

BULK SERVICES LAYOUT

SCALE 1:100

BENCHMARKS

COORDINATE SYSTEM: WGS84 LO 19°

POINT	Y	X	LEVEL
T10G	51 306.29	3 754 823.16	2.866
T11	51 272.38	3 754 853.14	2.890
T12	51 282.52	3 754 801.91	2.840
T13	51 250.83	3 754 829.67	2.810
4K7	51 698.45	3 755 622.70	4.623

BEACON DESCRIPTION
ALL : STUD IN TAR 4K7: TOWN SURVEY MARK

GENERAL NOTES
1. ALL DIMENSIONS ARE IN MM U.O.N.
2. USE FIGURED DIMENSIONS ; DO NOT SCALE OFF
3. CONTRACTOR TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANI DISCREPANCIES REPORTED TO THE ARCHITECT OR ENGINEER.
4. THE CONTRACTOR SHALL SUBMIT A FULL SET OF AS BUILT DRAWINGS UPON COMPLETION OF INSTALLATION.
5. THE CONTRACTOR SHALL DETECT ALL EXISTING SERVICES ON THE PROPOSED SITE BEFORE THE COMMENCEMENT OF CONSTRUCTION WORK.

EARTHWORKS NOTES
1. ALL WORKMANSHIP TO BE IN ACCORDANCE WITH SANS 2001 PART D: EARTHWORKS AND THE RELEVANT PROJECT SPECIFICATIONS AS INCLUDED IN THE CONTRACT.
2. BEFORE PLACING ANY FILL MATERIAL THE EXISTING GROUND SURFACE MUST BE CLEARED AND GRUBBED OF ALL VEGETATION AND ORGANIC MATTER.
3. TOPSOIL 200mm MUST BE STRIPPED AND STOCKPILED.
4. THE COMPACTED THICKNESS OF FILL LAYERS SHALL NOT EXCEED 300mm.

STORMWATER NOTES
1. THE PROPOSED ASPHALT PAVING AROUND THE NEW SUBSTATION TO BE SLOPED TO THE EXISTING STORMWATER CHANNEL
2. ALL DAMAGED STORMWATER CHANNEL DURING CONSTRUCTION TO BE REPLACED & SURFACES MADE GOOD

SEWER NOTES
1. ALL WORKMANSHIP TO BE IN ACCORDANCE WITH SANS 2001
2. EXISTING SEWERLINE TO BE REMOVED & PLUGGED OFF
3. REMOVED SEWER MATERIAL TO BE DISPOSED OFF SITE & DUMPED AT APPROPRIATE SITE AS PER MUNICIPAL BY-LAWS
4. DAMAGED AREAS DURING CONSTRUCTION TO BE MADE GOOD

WATER NOTES
1. ALL WORKMANSHIP TO BE IN ACCORDANCE WITH SANS 2001.
2. EXISTING WATER MAIN TO ME RETAINED AND ANY FIRE WATER SHALL BE CONNECTED TO THE WATER MAIN

SURVEY NOTES
1. SETTING OUT TO BE ONLY DONE FROM BENCH MARKS PROVIDED
2. BEFORE USING ANY BENCH MARK OR BEACON IT MUST BE VERIFIED BY CHECKING AGAINST ANOTHER BENCH MARK OR BEACON
3. BOUNDARY BEACONS TO BE VERIFIED ON COMMENCEMENT OF CONSTRUCTION

LEGEND	
W	EXISTING WATER METER
	EX WATER PIPE (TO BE RETAINED)
	EX WATER PIPE (TO BE REMOVED)
	EX. SEWER (TO BE REMOVED)
	EX. SEWER (TO BE RETAINED)
	EX. STORMWATER PIPE
T13	BENCHMARKS

STORMWATER INFRASTRUCTURE

COORDINATE SYSTEM: WGS84 LO 19°

POINT	Y	X	LEVEL
CATCHPIT CP1	51 282.357	3 754 829.526	2.710
CATCHPIT CP2	51 282.965	3 754 811.436	2.690
CATCHPIT CP3	51 295.340	3 754 824.903	2.750
MANHOLE MH1	51 297.620	3 754 827.510	2.910

WATER INFRASTRUCTURE

COORDINATE SYSTEM: WGS84 LO 19°

POINT	Y	X	LEVEL
WATER METER	51 274.060	3 754 820.740	2.812

FOR FIRE HYDRANT & FIREHOSE REEL SEE MECHANICAL DRAWING

SEWER INFRASTRUCTURE

COORDINATE SYSTEM: WGS84 LO 19°

POINT	Y	X	LEVEL
SEWER MANHOLE	51 292.770	3 754 825.750	2.860

SEWER PIPE TO BE BLOCK OFF IN SEWER MANHOLE

APPROVED FOR CONSTRUCTION

CLIENT: TRANSNET national ports authority

Client Name:	Transnet National Port Authority (TNPA)
Designation & Section:	
Client Signature:	Project Phase 2
Date:	
Contact No.'s:	

No.	DATE	REVISION DETAIL
0	02/12/2022	WATER, SEWER & STORMWATER LAYOUT CONSOLIDATED INTO BULK SERVICES LAYOUT ISSUED & APPROVED FOR CONSTRUCTION
1	12/03/2023	EX. SEWER NOTES & LEGEND UPDATED, SIGNATURE ADDED

Main Contractor: Stateway Switchboards

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ZML Africa Drawing No.: TNPA/2020

Consultant: Z.M.L Africa Group — Engineering Africa Forward

Sub-Consultant: LUBISI CONSULTING — A NEW PERSPECTIVE TO ENGINEERING CONSULTING

Site Address: Sturrock Dry Dock, Cape Town

Building Name: Combined Pump House & Graving Dock Substation

Project Description: Sturrock Dry Dock Electrical Infrastructure Upgrades

Drawing Description: Bulk Services Layout

Drawn:	E.M.	Date:	02 / 2021
Designer/ Checked:	E.M.	Scale:	AS SHOWN
Approved:	C.T.P.	Drawing Size:	A0
Prof Reg. No.	20050009	Revision No.	1
Signature:			

Drawing Number: TNPA/2020-CE-100

Site & Building No.	Floor No.	Discipline & Service Type
-	-	CIVIL ENGINEERING
Sheet Number	**Project Number**	**Proposal No.**
01	TNPA857 CIDB	-