

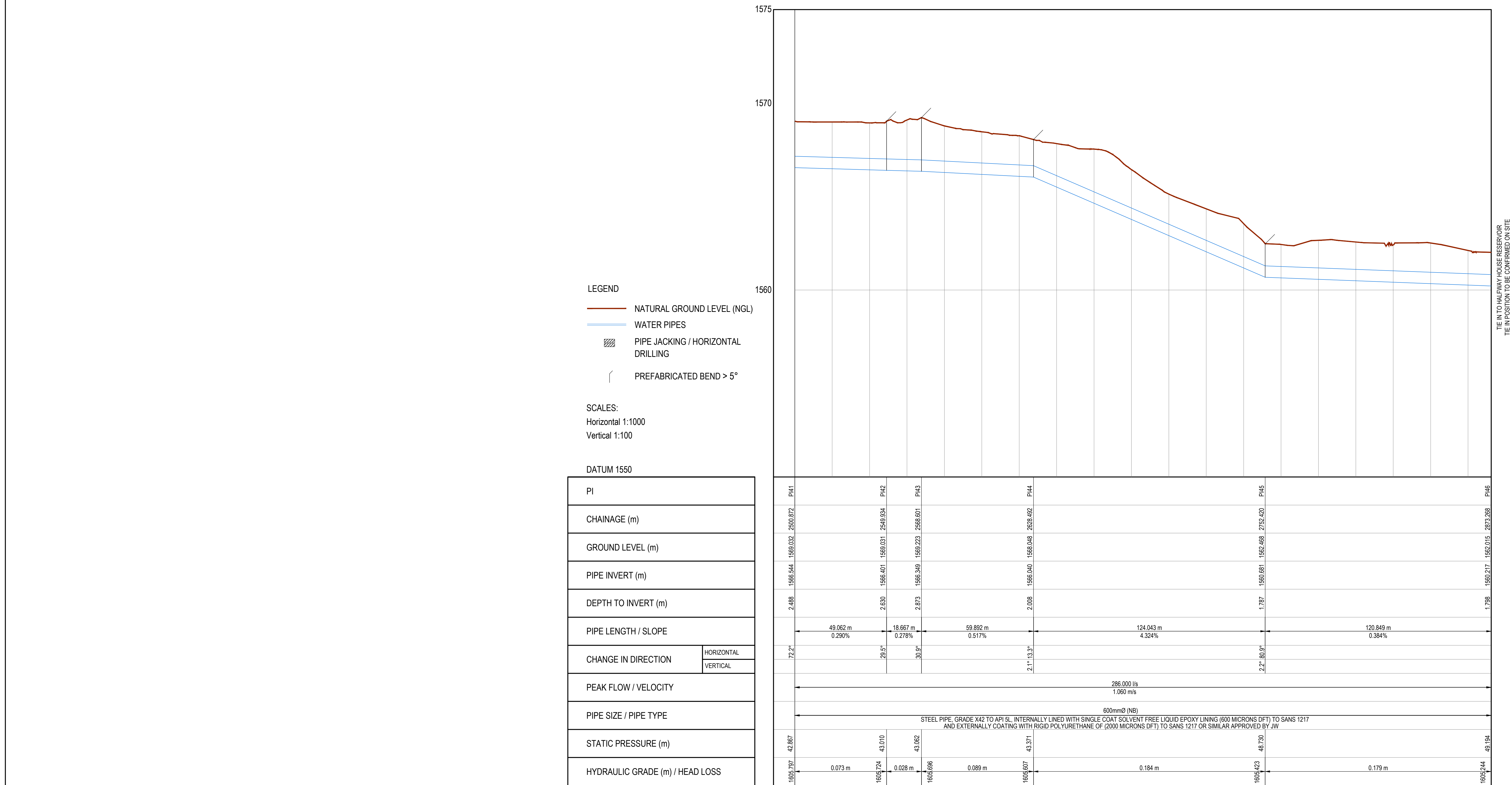
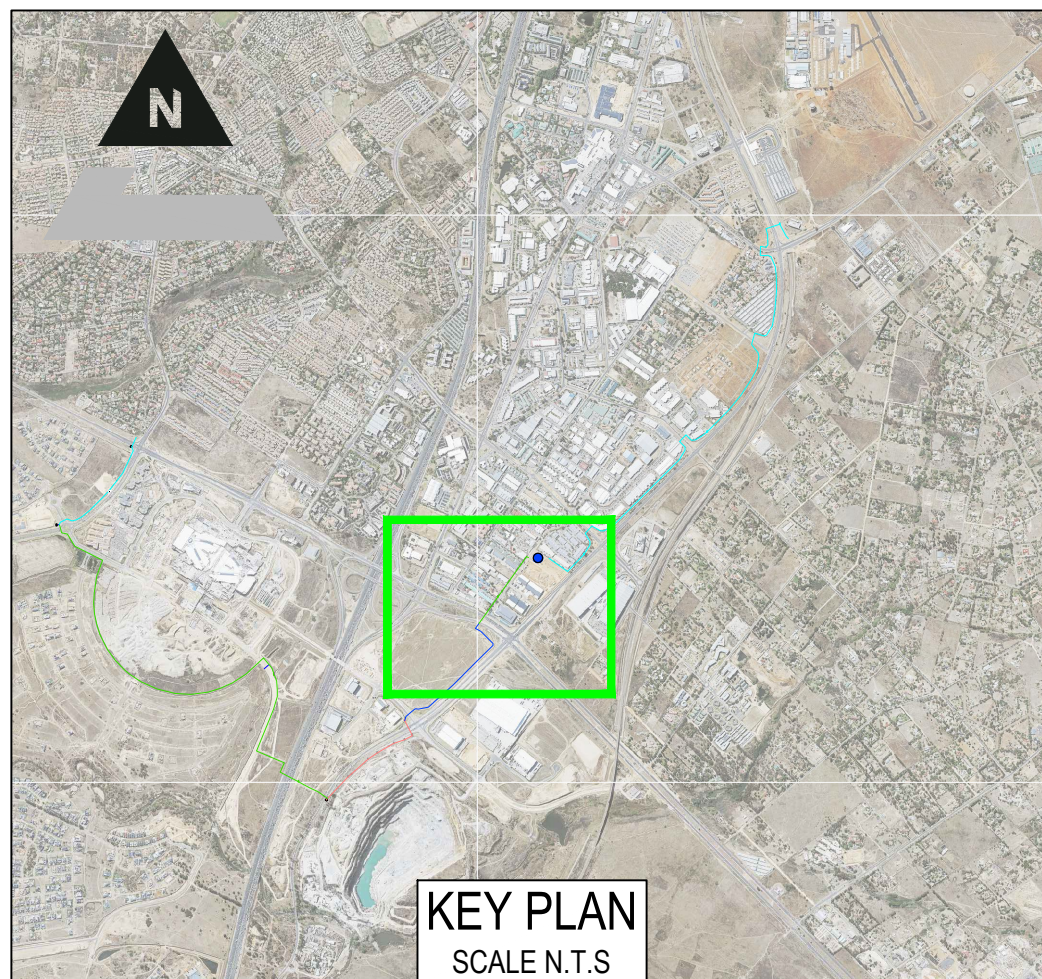
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**LEGEND**

- 700mm Ø STEEL PIPELINE
- 600mm Ø STEEL PIPELINE
- 710mm Ø PVC-O PIPELINE (BY OTHERS)
- EXISTING WATER PIPELINE
- EXISTING SEWER PIPELINE
- EXISTING ESOM OVERHEAD CABLES
- EXISTING DFA CABLES
- NODES
- OFFTAKE
- TEST PITS
- BOREHOLES
- ISOLATING VALVE
- AIR VALVE
- SCOUR VALVE

COORDINATES LIST FOR BULK WATER FEEDER PIPELINE WGS-84 LO-29			
POINT	Y-COORD	X-COORD	INVERT LEVEL
P144	87435.324	2878796.453	1566.040
P145	87522.007	2878885.020	1560.681
P146	87620.585	2878815.115	1560.217



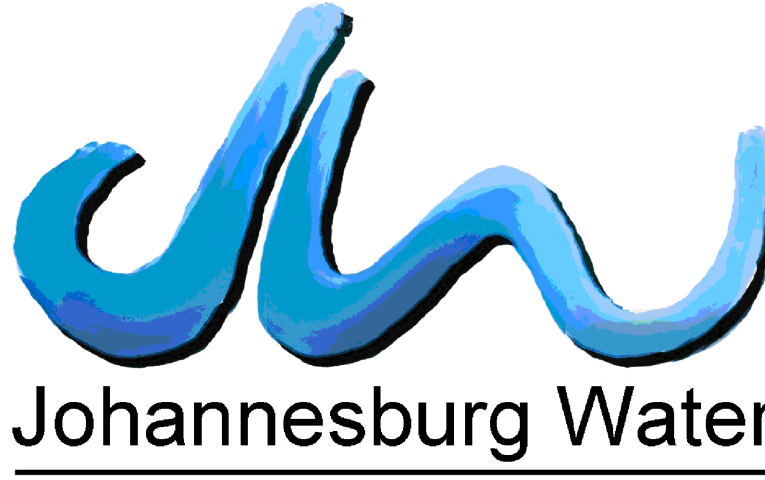

LEGEND	
<span style="color: red;">—</span>	NATURAL GROUND LEVEL (NGL)
<span style="color: blue;">—</span>	WATER PIPES
<span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>	PIPE JACKING / HORIZONTAL DRILLING
<span style="color: red;">~</span>	PREFABRICATED BEND > 5°

SCALES:  
Horizontal 1:1000  
Vertical 1:100

DATUM 1550

PI	CHAINAGE (m)	GROUND LEVEL (m)	PIPE INVERT (m)	DEPTH TO INVERT (m)	PIPE LENGTH / SLOPE	CHANGE IN DIRECTION	PEAK FLOW / VELOCITY	PIPE SIZE / PIPE TYPE	STATIC PRESSURE (m)	HYDRAULIC GRADE (m) / HEAD LOSS
P141	1500.872	1566.541	1566.541	0.000	49.062 m 0.290%	72.2°	2.488	600mm Ø (NB)	42.867	0.073 m
P142	1549.934	1566.601	1566.601	0.000	18.667 m 0.278%	28.9°	2.630	600mm Ø (NB)	43.010	0.028 m
P143	1568.601	1566.540	1566.540	0.000	59.892 m 0.517%	30.1°	2.873	600mm Ø (NB)	43.062	0.089 m
P144	1628.492	1562.488	1562.488	0.000	124.043 m 4.524%	2.1° 13.3°	2.108	600mm Ø (NB)	43.271	0.184 m
P145	1752.420	1560.681	1560.681	0.000	120.849 m 0.384%	2.2° 80.9°	1.787	600mm Ø (NB)	48.730	0.179 m
P146	1873.208	1560.217	1560.217	0.000			1.788	600mm Ø (NB)	49.194	

LONGSECTION: P141 - P146

<b>CONSULTING ENGINEERS</b> <b>ZUTARI</b> IMPACT. ENGINEERED. OXFORD CORNER JELLOODE AVENUE ROSEBANK, JOHANNESBURG SOUTH AFRICA TEL: +27 11 214 4500 CLIENT 17 HARRISON STREET MARSHALLTOWN 2107	DESIGNED	T. SHABALALA	JULY 2021	 <b>Johannesburg Water</b>	17 HARRISON STREET MARSHALLTOWN 2107 TEL: (011) 688-1400 FAX: (011) 688-1529	 <b>Joburg</b> HALFWAY HOUSE WATER UPGRADE PLAN AND LONGSECTION: SHEET 4 OF 10	APPROVAL BY JW DEPOT		SCALE	AMENDMENTS			DRAWING No.  111242 - 0000-DRG-WW-0304 - T0 PROJECT No. DRAWING No. REV. A0 SHEET 4 OF 10 ORIGINAL PAGE SIZE FILE No.
	DRAWN	T. SHABALALA	JULY 2021				CHECKED			REV.	DESCRIPTION	DATE:	
	CHECKED	M. LUSUNZI	JULY 2021				APPROVED BY:			TO	ISSUED FOR TENDER	10/2021	
	APPROVED BY:	C. KAN	JULY 2021				SIGNATURE	DATE					
	ECSA REG. No.						APPROVAL BY JW PLANNING						
	CHECKED BY:						CHECKED						
	ECSA REG. No.						APPROVED BY:						
							SIGNATURE	DATE					