CHAPTER 9
final presentation & technical drawings
Abstract

The development aims to highlight the presence of young people in the central business district of Pretoria. The proposal seeks to provide a facility to cater for the needs of young people after school, as well as during their education and training. It includes a gym, a library, and a community hall. The building is designed to be multi-functional, accommodating various activities such as sports, education, and social gatherings. The design focuses on providing a safe and welcoming environment for young people of all ages.

A Youth Centre in Pretoria

GAME ON!
300x15 fibre cement sun louvres

cast-in drip joint

M6-rolbolt

3mm base plate

M6 threaded rod welded to baseplate

3mm bent steel bracket bolted to threaded rod

position of louvre when turned

aluminum window installed acc to manufacturer's spec.

copper cladding

flashing and counter flashing placed behind/underneath copper cladding

dove grey chromadeck kliploc metal roof sheeting

150x75 lipped channel

M12 rolbolt

IPE 200 I-beam

6mm flange welded to I-beam

150mm ISOTHERM insulation

suspended ceiling substructure

6mm suspended ceiling

shadow line fitting

16mm plywood backing for cladding

precast conc. window sill

water proofing

3mm base plate

M6 nut and bolt

250mm conc. wall

built in conc. stair
dia 50 steel handrail

SECTION

LOUVRE DETAIL - scale 1:20

PLAN
BASEMENT SECTION - scale 1:50

- Waterproofing torch onto conc.
- Reinforced concrete retaining wall
- Double skin masonry wall
- 200mm reinforced concrete slab
- 250mm reinforced concrete beam
- High tensile steel anchor
- 0.45 poliolefin waterproofing membrane
- 150mm reinforced concrete slab
- Sump with cast iron grating and submersible pump
- 200mm no-fines concrete base, with geopipes laid in herringbone pattern

WALL CONSTRUCTION - scale 1:10

- 15mm gypsum drywall fixed acc. supplier's spec.
- 200x75 lipped channel fixed to I-beam
- 70x70 MS angle iron bracket welded to I-beam
- IPE 200 I-beam wall stud
- Lipped channel cut to fill inside I-beam flanges
- Copper cladding laid in shiplap form and nailed to backboard acc to manufacturer spec.
- 0.45 poliolefin waterproofing membrane
- 16mm plywood timber backboard
- 200x75 lipped channel fixed to I-beam
- Double skin brick wall
- 16mm Plywood backing
- 0.45 Poliolefin damp proof membrane
- Copper cladding laid in shiplap form
- IPE 200 I-beam wall stud
- 70x70 MS angle iron bracket welded to I-beam
- 200x75 lipped channel fixed to I-beam

Shop front
Brick paving
Compacted earth backfill
Reinforced concrete column footing acc to engineer
Copper cladding laid in shiplap form
and nailed to backboard acc to manufacturer spec.
200x75 lipped channel fixed to I-beam
150mm reinforced concrete slab
15mm gypsum drywall fixed acc. supplier's spec.
200x75 lipped channel fixed to I-beam
70x70 MS angle iron bracket welded to I-beam
IPE 200 I-beam wall stud
Lipped channel cut to fill inside I-beam flanges
Copper cladding laid in shiplap form and nailed to backboard acc to manufacturer spec.
0.45 poliolefin waterproofing membrane
16mm plywood timber backboard
200x75 lipped channel fixed to I-beam
Double skin brick wall
16mm Plywood backing
0.45 Poliolefin damp proof membrane
Copper cladding laid in shiplap form
IPE 200 I-beam wall stud
70x70 MS angle iron bracket welded to I-beam
200x75 lipped channel fixed to I-beam
**VEGETATED SCREEN** - scale 1:50

- M10 bolt
- 3mm flange welded to I-beam
- IPE 200 I-beam
- 25x25 angle iron welded to I-beam
- 50x50 mesh drainless steel mesh
- planting

**COMMERCIAL**

- M13 bolt
- 6mm flange
- waterproofing below screed

**BASKETBALL COURT**

- single skin brick wall
- planting
- 50x150 timber boarding
- M13 bolt countersunk
- 50x50 pvc drainage hole
- Floor finish

**BASEMENT**

- 50x150 timber boarding
- 50x50 drainage hole
- waterproofing below screed
- floor finish

**DUCT VENTILATION** - scale 1:50

- 110 PVC ventilation pipe
- 90x70 gypscape cornice
- extractor fan
- M10 bolt 3mm flange welded to I-beam
- IPE 200 I-beam
- 25x25 angle iron welded to I-beam
- planting
- single skin brick wall
PLANTER DETAIL - scale 1:20

HALL BALUSTRADE DETAIL - scale 1:20

SECTION D-D - scale 1:100

SECTION E-E - scale 1:100
HALL ROOF DETAIL
scale 1:20
BRIDGE STRUCTURE DETAIL - scale 1:20

VIERENDEEL TRUSS BRIDGE STRUCTURE

I-BEAM FLOOR JOISTS AND WALL STRUCTURE

GLASS AND COPPER CLADDING