



GENERAL NOTES:

- THIS DESIGN WAS ENGINEERED BY:
SEA PROJECTS AND ENGINEERING (PTY) LTD
- ALL MATERIALS AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS PROJECT SPECIFICATIONS.
 - ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE.
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 - ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR MUNICIPAL CIVIL ENGINEERING WORKS.
 - FINAL POSITION TO BE DETERMINED ON SITE.
 - ALL CONCRETE MIXES TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
 - EXCAVATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
 - ALL MASS CONCRETE TO BE 15MPa/19 UNLESS STATED OTHERWISE BY THE ENGINEER.
 - BENCHING SHALL BE FINISHED WITH A 20mm DOLOMITIC LAYER PLACED WHILE CONCRETE IS STILL GREEN AND STEEL FLOAT TO SMOOTH FINISHED.
 - BACKFILL TO BE DONE WITH G5 MATERIAL COMPACTED IN LAYERS OF 150mm THICK TO 95% MOD RASBIT AT OMC.
 - CHANNELING MUST BE BUILT WITH GLAZED EARTHWARE OR FIBRE CEMENT CHANNEL RECESSED INTO CONCRETE FOUNDATION.
 - EXCAVATION PRIOR TO TRENCH EXCAVATIONS AND CONFIRM LEVELS.
 - COMPACTION OF BEDDING MATERIAL AROUND PIPE TO BE DONE WITH SPECIAL CARE.
 - ALL PIPES TO BE PRESSURE TESTED TESTED AFTER COMPLETION.

LEGEND

Benchmarks	Sign Post	Concrete Paving	Culvert
Electric Pole	Steel Pole	Brick Paving	Drain
Sign Board	Staywire	Tarred Road	Top of pipe
Fibre Manhole	Water Valve	Dust Road	Fence
Lamp Post	Valve Manhole	Driveway	Wall
Fire Hydrant	Bollard	Railway	Bottom Kerb
Tree	Wooden Pole	Gate	Top Kerb
Water Meter	Water Tank	Electric Box	Minor Contour
Sewer Manhole	Invert Level		Major Contour
Unknown Manhole	Rock		
	Stormwater Manhole		

DESIGN COORDINATOR APPROVAL:

SIGNATURE _____ DATE _____

PROJECT MANAGER APPROVAL:

SIGNATURE _____ DATE _____

CLIENT APPROVAL:

SIGNATURE _____ DATE _____

REVISIONS

NO.	DATE	DESCRIPTION	BY:	CHK:	APPR:
A	28/05/2026	ISSUED FOR TENDER	C.K.	M.R.	S.N.

DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:	SCALE:
M.R	C.K	M.R	S.N	29/05/2026	N.T.S

CLIENT:

MAQUASSI HILLS LOCAL MUNICIPALITY
Private Bag X3
19 Krugger Street
Wolmarasstad
2630

TEL: (018) 596 1068
FAX: (018) 596 1555
WEB: www.maquassihills.co.za

PROJECT:
REPLACEMENT OF ASBESTOS CEMENT BULK AND RETICULATION PIPELINES

DRAWING TITLE:
MAKWASSI HILL - BULK PIPELINE:
DN250 BULK PIPELINE LONGSECTION SHEET 2

CONSULTANTS:
SEA PROJECTS AND ENGINEERING

7107 Rosewood Road
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Gauteng
2169

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SIZE:	PROJECT NO.:	DRAWING NO.:	SHEET NO.:	REVISION:
A0	20241003	DRG-CIV-004	02	A

NGL - - - - -
EGL - - - - -
HGL - - - - -
SCALES:
Horizontal 1:500
Vertical 1:100
DATUM 1313.000

REFERENCE	0200 PN 12	Op2_5	0200 PN 12	Op2_6	0200 PN 12	Op2_7	0200 PN 12
DISTANCE (m)	440.000	460.000	500.000	520.000	540.000	560.000	600.000
GROUND LEVEL	1316.892	1316.894	1316.897	1316.894	1316.895	1316.896	1316.896
PIPE INVERT LEVEL	1316.896	1316.897	1316.894	1316.894	1316.895	1316.896	1316.896
DEPTH TO INVERT	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TRENCH LEVEL	1316.892	1316.894	1316.894	1316.894	1316.895	1316.896	1316.896
DEPTH TO TRENCH	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SLOPE / LENGTH	0.41% 1.241.9 178.36m		0.21% 1.482.0 86.92m				-0.17% -1.691.3 307.28m
CHANGE IN DIRECTION	VERT. LINE COMBINED		VERT. LINE COMBINED		VERT. LINE COMBINED		VERT. LINE COMBINED
FITTINGS	STRAIGHT		STRAIGHT		STRAIGHT		STRAIGHT
HYDRAULICS	DESIGN Q(l/s) 0.00	DESIGN V(m/s) 0.0	DESIGN Q(l/s) 0.00	DESIGN V(m/s) 0.0	DESIGN Q(l/s) 0.00	DESIGN V(m/s) 0.0	DESIGN Q(l/s) 0.00
CLASSIFICATION	PIPE		PIPE		PIPE		PIPE
GEOLOGICAL DATA	VALVE		VALVE		VALVE		VALVE

LONGSECTION OPTION 2, PIPE LINE ROUTE
FROM 437.102 TO 874.204