ISSUED FOR CONSTRUCTION
DRAWING ISSUE LIST

PROJECT	:	SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS
CONTRACT NUMBER	:	XXXX
CONTRACT DESCRIPTION	:	REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS
CONTRACTOR	:	XXXX
ISSUE NO	:	0 **Date:** 2021/07/18

Dwg No	Drawing Title	Original Size	Date of Drawing Version Issued					
			Ver 1.0	Ver 2.0	Ver 3.0	Ver 4.0	Ver 5.0	Ver 6.0
GENERAL								
3422.00.00.AAA.10.U001	SITE LAYOUT	A1						
SECURITY FENCE								
3422.00.00.GZA.10.U001	LAYOUT PLAN	A1						
3422.00.00.GZA.17.D001	REINFORCED MESH DETAILS	A1						
3422.00.00.GZA.17.D002	REINFORCED MASH GATE DETAILS	A1						
CIVIL WORKS								
Inlet Works								
3422.00.00.WBA.14.D001	TANKER DISCHARGE SLAB - LAYOUT, SECTIONS & DETAILS	A1						
Module 5								
3422.00.00.WDC.14.D001	CONCRETE SLABS - LAYOUT, SECTIONS & DETAILS	A1						
Precipitation Tank								
3422.00.00.WJA.14.D001	LAYOUT & SECTIONS	A1						
Site Pipework								
3422.00.00.AAA.12.D001	MODULE 1: EFFLUENT DAM OUTLET PIPE - LAYOUT, SECTION & DETAILS	A1						
3422.00.00.AAA.12.D002	SLUDGE HANLDING: DIGESTER FEED PIPE - LAYOUT, SECTIONS & DETAILS	A1						
MECHANICAL WORKS								
Moudle 1 Settling Tank Equipment								
3422.00.00.WDA.13.D001	LAYOUT AND DETAILS	A1						
3422.00.00.WDB.13.D001	PLANS, SECTIONS AND DETAILS	A1						
Module 1 BioFilter Equipment								
3422.00.00.WHA.13.D001	PLAN, SECTIONS AND DETAILS	A1						
Module 2 Biological Reactor								
3422.00.00.WIA.13.D001	MECHANICAL EQUIPMENT - LAYOUT	A1						
Sludge Hanlding Facility								
3243.00.00.WJB.13.D001	FERMENTATION SYSTEM - LAYOUT & SETIONS	A1						
ELECTRICAL WORKS								
Module 5								
3422.00.00.WDC.22.U001	SITE LIGHTING	A1						

Legend:		Drawing/s included in this issue		
Issued By:	Bigen	Name :	Signature :	Date :
Received By:		Name :	Signature :	Date :

Dwg No	Drawing Title	Original Size	Date of Drawing Version Issued					
			Ver 1.0	Ver 2.0	Ver 3.0	Ver 4.0	Ver 5.0	Ver 6.0

COMMENTS

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, ______ Prof Reg Nr ______
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.AAA.10.U001
A.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SITE LAYOUT PLAN

WBS No.

COT DRAWING NUMBER
_-_____-__________-__-_____-__-__
REVISION

PROJECT STATUS

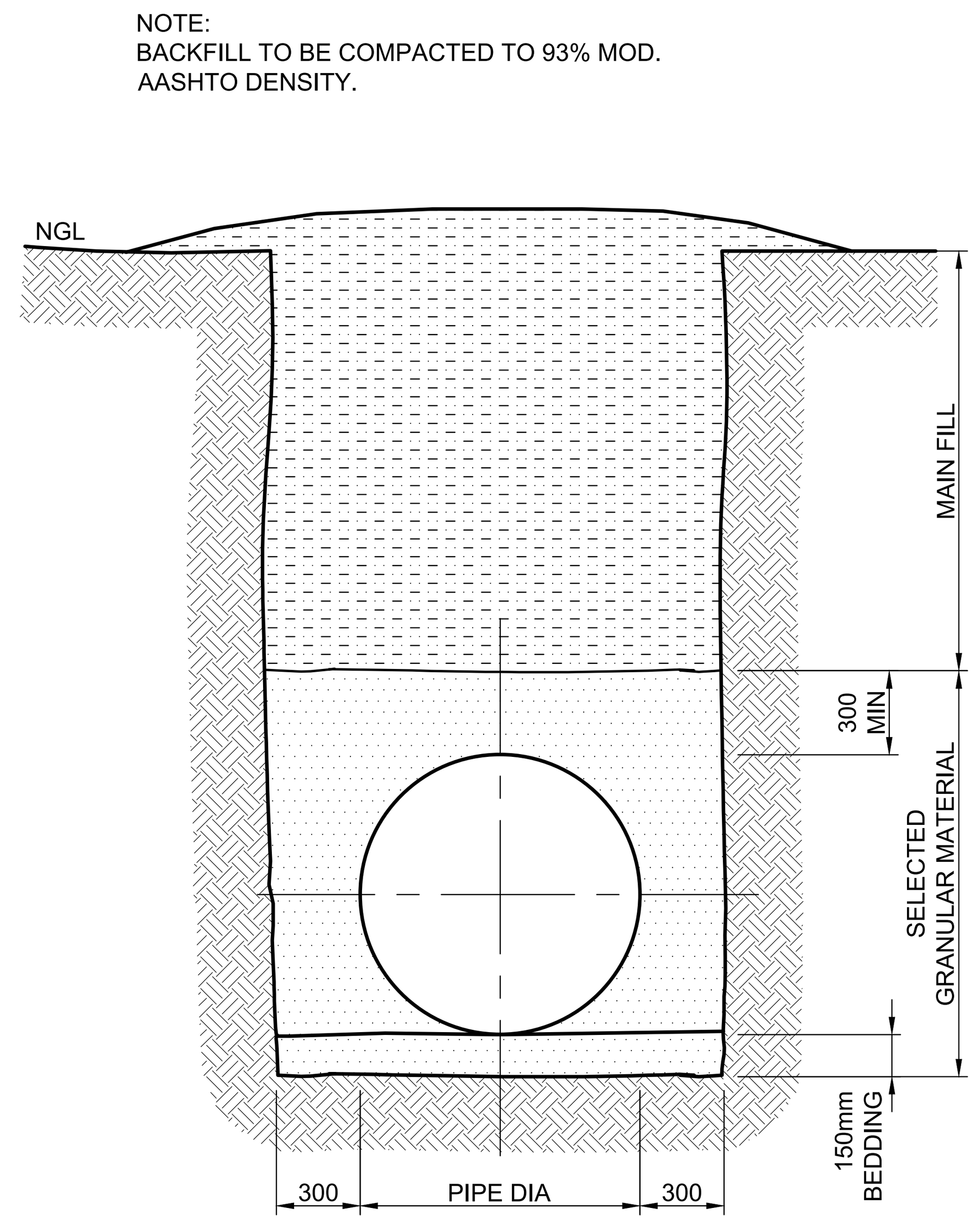
CONCEPT DRAWING ○ TENDER DRAWING ● APPROVED CONSTRUCTION DRAWING ○ AS BUILT DRAWING ○

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE

LAYOUT PLAN

SCALE 1:250



TYPICAL BEDDING DETAIL

NTS

AMENDMENTS				
NR	DATE	APPROVED	DESCRIPTION	PAR

CITY OF TSHWANE

PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR: INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

bigen
Doing good while doing business

I, ______ Prof Reg Nr ______
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.AAA.12.D001

A.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.

PROJECT No. -

SHEET No. -

PAPER SIZE A1

SCALE AS SHOWN

DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SITE PIPEWORK: EFFLUENT DAM OUTLET PIPE - LAYOUT & DETAILS

WBS No.

COT DRAWING NUMBER
_-_-_-_-_-_-_

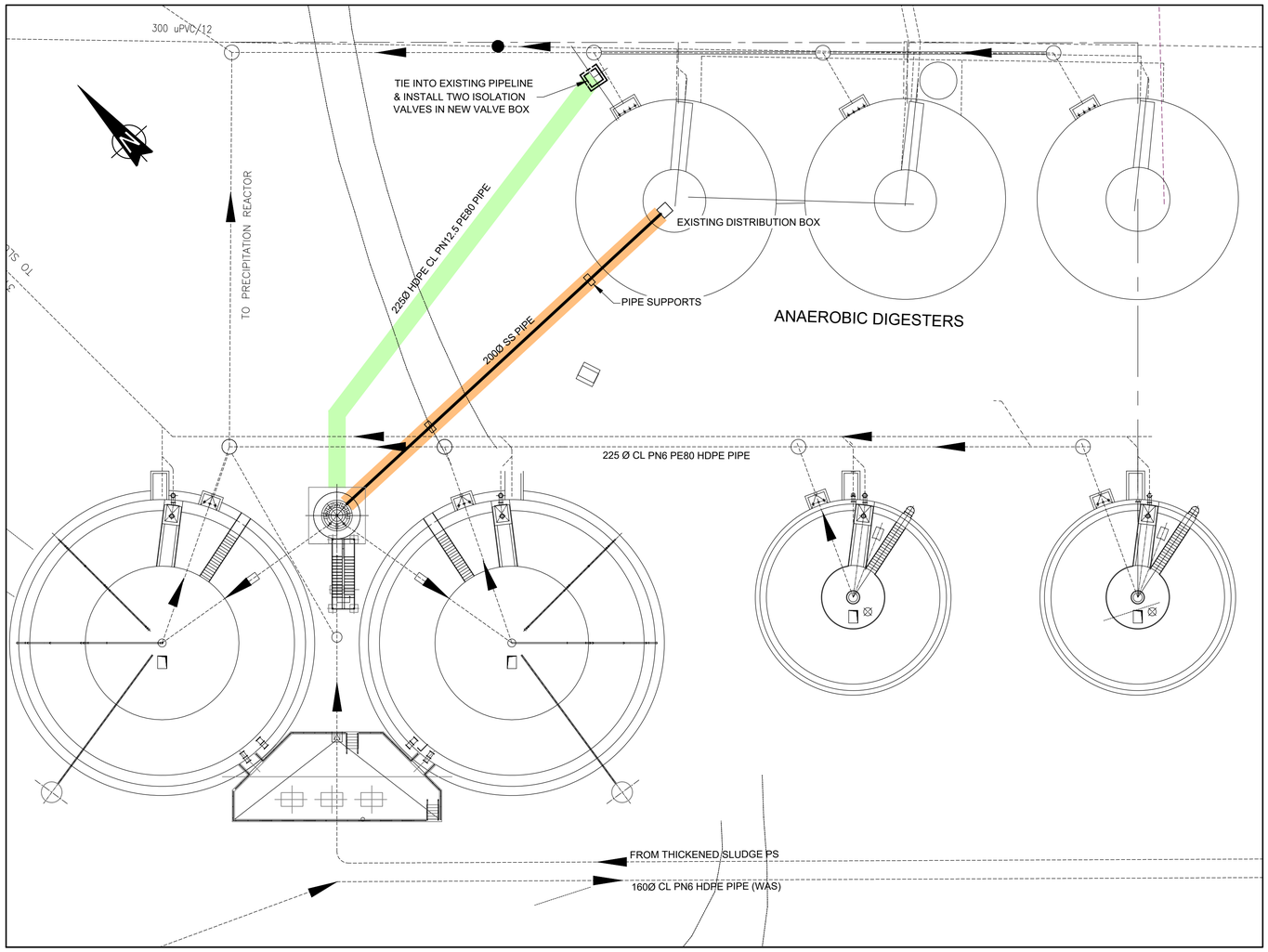
REVISION

PROJECT STATUS

CONCEPT DRAWING | TENDER DRAWING | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

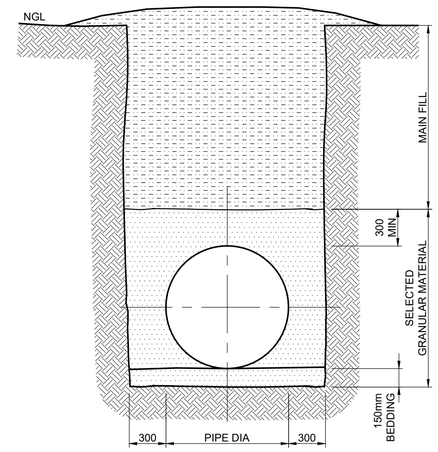
PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE



LAYOUT PLAN
SCALE 1:250

NOTE:
BACKFILL TO BE COMPACTED TO 93% MOD.
AASHTO DENSITY.



TYPICAL BEDDING DETAIL
NTS

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD
Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, _____ Prof Reg Nr
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING
SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.AAA.12.D002
A0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No. ……
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SITE PIPEWORK: DIGESTER FEED PIPE - LAYOUT & DETAILS

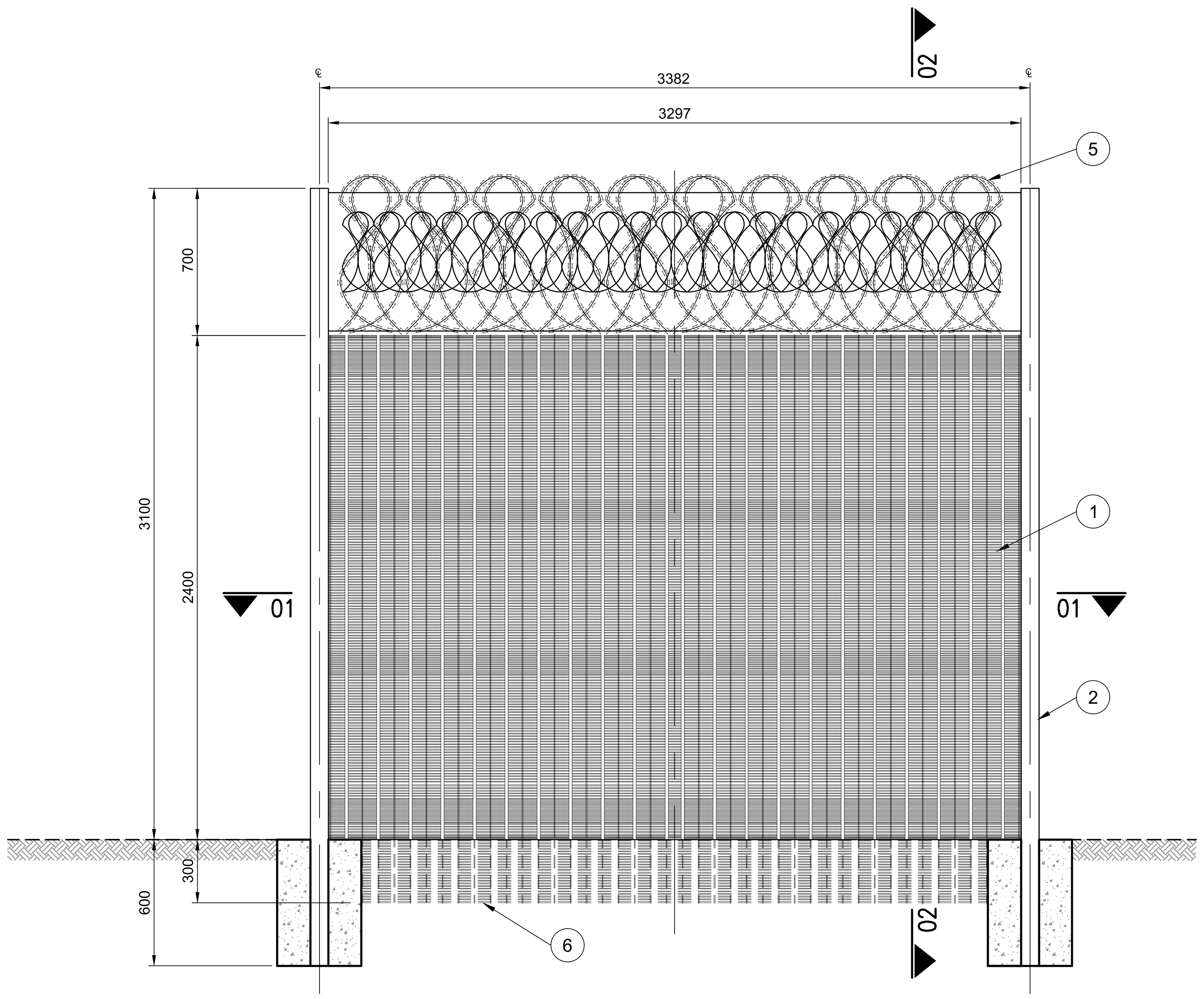
WBS No. ……
COT DRAWING NUMBER _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
REVISION

PROJECT STATUS

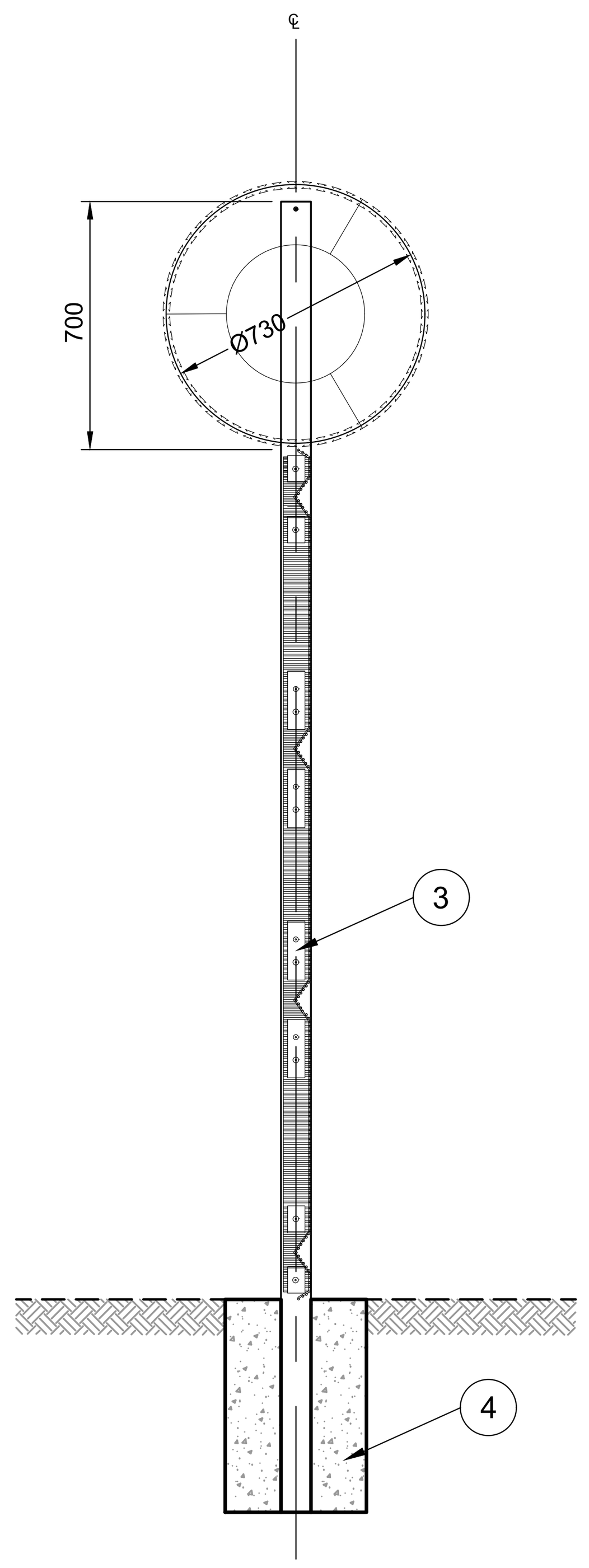
○ CONCEPT DRAWING ● TENDER DRAWING ○ APPROVED CONSTRUCTION DRAWING ○ AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE

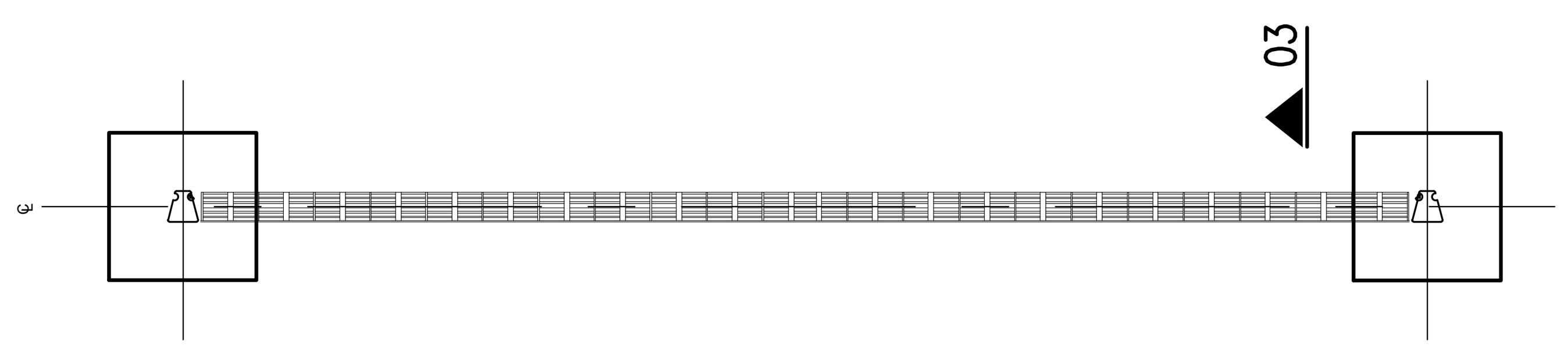


FRONT ELEVATION
SCALE 1:20



SECTION 02-02
SCALE 1:20

N0	ITEM	DESCRIPTION
1	PANEL	CLEARVU22 OR SIMILAR MESH PANELS 3297mm WIDE x 2400mm HIGH GALVANIZED 3mm Ø WIRE WITH APERTURE SIZE (CENTRES) @ 76.2mm x 12.7mm, REINFORCED WITH HORIZONTAL STRIPS
2	POST	LOCKING POST, HOT DIPPED GALVANIZED.
3	CLAMPS	PANEL CLAMPS
4	FOUNDATION	400 x 400 x 600mm CONCRETE FOUNDATION, GRADE 20/19
5	TOPPING	730mm Ø RIPPER SMART COIL, OR SIMILAR, GALVANIZED
6	UNDERDIG	300mm CLEARVU, OR SIMILAR ANTI-BURROW PANEL, BITUMEN DIPPED



SECTION 01-01
SCALE 1:20

NOTE :

1. THIS DRAWING SHOWS A TYPICAL LAYOUT OF A MESH PANEL SECURITY FENCE
2. CLEARVU 22 OR SIMILAR MESH PANEL FENCES ACCEPTABLE

PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

bigen
Doing good while doing business

I, ______ Prof Reg Nr ______
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.GZA.17.D001
1.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SECURITY FENCE:
REINFORCED MESH DETAILS

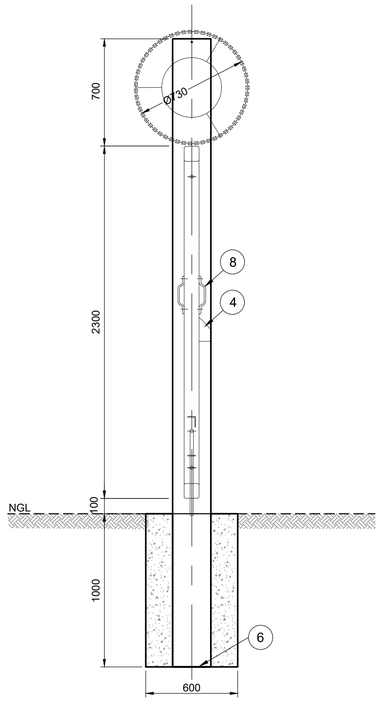
WBS No.

COT DRAWING NUMBER
_-_____-__________-__-_____-__-__
REVISION

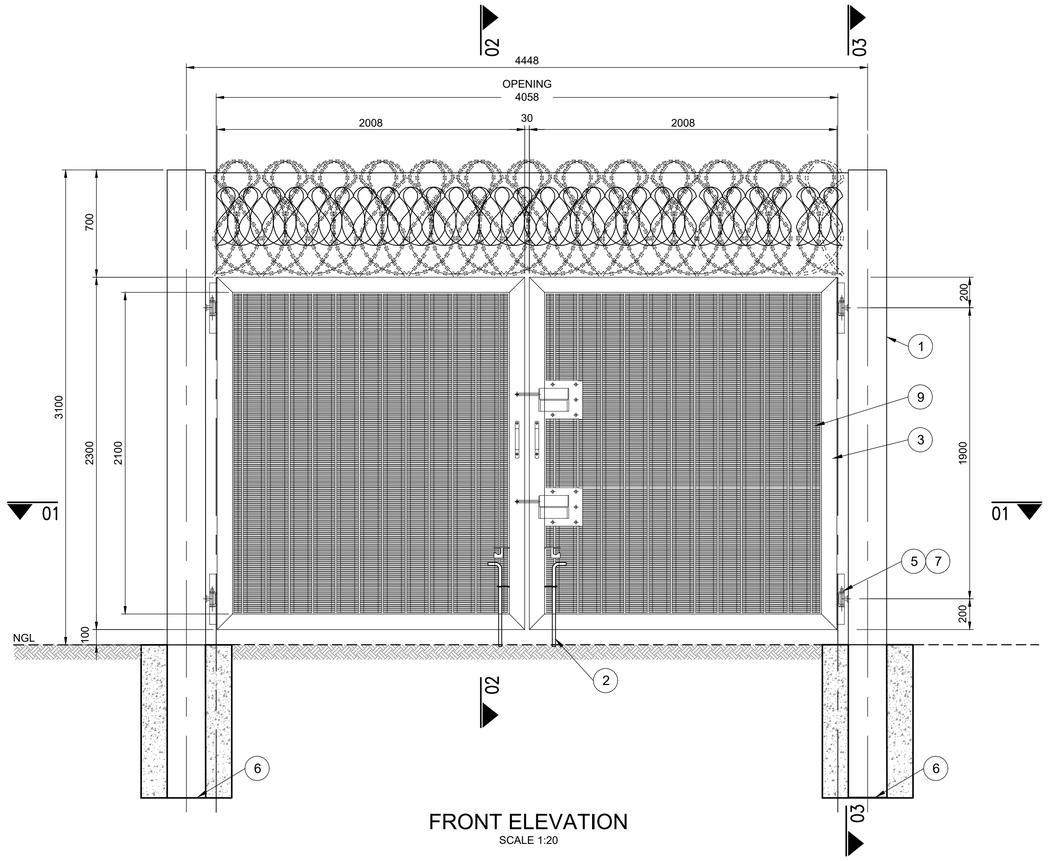
PROJECT STATUS
CONCEPT DRAWING
TENDER DRAWING
APPROVED CONSTRUCTION DRAWING
AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

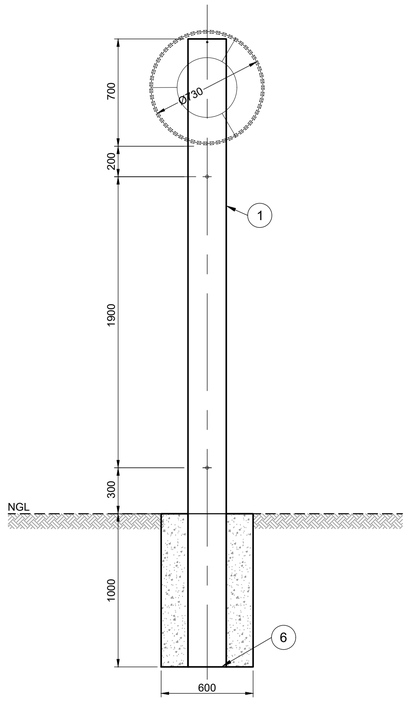
INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE



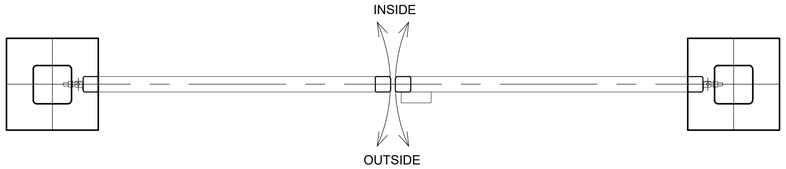
SECTION 02-02
SCALE 1:20



FRONT ELEVATION
SCALE 1:20



SECTION 03-03
SCALE 1:20



SECTION 01-01
SCALE 1:20

N0	ITEM	DESCRIPTION	QTY
1	HINGE POST	250x250x6 SHS	2
2	DROP BOLT	32mm Ø ROUND BAR	2
3	GATE FRAME	100x100x4 SHS	2
4	LOCKING DEVICE	30mm Ø T-SLIDE LOCK, WITH LOCK BOX	1
5	HINGE	ADJUSTABLE SCREW HINGE	4
6	BASE PLATE	600x600x5 FLAT	2
7	COVER PLATE	50x50x5 L, 120mm LONG	4
8	GRAB HANDLE	HANDLE	4
9	MESH	CLEARVU22 OR SIMILAR REINFORCED MESH	2
9	FOUNDATION	600x600x1000 CONCRETE, 20/19 @ 28 DAYS	2

NOTE :
1. THIS DRAWING SHOWS A TYPICAL LAYOUT OF A MESH PANEL SECURITY GATE
2. CLEARVU 22 OR SIMILAR MESH ACCEPTABLE

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001
CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR
SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD
Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

Prof Reg Nr
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING
SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.GZA.17.D002
1.0 REVISION

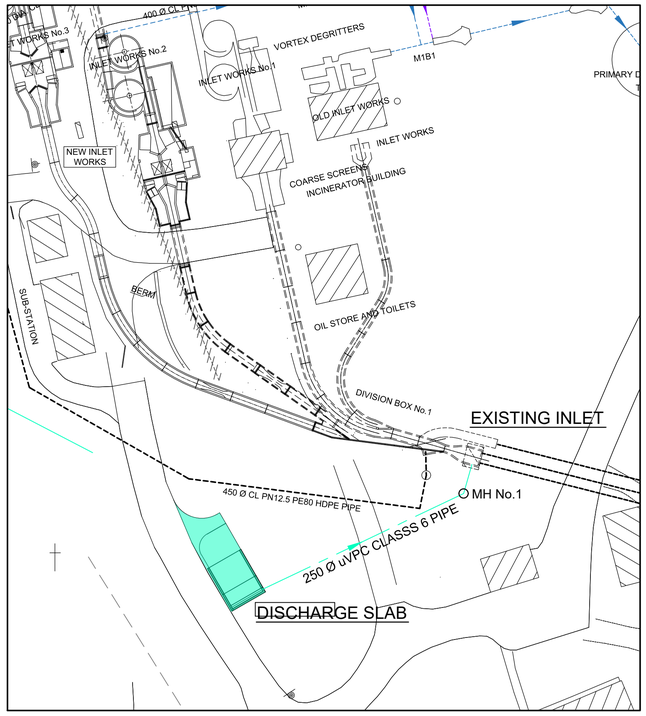
DESIGNED
NAME: T McCreedy Prof Reg No: SIGNATURE: DATE: 2021/07
DRAWN
NAME: A Steenberg SIGNATURE: DATE: 2021/07
CHECKED
NAME: T Mukwena Prof Reg No: 20060203 SIGNATURE: DATE: 2021/07
INFORMATION OFFICE CHECKED
NAME: SIGNATURE: DATE:
DESIGN OFFICE APPROVAL
NAME: Prof Reg No: SIGNATURE: DATE:

CONTRACT No. ...
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

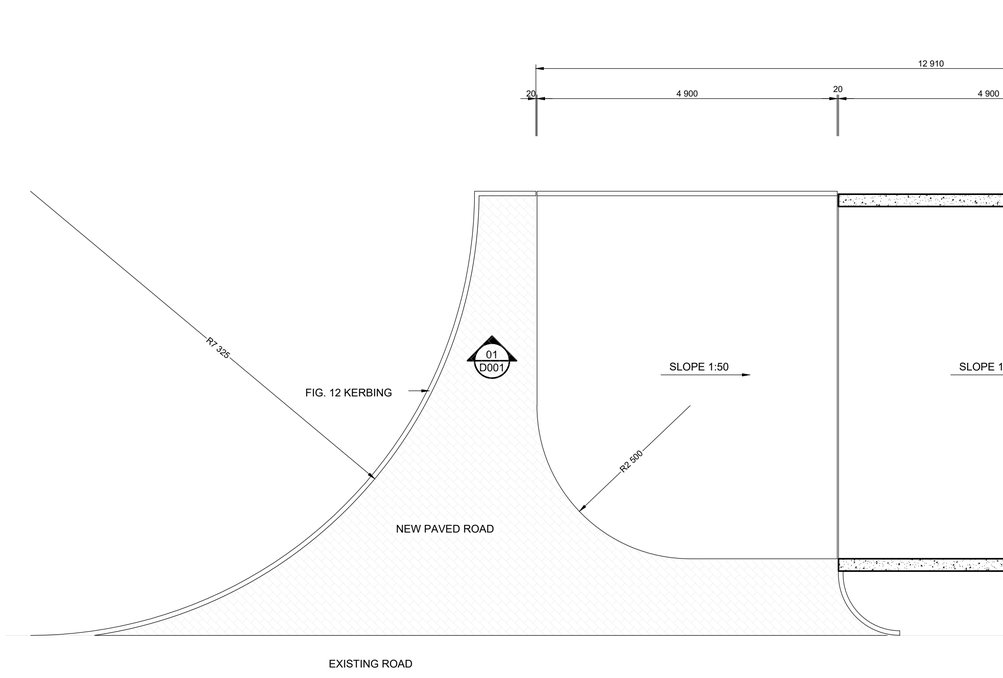
PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS
DRAWING TITLE:
SECURITY FENCE:
REINFORCED MESH GATE DETAILS
WBS No.
COT DRAWING NUMBER
_ _ _ _ _ _ _ _ _ _ _ _ _ _
REVISION

PROJECT STATUS
CONCEPT DRAWING | TENDER DRAWING | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

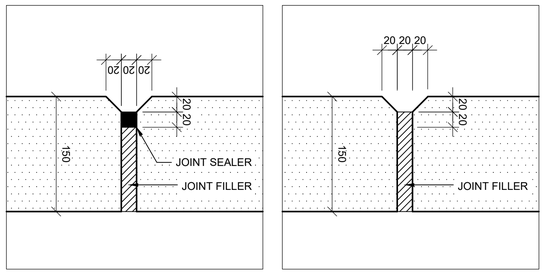
PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE
INSPECTOR OF WORKS of COT:
NAME SIGNATURE
NAME DATE



KEYPLAN
SCALE 1:200

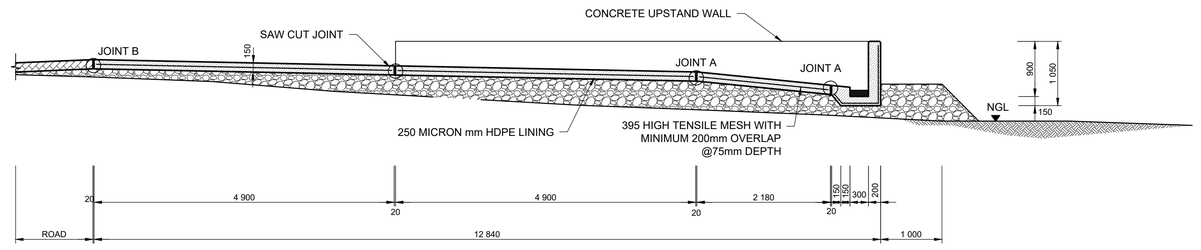


PLAN
SCALE 1:50

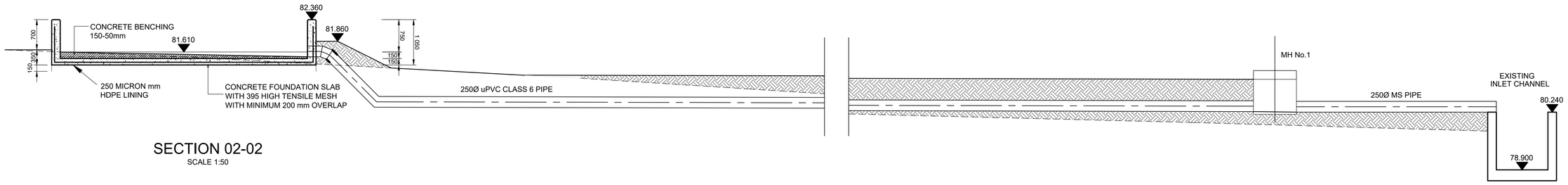


EXPANSION JOINT TYPE A
SCALE 1:4

EXPANSION JOINT TYPE B
SCALE 1:4



SECTION 01-01
SCALE 1:50



SECTION 02-02
SCALE 1:50

VERSION / AMENDMENTS

No.	DATE	DESCRIPTION	AUTH. BY

SURVEY DATUM:

www.bigengroup.com

Allan Cormack Street
The Innovation Hub
Persequor
Pretoria

Phone:+ 27 (0) 12 842 8700

pretoria@bigengroup.com

bigen®
Doing good while doing business

PROJECT TITLE:
UPGRADING OF EXISTING SUNDERLAND RIDGE WWTW

DRAWING TITLE:
INLET WORKS: TANKER DISCHARGE SLAB - LAYOUT, SECIONS & DETAILS

CITY OF TSHWANE
IGNITING EXCELLENCE

0 50 100
100mm ON ORIGINAL DRAWING

ORIGINAL DRAWING SCALE:	AS SHOWN	ORIGINAL DRAWING SHEET SIZE:	A1

SURVEYED	-	DESIGNED	T Mc CREEDY
DRAWN	A STEENBERG	CHECKED	H VD MERWE
COORD SYSTEM	WG29	DATE	MARCH 2021

APPROVED ON BEHALF OF CLIENT:
NAME:
DATE:

APPROVED ON BEHALF OF BIGEN:

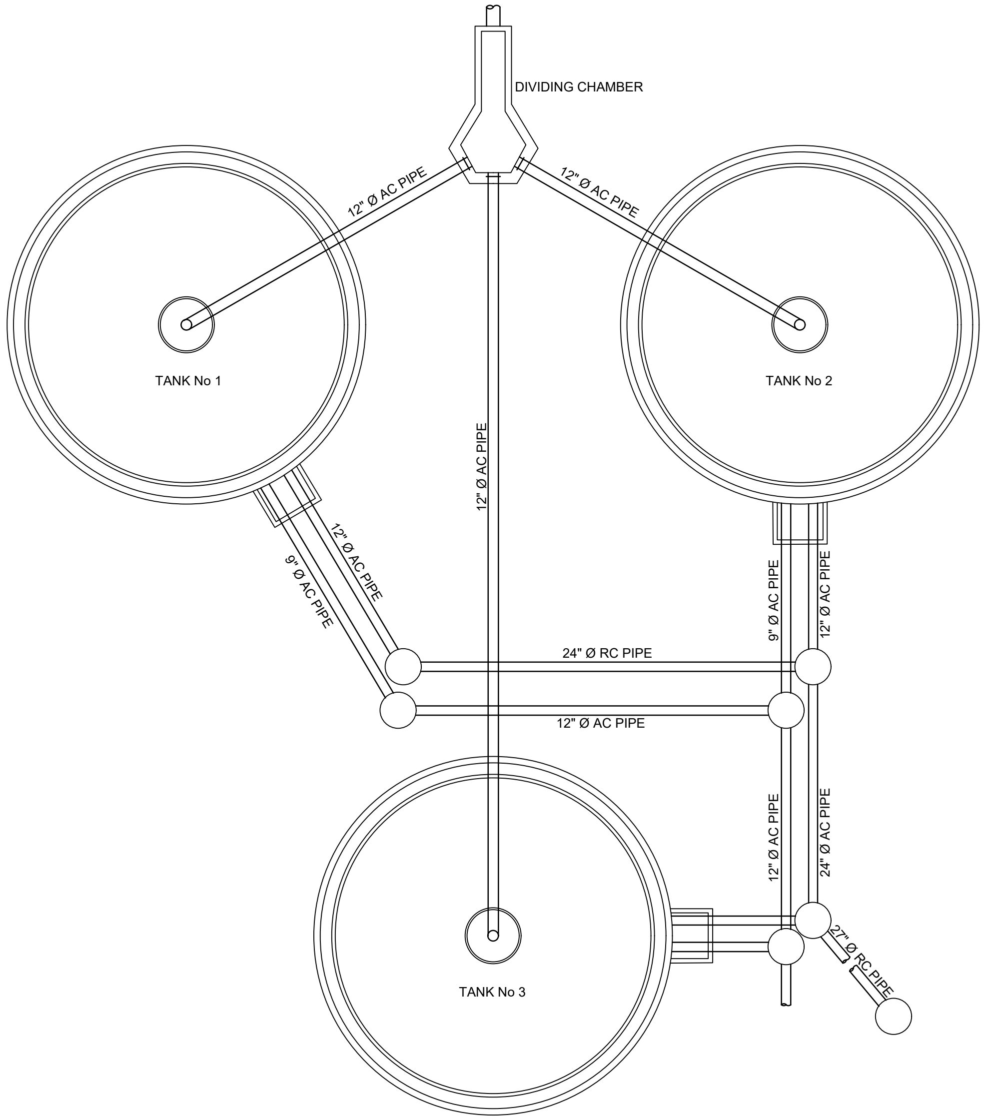
CLIENT DRAWING No.:

CLIENT REF No.:

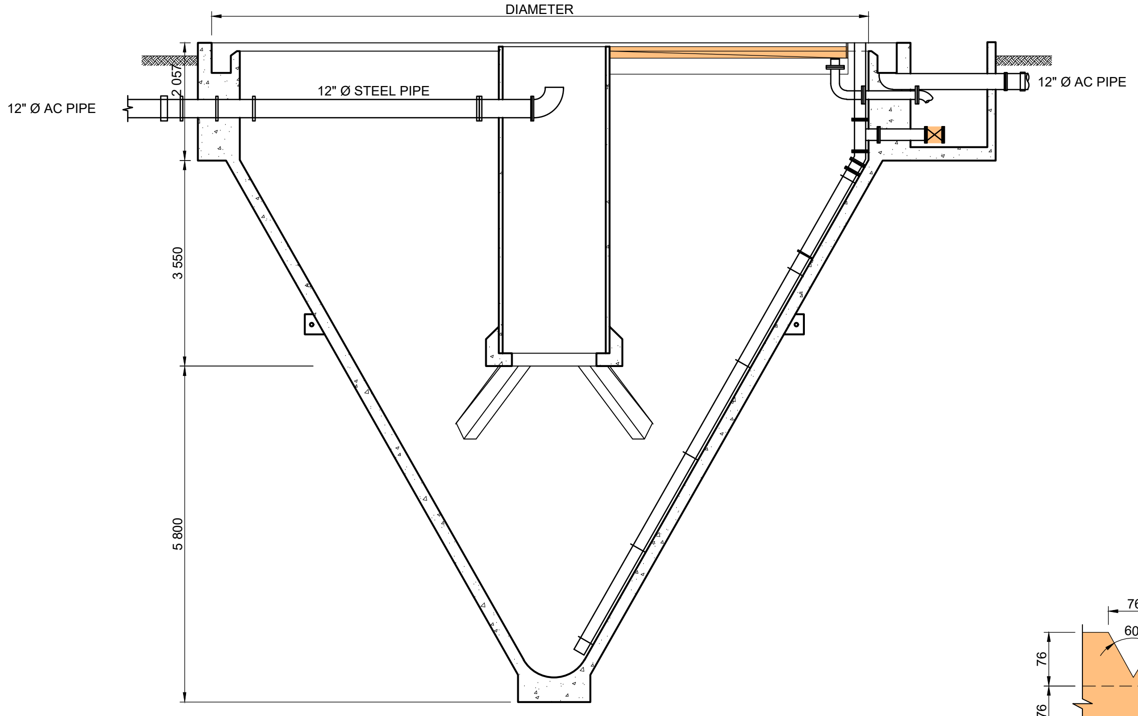
DRAWING No.: **3422.00.00.WBA.14.D001**

VERSION: **A.0**

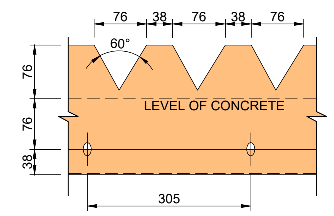
3422.00.00.WBA.14.D001



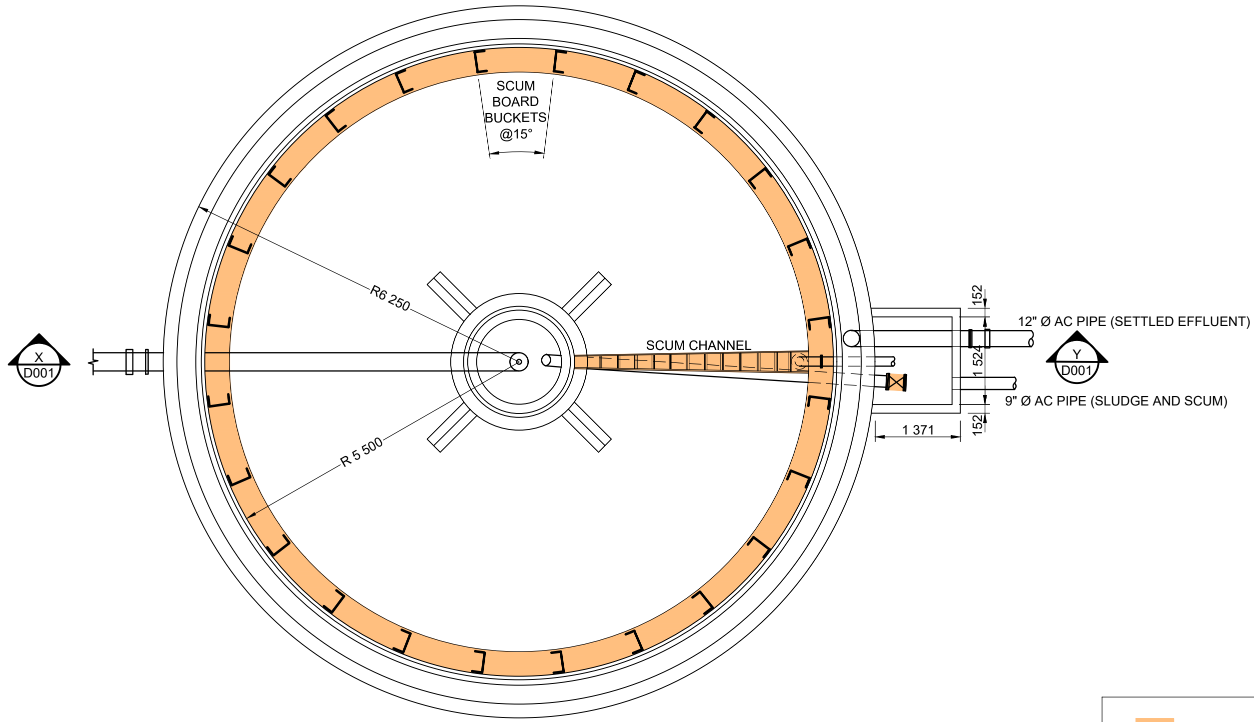
LAYOUT PLAN



SECTION X-X



PART ELEVATION OF WEIR PLATE



TYPICAL PLAN

MECHANICAL SCOPE

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE | Prof. Reg. No | DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION — NAME / Prof. Reg. No / SIGNATURE / DATE
DIRECTOR: WATER DISTRIBUTION — NAME / Prof. Reg. No / SIGNATURE / DATE
DIRECTOR: BULK WATER SERVICES — NAME / Prof. Reg. No / SIGNATURE / DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION — NAME / Prof. Reg. No / SIGNATURE / DATE
DIRECTOR: WASTE WATER COLLECTION — NAME / Prof. Reg. No / SIGNATURE / DATE
DIRECTOR: WASTE WATER TREATMENT — NAME / Prof. Reg. No / SIGNATURE / DATE

Bigen Africa Services (PTY) LTD
Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, ______ Prof Reg Nr ______
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING
SIGNATURE ______ DATE ______

CONSULTANT DRAWING NUMBER: 3243.00.00.WDA.13.D001
REVISION: A.0

DESIGNED — NAME: T McCreedy; Prof Reg No: ......; SIGNATURE: ......; DATE: 2021/07
DRAWN — NAME: A Steenberg; SIGNATURE: ......; DATE: 2021/07
CHECKED — NAME: T Mukwena; Prof Reg No: 20060203; SIGNATURE: ......; DATE: 2021/07
INFORMATION OFFICE CHECKED — NAME: ......; SIGNATURE: ......; DATE: ......
DESIGN OFFICE APPROVAL — NAME: ......; Prof Reg No: ......; SIGNATURE: ......; DATE: ......

CONTRACT No.: ......
PROJECT No.: -
SHEET No.: -
PAPER SIZE: A1
SCALE: AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

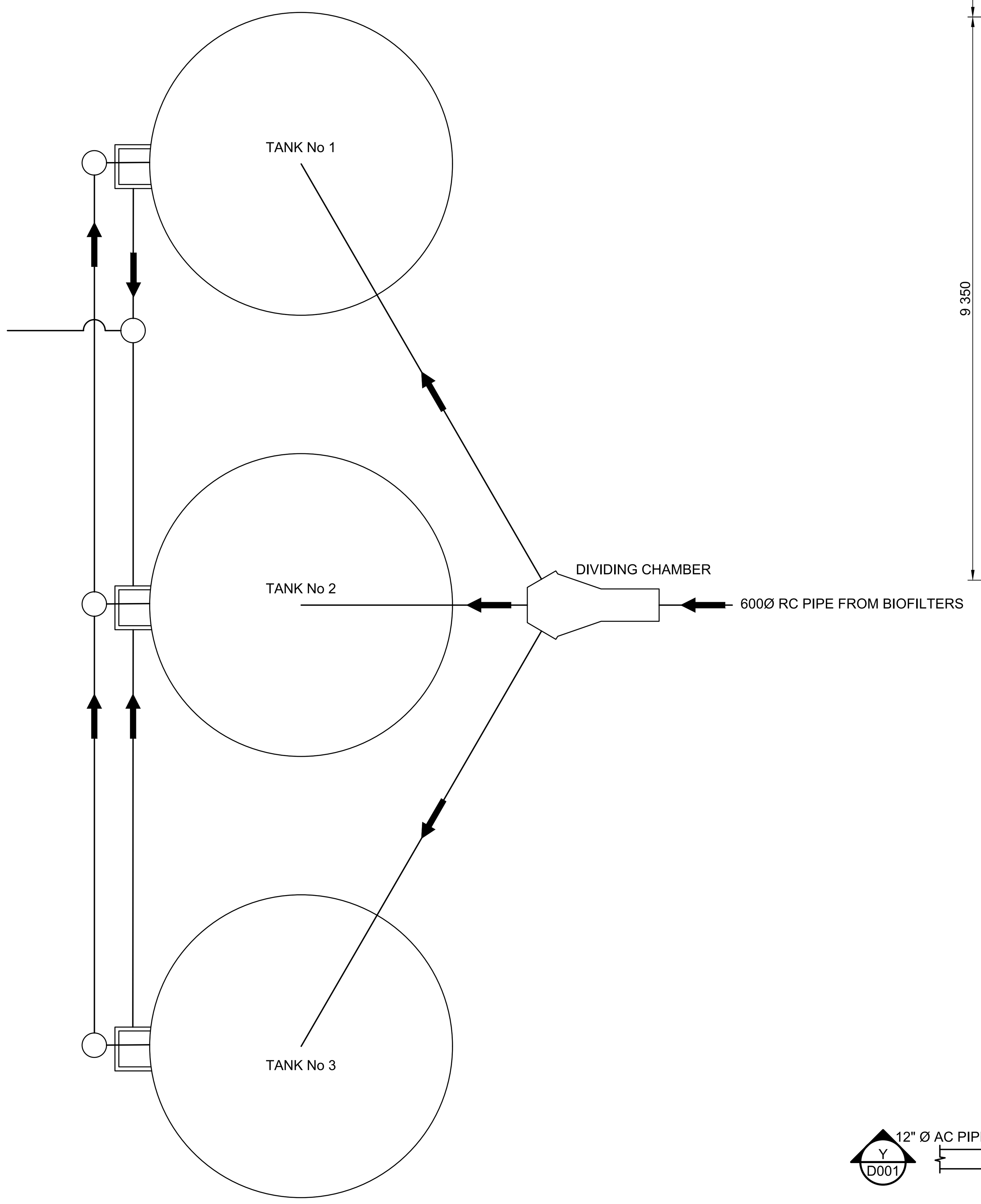
DRAWING TITLE:
MODULE 1: DORTMUND PRIMARY SETTLING TANKS - LAYOUT, SECTION & DETAILS

WBS No. ......
COT DRAWING NUMBER
REVISION

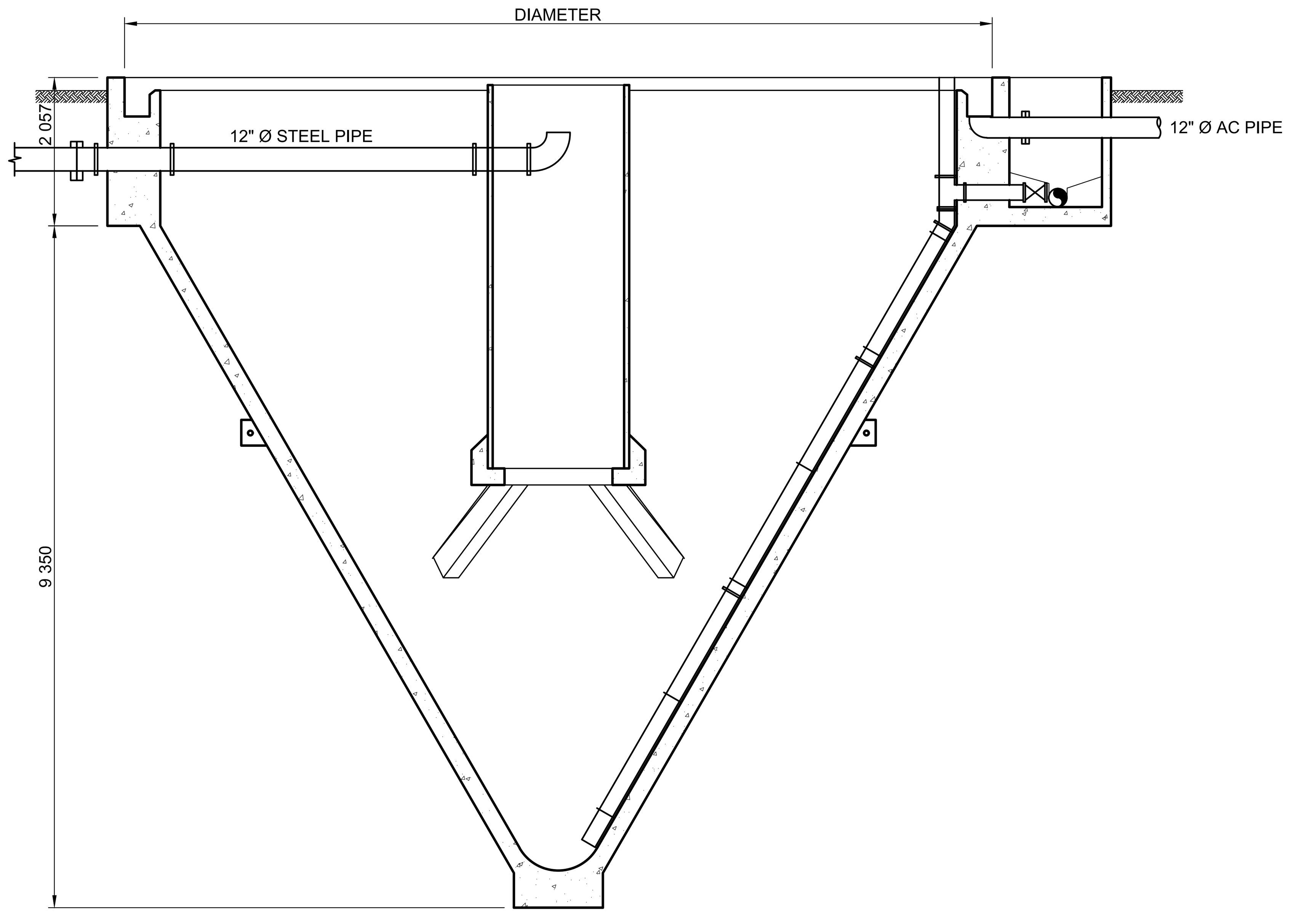
PROJECT STATUS
CONCEPT DRAWING | TENDER DRAWING | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME | SIGNATURE
Prof Reg No. | DATE

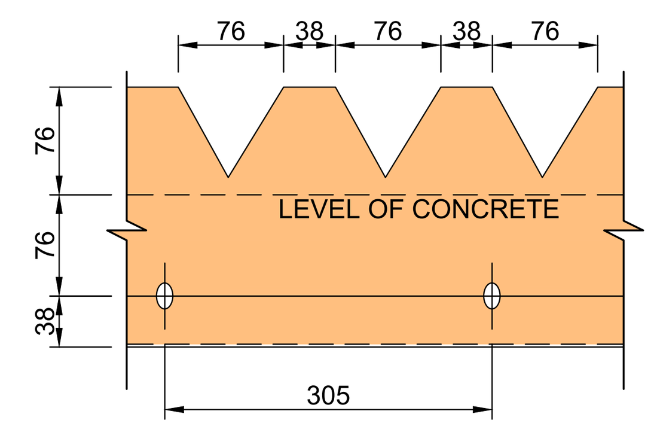
INSPECTOR OF WORKS of COT:
SIGNATURE
NAME | DATE



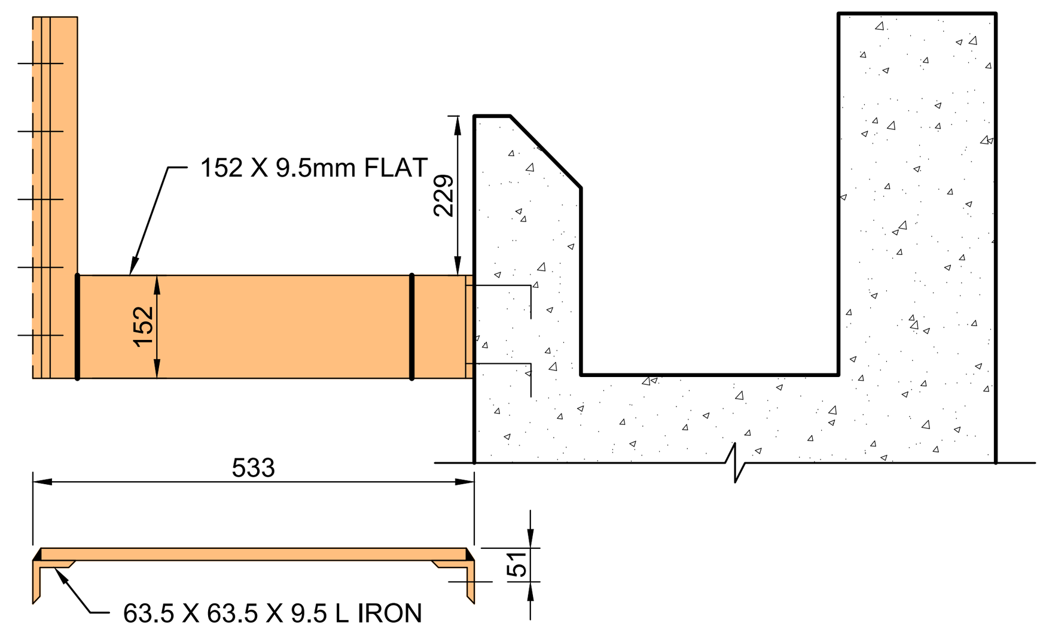
LAYOUT PLAN



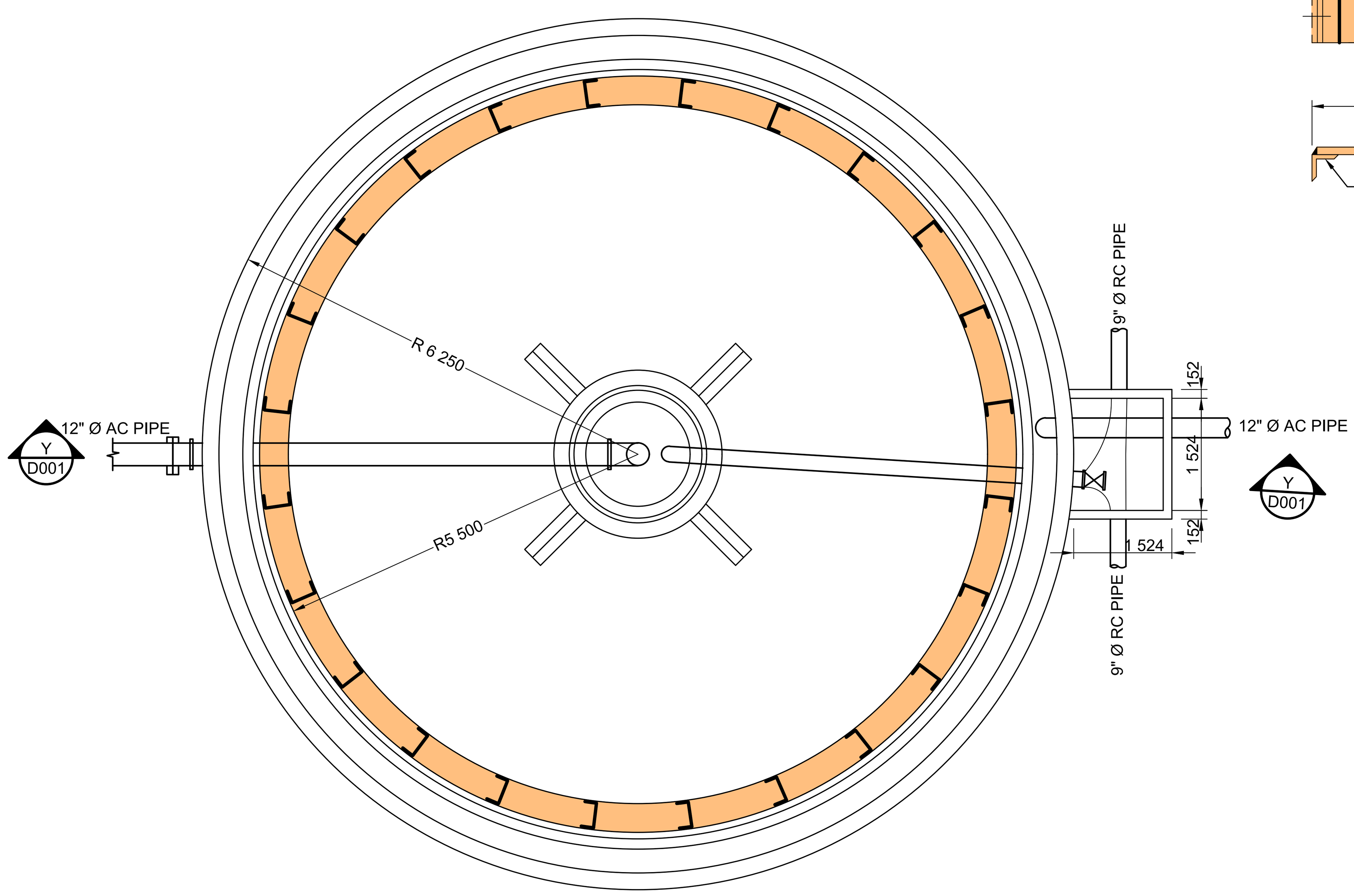
SECTION Y-Y



PART ELEVATION OF PLATE



DETAILS FOR SCUM BOARD BRACKETS



TYPICAL PLAN

MECHANICAL SCOPE

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE
DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD
Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, ____ Prof Reg Nr ____
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING
SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.WDB.13.D001
A.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
MODULE 1: BIOLFITERS
MECHANICAL EQUIPMENT

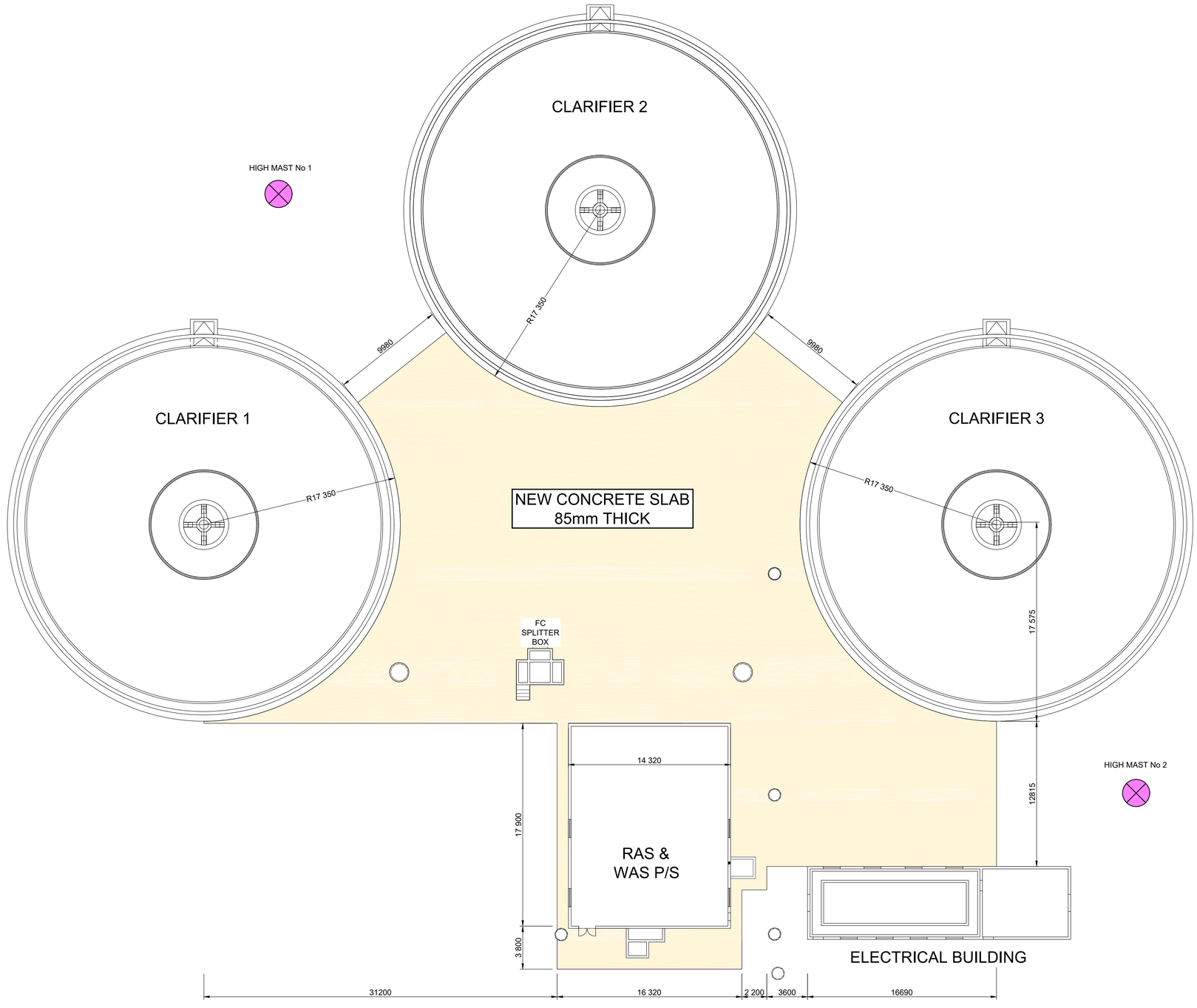
WBS No.

COT DRAWING NUMBER
_-_____-__________-___-_____-___-___
REVISION

PROJECT STATUS
CONCEPT DRAWING | TENDER DRAWING | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE



SITE PLAN OVERVIEW

SCALE 1:200

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, Prof Reg Nr
HEREBY CERTIFY THAT THE SERVICES WILL HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.WDC.14.D001
A0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
MODULE 5: SECONDARY SETTLING TANKS - CONCRETE COVER SLABS LAYOUT

WBS No.

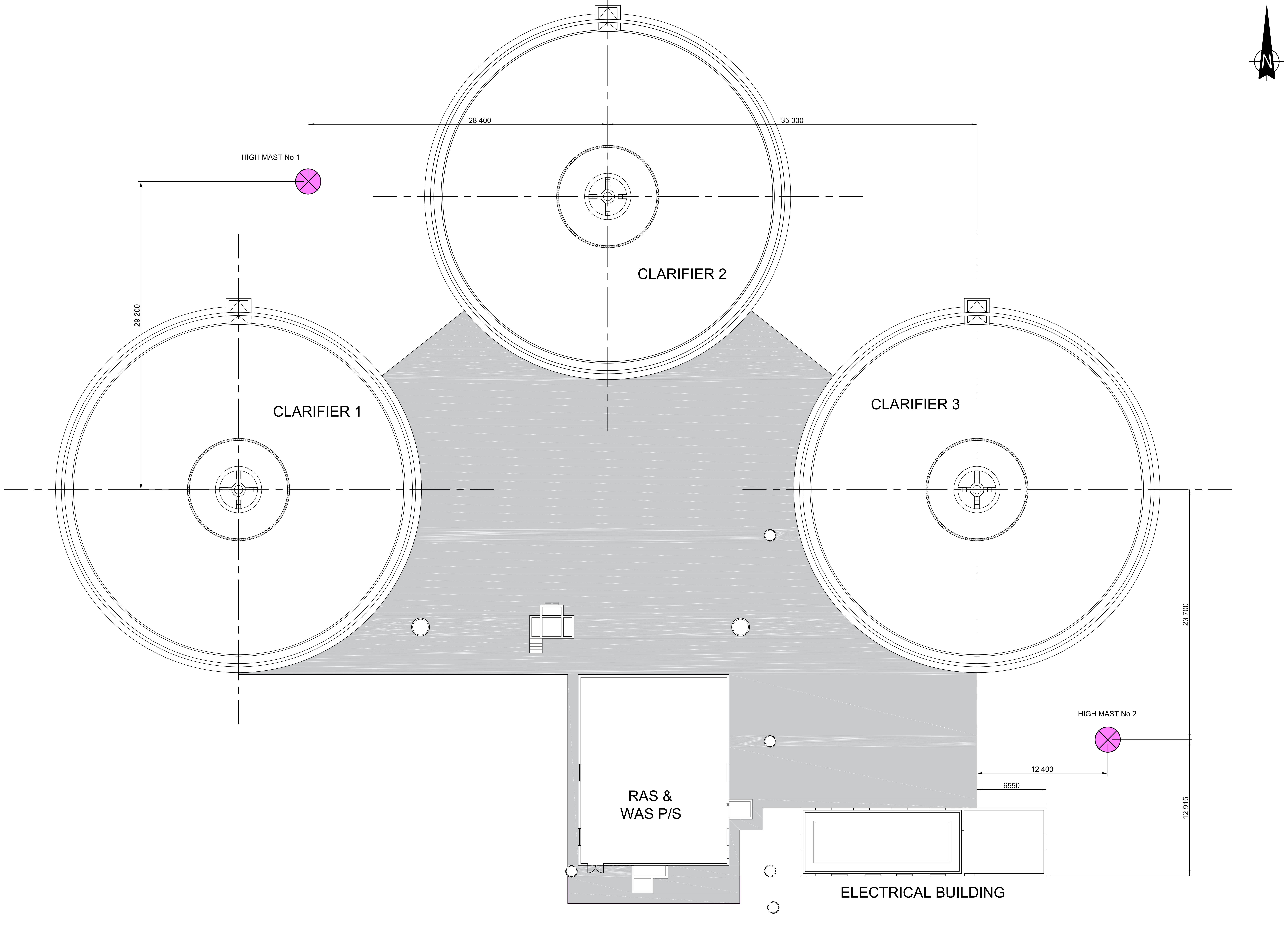
COT DRAWING NUMBER
_-____-_____-__-____-__-__
REVISION

PROJECT STATUS

CONCEPT DRAWING ○ TENDER DRAWING ● APPROVED CONSTRUCTION DRAWING ○ AS BUILT DRAWING ○

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
NAME SIGNATURE
DATE



LAYOUT PLAN

SCALE 1:200

CITY OF TSHWANE
IGNITING EXCELLENCE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD
Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087
bigen
Doing good while doing business

I, ______ Prof Reg Nr ______
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.WDC.22.U001
A.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.

PROJECT No. –

SHEET No. –

PAPER SIZE A1

SCALE AS SHOWN

DATE: 2021/01

PROJECT DISCRIPTION:

REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:

MODULE 5: SECONDARY SETTLING TANKS - SITE LIGHTING LAYOUT PLAN

WBS No.

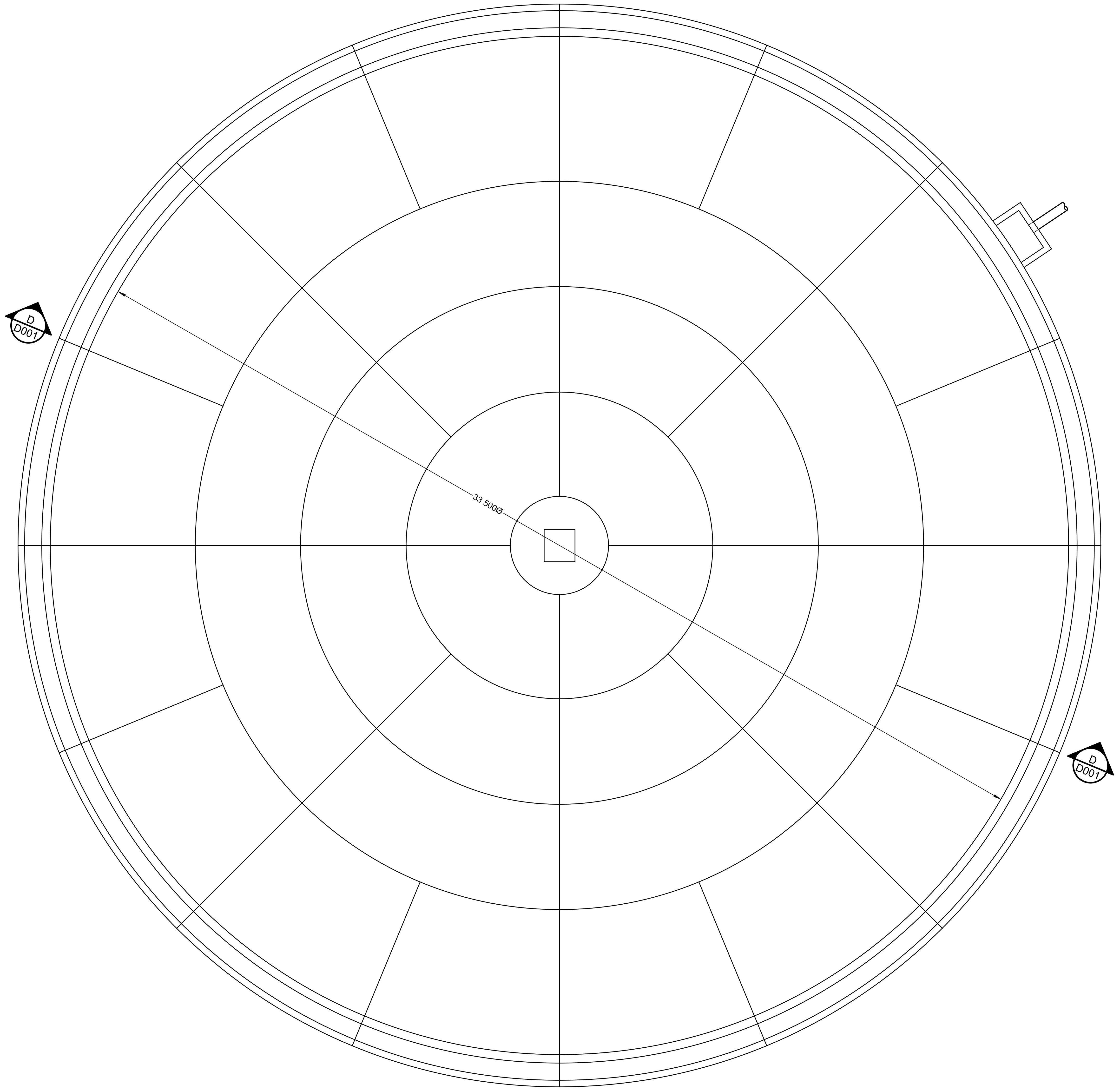
COT DRAWING NUMBER
- - - - - - -
REVISION

PROJECT STATUS

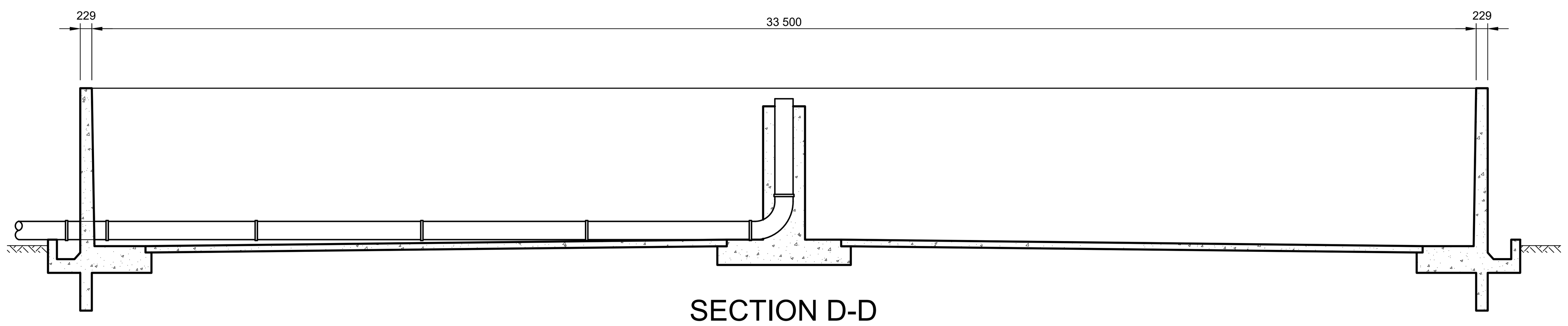
CONCEPT DRAWING | TENDER DRAWING (●) | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

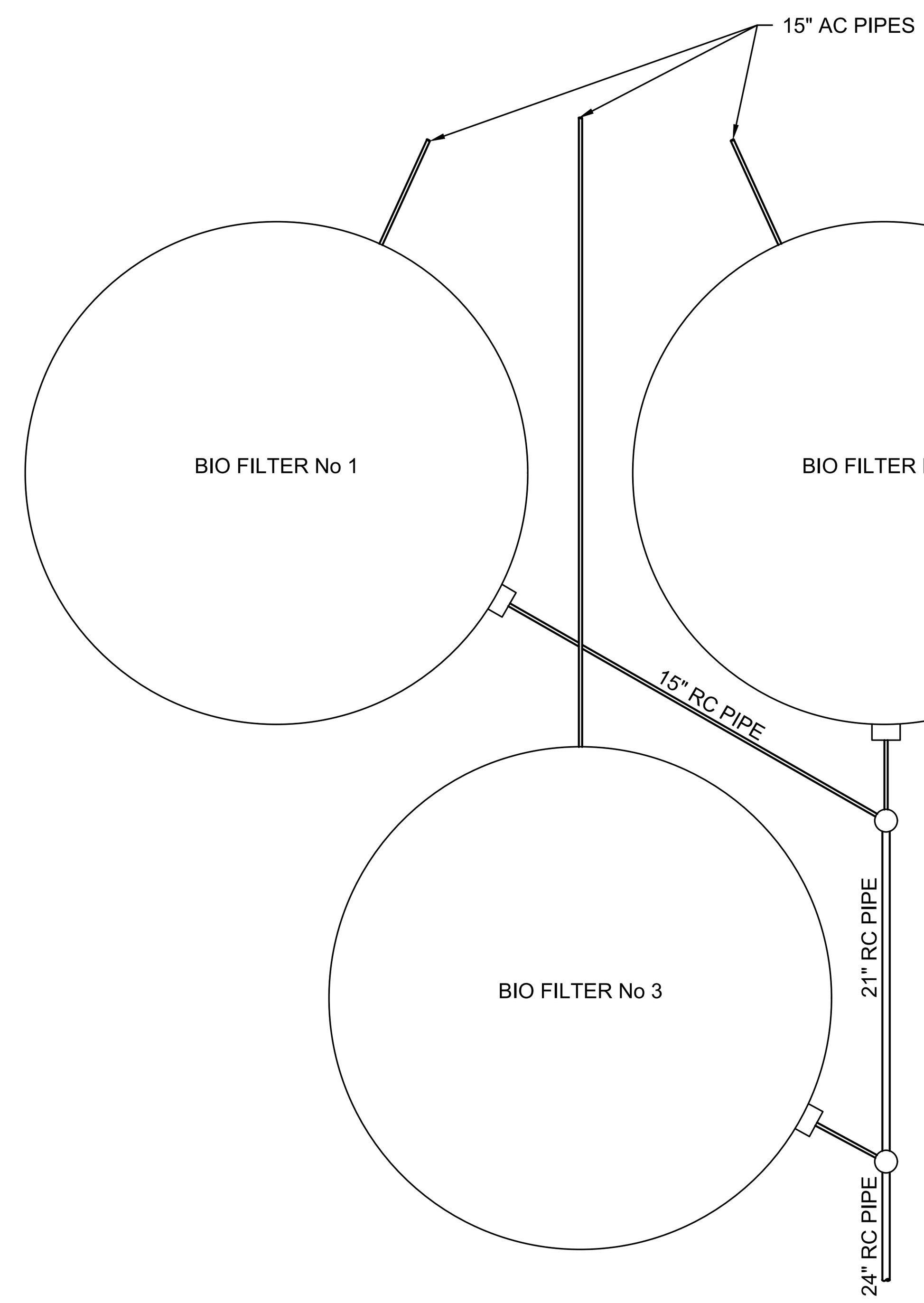
INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE



PLAN



SECTION D-D



LAYOUT OF BIOLOGICAL FILTERS

CITY OF TSHWANE
IGNITING EXCELLENCE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE | Prof. Reg. No | DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WATER DISTRIBUTION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: BULK WATER SERVICES
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WASTE WATER COLLECTION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WASTE WATER TREATMENT
NAME | Prof. Reg. No | SIGNATURE | DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

bigen
Doing good while doing business

I, ______________ Prof Reg Nr ______
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE ______ DATE ______

CONSULTANT DRAWING NUMBER
3243.00.00.WHA.13.D001
A.0
REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.

PROJECT No. –

SHEET No. –

PAPER SIZE A1

SCALE AS SHOWN

DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
MODULE 1: BIOFILTERS MECHANICAL EQUIPMENT

WBS No.

COT DRAWING NUMBER
_-_ _-_ _-_ _-_ _-_

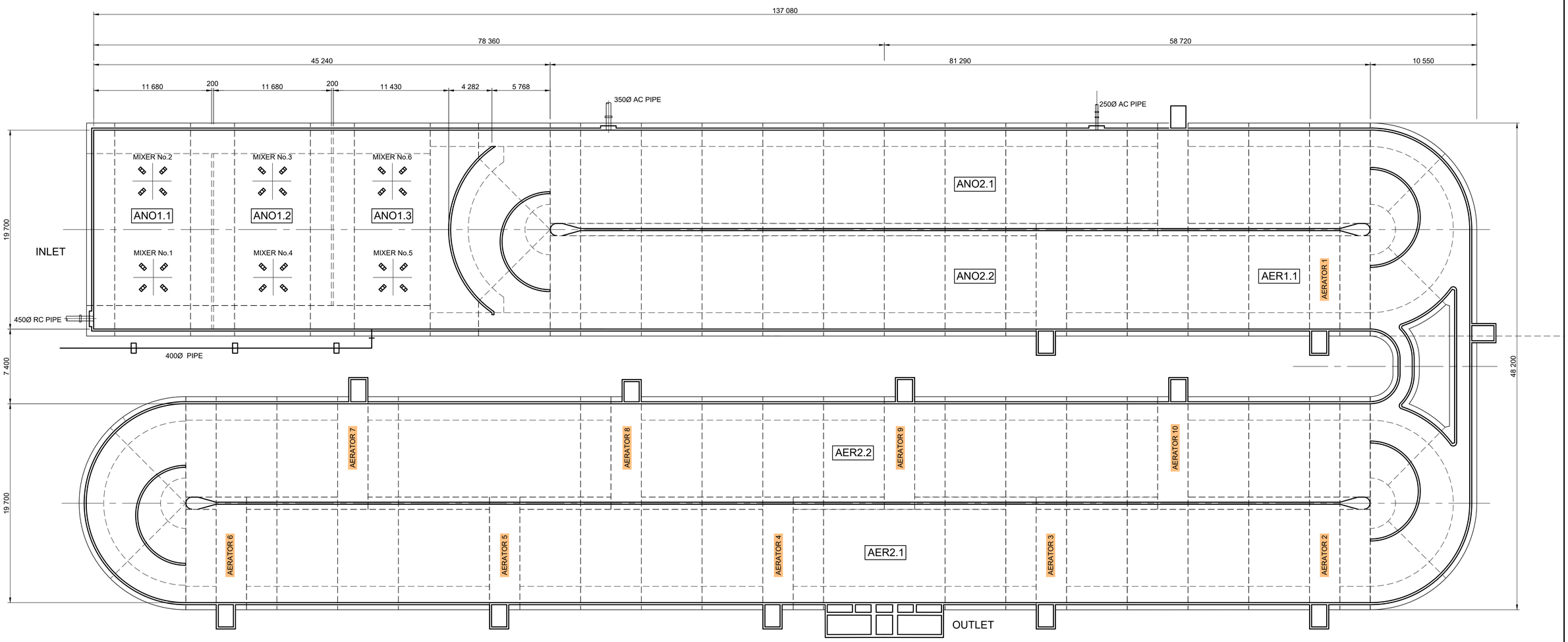
REVISION

PROJECT STATUS

CONCEPT DRAWING | TENDER DRAWING (●) | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME | SIGNATURE
Prof Reg No. | DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME | DATE



LAYOUT PLAN

SCALE 1:200

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER DISTRIBUTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: BULK WATER SERVICES
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER COLLECTION
NAME Prof. Reg. No SIGNATURE DATE

DIRECTOR: WASTE WATER TREATMENT
NAME Prof. Reg. No SIGNATURE DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, _____ Prof Reg Nr _____
HEREBY CERTIFY THAT THE SERVICES WILL HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.WIA.13.D001
A.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:.....
SIGNATURE:..... DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE:..... DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE:..... DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:.....
SIGNATURE:..... DATE:.....

DESIGN OFFICE APPROVAL
NAME:..... Prof Reg No:.....
SIGNATURE:..... DATE:.....

CONTRACT No. .....
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
MODULE 2: BIOLOGICAL REACTOR - LAYOUT

WBS No. .....

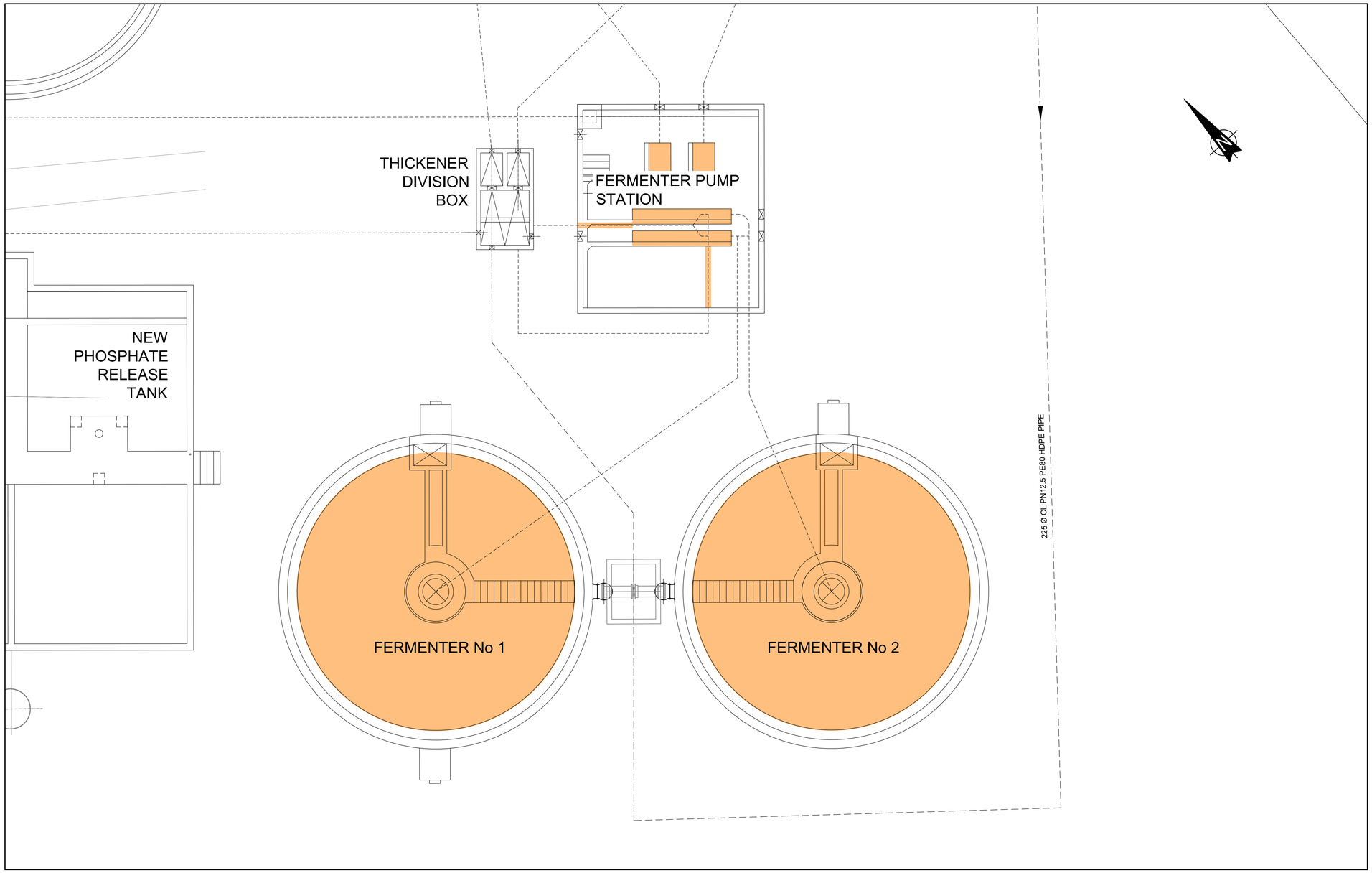
COT DRAWING NUMBER _-____-_____-__-____-__-__
A REVISION

PROJECT STATUS

○ CONCEPT DRAWING ● TENDER DRAWING ○ APPROVED CONSTRUCTION DRAWING ○ AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE



LAYOUT PLAN
SCALE 1:100

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE | Prof. Reg. No | DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WATER DISTRIBUTION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: BULK WATER SERVICES
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WATER & SANITATION: PLANNING & REGULATION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WASTE WATER COLLECTION
NAME | Prof. Reg. No | SIGNATURE | DATE

DIRECTOR: WASTE WATER TREATMENT
NAME | Prof. Reg. No | SIGNATURE | DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwenas@bigengroup.com
The Innovation Hub Pretoria 0087

I, _____ Prof Reg Nr _____
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING
SIGNATURE | DATE

CONSULTANT DRAWING NUMBER
3243.00.00.WJB.13.D001
A2 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:.....
SIGNATURE:..... DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE:..... DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE:..... DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:.....
SIGNATURE:..... DATE:.....

DESIGN OFFICE APPROVAL
NAME:..... Prof Reg No:.....
SIGNATURE:..... DATE:.....

CONTRACT No. .....
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SLUDGE HANLDING: FERMENTATION SYSTEM - LAYOUT

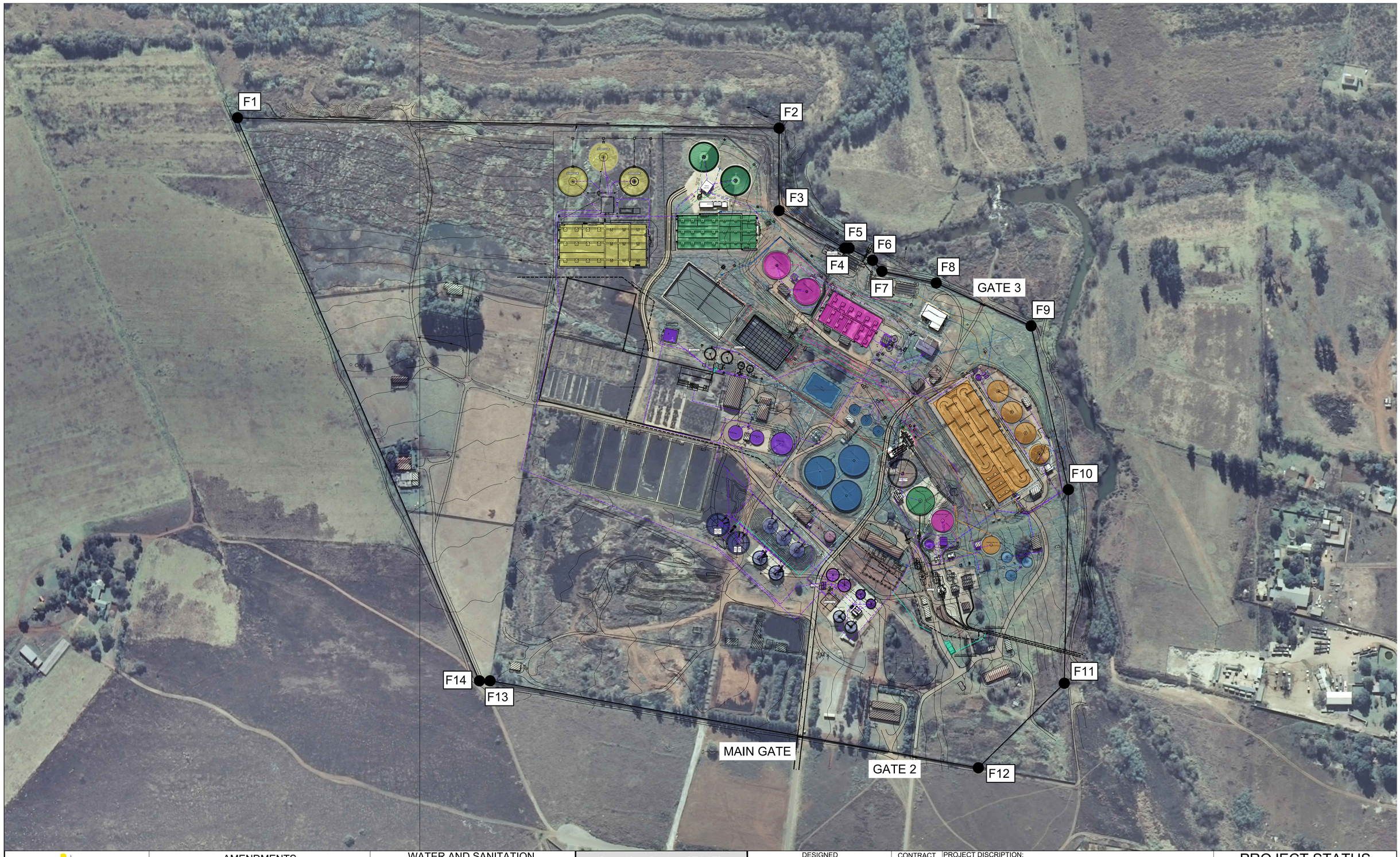
WBS No. .....
COT DRAWING NUMBER _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
REVISION

PROJECT STATUS

CONCEPT DRAWING	TENDER DRAWING	APPROVED CONSTRUCTION DRAWING	AS BUILT DRAWING
○	●	○	○

PROJECT ENGINEER of COT:
NAME | SIGNATURE
Prof Reg No. | DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME | DATE



CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE | Prof. Reg. No | DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION
FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

	NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR:INFRASTRUCTURE PROVISION				
DIRECTOR: WATER DISTRIBUTION				
DIRECTOR: BULK WATER SERVICES				
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION				
DIRECTOR: WASTE WATER COLLECTION				
DIRECTOR: WASTE WATER TREATMENT				

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/ 9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, _____ Prof Reg Nr _____
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE _____ DATE _____

CONSULTANT DRAWING NUMBER
3243.00.00.GZA.10.U001
A0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No. .....
PROJECT No. –
SHEET No. –
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SECURITY FENCE:
LAYOUT PLAN

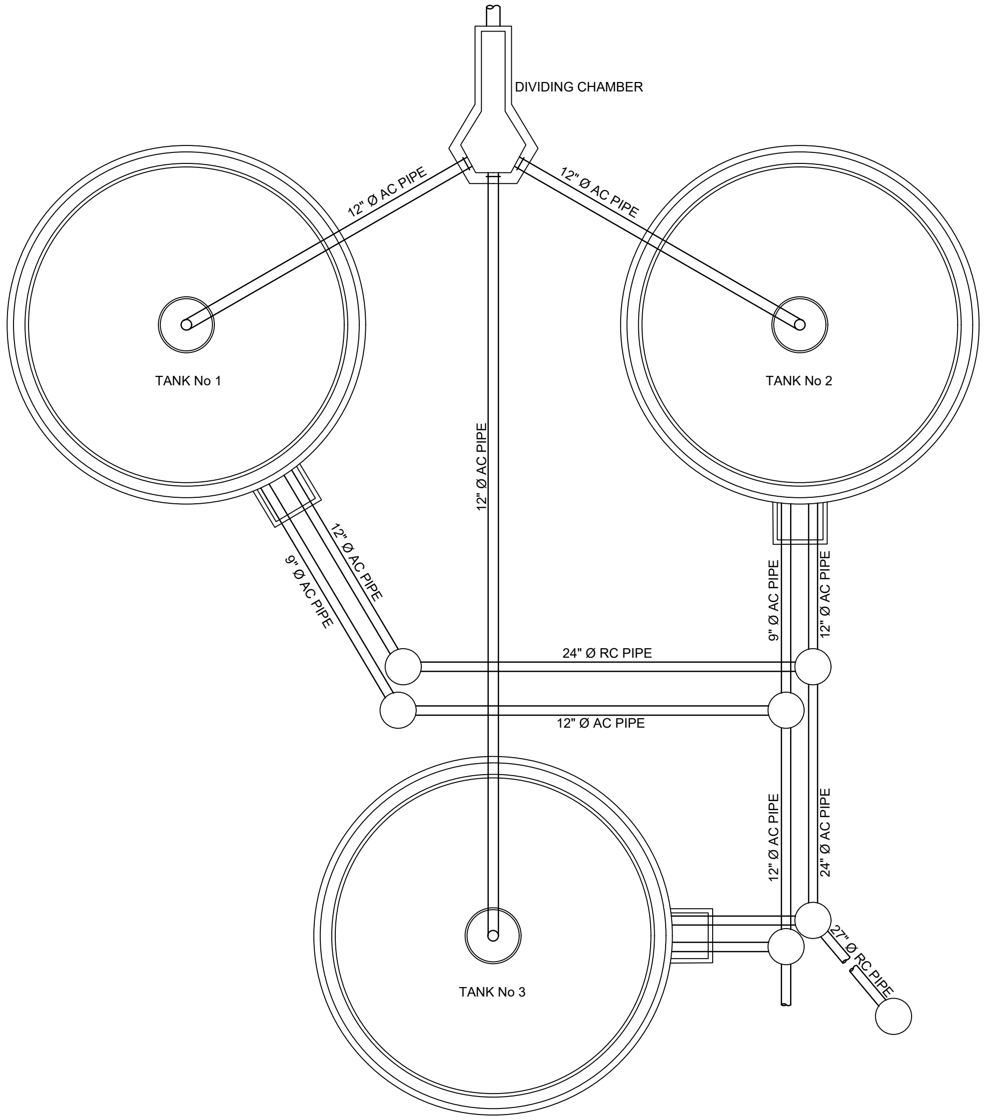
WBS No.
COT DRAWING NUMBER
_-____-_____-__-____-__-__
REVISION

PROJECT STATUS

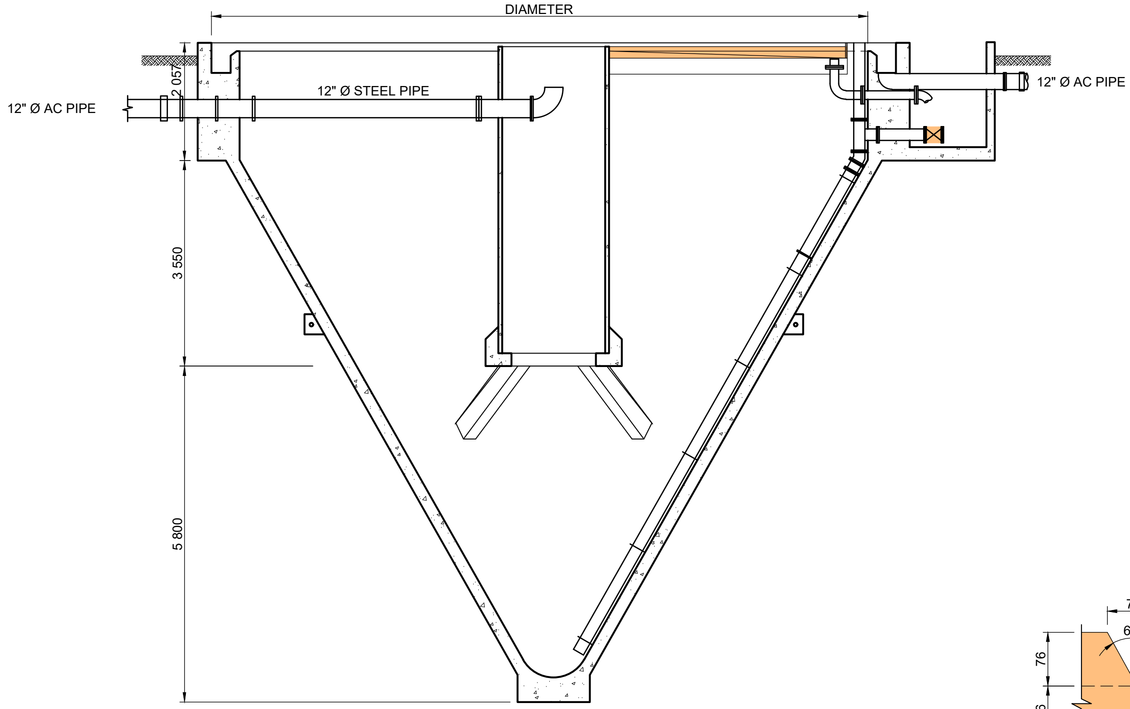
○ CONCEPT DRAWING ● TENDER DRAWING ○ APPROVED CONSTRUCTION DRAWING ○ AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME | SIGNATURE
Prof Reg No. | DATE

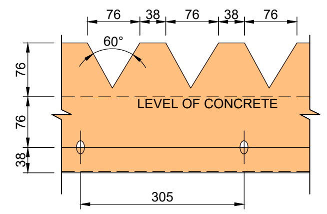
INSPECTOR OF WORKS of COT:
NAME | SIGNATURE
DATE



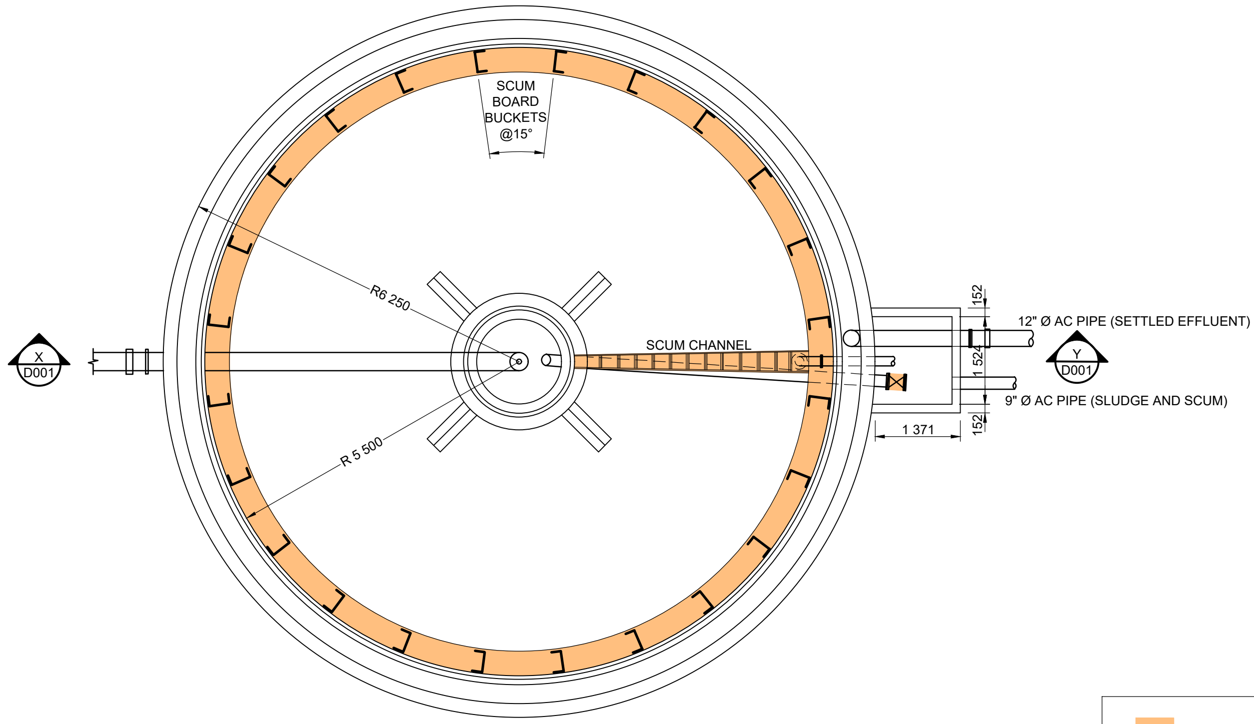
LAYOUT PLAN



SECTION X-X



PART ELEVATION OF WEIR PLATE



TYPICAL PLAN

MECHANICAL SCOPE

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE | Prof. Reg. No | DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

DIRECTOR:INFRASTRUCTURE PROVISION			
NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR: WATER DISTRIBUTION			
NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR: BULK WATER SERVICES			
NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION			
NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR: WASTE WATER COLLECTION			
NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR: WASTE WATER TREATMENT			
NAME	Prof. Reg. No	SIGNATURE	DATE

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, ____________ Prof Reg Nr ____________
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE ____________ DATE ____________

CONSULTANT DRAWING NUMBER
3243.00.00.WDA.13.D001
A.0 REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.

PROJECT No. -

SHEET No. -

PAPER SIZE A1

SCALE AS SHOWN

DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
MODULE 1: DORTMUND PRIMARY SETTLING TANKS - LAYOUT, SECTION & DETAILS

WBS No.

COT DRAWING NUMBER
- - - - - -

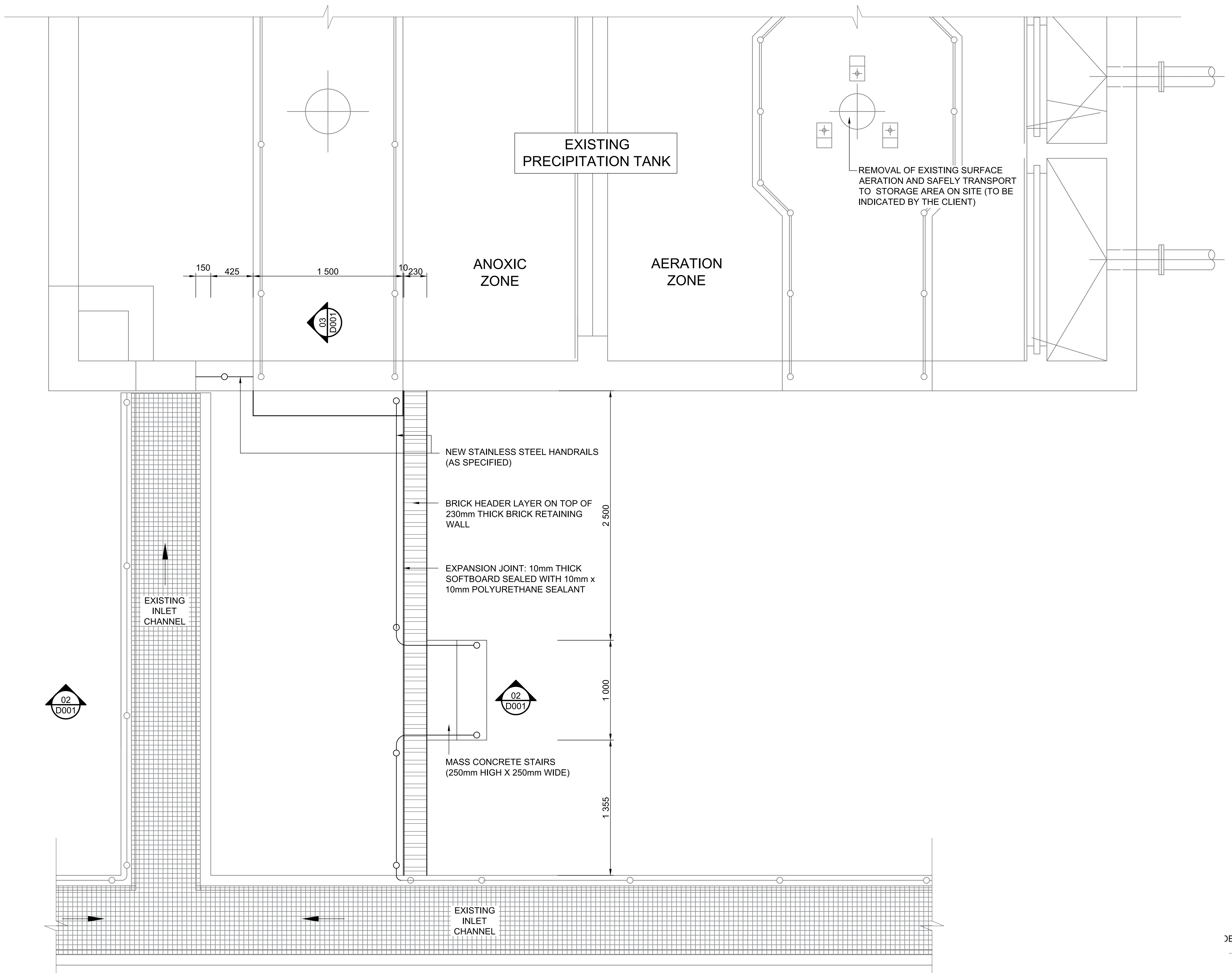
REVISION

PROJECT STATUS

CONCEPT DRAWING | TENDER DRAWING | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

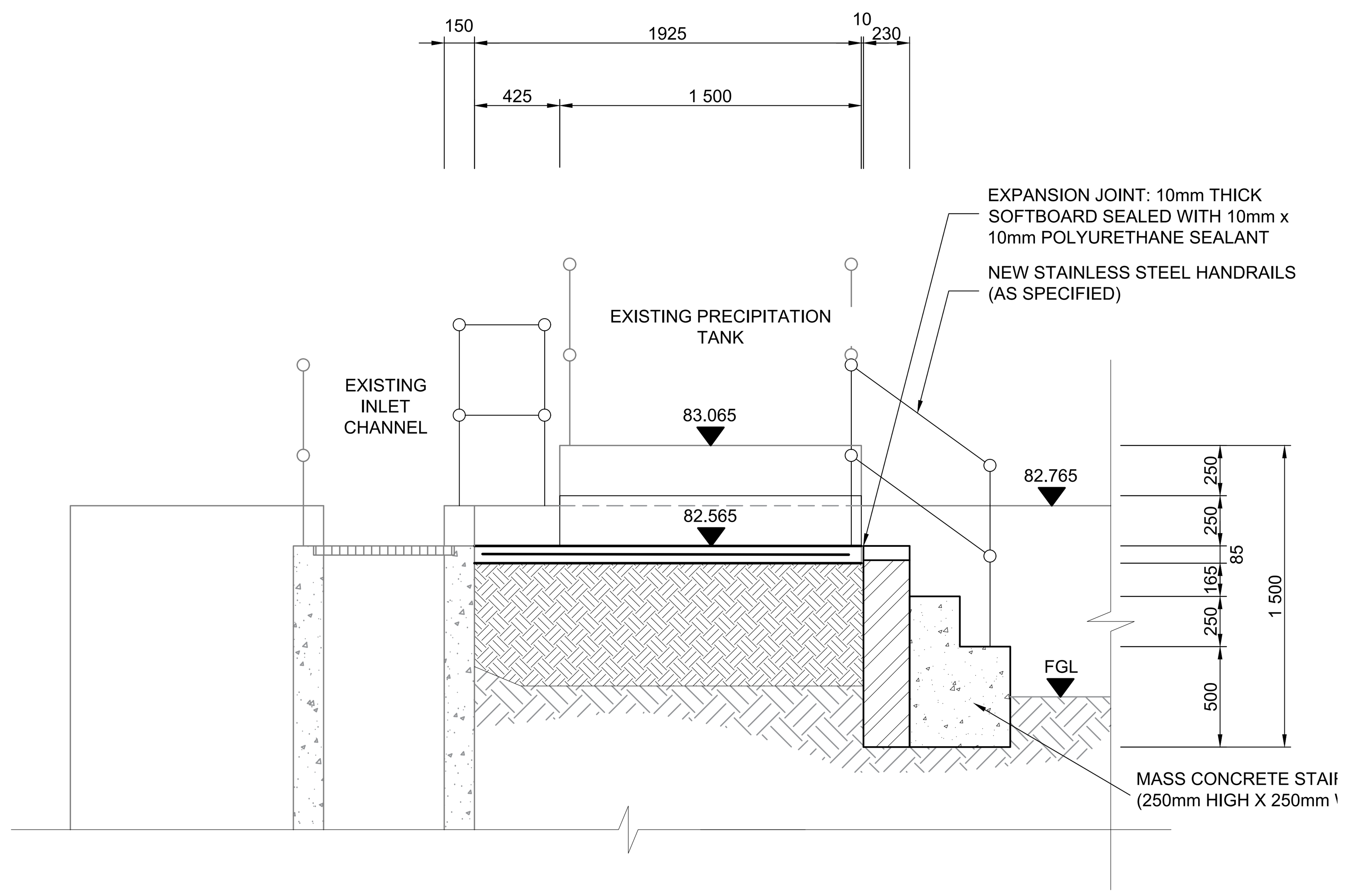
PROJECT ENGINEER of COT:
NAME | SIGNATURE
Prof Reg No. | DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME | DATE



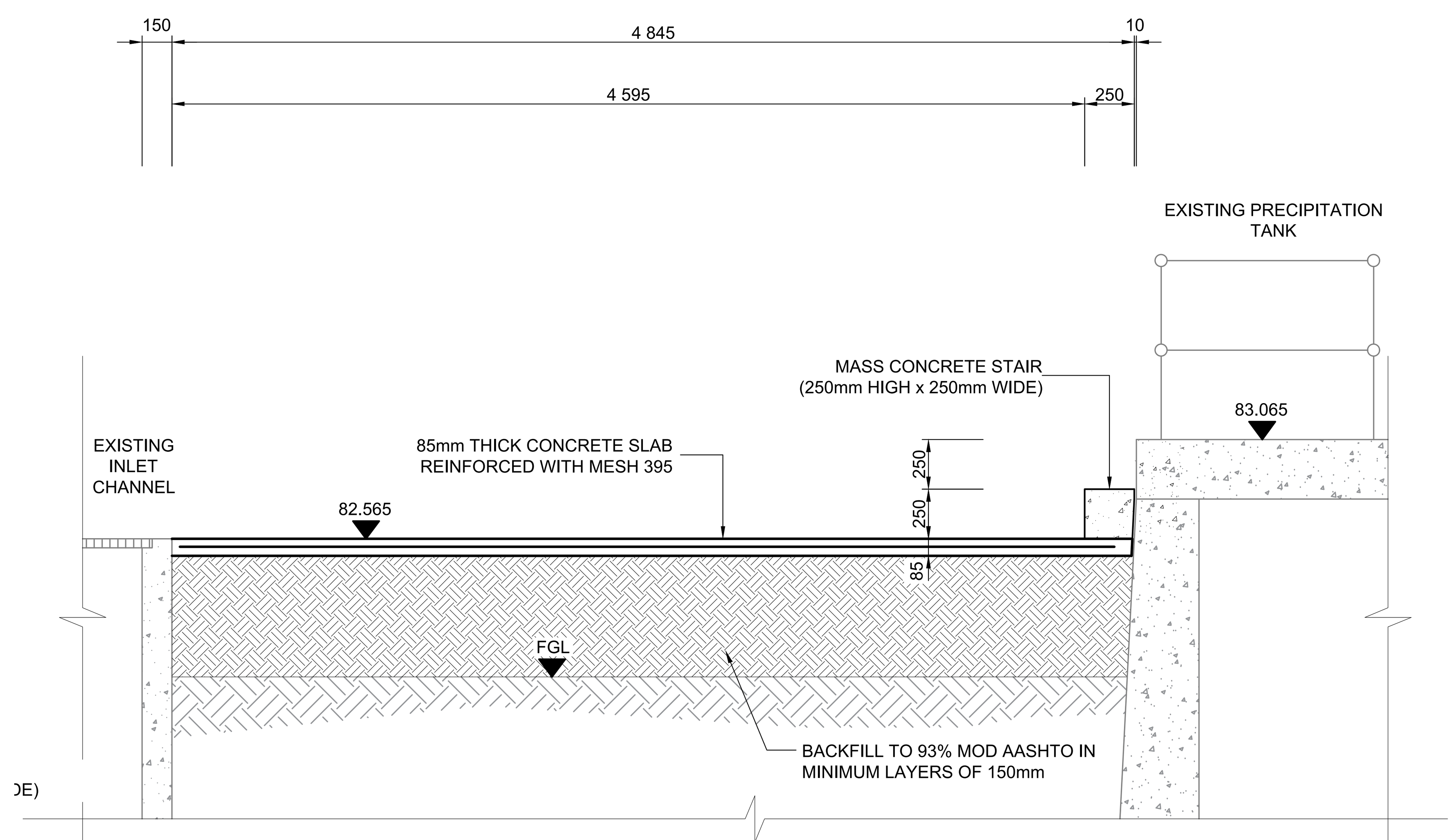
PLAN

SCALE 1:25



SECTION 01-01

SCALE 1:25



SECTION 02-02

SCALE 1:25

CITY OF TSHWANE
PO BOX 1022
PRETORIA
0001

CITY OF TSHWANE
SERVICES INFRASTRUCTURE DEPARTMENT
WATER AND SANITATION
Mr D Gubuza
EXECUTIVE DIRECTOR

SIGNATURE Prof. Reg. No DATE

AMENDMENTS

NR	DATE	APPROVED	DESCRIPTION	PAR

WATER AND SANITATION

FOR INTERNAL APPROVAL - RECEIVED SIGN WHEN APPLICABLE

	NAME	Prof. Reg. No	SIGNATURE	DATE
DIRECTOR: INFRASTRUCTURE PROVISION				
DIRECTOR: WATER DISTRIBUTION				
DIRECTOR: BULK WATER SERVICES				
DIRECTOR: WATER & SANITATION: PLANNING & REGULATION				
DIRECTOR: WASTE WATER COLLECTION				
DIRECTOR: WASTE WATER TREATMENT				

Bigen Africa Services (PTY) LTD

Enquiries: T Mukwena
Tel:+ 27 (0) 12 842 8700
Fax:+ 27 (0) 12 843 9000/9001
taf.mukwena@bigengroup.com
The Innovation Hub Pretoria 0087

I, ________ Prof Reg Nr ________
HEREBY CERTIFY THAT THE SERVICES WILL\ HAVE BEEN INSTALLED ACCORDING TO NOTE 9 OF THE ABOVE NOTES AND TO THE DRAWING

SIGNATURE DATE

CONSULTANT DRAWING NUMBER
3243.00.00.WJA.14.D001
A2
REVISION

DESIGNED
NAME: T McCreedy Prof Reg No:
SIGNATURE: DATE: 2021/07

DRAWN
NAME: A Steenberg
SIGNATURE: DATE: 2021/07

CHECKED
NAME: T Mukwena Prof Reg No: 20060203
SIGNATURE: DATE: 2021/07

INFORMATION OFFICE CHECKED
NAME:
SIGNATURE: DATE:

DESIGN OFFICE APPROVAL
NAME: Prof Reg No:
SIGNATURE: DATE:

CONTRACT No.
PROJECT No. -
SHEET No. -
PAPER SIZE A1
SCALE AS SHOWN
DATE: 2021/01

PROJECT DISCRIPTION:
REFURBISHMENT OF THE SUNDERLAND RIDGE WASTEWATER TREATMENT WORKS

DRAWING TITLE:
SLUDGE HANDLING: PRECIPITATION TANK - LAYOUT & SECTIONS

WBS No.

COT DRAWING NUMBER

REVISION

PROJECT STATUS

CONCEPT DRAWING | TENDER DRAWING | APPROVED CONSTRUCTION DRAWING | AS BUILT DRAWING

PROJECT ENGINEER of COT:
NAME SIGNATURE
Prof Reg No. DATE

INSPECTOR OF WORKS of COT:
SIGNATURE
NAME DATE