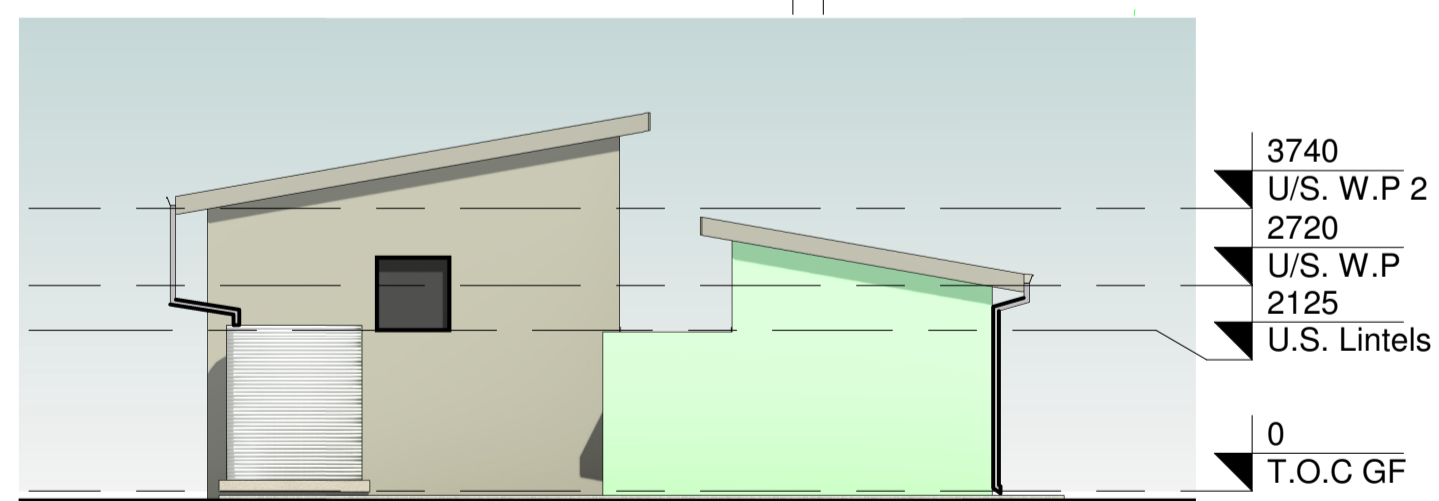


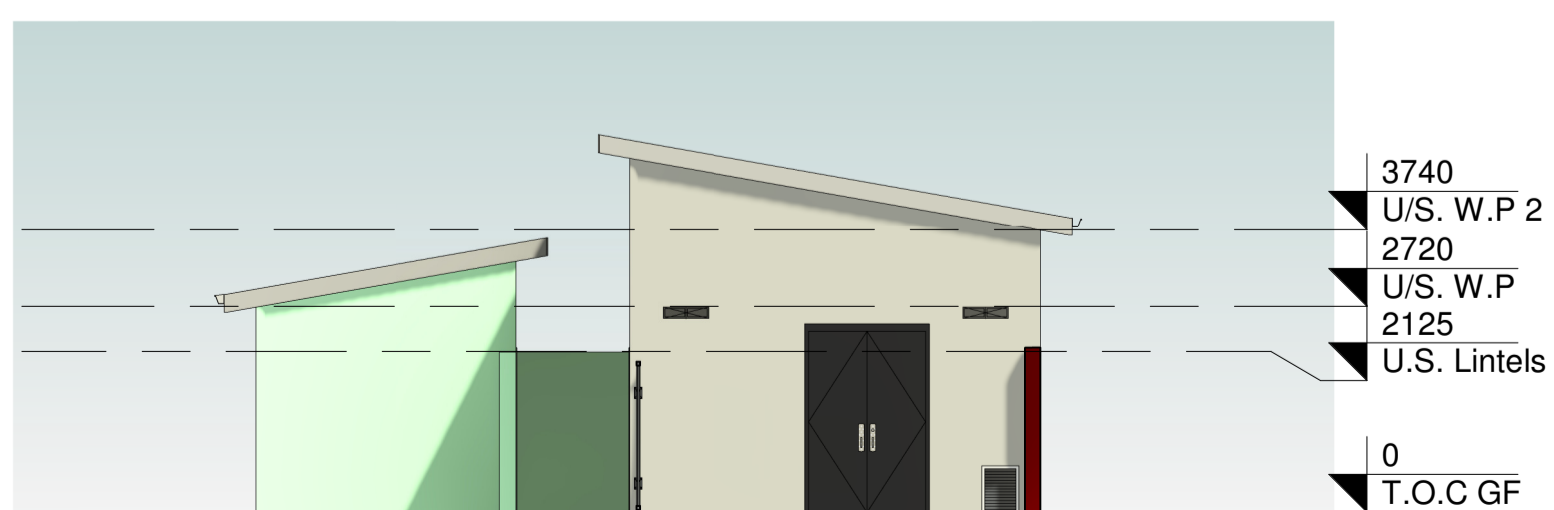
1 SITE PLAN
1 : 500

DEVELOPMENT DATA	
USE ZONE	?
SITE AREA	22, 416 m ²
HEIGHT ALLOWED	?
PROPOSED BUILDING LINES	3.9, 3.8 & 1.2m STREET 4.3m SIDES & 5.5m REAR
AREA SCHEDULE	
GROUND FLOOR	
BUILDING 1	70 m ²
BUILDING 2	25 m ²
TOTAL	95 m²
F.A.R PERMITTED	?
F.A.R OBTAINED	0.004
COVERAGE PERMITTED	?
COVERAGE OBTAINED	.42 %
AREA OF SOLAR PANELS	9, 956.41 m ²
NO. OF SOLAR PANELS	4, 086

Area Schedule
1 : 50



6 WEST ELEVATION
1 : 100

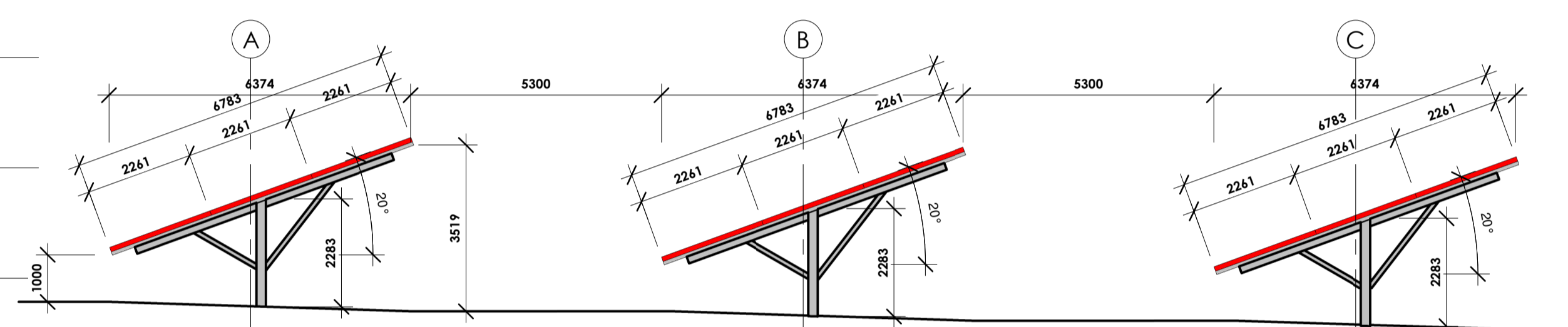


3 EAST ELEVATION
1 : 100

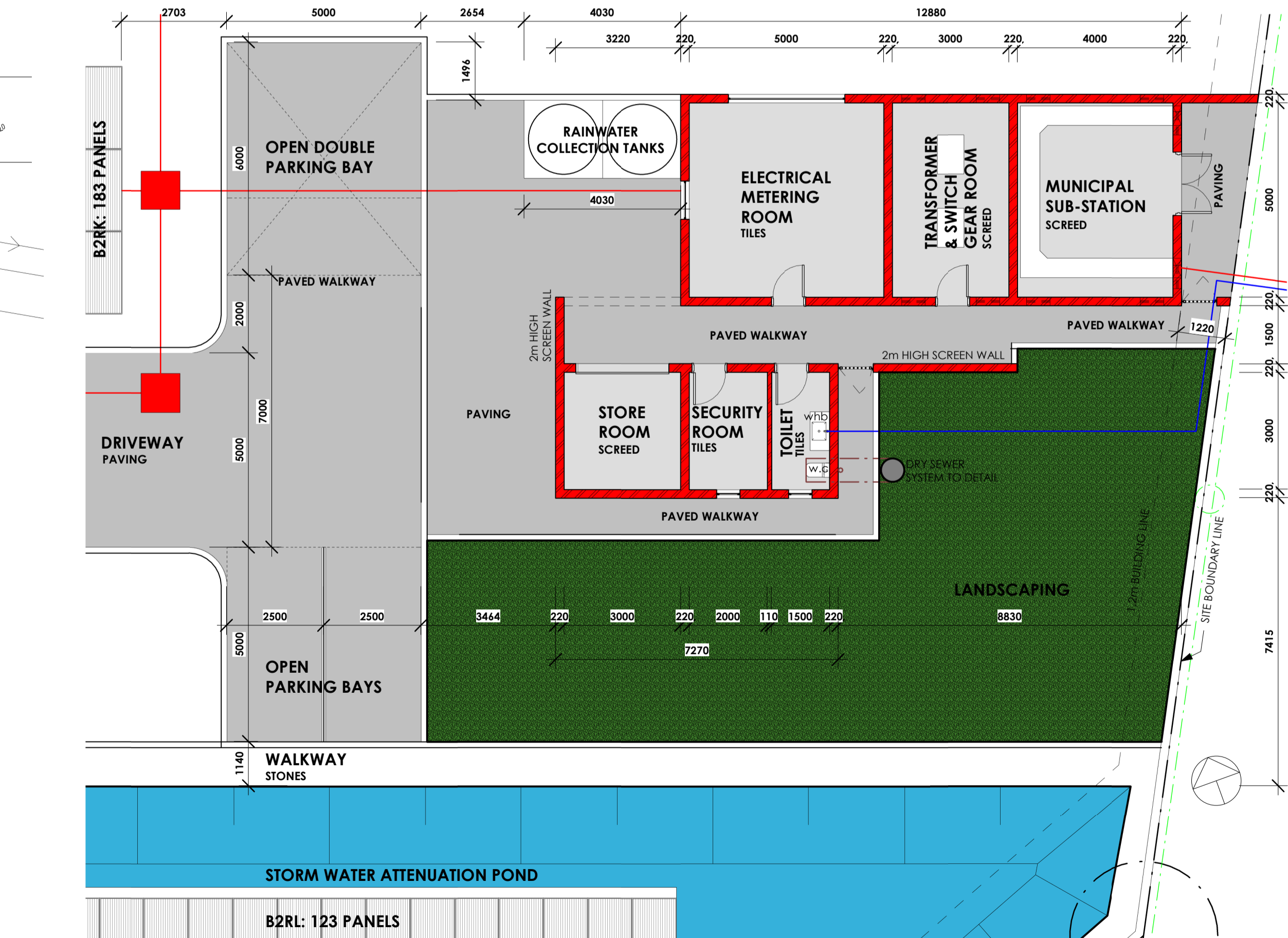
4 NORTH ELEVATION
1 : 100



5 SOUTH ELEVATION
1 : 100



7 SOLAR PANELS TYPICAL ELEVATION
1 : 100



2 GROUND FLOOR PLAN
1 : 100

NOTES:
The design on this drawing enjoys copyright under the Berne Convention and remains the property of the Architect and in terms of the Copyright Act, No. 98 of 1978, no part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without permission in writing from the proprietor.
GENERAL NOTES (Part B and C of the National Building Regulations):
All design, construction and building work must be done in accordance with the applicable stipulations contained in the National Building Regulations (National Building Regulations and Standards Act, 1977 - Act 103 of 1977) and applicable Municipal By-laws. The quality of all materials and craftsmanship must comply with the applicable specifications stipulated by the South African Bureau of Standards (SABS).
Where applicable, all structural work must be designed by a qualified engineer, while all electrical and plumbing work must be executed by registered craftsmen.
All openings of which the span exceeds 2400mm must be spanned by a pre-cast lintel, or by reinforced concrete designed according to engineering specifications.
Finishing must occur according to contract to the satisfaction of the owner.
The contractor must compare all levels, heights and dimensions on site with the working drawings and must verify them before work commences.
Cognizance must be taken that where any conflict exists between the working drawings and the contract, the stipulations of the contract will apply.
The contractor is responsible for plotting the structure on site. Under no circumstances may working drawings be scaled and only the dimensions indicated may be used. If a dimension is lacking or if ambiguities exist, these must be cleared up with the architect or draughtsman.
The working drawings remain the property of the architect or draughtsman until the project has been finalized and a certificate of occupation has been issued, after which it becomes the property of the client.
The architect or draughtsman does not accept responsibility for any illegal structures that have been erected on site, and can not be held responsible for the delay in approval of plans due to this, or because of any administrative problems not under his or her control.
Unless expressly otherwise agreed, the client shall be responsible for the submission of all the building plans.

REVISIONS		
No.	Description	Date
1	Issued for Information	22/11/22
2	New Plan for Comments	18/04/23
3	New Plan for Comments	23/05/23

murray smith architectural services
SACAP: ST0400

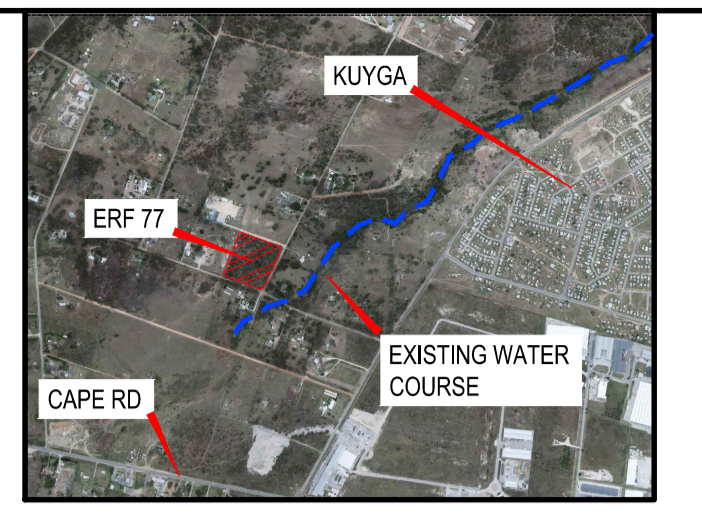
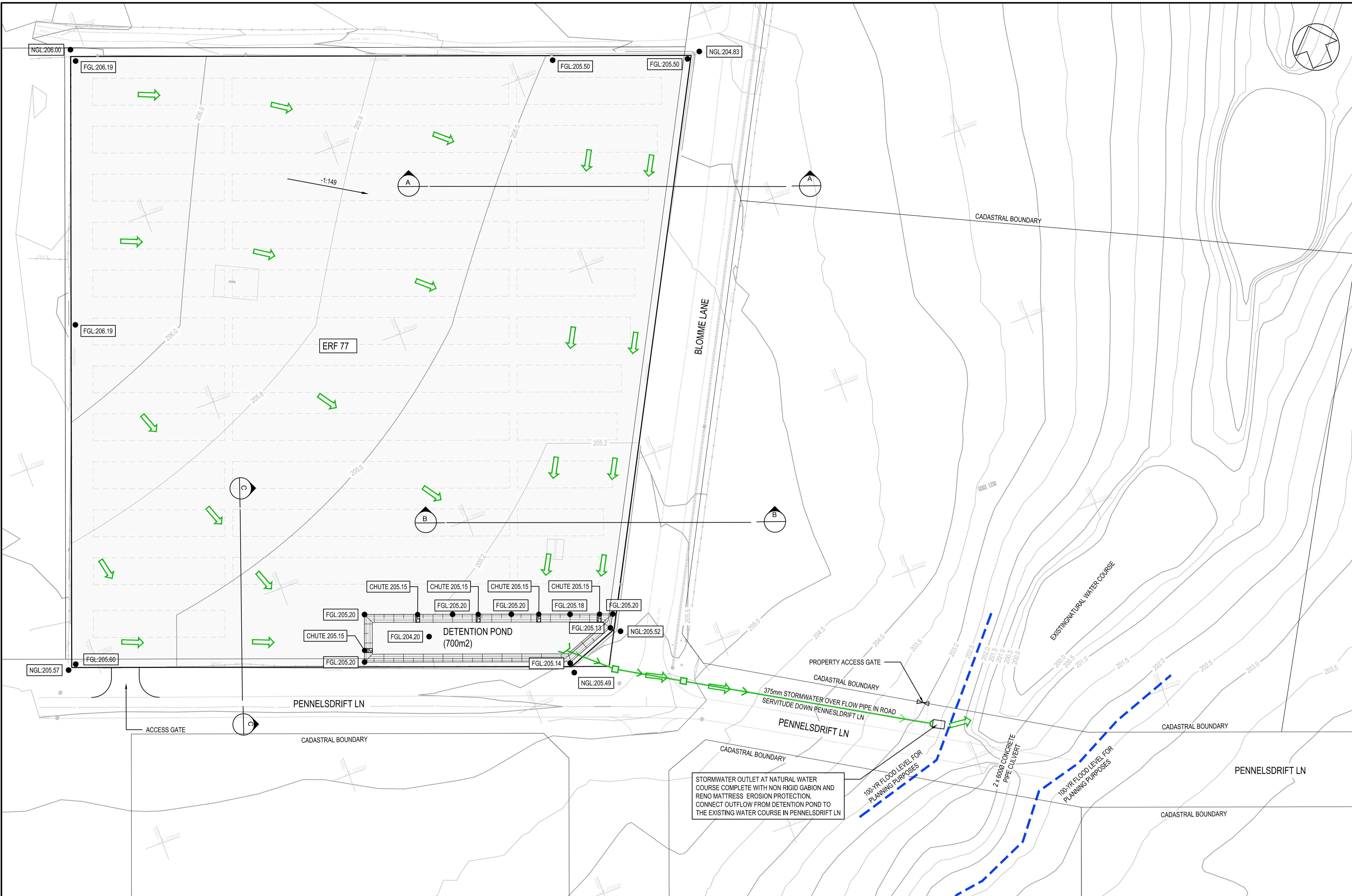
327A BORDER ROAD WEST / LYNNWOOD / PRETORIA / 0081
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C: + 27 (0) 82 332 9488 | W: www.msarchs.co.za
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Client Details
RENT-A-STORE (PTY) LTD

Project Description
SOLAR FARM DEVELOPMENT ON ERF NO. 77, GREENBUSHES, PORT ELIZABETH

Drawing Description
SITE DEVELOPMENT PLAN, GROUND FLOOR PLAN, ELEVATIONS

Project No. RAS-SOL-22	Date 23/05/23
Drawing No. RAS-SOL-SK-100-GEN	Revision 3
Drawn by MDS	Checked by MDS
Scale As indicated	Paper Size A1



KEY PLAN
SCALE 1:25000

LEGEND	
	SURFACE ELEVATION
	SURFACE ELEVATION
	CONTOUR ELEVATION
	OVERLAND STORMWATER FLOW

- NOTE:
- CHUTES INTO POND TO BE LINED WITH 300mm RENO MATTRESS COMPLETE WITH BIDUM GEOTEXTILE TO CONTROL EROSION AT INLETS TO THE POND.
 - REFER TO EARTHWORKS SECTIONS DRAWING FOR SECTION DETAILS

NO.	DATE	REVISION	WYSIGING
B	2023/03/17	ISSUED FOR DISCUSSION	
A	2023/02/10	ISSUED FOR DISCUSSION	

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Project/Project: ERF 77 GREENBUSHES

Drawing/Titleblock: **STORMWATER MANAGEMENT PLAN**

Scale/Sheet:	Date/Date:	Drawn/Drawn:	Checked/Checked:
1: 500	FEB 2023	HH	

Drawing No./Drawing No.: **SK-2023-02-SW-01** Rev/Rev: **B**

STORMWATER OUTLET AT NATURAL WATER COURSE COMPLETE WITH NON RIGID GABION AND RENO MATTRESS EROSION PROTECTION. CONNECT OUTFLOW FROM DETENTION POND TO THE EXISTING WATER COURSE IN PENNELSDRIFT LN

100-YR FLOOD LEVEL FOR PLANNING PURPOSES

100-YR FLOOD LEVEL FOR PLANNING PURPOSES



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THE ECOSAN WATERLESS DRY SANITATION TOILET

INTRODUCTION

BACKGROUND

South Africa, as with many other countries worldwide, continuously experience droughts and water shortages. Water borne sewage systems demand large quantities of water that can be better used for human consumption. During the late 1990's Eco Sanitation (Pty) Ltd. started on the development of a dry toilet system and the first ECOSAN waterless toilet field tests started in 1997. The official launch of the toilet was in December 2000 and since then a vast number of the water free toilets have been installed.

The ECOSAN Toilet is a waterless, dehydration / evaporation system that provides a safe, non-polluting and cost effective solution to the worldwide sanitation problem. It offers a standard of respectability and convenience, comparable to a waterbourne system, yet without the prohibitive costs and obvious strain on precious water resources.

The system has been tried, tested and evaluated in the field since 1997. The evaluation period involved scientific, health as well as community tests and feedback. Widespread experience with the system in South Africa and neighbouring countries has demonstrated that it is a cost-effective, respectable, hygienic and environmentally friendly system that satisfies the dignity of all users.

The toilet has been certified by the following institutions:

- South African Bureau of Standards (SABS)
- Council for Scientific and Industrial Research (CSIR)
- Department of Health - Western Australia
- Caribbean Environmental Health Institute (CEHI)

The toilet's main features are:

- ECOSAN toilets are relatively lightweight and easy to move into position during installation.
- The unit does not require any type of flushing mechanism, eliminating the risk of mechanical failure.
- It uses no water, so no plumbing is required.
- It has no sewer connections.
- It is ideally suited for both city and rural homes.
- It has a modern and functional design and is easily transportable.
- It uses no chemicals.

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ECOSAN WATERLESS TOILET - PRODUCT INFORMATION

What is a waterless / water free toilet system?

A sanitation system that does not require any water to function. Not only does it save on water use, but it is entirely isolated from the surrounding environment and cannot contaminate underground water resources.

How can sanitation work without water ?

The system utilises a natural biological process to break down human waste into a dehydrated odourless compost-like material.

How does it work ?

We receive many questions about the toilets, of which " How does it work " is the most frequently asked . The following is a brief description of the ECOSAN toilet concept as well as it's main features.

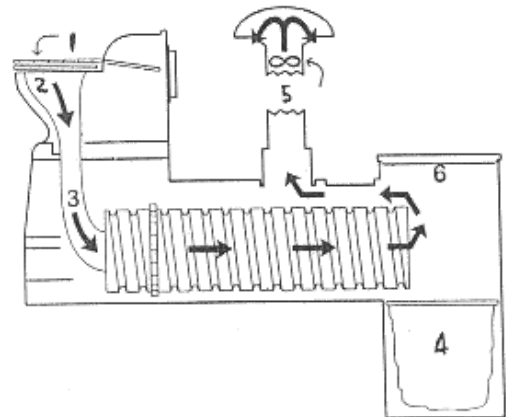
The human excrement falls down a vertical chute (2) and into one end of a specially designed helical screw conveyor (3). Every time the toilet lid (1) is lifted, a mechanism rotates the conveyor. With each rotation the human excrement slowly moves along, taking approximately twenty five days before falling into a reusable collection bag (4). It takes six months for the bag to fill with dry and odourless waste.

Through the uniquely designed ventilation pipe (5), adequate airflow is provided for the dehydration / evaporation, deodorising process. Human excrement consists of roughly 95% moisture. As the solids dry in the conveyer the urine and moisture is vented into the atmosphere. The solid waste then dries into a compost-like material, roughly 5 - 10% of it's original mass.

The dry waste is manageable and can be processed in the following ways.

- Use it in the making of compost
- Dispose of it by using municipal waste services
- Use it as a source of fuel

Large objects like beverage cans, disposable nappies or other objects accidentally dropped down the chute will not block the system, It is however not advisable to do this



Features

- No plumbing required
- No drains
- No pipes
- Waterfree
- Low odour levels
- Chemical free
- Relatively light and easy to install

Product extras

Toilet hut (optional)

When a toilet is to be installed outside a home, we can supply a toilet hut that has been designed especially for the ECOSAN toilet system. The toilet can however be installed using any toilet hut structure.

**Urinal (Standard)**

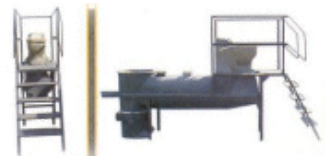
Each toilet comes standard with a urinal which is wall mountable either in a existing home or inside a toilet hut.

Other models**Asian model**

This version was developed for countries where toilets differ from the toilets used in other countries. In place of the traditional european type toilet bowl this model has a seat on floor level. Otherwise the basic workings of the toilet is exactly the same as our other toilets.

Mining and other high volume usage units.

As a variation on the home model designed for normal use, a special modification was made to accomodate installations where there is a high frequency of use of toilets. This model uses a drum instead of a bag for waste collection. The unit is therefore not a completely dry system and also means that the drum needs to be emptied on a regular basis. This unit is ideally suited for places where the installation of sewerage pipes are difficult, for instance underground mines or very busy public places.



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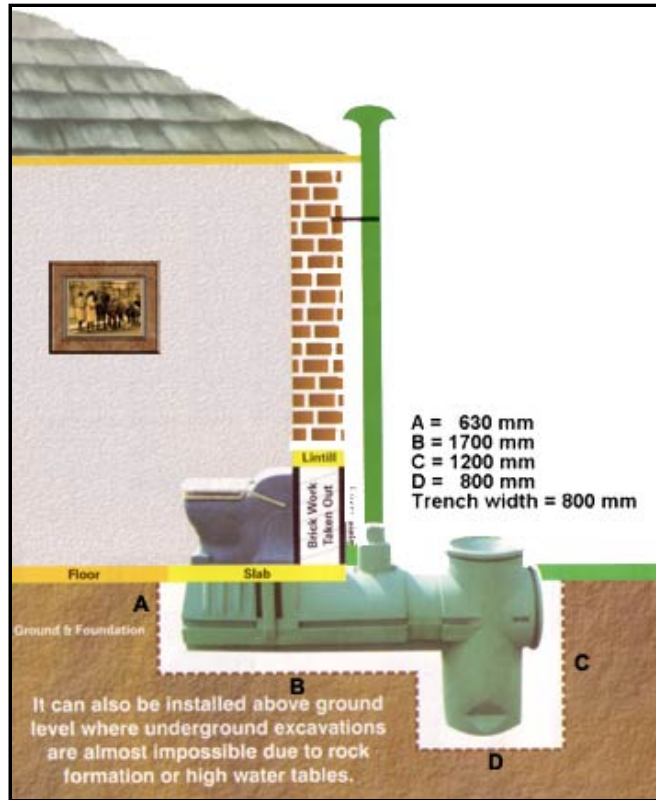


ECOSAN WATERLESS TOILET - TECHNICAL SPECIFICATIONS

Length	2450 mm
Width	630 mm
Height	750 mm above floor level - Toilet bowl 1120 mm - Height of catchment drum at back
Material	LDPE - Low Density Poly-Ethylene
Weight	90 Kg's

INSTALLATION DIAGRAM

Installation is very easy. Once the trench is completed it is a matter of lowering the toilet into it, ensuring that the toilet is level, and filling the trench with sand.



EXTRACTOR FAN OPTIONS

- Wind Turbine
- Solar fan
- Electric fan

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