DESIGN CONCLUSIONS

Plans
Perspective drawings
Technical details
Design conclusions

Loftus Metrorail Station - a building conforming to functionality, ease of movement and legibility, by means of identifying the diverse range of elements and the needs of each individual.
Establishing the movement theory and maintaining it as the primary organizational force within the building.
On the street level, University road, directly opposite the proposed new entrance for the University of Pretoria, is the entrance to the station building. This entrance leads straight through the building ‘hidden’ underneath the tracks, towards Loftus stadium. It is this through fare that divides the ‘shopping mall’ and the station quarters in locality and in ownership, but at the same time feeding off one another in sharing the users.
As stipulated in the Metrorail requirements, the station and commerce facilities are separated. Strategic placement of the program within the building to assist ease of movement and legibility.
Platform circulation

Commuters
Disabled
Staff circulation

Metrail railway track
Ga'train railway track

08:05

Program:
Train arrival and departure
Seating

Zones: Quick zone and Waiting zone

progression in levels = progression
On this level the two independent entities, Metrorail and Station Shopping mall, use the same areas for administration.

On the East, overlooking the platform, is the Metrorail staff program, and on the West - overlooking the park and precinct - the Station shopping administration program.

Program
- Metrorail Staff
- Station Supervisors Office
- Control room
- Data Processing room
- Security office
- CCTV office

Station Shopping mall Staff
- Security office and CCTV
- Administration offices
- Secretary office
- Manager office
- Staff room and Kitchenette
- Toilet facility

Telecommunications room
- Cable terminal room
- Staff room and Kitchenette
- Toilet facility
Rainwater and storm water is stored in an underground tank with a submersible pump. A submersible pump, with sensor, pumps abundant water into storm water channels in the road reserve.

Service ducts are situated out of site in the service alleys. They are easily accessed from staff areas and prohibit any public entry. From the duct, sewerage is connected to the connection in the road reserve, the site falls to the South corner near Lynnwood Road.
Roof Plan Axonometric displaying the staggered roof:
- allowing daylight penetration and natural ventilation.
- the shadows cast on the platform direct passengers to the focus point in the distance i.e. Loftus Versfeld Stadium.
clarity of form

Perspective view of the main entrance into the station from University road.
The display screen not only acts as a shading device but more so marks the entrance to the building.
Users can see Loftus Versfeld and the precinct from this point - enticing movement in that direction.
View of the platform parallel to the railway - the two passages created by the steel structure literally divides the two movement zones. The staff offices above the platform convey a human scale within the large steel structure. Once again circulation above is visible from this area.
Perspective from the viewpoint of an arriving passenger - with Loftus Versfeld Stadium as focal point. Passengers can easily comprehend where to go - due to the open structure - exposing all modes of movement, from all directions possible.
Perspective illustrating the arcade created by the steel structure reaching down and touching that which belongs to the ground. Accentuating the spill out space of the commerce but more importantly constantly reminding the users of activities on the higher level.
Internal view showcasing the arcade

The arcade highlights the space created instead of the mass created
Perspective view overlooking the station building - illustrating the possibility of events that may occur in the courtyard area.
Perspective view of the modal interchange, green route (urban park) and the station building. All modes of movement is visible from this point. Thus defining this point as a node and facilitating decision making.
View from the Mezzanine level where staff members are accommodated.
Surveillance necessary for security and station operators is ideal - a full 180 degree view of the platform is possible.
Focal points in the landscape, such as the Engineering Tower building at the University of Pretoria, constantly remind users of their surroundings.
Perspective from the exit point of the slipway (under the railway)

- a clear visual of circulation routes as well as the train arriving and departing on the platform - assisting with orientation and legibility
- the 6K0 mediamesh provides space for interaction with the users
East Elevation
West Elevation
Details
Scale 1:50
Skin Detail

Scale 1:100
Univerity road Detail
Scale 1:100
100x100x10 Mild Steel Square Hollow Section Welded to Vertical Members and Fixed to Columns @ 7000mm Centres

Cool Aluminium Adjustable Galvanised Steel Rod Fixed to Steel Frame

225x75x20x2.5 Steel Lipped-Zed Bolted (M20) to Angle Cleat and Steel Frame

Cool Aluminium Aerowing Galvanised Steel Fin System

90x90x10 Steel Angle Cleat Welded to Column

200x200x10 Hollow Square Section Welded to Column Baseplate and Bolted to Truss

Drip

Translucent Insulation (Extruded) Polystyrene Balls Weaved into Bags

Translucent (70%) Corrugated (Makrolon Romah) Polycarbonate Sheeting Overlapping One Cycle at Horizontal Seams and Fixed with Screws to Frame

Steel Window Frame Welded to Structural Frame

Double Glazing Opening Section

6mm Frosted Safety Glass

240x85x33kg/m Mild Steel Channel Fixed to Frame Structure with M20 Bolts

Facade Detail
Scale 1:100
- **600x600x3mm Galvanised Steel Sheet Box Gutter**
- **Klip-Lok 700 Roofsheets on 1 Degree Pitch with Chromadek Finish**
- **250x75x20x2.5 Mild Steel Lip-Channel Purlin @ 150mm Centres Fixed Cleated to Lattice Girder**
- **150x150x10 Mild Steel Angle Profiles Welded Back to Back to 10mm Base Plate and Welded to Vertical Member**
- **60x60x5 Mild Steel Equal Leg Angle Profile Welded to Cross Bar**
- **150x150x10 Mild Steel Angle Profiles Back to Back Bolted with M20 Bolts to Horizontal Member**
- **M20 Bolts**
- **150d Galvanized Steel Downpipe @ 7000 g/c**
- **10mm Galvanised Mild Steel Baseplate Bolted Between Hollow Section and Truss**
- **Translucent Insulation (extruded) polystyrene balls weaved into bags**
- **Klip-Lok 700 Roofsheets on 1 Degree Pitch with Chromadek Finish**
- **10mm Chipboard**
- **200x75x20 Mild Steel Lip-Channel Fixed to Frame Structure with M20 Bolts**
- **22 T&G Timber Board Floor**
- **150x50 timber floor joist @ 600mm Centres**
- **100x100x10 Mild Steel Square Hollow Section Welded to Vertical Members to Form Frame Structure**
- **240x85x33 kg/m Mild Steel Channel Fixed to Frame Structure with M20 Bolts**
- **Translucent (70%) Corrugated Makrolon Romex Polycarbonate Sheeting Overlapping One Cycle at Horizontal Seams and Fixed with Screws to Frame System**
Sub structure Detail

Scale 1:100