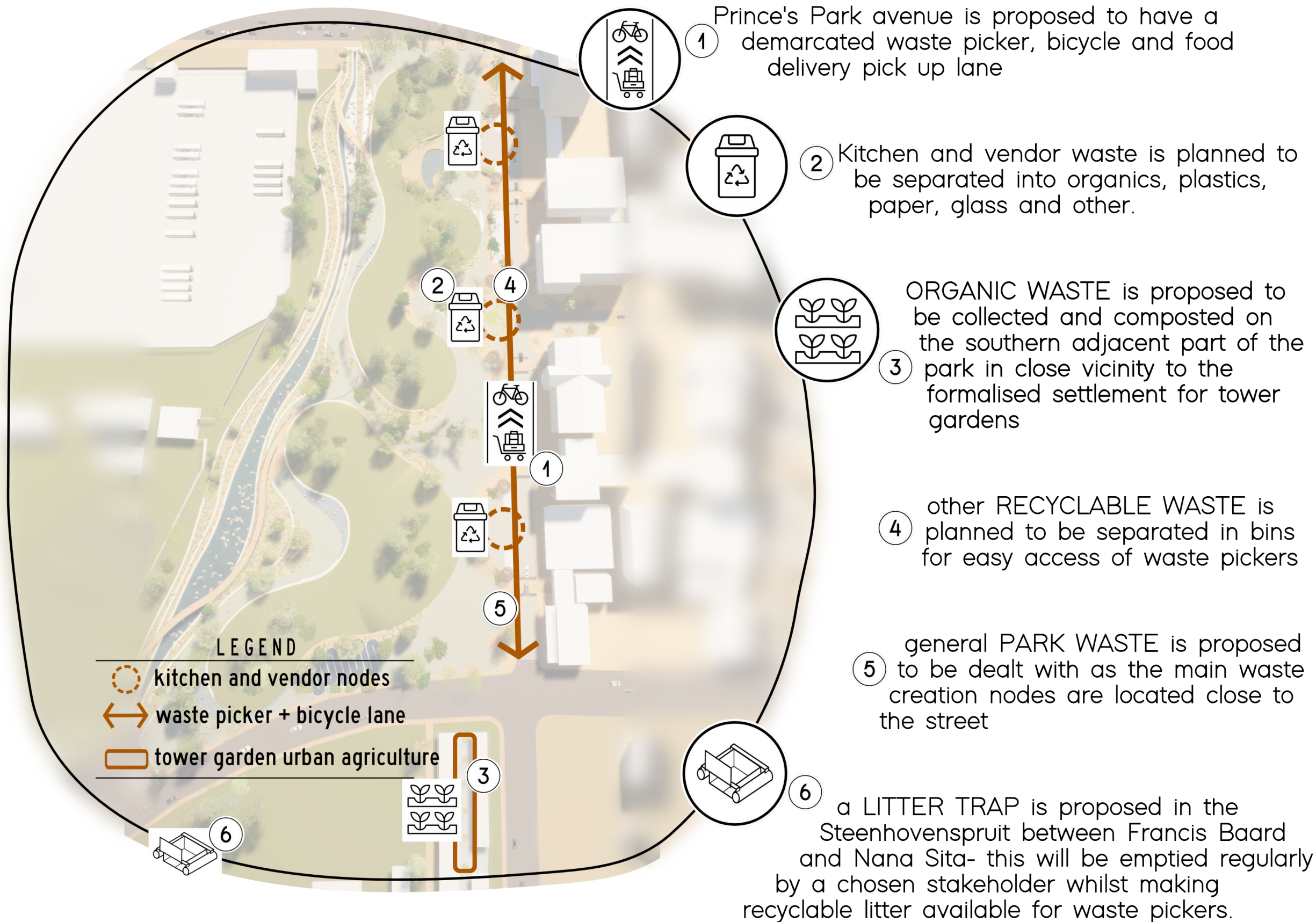


- ① Marabastad Jazz Square Park
- ② Struben St Open Green Space
- ③ Kruger Park
- ④ Pretoria CED Junction
- ⑤ Francis Baard Open Green Space

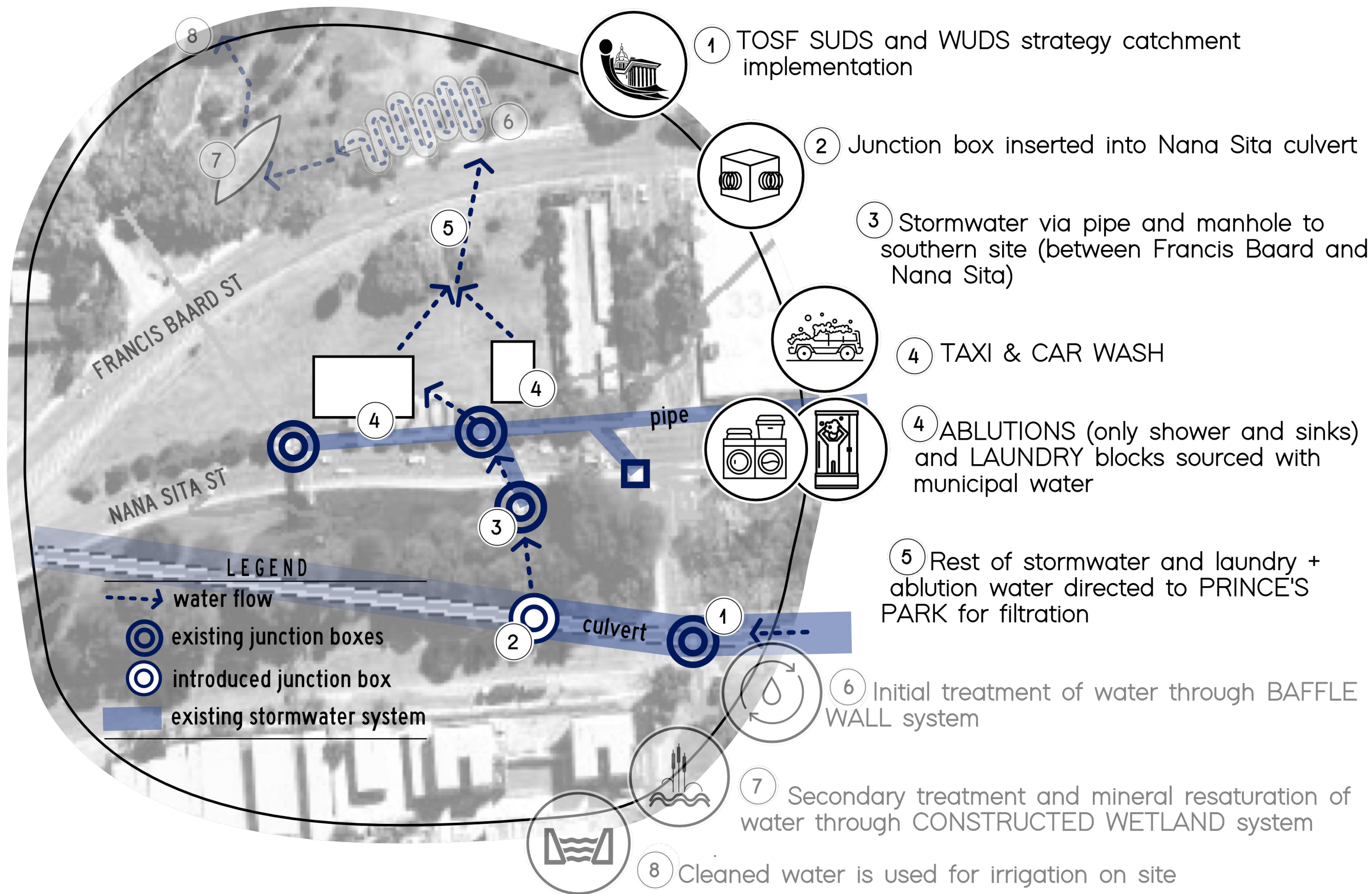
SYSTEMS | PRETORIA CED PRECINCT NODES



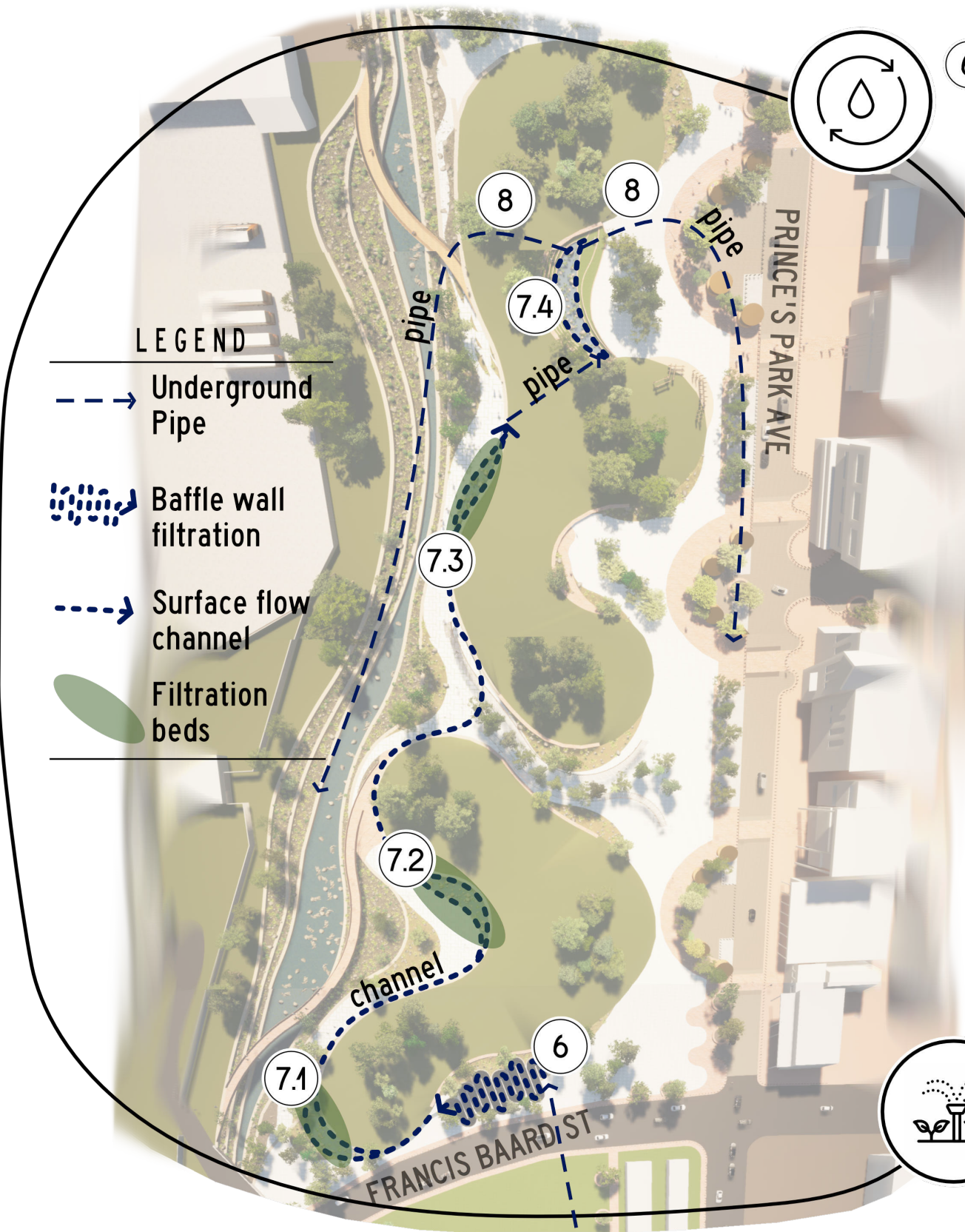
SYSTEMS | MATERIALITY



SYSTEMS | WASTE



SYSTEMS | STORMWATER



⑥ Initial treatment of water through BAFFLE WALL system and into shallow surface flow channel

⑦ Natural treatment of water through CONSTRUCTED WETLAND channel system

⑦.1 EMERGED ZONE 1 — water passes through coarse crushers removing more particles

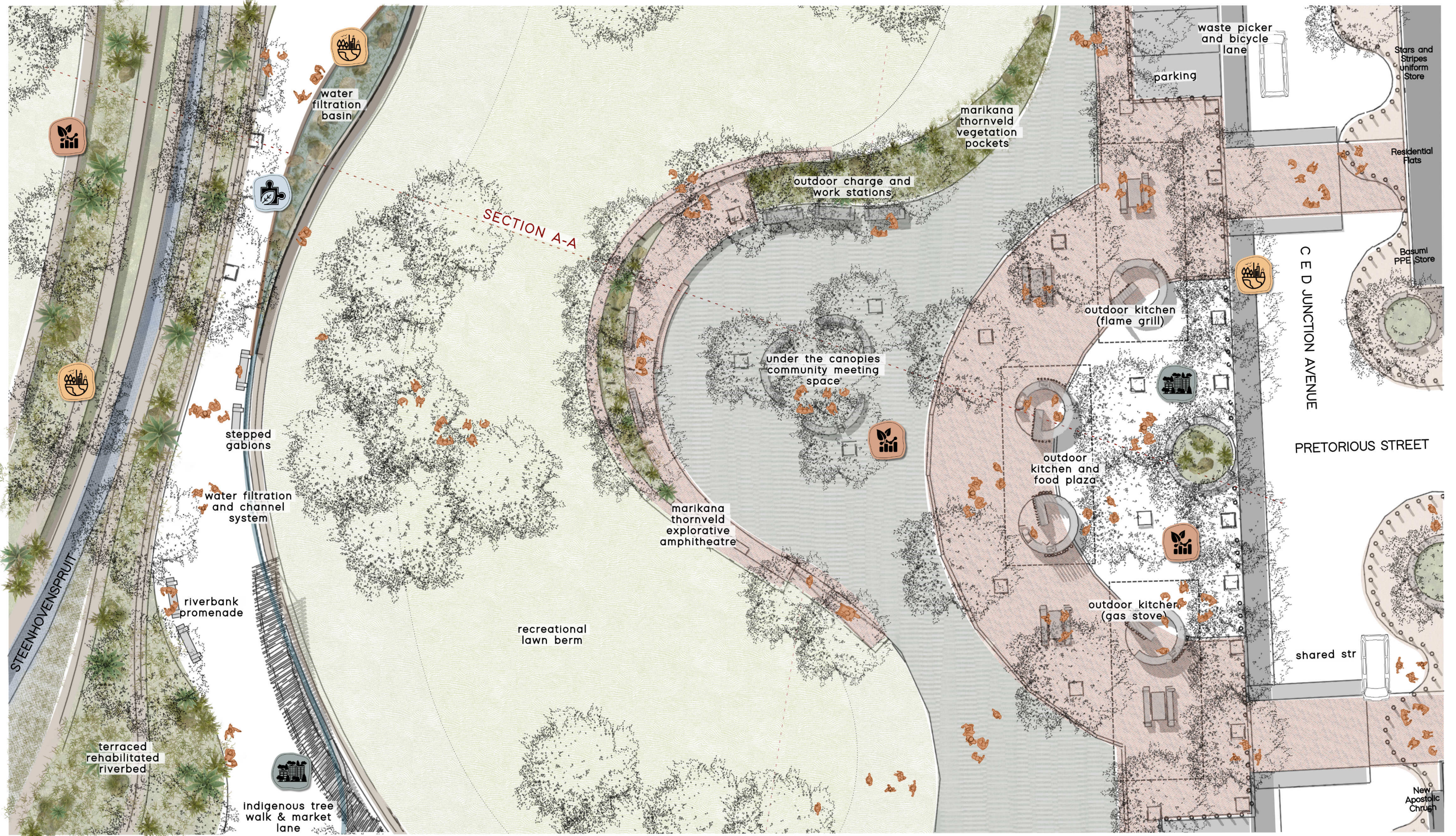
⑦.2 EMERGED ZONE 2 — water passes through medium crusher

⑦.3 EMERGED ZONE 3 — water passes through medium-small crusher

⑦.4 SUBMERGED ZONE — water is stagnant in fine crusher until drained into pump system

⑧ Cleaned water is pumped across site for Marikana Thornveld and riverbed irrigation

SYSTEMS | SITE WATER



"lowered city air temperature"
"creation of jobs"



"urbanity as the creation of commons"



"benefitting people and nature"



"low carbon solutions"
"community enablement"

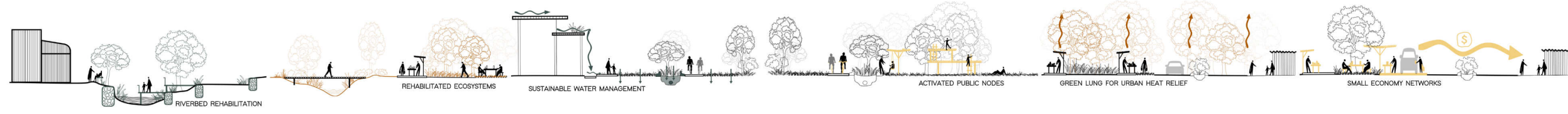
Scale 1:100

PRETORIA C E D JUNCTION

[the central environmental district]

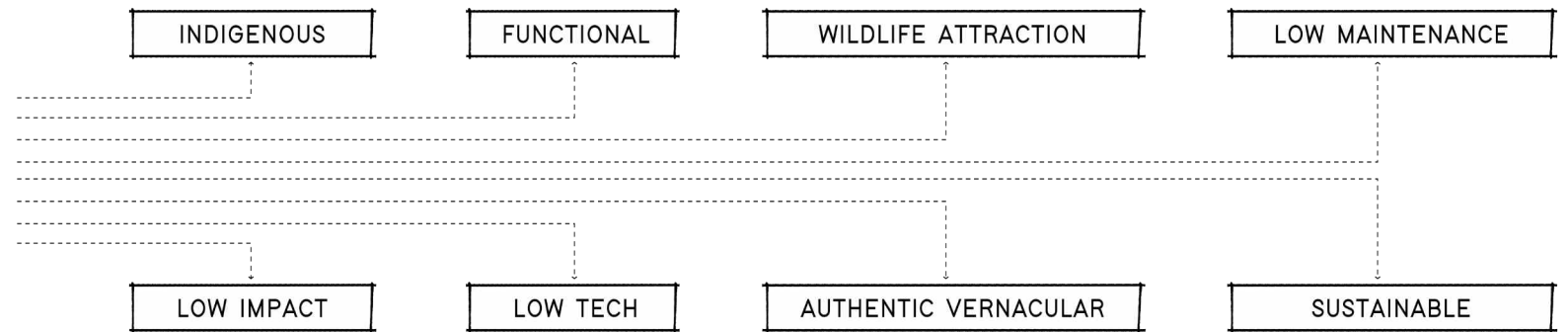
-25.748604, 28.178174

City of Tshwane, 0183, South Africa



planting strategy

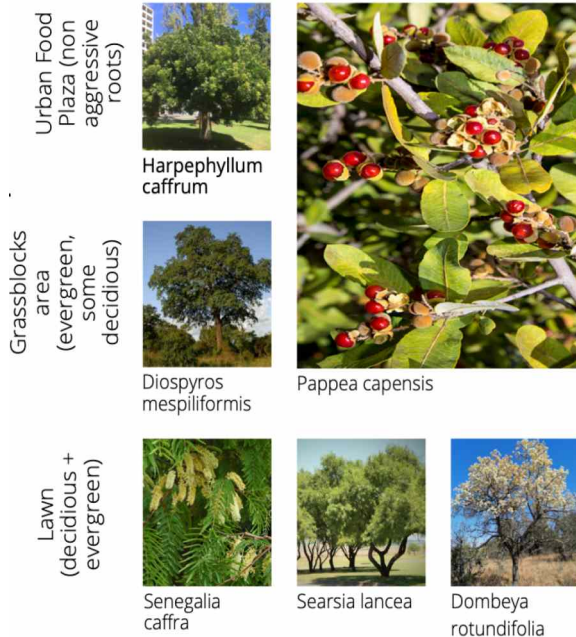
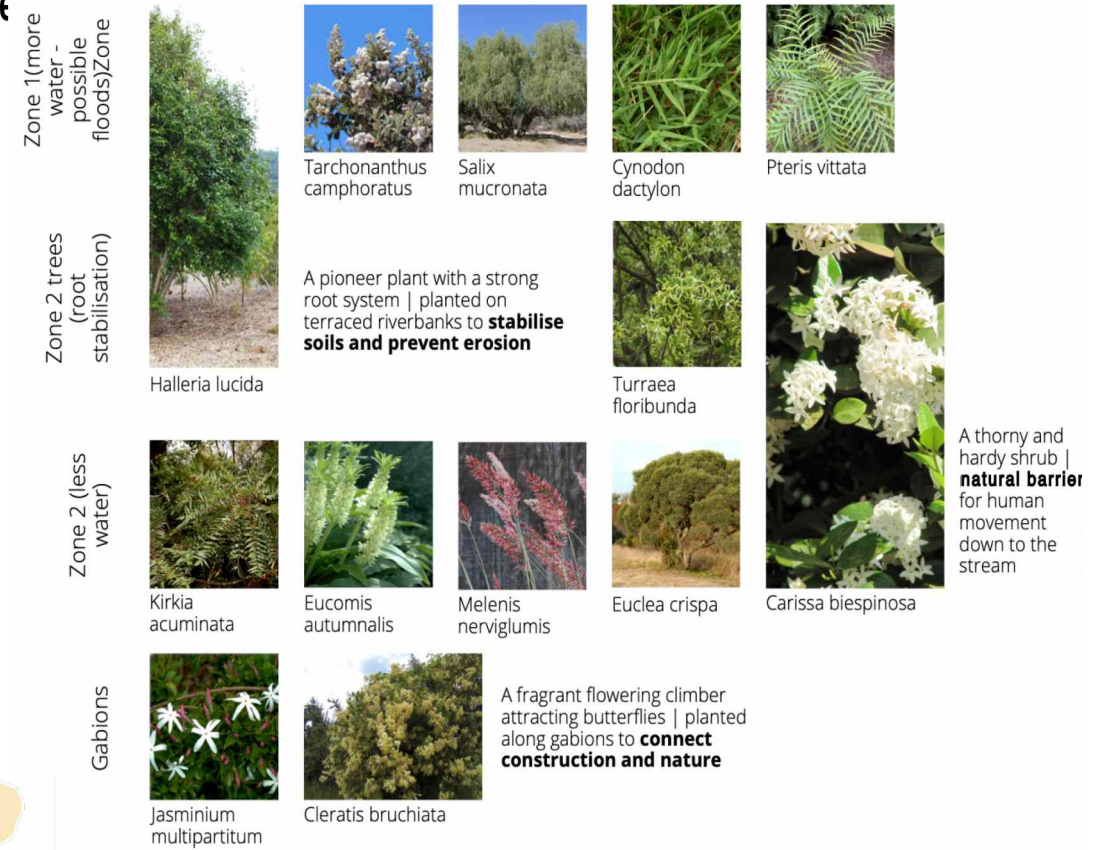
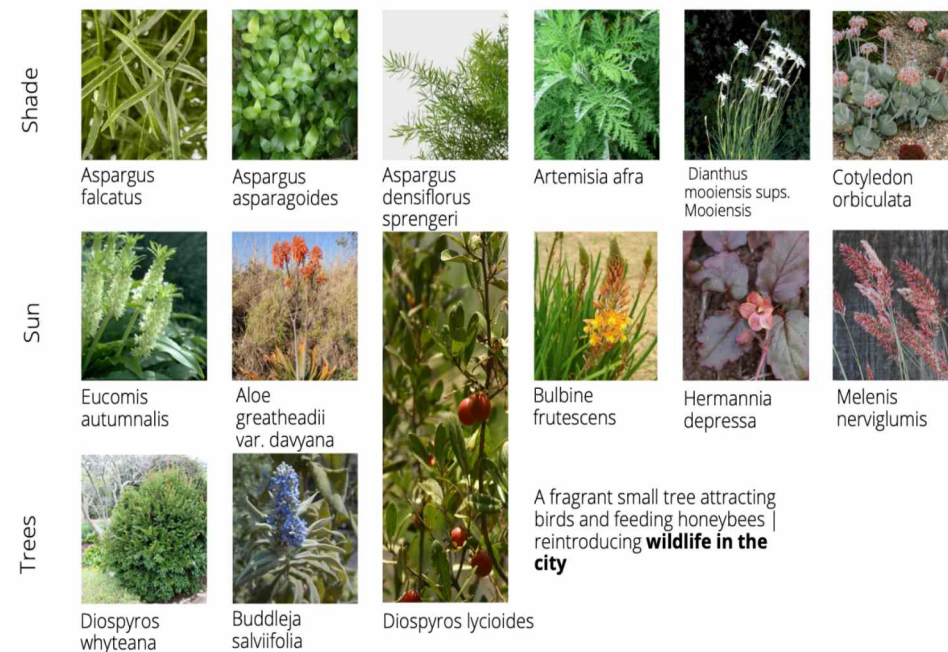
How can **nature based solutions** form infrastructure frameworks for **small economies** in the urban domain towards a **resilient** urban environment for stronger **human-nature relationships**?



materiality & construction methods

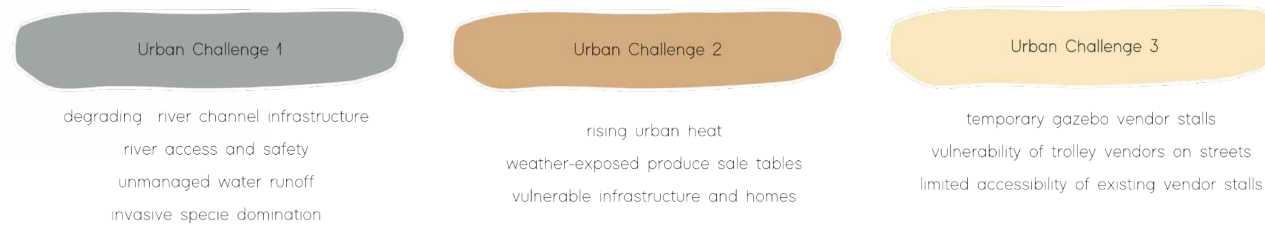


WATER FILTRATION BASIN



ADDITIONAL TREES

MARIKANA THROVELD REHABILITATION POCKETS



degrading river channel infrastructure
river access and safety
unmanaged water runoff
invasive specie domination

rising urban heat
weather-exposed produce sale tables
vulnerable infrastructure and homes

temporary gazebo vendor stalls
vulnerability of trolley vendors on streets
limited accessibility of existing vendor stalls

REHABILITATED RIVERBANK TERRACES

CED JUNCTION AS A PIONEER PROJECT LAUNCHING THE REST OF THE CENTRAL ENVIRONMENTAL DISTRICT ALONG THE STEENHOVENSPRUIT

PLANTING STRATEGY

planting strategy

- INDIGENOUS
- FUNCTIONAL
- WILDLIFE ATTRACTION
- LOW MAINTENANCE

How can nature based solutions form infrastructure frameworks for small economies in the urban domain towards a resilient urban environment for stronger human-nature relationships?

- LOW IMPACT
- LOW TECH
- AUTHENTIC VERNACULAR
- SUSTAINABLE

materiality & construction methodology

Rehabilitated riverbank terraces

- marikana thornveld riverbed rehabilitation plant mix
- armorflex rehabilitation plant mix
- 1000 x 1000 x 2000 gabions filled with recycled existing gabion material
- victorian cobble paver

Constructed wetland filtration system

- wetland filtration plant material
- topsoil and gravel mix
- 6mm washed gravel
- 12mm washed round gravel
- lawn

Experiential Marikana Thornveld Amphi

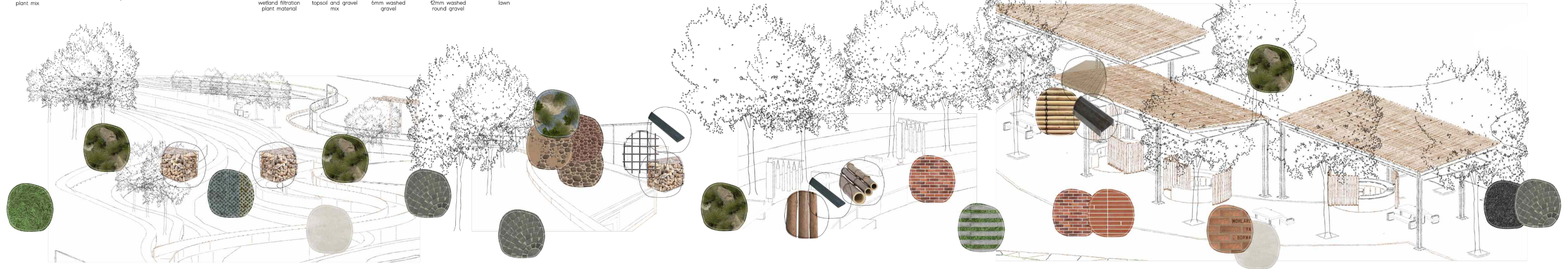
- marikana thornveld plant material
- hollow bamboo chime poles
- powder coated flat bar
- saligna pole
- permeable grassblock

Outdoor food and vendor plaza

- recycled brick
- smartstone piazza paver
- powder coated steel columns and beams
- bronze tinted polycarbonate roof sheeting
- bamboo pole mat (suspended on metal frames below polycarbonate roof)
- saligna poles
- etched corabrick moroccan travertine face brick
- concrete benches and work tops

Shared streets

- marikana thornveld plant material
- asphalt (waste picker and bicycle lane)
- victorian cobble paver



MATERIALITY AND CONSTRUCTION METHODOLOGY

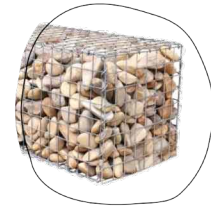
Rehabilitated riverbank terraces



marikana thornveld riverbed rehabilitation plant mix



armorflex rehabilitation plant mix



1000 x 1000 x 2000 gabions filled with recycled existing gabion material

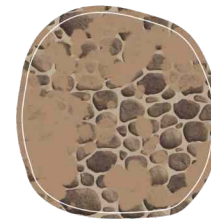


victorian cobble paver

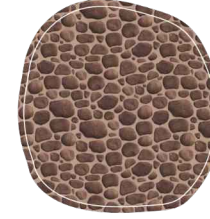
Constructed wetland filtration system



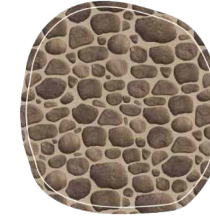
wetland filtration plant material



topsoil and gravel mix



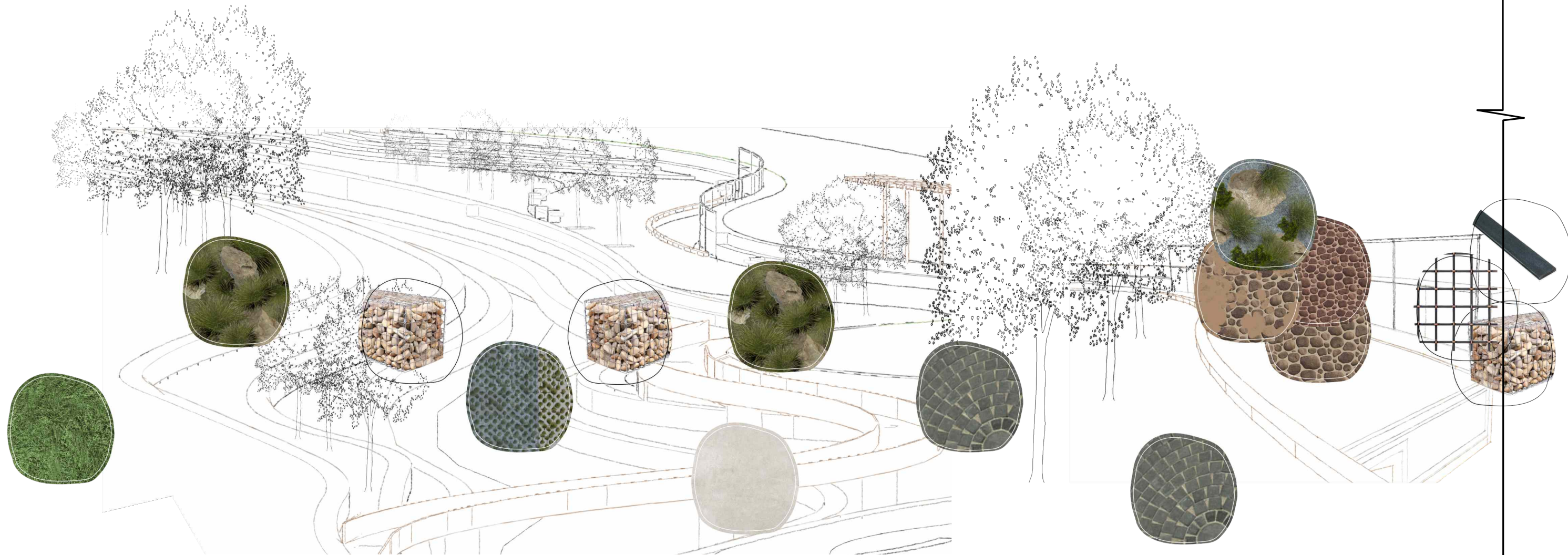
6mm washed gravel



12mm washed round gravel



lawn



MATERIALITY AND CONSTRUCTION METHODOLOGY

Experiential Marikana Thornveld Amphi



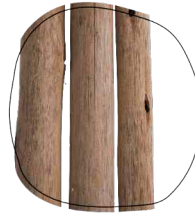
marikana thornveld plant material



hollow bamboo chime poles



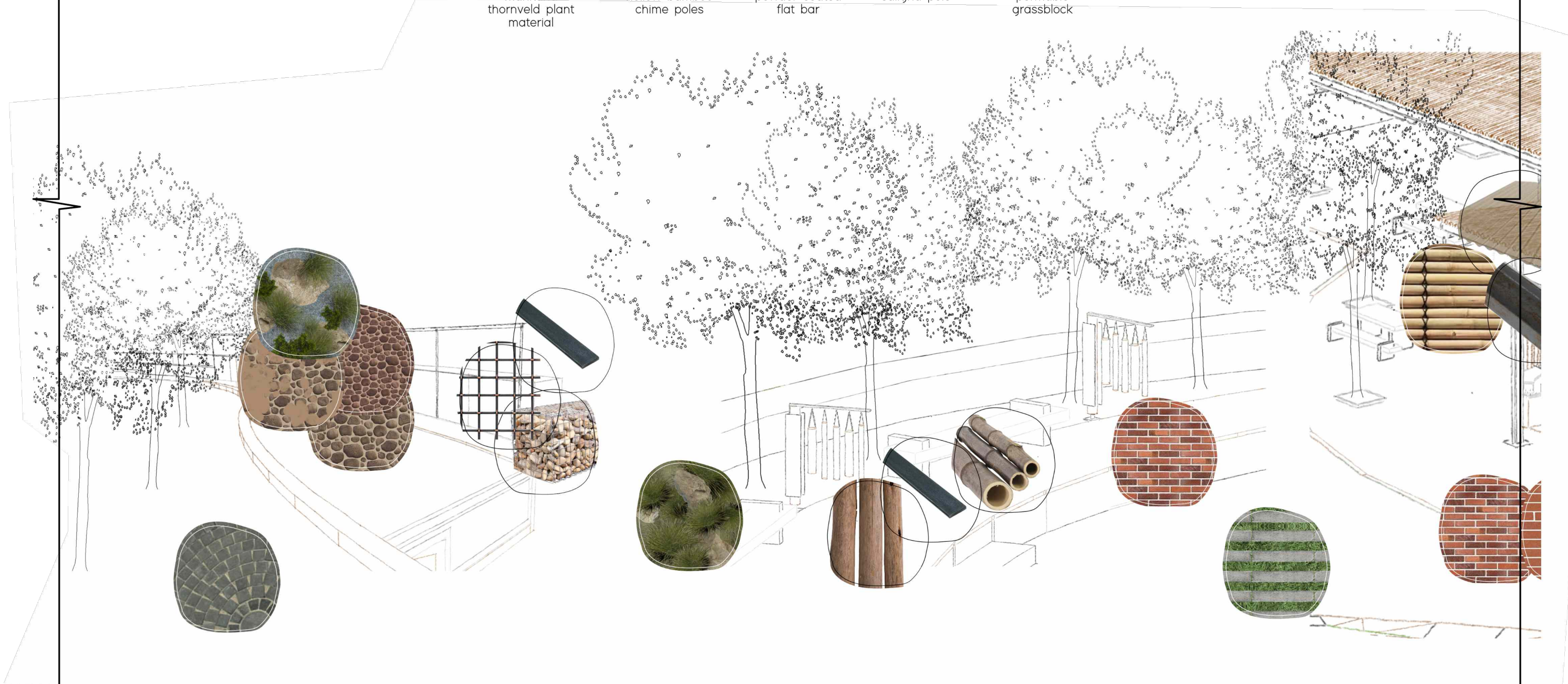
powder coated flat bar



saligna pole

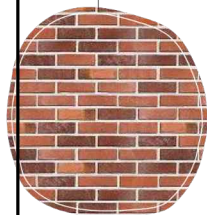


permeable grassblock

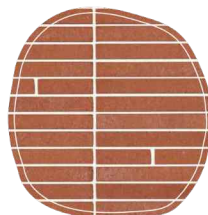


MATERIALITY AND CONSTRUCTION METHODOLOGY

Outdoor food and vendor plaza



recycled brick



smartstone piazza paver



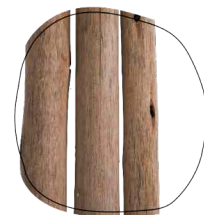
powder coated steel columns and beams



bronze tinted polycarbonate roof sheathing



bamboo pole mat
(suspended on metal frames below polycarbonate roof)



saligna poles



etched corobrick morrocan travertine face brick

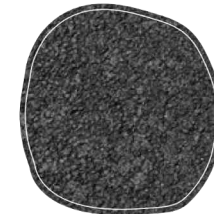


concrete benches and work tops

Shared streets



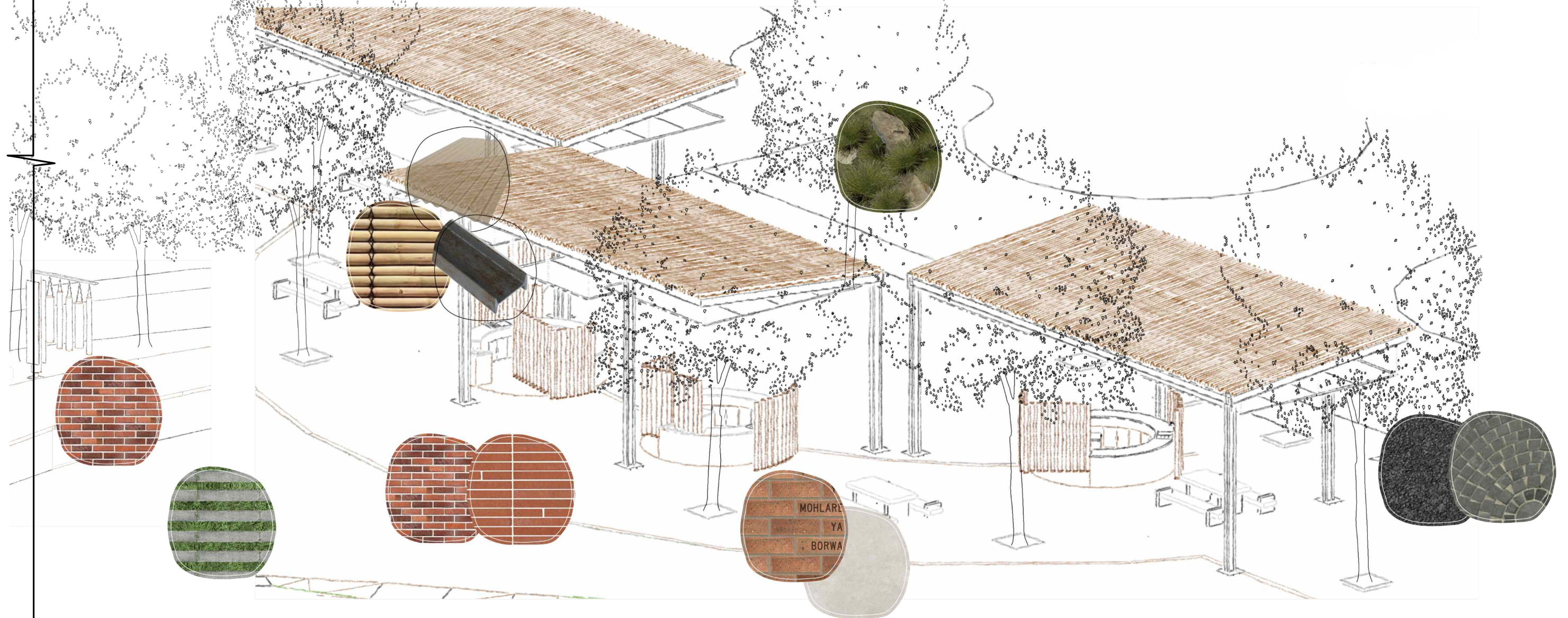
marikana thornveld plant material



asphalt (waste picker and bicycle lane)



victorian cobble paver



MATERIALITY AND CONSTRUCTION METHODOLOGY