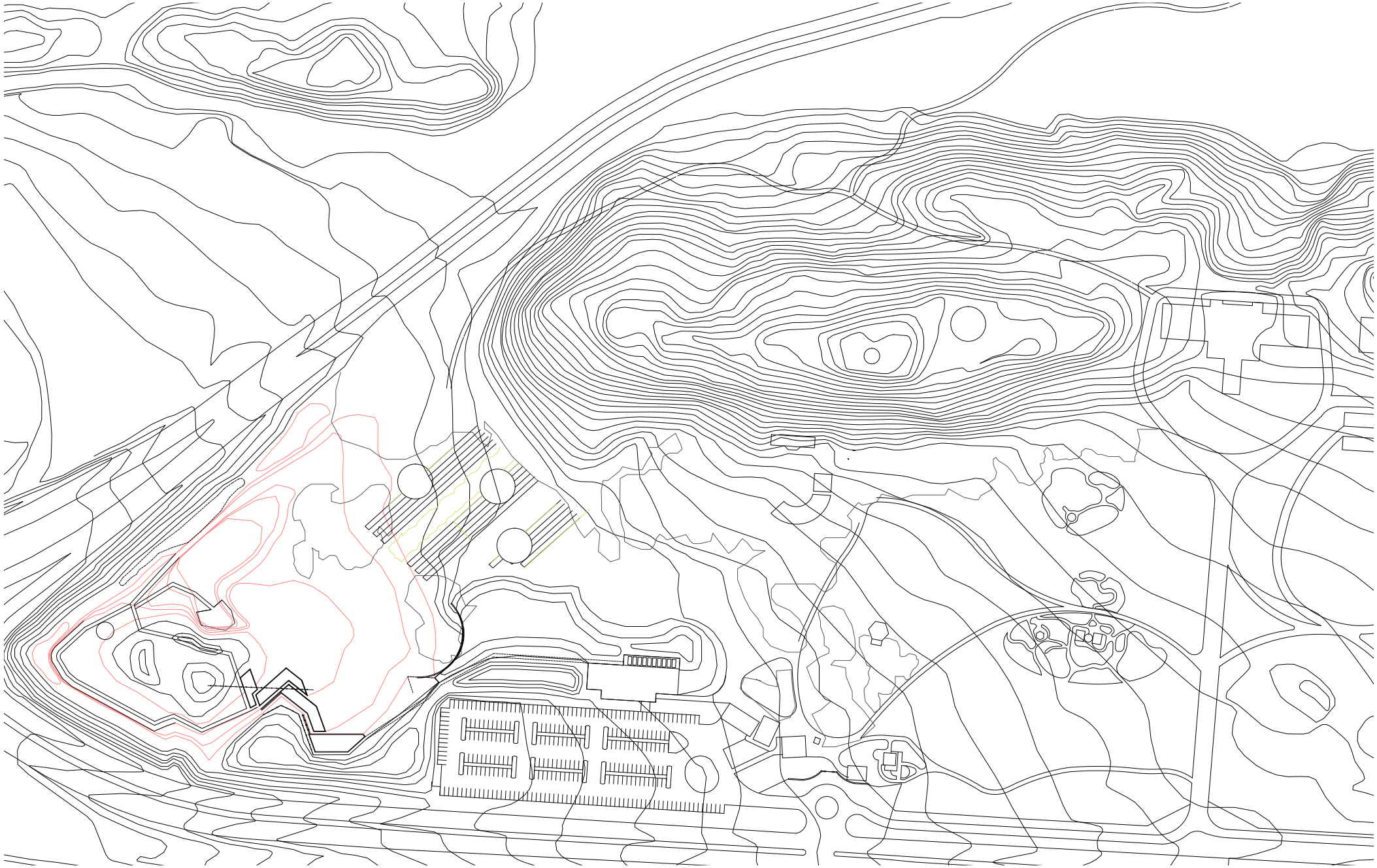
Chapter 9

TECHNIFICATION OF TEMPORALITY

Detail design



9.1 Technical approach

According to the research of this dissertation, the constructed landscape needs to be designed in order to influence ecological processes. In a botanical garden this has largely got to do with habitat creation to support growth of plants. Specific to my temporal design approach this structure should do one of two things: firstly to choreograph change in the landscape and secondly to represent the botanical plants in such a way that grabs the audience's attention, that reveals something about the plants that one does not necessarily notice when experiencing untamed nature, that enables the plant to impress the audience.

This has been executed in four main construction details, shaped by working with patterns in landscape as well as topographic manipulations to get a desired outcome.

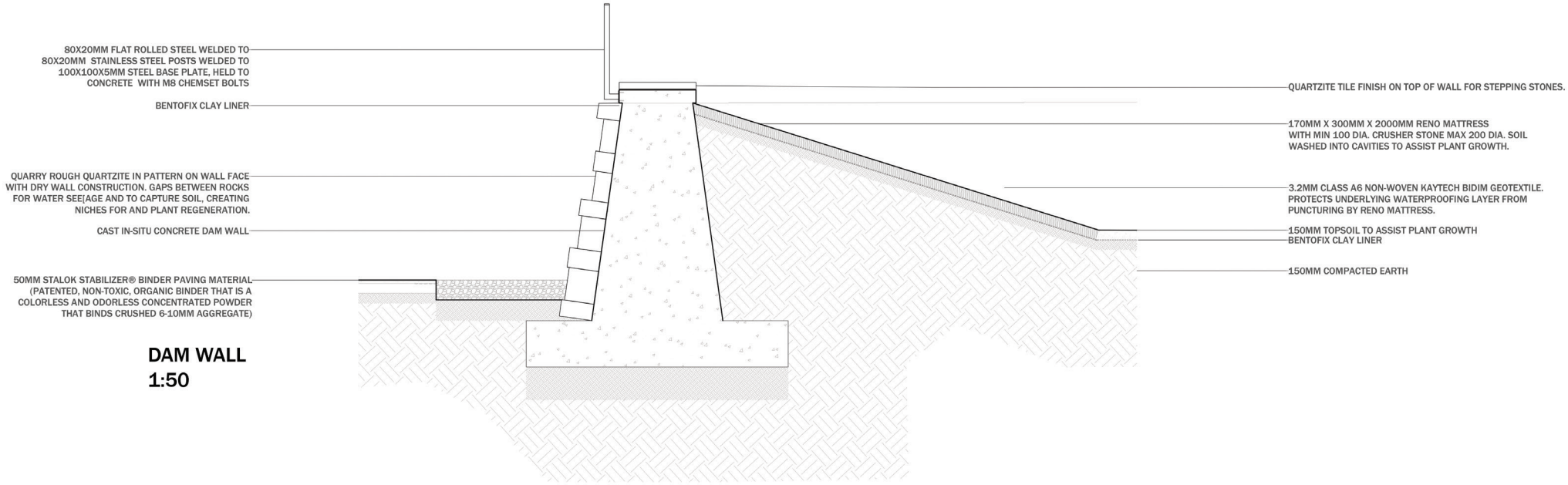
1 Dam wall: The purpose of the dam wall in the design is firstly to support the dam construction to create an aesthetic entrance into the NBG as well as for the users of the restaurant. Secondly, the wall in itself leads the visitor into the proposed regional theme garden experience. Thirdly, the wall has a temporal quality to it as the materiality thereof is natural stone and is spaced in such a way as to leave gaps for nature to start establishing in the niches and in the long run increase biodiversity.

2 Eroding wall: The eroding wall insures that the audience is immersed in nature, rather that spectators from afar. Soil profiles are exposed to the elements, which are usually buried under our feet, invisible to the naked eye. This allows the audience to experience more than what is usually experienced, and creates an urge within them to learn more about nature. The eroding wall changes over time, which ensures that the visitor will have a different experience each time they visit the garden. After all, one can never enter the same garden twice,one can only enter the same grounds upon which nature has establishes itself. The soil profile will be inverted over time, disposing the top soil at the bottom first. This will create a different stage on which different species will eventually start to perform on.

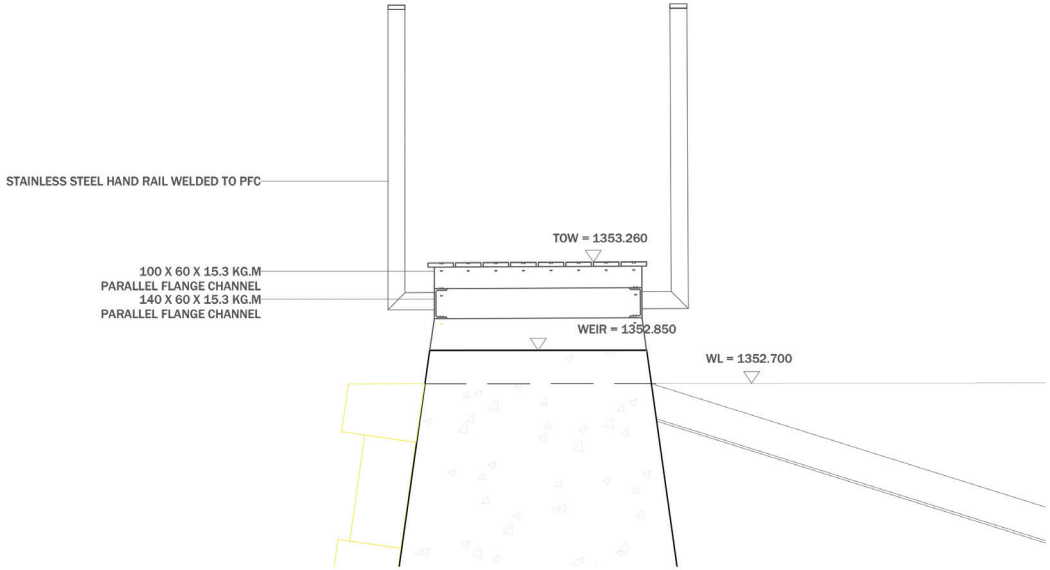
3 Root spectacle: Here a poort is created that leads the visitor into the themed regional garden design. The audience moves through a space that exposes the grass roots on both sides of the pathway. The roots once again are intended to entertain the visitor in exploring the reproduction of grasslands and the different types of roots.

4 Horizontal wetland: The wetland has very much the same approach as the root spectacle. Here it allows the visitor to explore how wetlands work and see what is usually not visible to the audience in nature. The wetland is designed to filter the audience through the wetland, putting them right where the performance is happening. Front row seats.

Fig 9.1: Dam wall (Author 2015)



DAM WALL
1:50



Weir
1:20

Panicum maximum

Peltophorum africanum

Ficus sur

Dovyalis caffra

Ziziphus macronata

Stainless steel frame

* Durable and weather resistant

QUARTZITE STONE

* Microclimatic influence
* Habitat creation
* Geological support for plants
* Aesthetics
* Dry-construction: non-obtrusive to nature

StaLok Paving

* Innovative StaLok Waterless technology transforms natural decomposed granite and crushed stone into a unique natural paving material.
* Polymer technology gives increased strength, resulting in increased traffic resistance, but also maintains flexibility.
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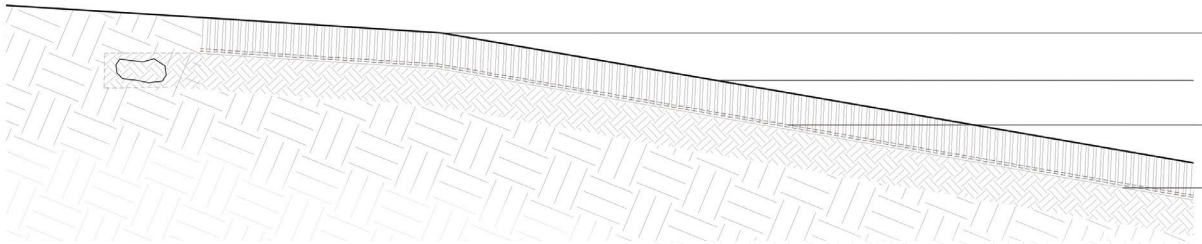
* Simply needs compaction.

Fig 9.2: Temporal eroding wall (Author 2015)

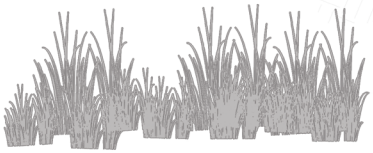
SCALE 1:100

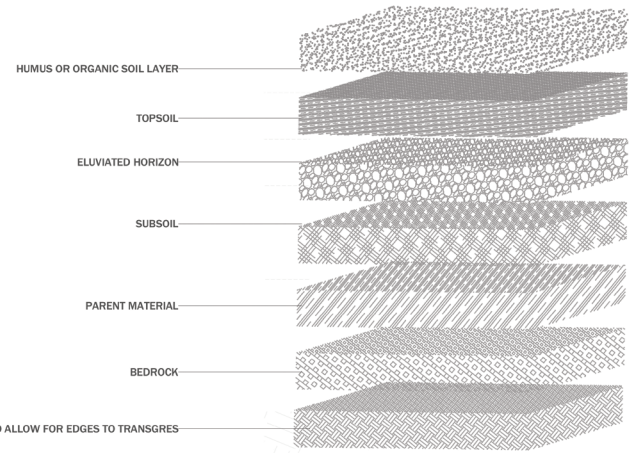


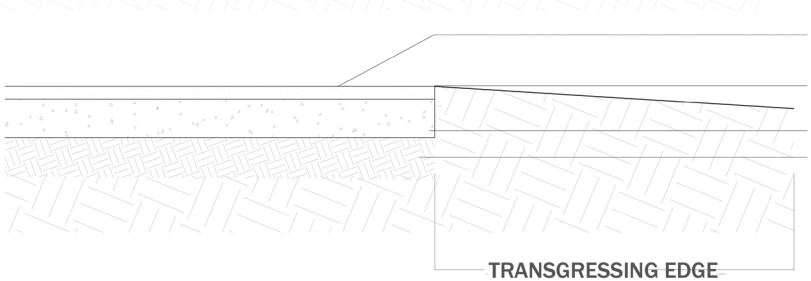
170MM X 300MM X 2000MM RENO MATTRESS WITH MIN 100 DIA. CRUSHER STONE MAX 200 DIA. SOIL WASHED INTO CAVITIES TO ASSIST PLANT GROWTH.

3.2MM CLASS A6 NON-WOVEN KAYTECH BIDIM GEOTEXTILE. PROTECTS UNDERLYING WATERPROOFING LAYER FROM PUNCTURING BY RENO MATTRESS.

10MM KAYTECH ENVIROFIX GEOSYNTHETIC CLAY LINER LAYED ON 150MM COMPACTED SOIL







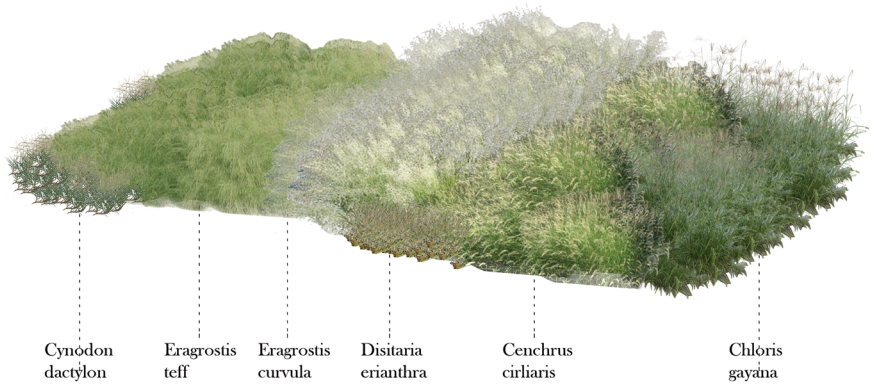
50MM STALOK STABILIZER® BINDER PAVING MATERIAL (PATENTED, NON-TOXIC, ORGANIC BINDER THAT IS A COLORLESS AND ODORLESS CONCENTRATED POWDER THAT BINDS CRUSHED 6-10MM AGGREGATE)

70% CRUSHED AGGREGATE 6-10MM ,30% TOPSOIL

150MM THICK 6-10MM CRUSHED AGGREGATE ON 150MM COMPA

150MM COMPACTED SOIL

TRANSGRESSING EDGE



Cynodon dactylon | Eragrostis teff | Eragrostis curvula | Disitaria erianthra | Cenchrus cirliaris | Chloris gayana

Magaliesberg Pretoria mountain bushveld grasslands

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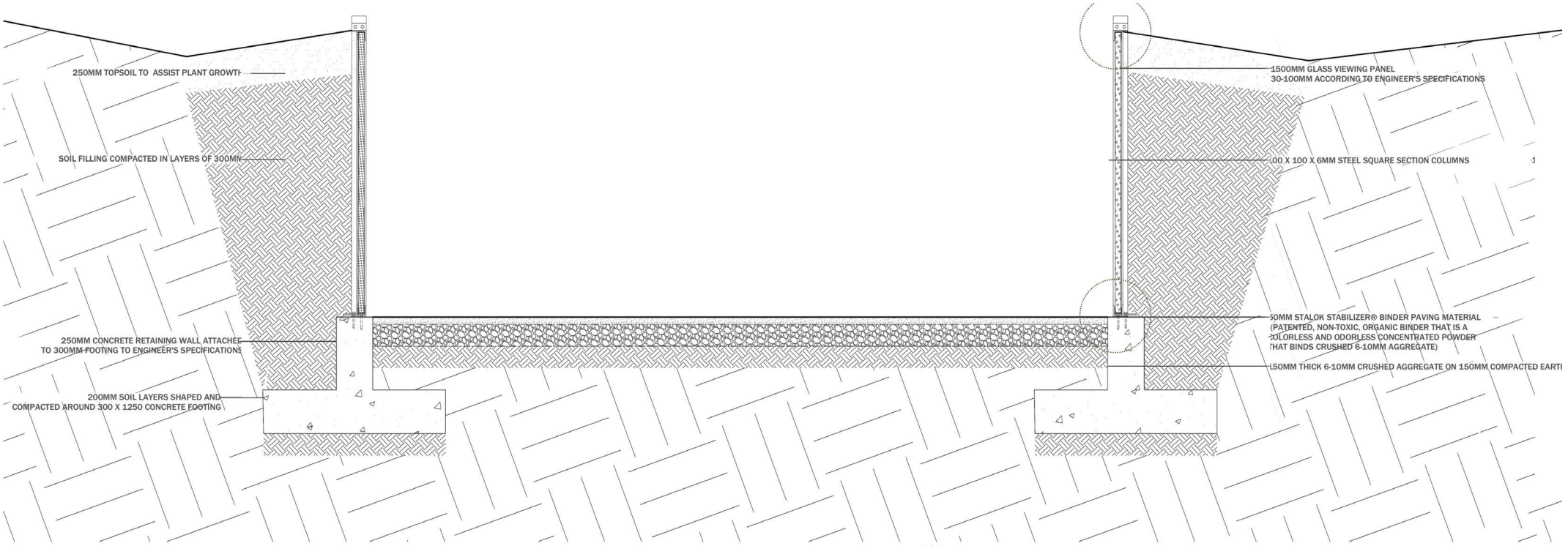
Fig 9.3: Root spectacle (Author 2015)



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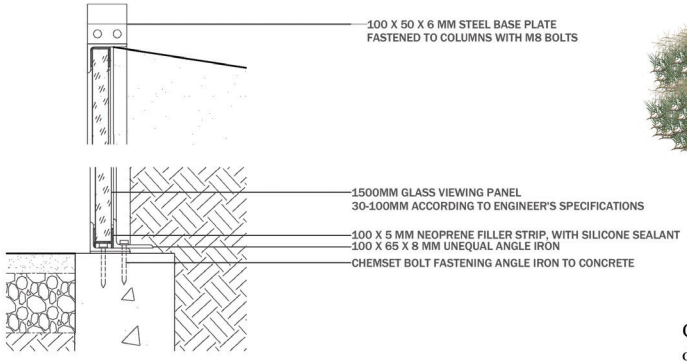

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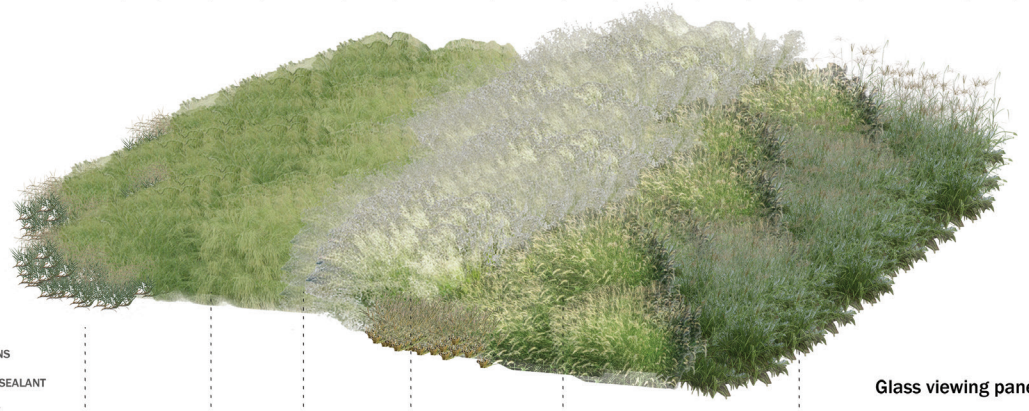

Magaliesberg Pretoria mountain bushveld grasslands

Glass viewing panels

Stainless steel frame

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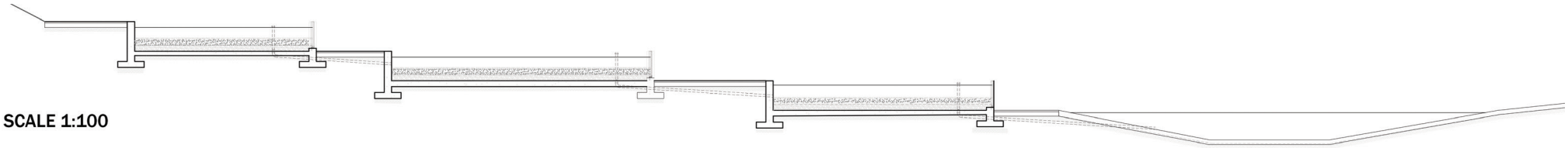
Fig 9.4: Wetland (Author 2015)



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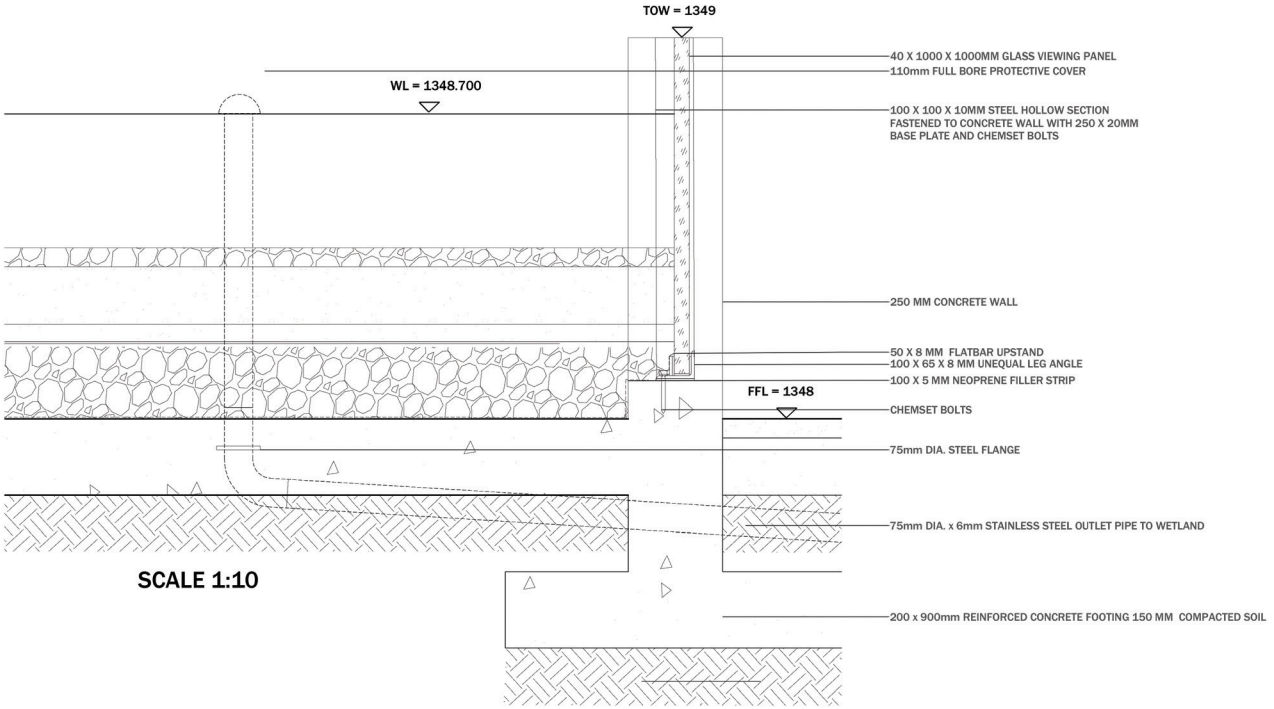

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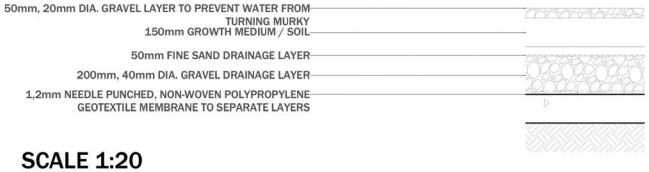
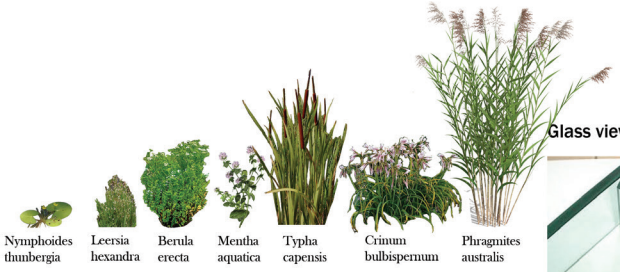


SCALE 1:20

EASTERN HIGHVELD WETLAND PLANT MIX

* Berula erecta
* Leersia hexandra
* Mentha aquatica
* Phragmites australis
* Typha capensis
* Crinum bulbispermum
* Nymphoides thunbergia



SCALE 1:50

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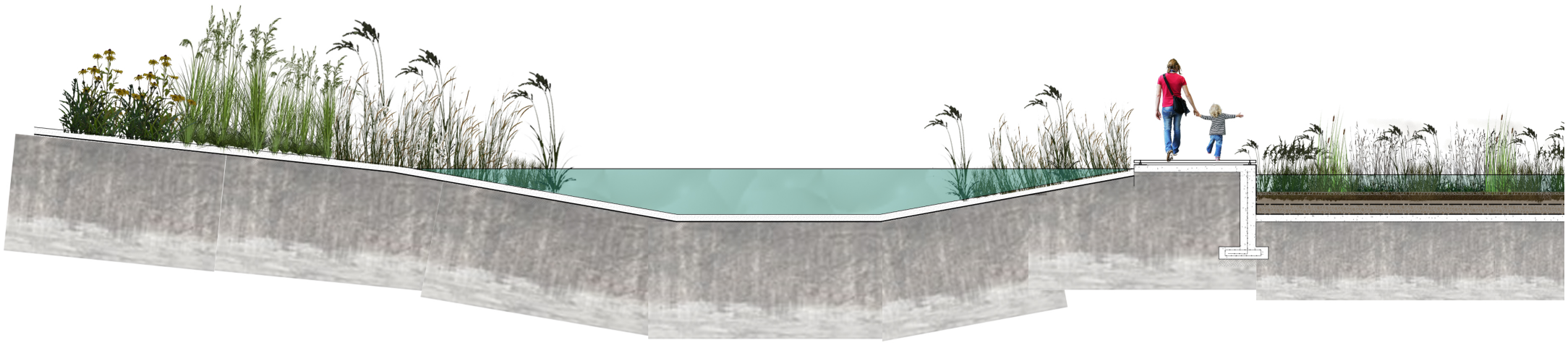
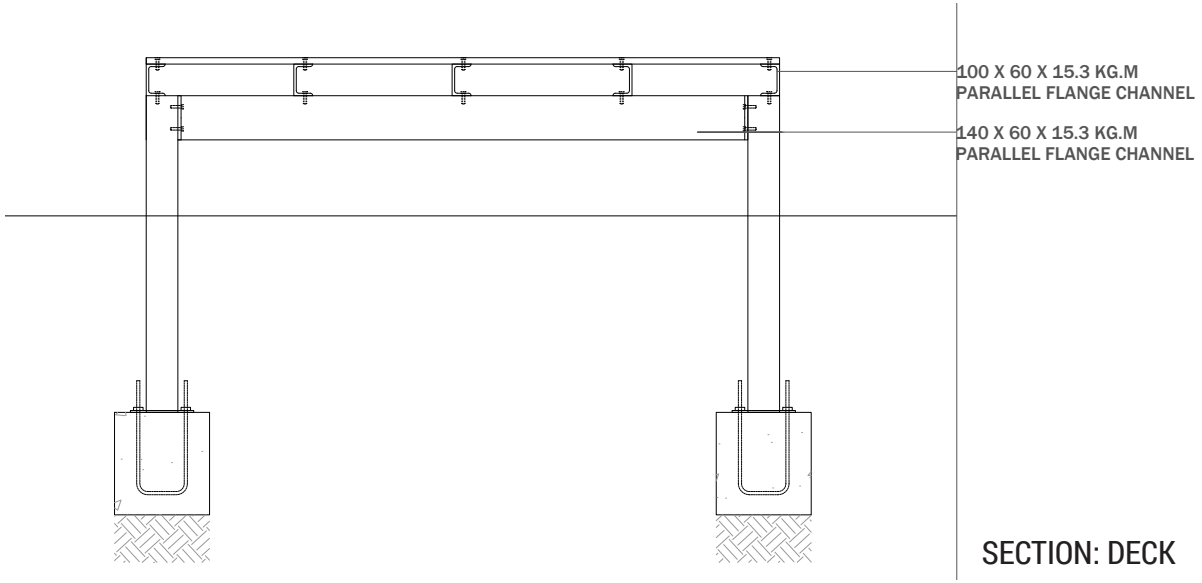
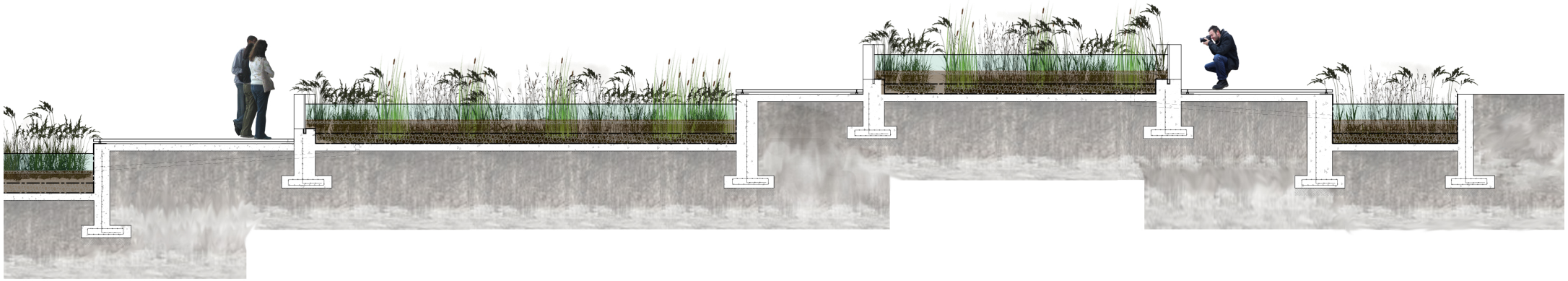


SECTION: WETLAND



SECTION: DECK



Conclusion:

This chapter demonstrates the technification of the ecological stage. Through the technification it becomes clear how the design allows the audience to experience nature more intensely and boldly in the sense that the concealed becomes revealed. Materiality is an important aspect within the technification, as it defines the habitats for plant growth as well as encourage exploration from the audience. The details also clearly shows how the garden is designed with change and that it will transform into an end product that can not be predicted. Only time will tell.