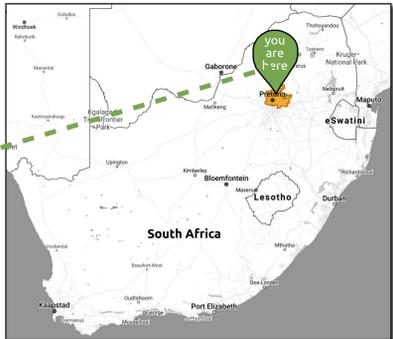


Showcase of sustainability practices in South Africa #1

Greening by example in Tshwane



you are here

Tshwane House

Welcome to Tshwane House, our municipal headquarters. Our directors will show you around.

Tshwane has led by example in retrofitting its civic building and has smoothed the way for greening of all future buildings.

Visitors from other cities

Tshwane House, a demonstration green building

Designed to guarantee natural light

70% view of the outdoors

Fresh air provided at a rate of 12ℓ/s/p

Energy efficient lighting & occupancy sensors

5% of parking areas set aside for fuel efficient vehicles

69 bays reserved for alternative fuel vehicles

High level of thermal comfort for 95% of the usable area

R2 billion

Variable Air Volume Air-cooled system connected to CO monitors

Optimum quantities of outside air through CO2 monitoring

Minimal waste

Greywater harvesting system for irrigation

Paints, adhesives & sealants and carpets with low or no VOC

Rainwater harvesting & filtration used to flush toilets and urinals with efficient water fittings

50% reduction in energy consumption

Energy uses of 100kVA or greater and all major water uses are sub-metered & controlled via BMS

"The office arrangements are open plan"

"We have good views of the outdoors and it feels airy"

"The building uses natural light and efficient lighting"

"I preferred the old way of working, in an enclosed office"

"This is so cool!"

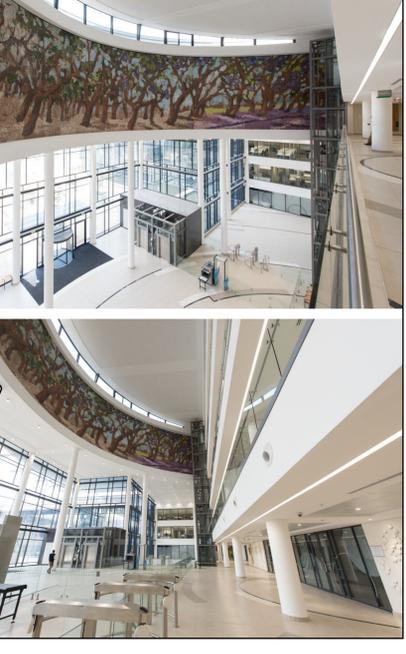
We are working with staff to ensure they understand the value and significance of the building features.

Pillars of sustainable practice: Partnerships

Let's move into the building.

Our partnerships are the pillars of our sustainability practices.

- Certification of Green Building Council of South Africa
- Net Zero Carbon Buildings Declaration co-ordinated by the World Green Building Council and C40
- Member of C40 South Africa Buildings Programme – supporting low carbon or carbon zero buildings
- Member of ICLEI
- Collaborations with CSIR, SEA and metros
- Partnership agreement GIZ
- Partnership agreement with the South African National Energy Development Institute
- Partnership agreement UNIDO



A sustainable governance approach

Our fight against climate change requires cooperative governance.

- Stakeholder participation
- Legislation
- Policy and Strategy
- Action
- Monitoring

Flagship sustainability programmes

I want to show you this:

We have several flagship sustainability programmes linked to our Climate Action Plan.

Climate Response Strategy and Climate Action Plan

- Tshwane targets
- National targets
- Global targets
- Indicators for mitigating climate change
- Green Buildings Programme (Tshwane House)
- Green Economy Framework
- Green Building By-law
- Building Efficiency Accelerator Programme
- Sustainable Procurement Strategy
- Sustainable Financing Strategy

Tshwane House Guidebook is raising awareness and educating officials on the building.

Tshwane House Building Users Guide

And our officials are receiving training from the Green Building Council on sustainable elements that are important in existing buildings.

Training and capacity building

- Certificate Green Star Accredited Professional (GBC)
- Certificate Existing Building Performance (GBC)
- Certificate Net Zero Carbon Buildings Declaration (GBC)

All buildings carbon neutral by 2050

Why building adaptation matters

We must adapt existing and new buildings to reduce electricity and water consumption, minimise waste and enhance biodiversity. This will help reduce our carbon emissions by 80% by 2050.

Building Efficiency Accelerator Programme (BEA) for existing buildings

We can lead the way by adapting municipal buildings

Yes, and through the Building Efficiency Accelerator Programme these sustainable building features are being introduced in existing municipal buildings.

..and C40 SA New Building Efficiency (NBE) Programme, including Green Building By-Law for all new buildings

- Mandatory**
 - Energy
 - Water
 - Waste
 - Transport
- Promoted**

Our Green Building by-law is under review and will regulate all new buildings in Tshwane to ensure sustainable building development from the start.

It will apply mandatory conditions for water, waste, energy, lighting and transportation. And will encourage more elements for optimal building operation.

Ways to go green

- Internal lighting power densities comply with SANS 204
- Absorbance value below 0.6
- Plastic Paper Organic Glass
- <10 litres per minute
- <6 litres per minute
- Light sensor
- Dual-flush capability <4,5 ℓ_half flush and <9 ℓ_full flush

Impact

Tshwane is the first SA city with a green building by-law. It is an innovator city leading sustainable efforts to make all buildings truly green, and thereby combat the effects of climate change. The vision is for the whole built environment to be climate resilient, resource efficient and environmentally friendly.

Thank you for coming

Thank you for the inspiring tour!

More information see links below

Credits

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Photos: City of Tshwane

Prepared for: SACN

South African CitiesNetwork

Phat Tale Story_Play_Design