

Marlboro Station, Johannesburg

South Africa, 2000

The selected site, Portion 1 of the Remaining Extent of the Farm Bergvallei 37 IR, is owned by the City of Johannesburg and approximately 14 hectares in extent. The Jukskei River borders the site's western edge, whilst the Marlboro Gautrain Station on the southern edge.

The site is currently undeveloped, however, many informal settlements have developed along the river banks. Flooding and river pollution is one of the biggest challenges affecting these settlements.

The subject site is situated on the corner of the N3 Highway and Marlboro Drive. It is approximately 6.2km east of Sandton CBD and 20 km north east of Johannesburg CBD. It is located in close proximity to the well-known township of Alexandra to the south and 6.5km east of the affluent residential area of Sandown.

Since the site is located close to the train station and major road interchange, a Transport Oriented Development may be a catalyst to address developmental challenges faced by the surrounding urban areas of Marlboro, Kelvin and Alexandra such as the prominent housing backlogs, congestion, river pollution, flooding, growing informal settlements and land invasion.

The Frankenwald Estate, a large affordable housing development, borders the subject area's northern edge. Hence the study site is earmarked as an underutilised, well-located pocket of land on which significant housing opportunities for all income groups can be realised. The area also has a huge potential to be transformed into a Transit Oriented Development (TOD) in order to link public transport hubs with affordable housing opportunities that have access to adequate social facilities and a public open space system.



Figure 1) Site Boundaries - City of Johannesburg

Approx. site area: Portion 1 of the Remaining Extent of the Farm Bergvallei 37 IR is approximately 14.15 hectares in extent.

Key Information: The site is within the Greater Alexandra Development Area which has a population of more than 231 900 people and 82 840 households. The average household size is 2.8 (3 people/dwelling unit).

Priority areas & main expectations: Proposals should seek to reinvent the area into a green and thriving TOD, specifically considering the following priorities and focus areas:

- Improve the area's connections to public transport (Gautrain station).
- Develop social and affordable housing.
- Provide social and community facilities.
- Enhance the public open space system.
- Implement climate change and adaptation measures to mitigate the impacts of flooding and polluted water, to improve water security.

Presentation of the site and development expectations

The site is a greenfield located along the eastern edge by the Jukskei River. The Jukskei River is identified as a major water body and one of the longest rivers in Johannesburg, running from Ellis Park to areas such as Bedford view, Alex and Buccleuch to the Crocodile River in Limpopo. This natural element, which is of aesthetic and recreational value, is not necessarily a block to redevelopment. It may optimally be utilised as a non-contact recreational resource in order to maintain its state and significance as a scarce natural resource.

The site is located at a major road intersection, highly visible from N3 and M1 highways, and Marlboro Drive. The site is connected to the Gautrain Rapid Rail Development Project, an 80km-long network, with a north-south line from Hatfield to Marlboro and an east-west line from Park station (via Marlboro) to Johannesburg International Airport. This makes it a prime location for development, advertisement and both public and private investment.

One of the major aims of the Gautrain Project is to reduce car dependency and its associated congestion through transit-oriented development (TOD). At Marlboro, this will be accomplished by connecting the fragmented surrounding area with a pedestrian bridge across Marlboro Drive. Furthermore, the [TOD plan](#) subdivides the Marlboro Precinct into a number of areas, in particular Frankenwald and the Far East Bank.

Therefore, proposals for this competition, should consider existing plans for the area, in order to develop the site into a green and thriving TOD, focusing on improving the area's connections to public transport (Gautrain Station); developing social and affordable housing; creating community facilities; enhancing public open space system; and implementing climate change and adaptation measures to mitigate the impacts of flooding and polluted water.

The proposed developments should also aim to: (1) integrate the surrounding suburbs in order to strengthen their socio-economic and spatial benefits; (2) promote links to the existing Marlboro Gautrain station (including Frankenwald) and to establish an extension of the station precinct in terms of the focused densification and intensification; and (3) aligning the proposed development with existing policies and legislation.

The subject site forms part of the designated Alexandra Integration Zone which includes areas such as Alexandra, Marlboro, Far East Bank, Marlboro Station and Wynberg. The City of Johannesburg also proposes that this integration zone be expanded to include Frankenwald, Linbro Industrial Node, Linbro Park Agricultural Holdings, Westfield Modderfontein Land Holdings, Buccleuch, Farm Rietfontein and Farm Waterfall Holdings east of the N1 Highway. The objective of this expansion is to develop the site into an intensive liveable mixed-use area that is well-connected into Alexandra, Frankenwald and the surrounding urban development prospects.



Figure 2) Pollution along the Jukskei River - City of Johannesburg

The Jukskei River flows in the northerly direction with water polluted from the southern areas. The river is almost at its source in the context of rivers it supplies with polluted water up north. The proposed new development has potential to deal with the ills emanating from the continuous pollution of the river from the south.

City climate priorities and specific environmental challenges

SECTION A: CLIMATE ACTIONS

In a broader perspective, the implementation of the **City of Johannesburg's Climate Action Plan (CAP) of 2021** aims to help the City to forge a COVID-19 recovery that addresses the systemic risks and pursue spatial transformation over the longer term, while focusing on the quick wins of creating sustainable jobs, improving service delivery and alleviating poverty and inequality.

The key reasons why the City of Johannesburg requires a Climate Action Plan include: **(1)** signalling the City's commitment to address climate change as a social justice imperative, inextricably linked to the challenges of eradicating poverty and enhancing inclusivity; **(2)** helping the City understand and effectively respond to climate change impacts; **(3)** helping the City to transition to a low-carbon, competitive and just economy; **(4)** helping the City to make a meaningful contribution towards national and global climate action targets under the Paris Agreement and the SDGs; **(5)** positioning the City to attract international finance for a green economic recovery following the COVID-19 pandemic; **(6)** demonstrating leadership as responsible global citizens through advocacy, international diplomacy and innovation; and **(7)** ensuring that the benefits of climate action are equitably distributed.

The main benefits of climate action:

- Improved air quality
- Job creation and better-quality jobs
- Increased access to services
- Improved environmental quality
- Safer communities
- Improved health and wellbeing

SECTION B: ENVIRONMENTAL OBJECTIVES AND SOLUTIONS

The City of Johannesburg focuses on **enhancing water security**, creating resilient human settlements, implementing flood and drought management strategies, developing resilient infrastructure that in turn enhances the health and wellbeing of communities.

Johannesburg has set out several **environmental objectives** to ensure a sustainable future for its residents through the implementation of **smart city strategies**. The key objectives include:

- **Reducing greenhouse gas emissions and the city's carbon footprint, reducing water wastage and making clean water available and accessible.**
- **Protecting the natural environment, improving public administration and implementing smart energy.**

Additionally, the City's **Environmental Sustainability Strategy and Action Plan** aims to conserve and sustainably use biological diversity and ensure the fair and equitable sharing of benefits arising from the utilisation of resources. Furthermore, the City's **Integrated Development Plans** also commit to creating a **resilient, sustainable, and liveable city environment** by driving economic growth through targeted programs, services, and enabling support.

SECTION C: ENVIRONMENTAL ISSUES TO BE ADDRESSED

Dangers of flooding: Most of the informal settlements along the banks of the Jukskei River occupy land that is below the delineated 100-year floodline. This means that these informal clusters are prone to flooding.

Poor sanitation facilities and water pollution: The informal areas built on the riverbanks and tributaries are not connected to the formal waterborne sewerage system. They depend on chemical toilets and bucket systems. The untreated sewage flows and unattended solid waste from these informal settlements are, amongst other things, are the main polluters of the adjacent water bodies

Specific planning rules and regulations

The main **spatial and policy frameworks** that guide the development of the subject site and the immediate surrounding areas include:

- [National Spatial Development Framework \(2022\)](#)
- [Green Book \(CSIR\) – Adapting Settlements for the Future](#) (CSIR) (2023) ([Explainer video](#))
- [Gauteng Spatial Development Framework \(2016\)](#)
- [CoJ Integrated Environmental Management Policy \(2005\)](#)
- [CoJ Spatial Development Framework \(2016\)](#)
- [CoJ Land Use Scheme \(2018\)](#)
- [CoJ Inclusionary Housing Policy \(2019\)](#)
- [CoJ Nodal Review Policy \(2020\)](#)

- [CoJ Climate Action Plan \(2021\)](#)

Other **urban development frameworks and local area plans** to consider include:

- Greater Alex Physical Development Framework (2002)
- Kew, Wynberg and Marlboro Industrial UDF (2009)
- [Linbro Park](#) Urban Development Framework (2010)
- Alexandra UDF and Implementation Master Plan (2011)
- Marlboro South Priority Economic Zone (2018)
- Greater Alexandra Development Area (GADA) Framework (2020)
- Frankenwald Urban Development Framework (2022)

Development and town planning tools (City of Johannesburg Land Use of 2018) enabling the development controls that address development behaviour that impacts the environment and climate negatively. Controls are entrenched to the property rights and applicable when development is presented or proposed. Based on site area and practicality, attenuation ponds must be constructed on-site and stormwater management plans required on sensitive sites, average size developments and larger developments.

For [Site Specific applications](#), there are certain requirements that need to be met. Those include:

- A minimum of **10% of the area** should be allocated for **soft landscaping**.
- There should be **1 tree per 3 parking spaces**.
- **Permeable paving** is encouraged.
- **Attenuation ponds** and **internal stormwater collection** are required.
- **Rainwater harvesting** should be encouraged within the development site.
- **Public transport facility** is required on large commercial developments.
- The **Environmental Department** is required to check and endorse the plan.

Application on buildings and building plans:

- [South African National Standards \(SANS\) 10400 XA](#)
- Energy Efficiency in buildings calculation
- Minimum 50% of heating from renewable energy (solar geysers)
- Energy efficiency and glazing (calculations to be reflected on plan)
- Building materials performance (walls and roof) required on the plan.
- Architects are required to be competent in energy efficiency calculation and rational design.

Language requirements

Proposals must be submitted in English.

City-specific Awards

The winning team will have an opportunity to exhibit their project to the Development Planning Department. The City of Johannesburg will then evaluate the best development and implementation options – either by (1) developing the property, (2) releasing the land to the private sector for development or may (3) enter into agreements with other spheres of government.