



05. Conclusion



Belle Ombre
rail station

Belle Ombre
bus station

mixed use

mixed use

10th ST

11th ST

trader's
market

underground route of channel

electrical
substation

proposed
Inner City Distr. bus

Belle Ombre
plaza

proposed
BRT

BOOM ST

mixed use

Empire
Theatre

mixed use

GRAND ST

GRAND ST

ZCC
church

mixed use

proposed
BRT

BLOED ST



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

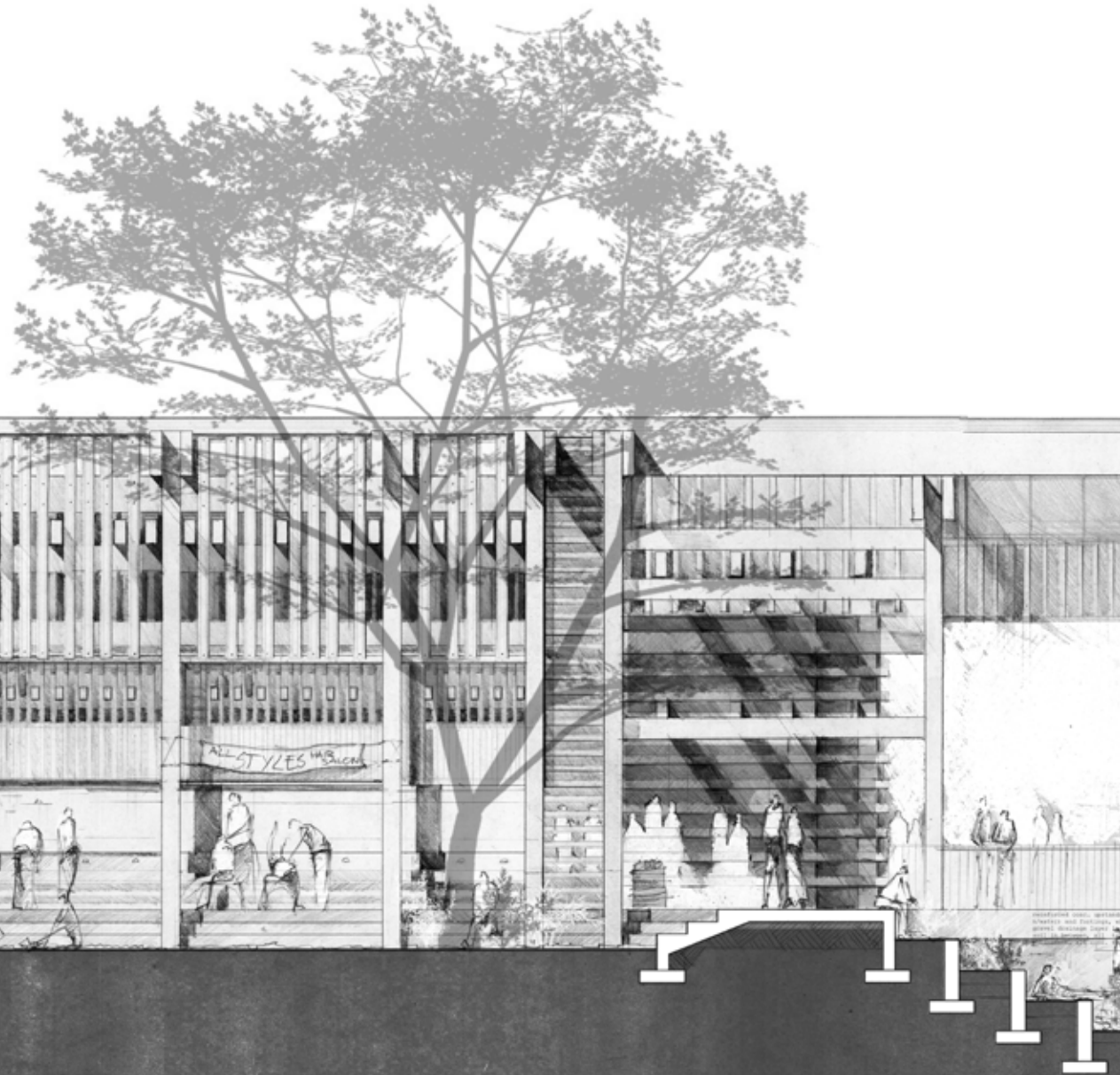


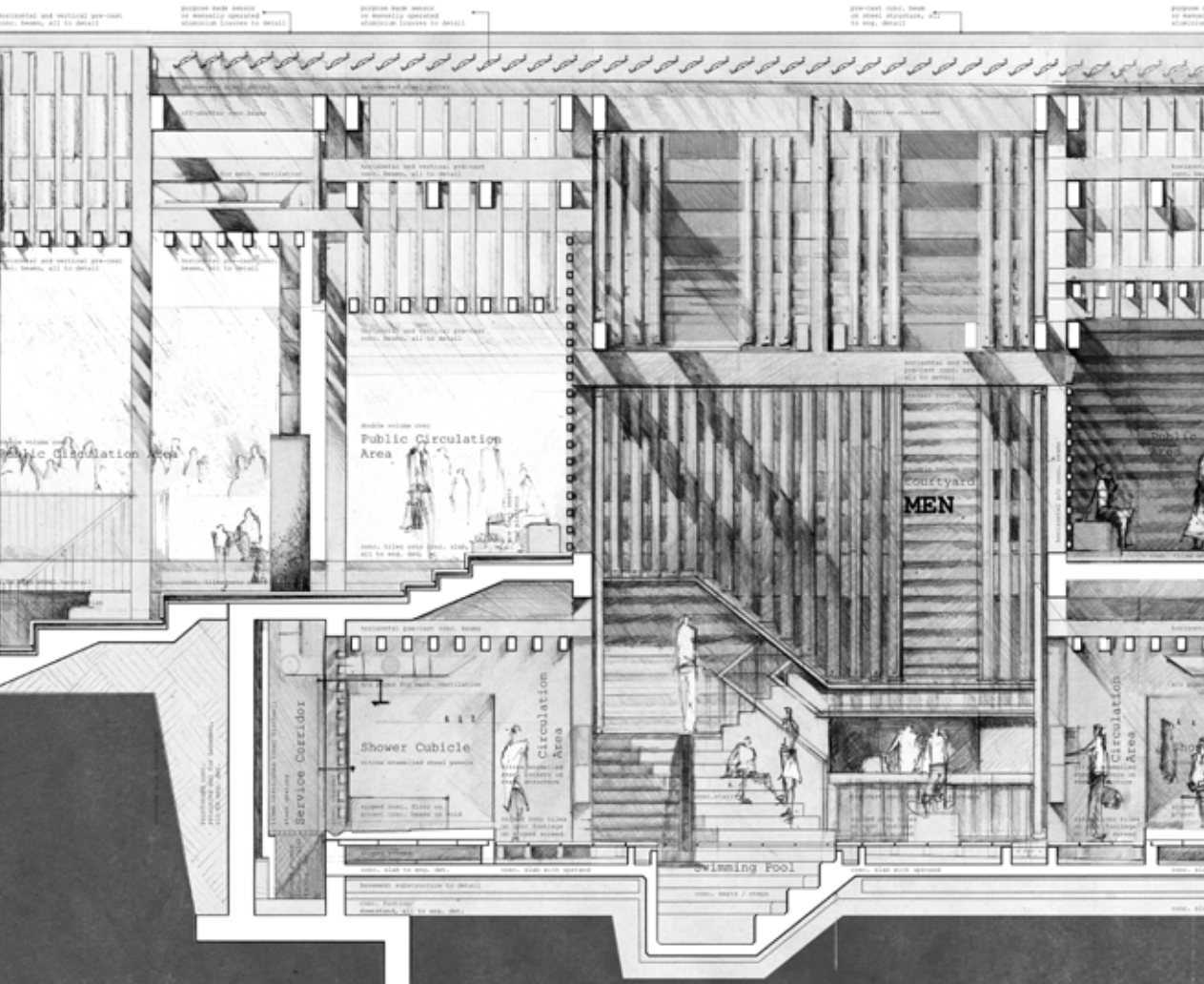
section A-A





Figure 99. (opposite, below and next page) Section a-a nts.



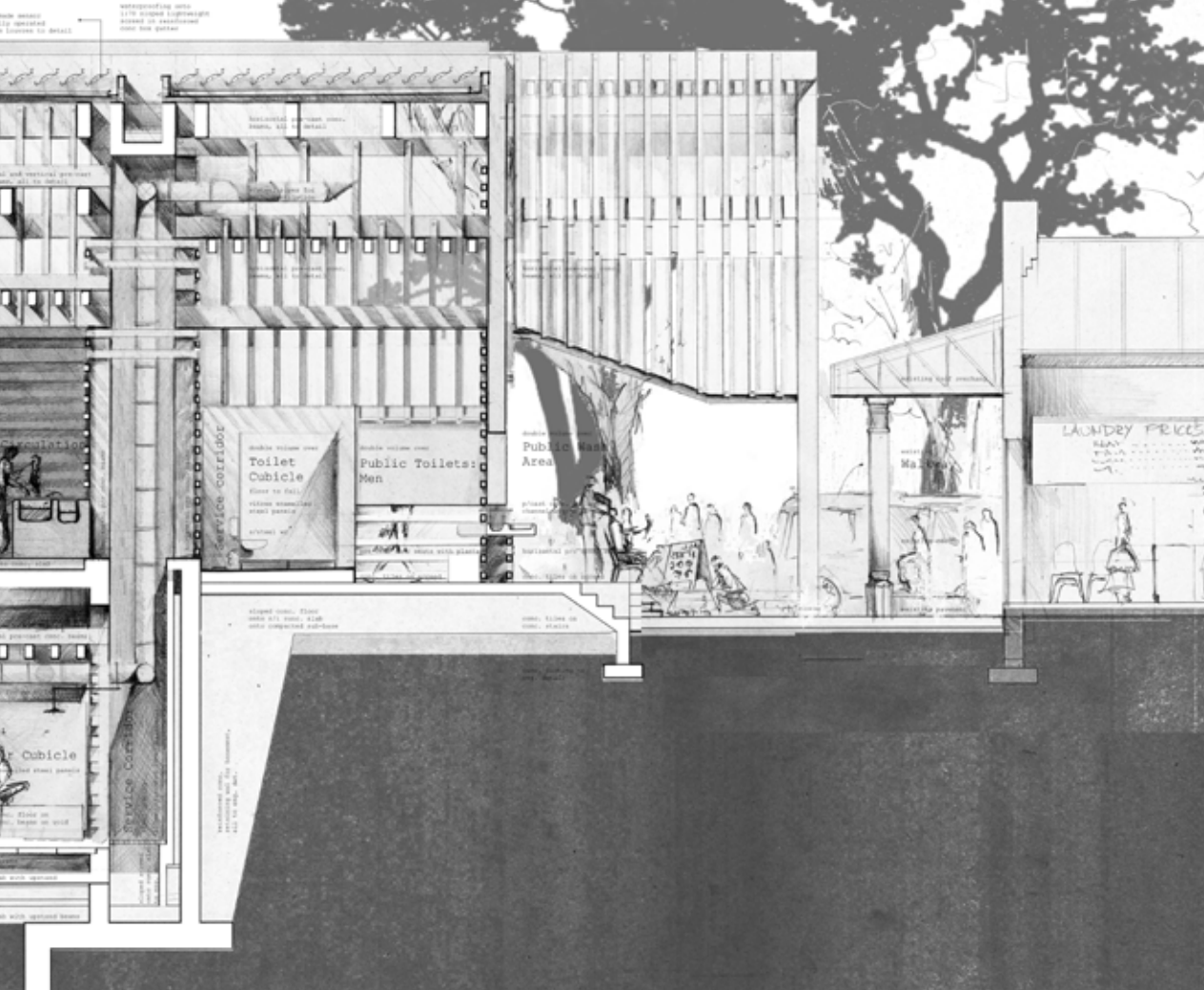




Conc. gutter calculations

gutter cross-section area (77x42) sq ft
 2 1/2 inch gutter cross section / 1 sq ft
 = 2307.42 sq inches
 2 400 sq inches width
 = 5.768 in gutter depth

Waterproofing area
 1 1/2 inch lightweight
 placed on foundation
 over the gutter





UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

300x300 in-situ reinforced concrete column
off shutter finish, final spec. to engineer

250x585 precast prestressed reinforced concrete
beam, unfinished, final spec. to engineer

0.6 galvanized steel flashing set in recess in
concrete beam to be filled with silicone. flashing
fixed to timber support beam with roof screws.

76x154 SAP support beam fixed to precast concrete
beam with countersunk expansion bolts @ 1000cc

aluminium louvre with translucent insert to manufacturer

0.6 galvanized steel gutter

200x540 precast prestressed reinforced concrete
beam, unfinished, final spec. to engineer

cement grout in cavity
surrounding steel rod

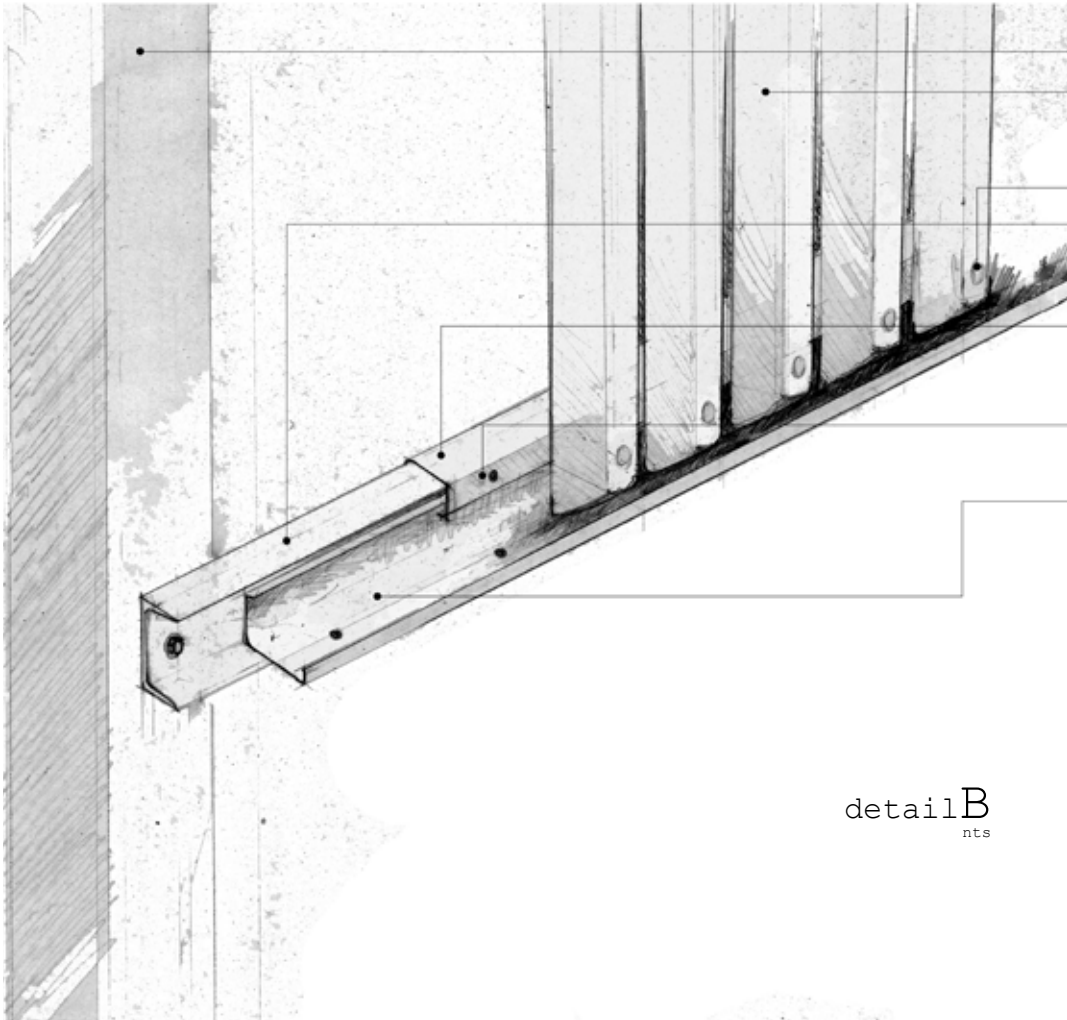
18mm galvanized steel rod set in grout in holes cast
into concrete

neoprene bearing pad

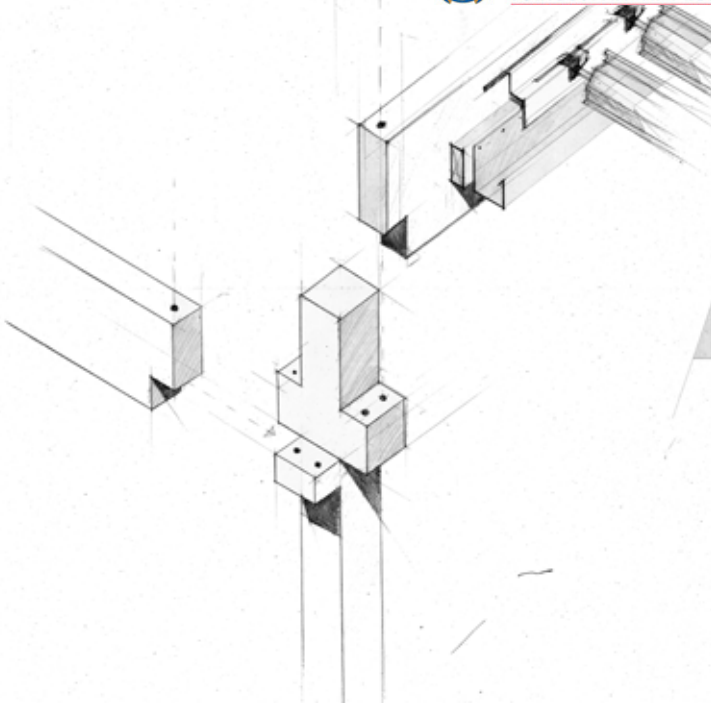
uPVC grouting tube cast into in-situ concrete column

300x300 in-situ reinforced concrete column
off shutter finish, final spec. to engineer

detail A
nts



detail B
nts



• 300x300 in-situ reinforced concrete column

• 100x125 prestressed precast concrete post unfinished, bolter to steel support beam with galvanized steel bolts to engineer, steel and PVC washers at all connections.

• cement grout fill

• 10x180x22,0 hot rolled taper flange structural steel cahnnel bolted to concrete column with expansion bolts, 2mm steel washer betwee channel and column as spacer, also allowing for expansion through oval hole in channel

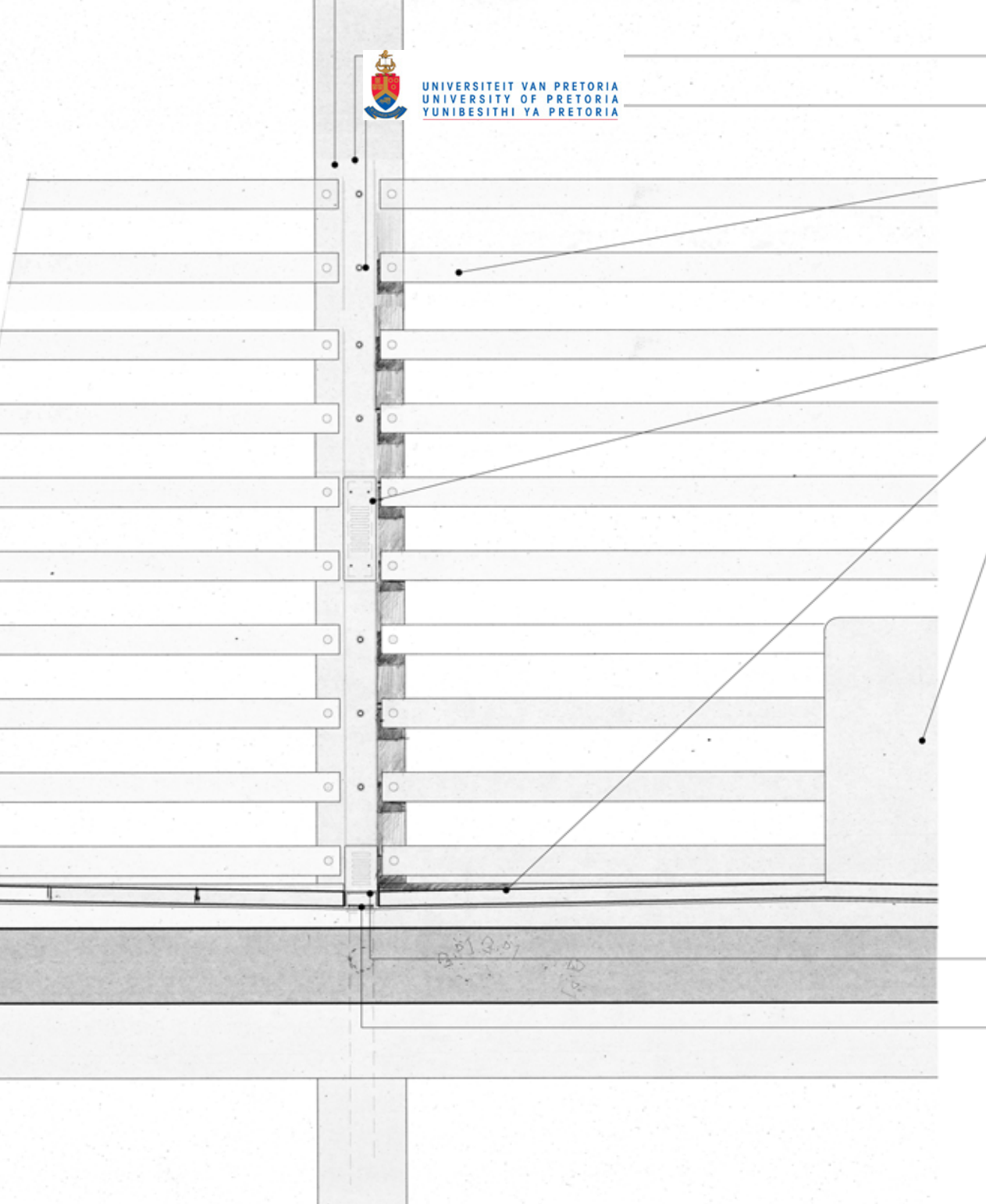
• 75x50x20x2,0 galvanized cold formed unequal lip angle bolted to channel, to act as fixing bracket for concrete posts.

• hole for concrete post connection bolt

• 175x75x27x2,0 galvanized cold formed unequal lip angle bolted to channel, toform shadowline, 15mm holes drilled for drainage at 500cc



Figure 100. (including opposite) details A & B. nts.



76x102x6,7 hot rolled galvanized steel channel fixed to column with expansion bolts

expansion bolts @500 cc w



100x150 precast prestress concrete beam fixed to column to detail, on threaded rod cast into concrete column
Pvc and steel washers to all connections.

76x102x6,7 hot rolled galvanized steel channel, perforated and accommodates light fitting, fixed to column with welded steel bracket with countersunk self tapping steel screws removable for maintenance of wp LED light fitting

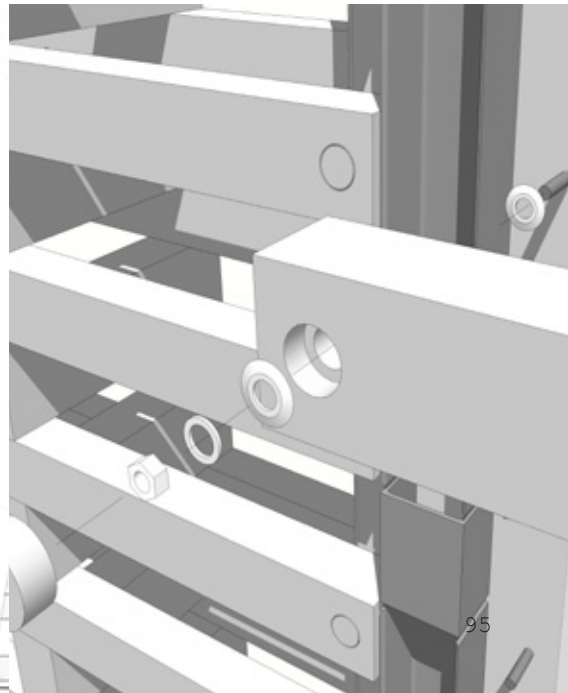
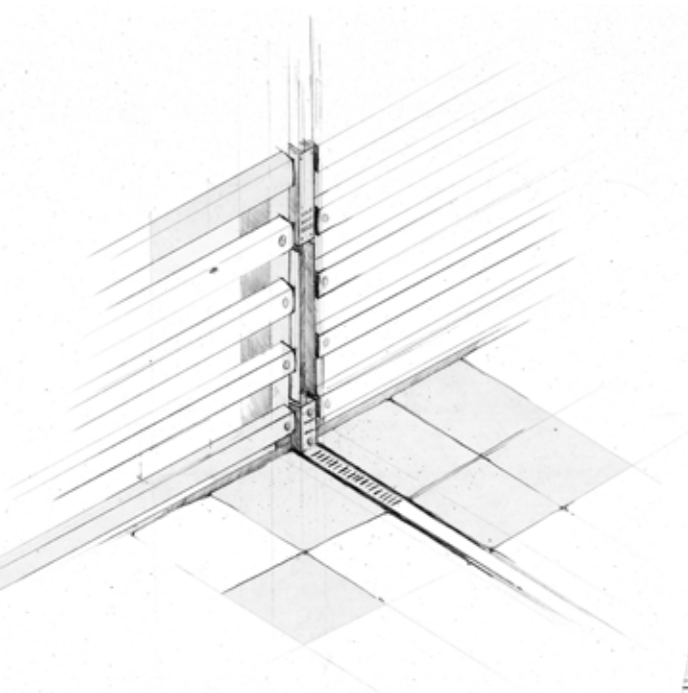
490x490x50 precast concrete tiles on cement screed to 1:70 fall to floor drain

in-situ concrete washing troughs, polystyrene blocks to act as void filling.

76x102x6,7 perforated galvanized steel channel fixed to concrete column with M8 expansion bolts where welded vertical extension connects to column. all welding to be done before galvanizing.

uPVC floor drain set in cement screed, 80mm uPVC downpipe in column to basement drain and greywater reticulation system

Figure 101. (including opposite) detail C. nts.



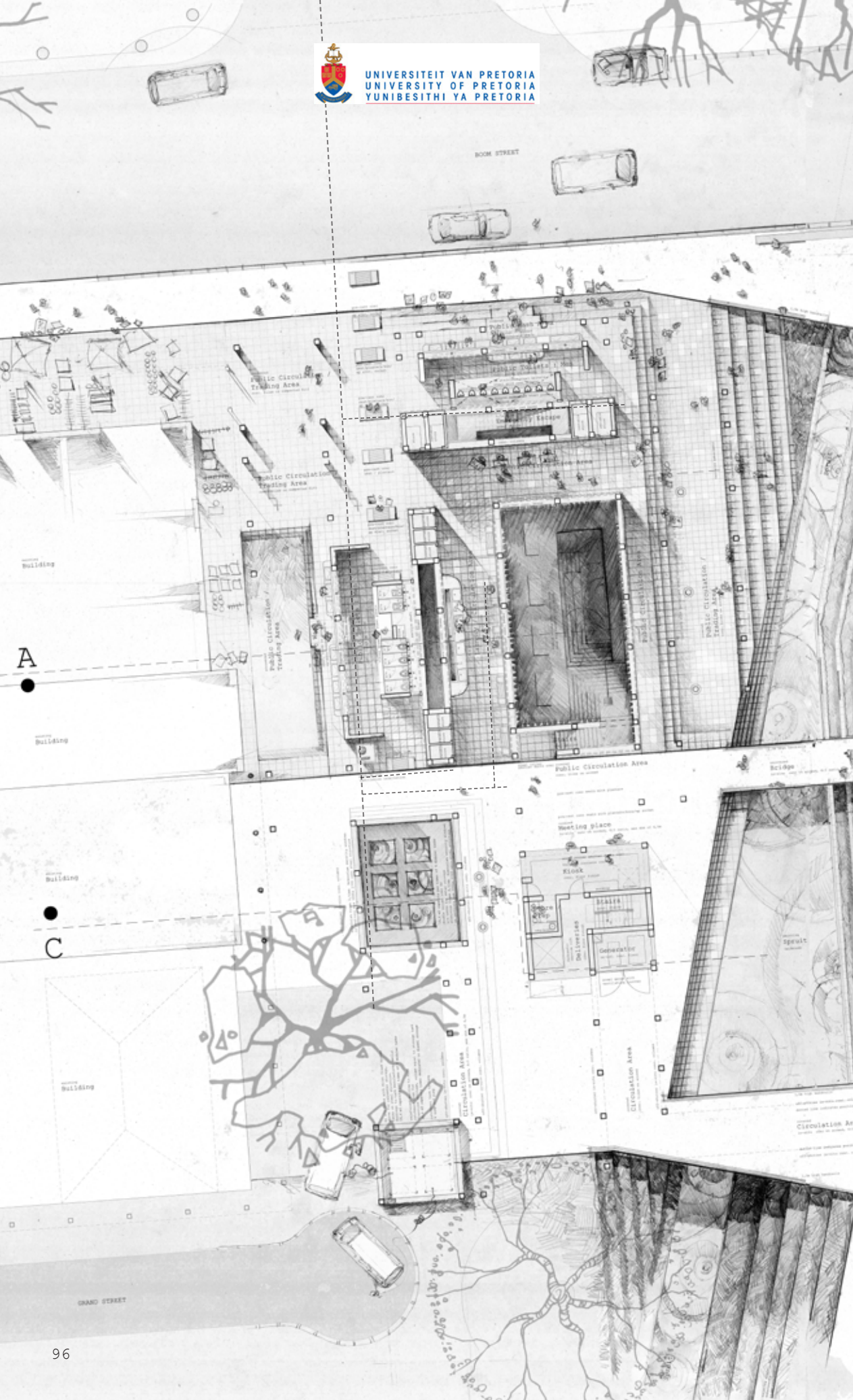
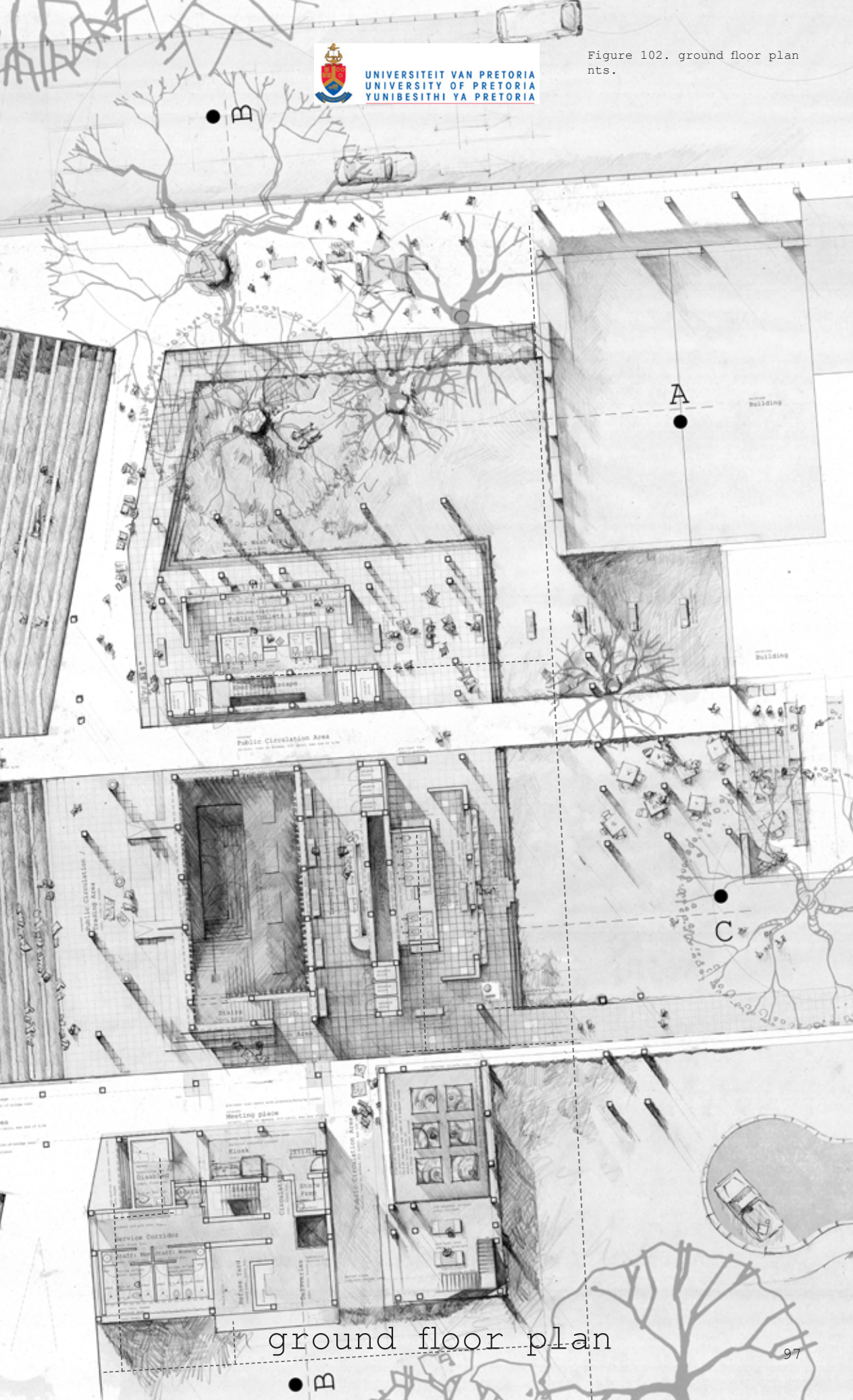




Figure 102. ground floor plans.



ground floor plan

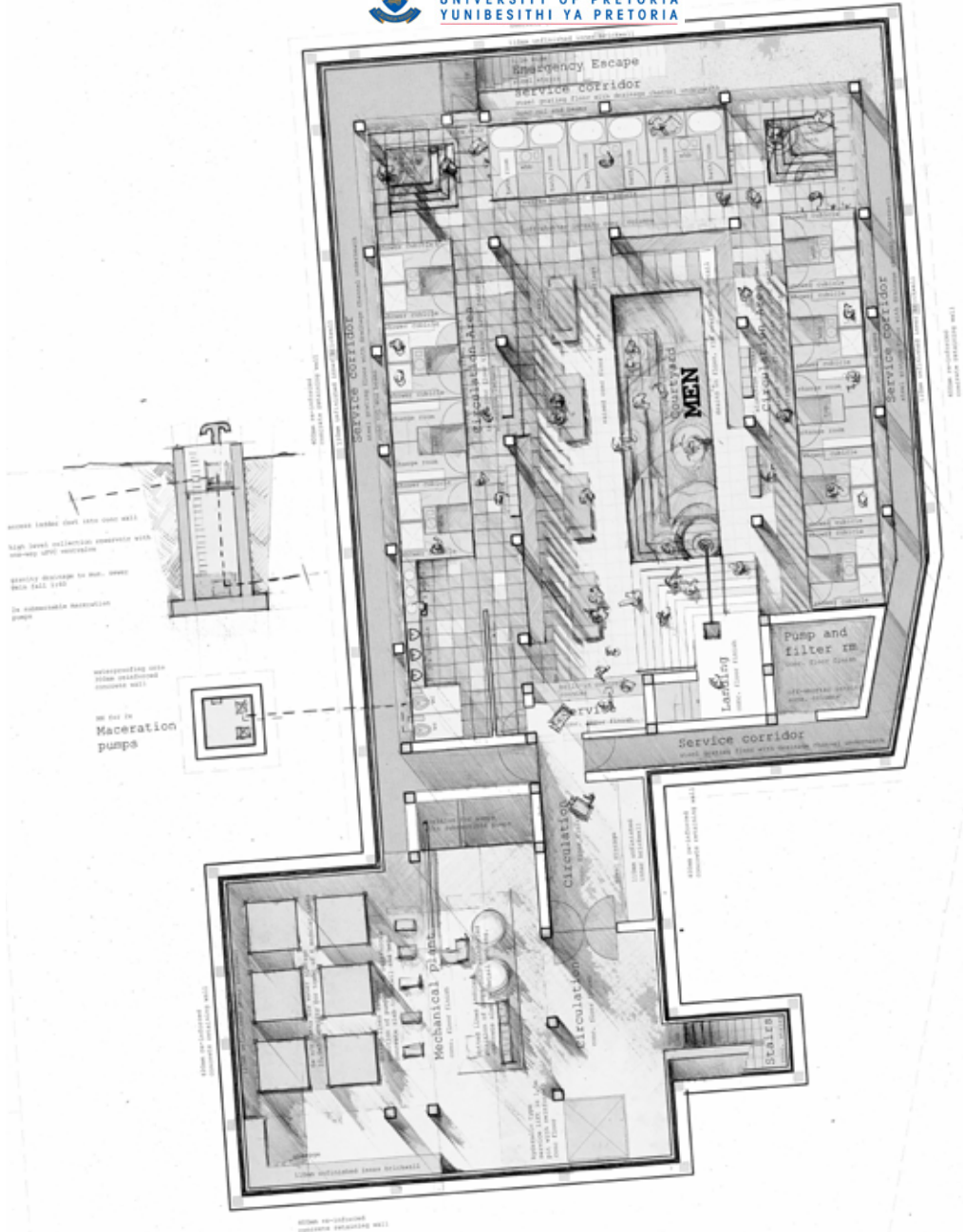
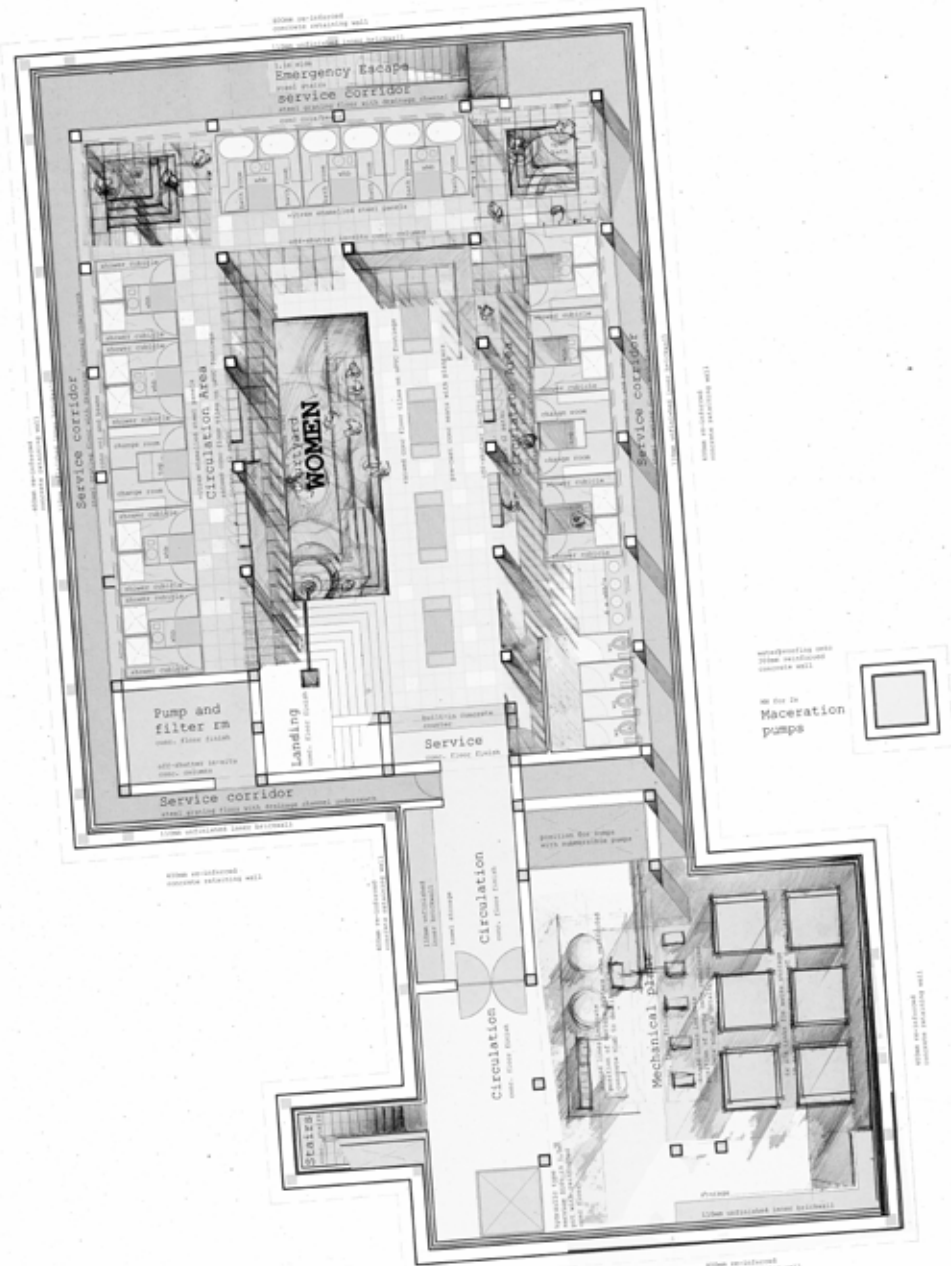


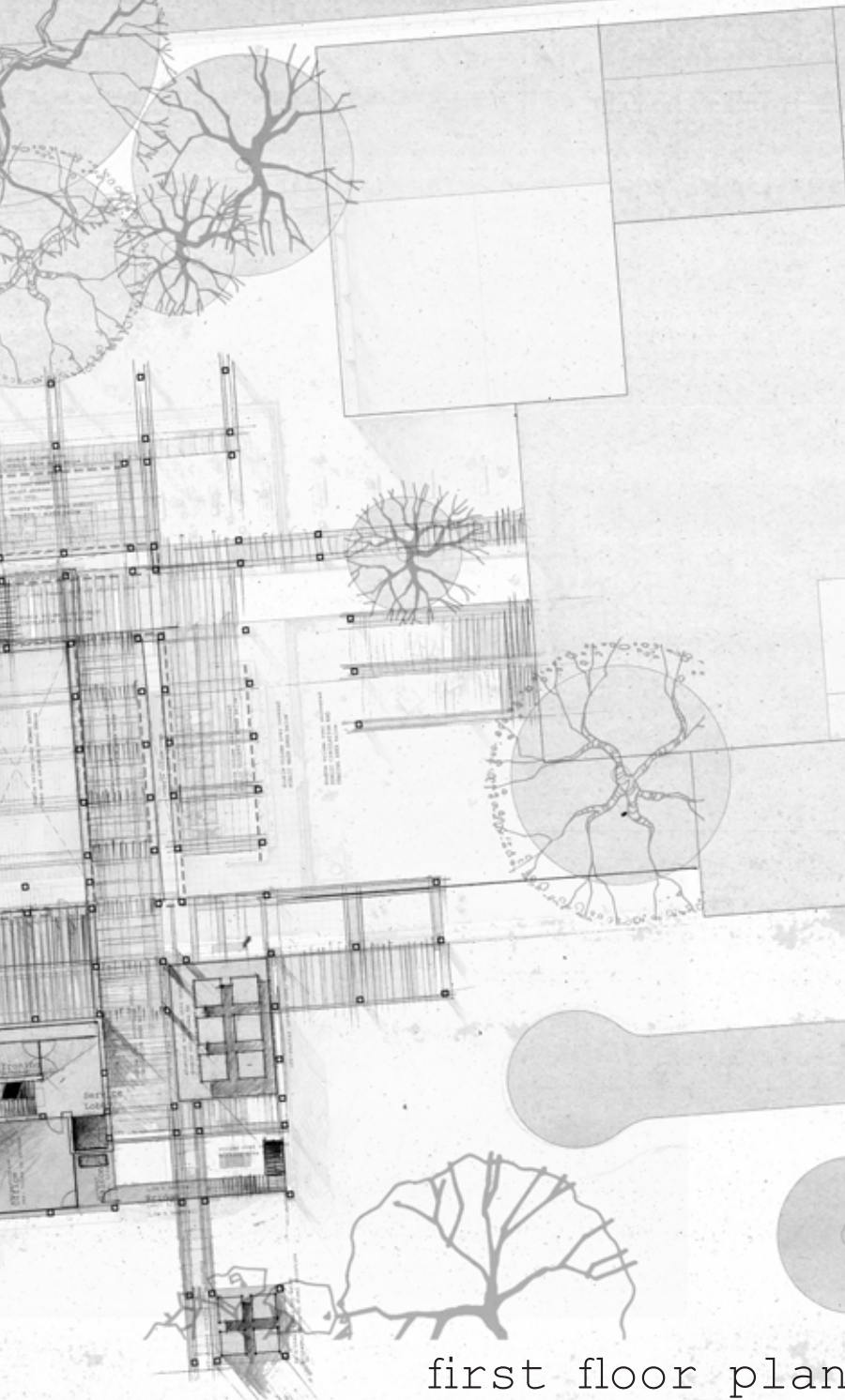


Figure 103. basement level plan nts.



basement plan





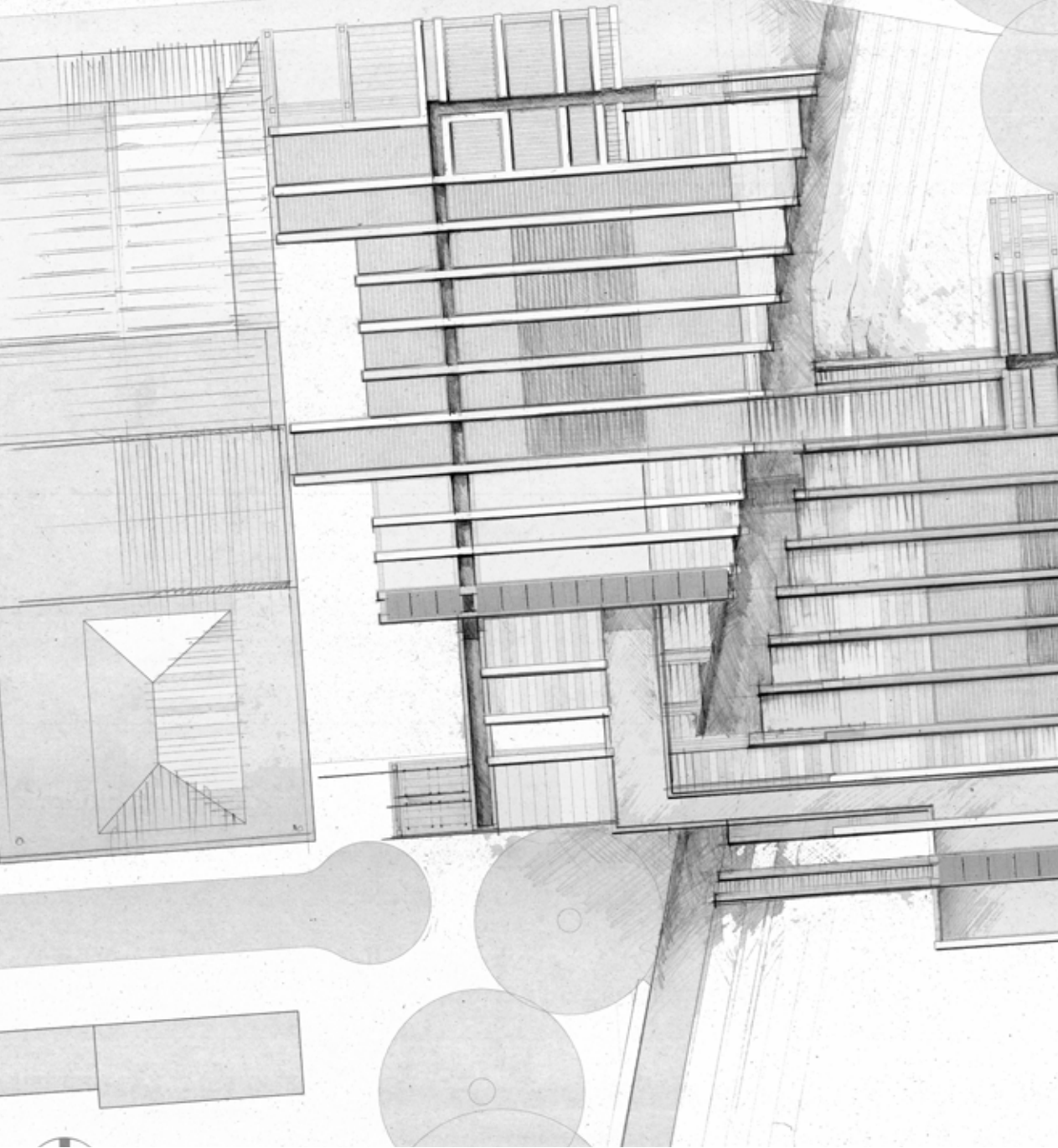
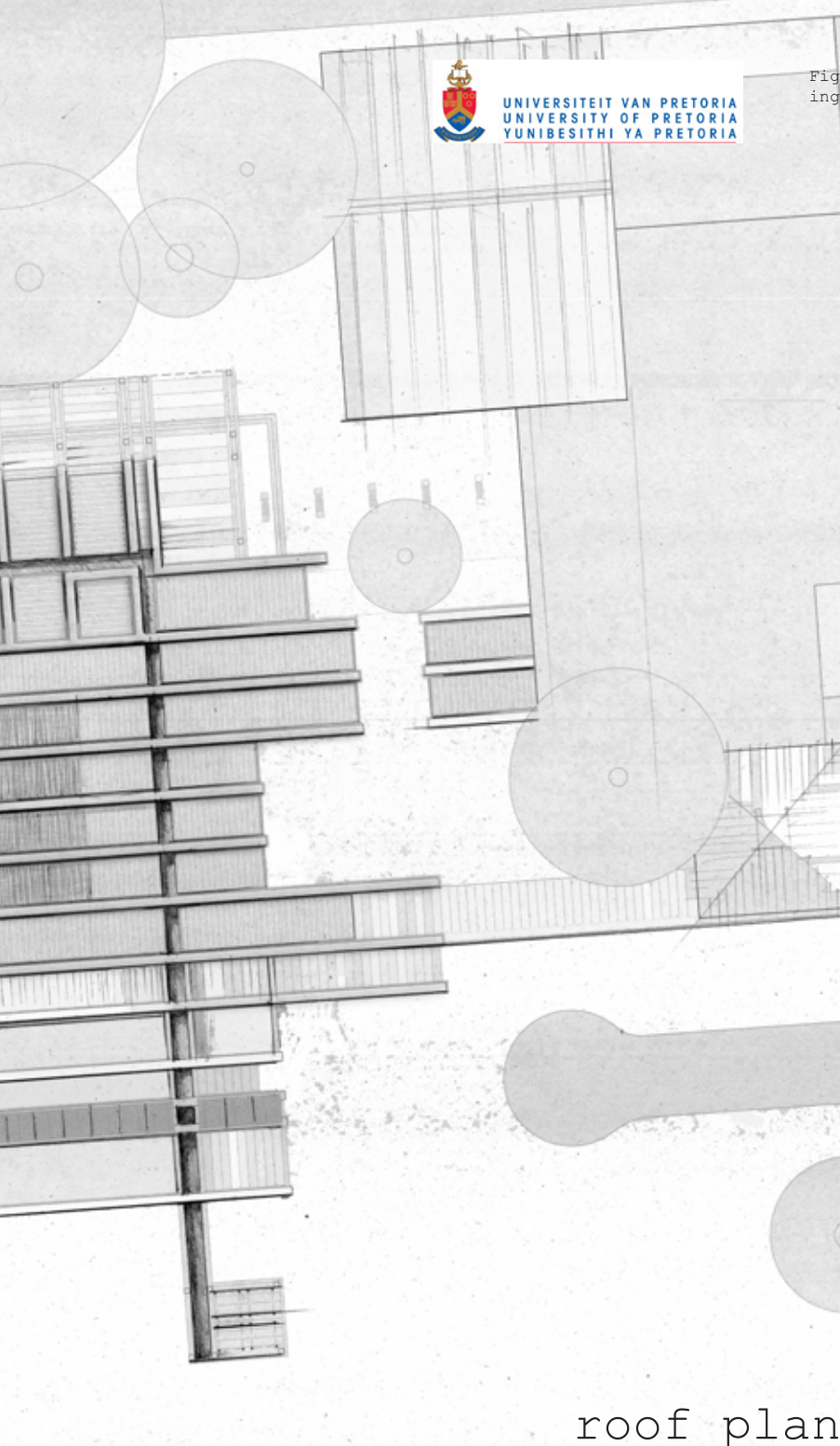




Figure 105. Collage including roof plan. nts.



roof plan

