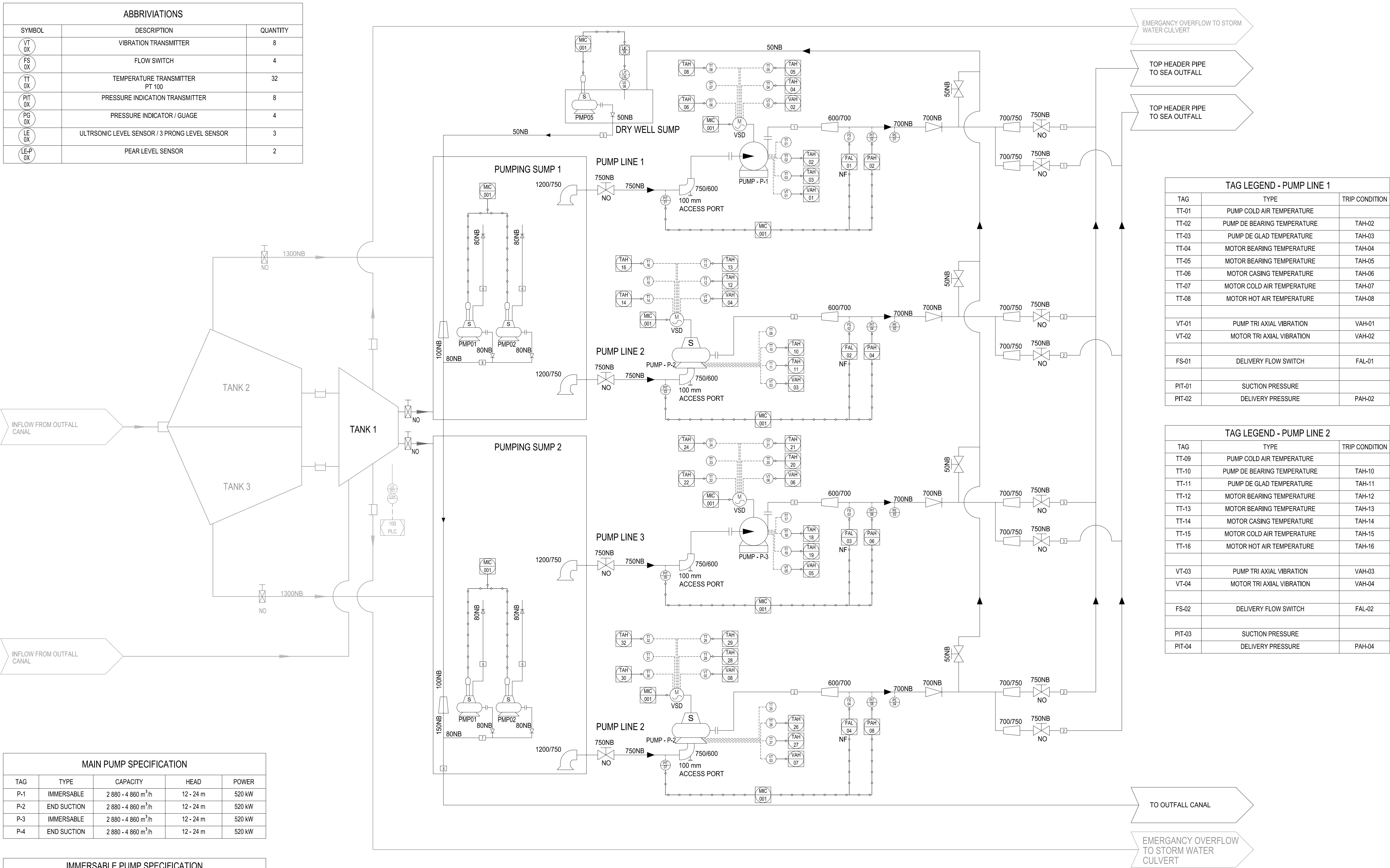


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ABBREVIATIONS		
SYMBOL	DESCRIPTION	QUANTITY
VT OX	VIBRATION TRANSMITTER	8
FS OX	FLOW SWITCH	4
TT OX	TEMPERATURE TRANSMITTER PT 100	32
PIT OX	PRESSURE INDICATION TRANSMITTER	8
PG OX	PRESSURE INDICATOR / GUAGE	4
LE OX	ULTRASONIC LEVEL SENSOR / 3 PRONG LEVEL SENSOR	3
LE-P OX	PEAR LEVEL SENSOR	2



MAIN PUMP SPECIFICATION				
TAG	TYPE	CAPACITY	HEAD	POWER
P-1	IMMERSABLE	2 880 - 4 860 m³/h	12 - 24 m	520 kW
P-2	END SUCTION	2 880 - 4 860 m³/h	12 - 24 m	520 kW
P-3	IMMERSABLE	2 880 - 4 860 m³/h	12 - 24 m	520 kW
P-4	END SUCTION	2 880 - 4 860 m³/h	12 - 24 m	520 kW

IMMERSABLE PUMP SPECIFICATION				
TAG	TYPE	CAPACITY	HEAD	POWER
PMP01	IMMERSABLE	43 m³/h	12 m	2 kW
PMP02	IMMERSABLE	43 m³/h	12 m	2 kW
PMP03	IMMERSABLE	43 m³/h	12 m	2 kW
PMP04	IMMERSABLE	43 m³/h	12 m	2 kW
PMP05	IMMERSABLE	7 m³/h	12 m	0.75 kW

STREAM NO.	1	2	3	4	5	6	7	8
PRODUCT	SEWERAGE EFFLUENT	SEWERAGE EFFLUENT	SEWERAGE EFFLUENT	SEWERAGE EFFLUENT	SEWERAGE EFFLUENT (SPILLAGE)	SEWERAGE EFFLUENT	SEWERAGE EFFLUENT	STREAMS 2 & 3 COMBINED
AVG. FLOW	2 880	2 880	2 880	2 880	7	43	43	86
MAX. FLOW	5 400	5 400	5 400	5 400	8	50	50	100
DESIGN FLOW	2 880 - 4 860	2 880 - 4 860	2 880 - 4 860	2 880 - 4 860	7	43	43	86
FLOW UNITS	m³/hr	m³/hr	m³/hr	m³/hr	m³/hr	m³/hr	m³/hr	m³/hr
PRESSURE	120 - 350 kPa	120 - 350 kPa	120 - 350 kPa	120 - 350 kPa	120 kPa	120 kPa	120 kPa	120 kPa
TEMP. °C	18	18	18	18	18	18	18	18
PIPE MATERIAL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL	STAINLESS STEEL
PIPE SIZE: DELIVERY	600-750	600-750	600-750	600-750	50	80	80	150

TAG LEGEND - PUMP LINE 3		
TAG	TYPE	TRIP CONDITION
TT-17	PUMP COLD AIR TEMPERATURE	
TT-18	PUMP DE BEARING TEMPERATURE	TAH-18
TT-19	PUMP DE GLAD TEMPERATURE	TAH-19
TT-20	MOTOR BEARING TEMPERATURE	TAH-20
TT-21	MOTOR BEARING TEMPERATURE	TAH-21
TT-22	MOTOR CASING TEMPERATURE	TAH-22
TT-23	MOTOR COLD AIR TEMPERATURE	TAH-23
TT-24	MOTOR HOT AIR TEMPERATURE	TAH-24
VT-05	PUMP TRI AXIAL VIBRATION	VAH-05
VT-06	MOTOR TRI AXIAL VIBRATION	VAH-06
FS-03	DELIVERY FLOW SWITCH	FAL-03
PIT-05	SUCTION PRESSURE	
PIT-06	DELIVERY PRESSURE	PAH-06

TAG LEGEND - PUMP LINE 4		
TAG	TYPE	TRIP CONDITION
TT-25	PUMP COLD AIR TEMPERATURE	
TT-26	PUMP DE BEARING TEMPERATURE	TAH-26
TT-27	PUMP DE GLAD TEMPERATURE	TAH-27
TT-28	MOTOR BEARING TEMPERATURE	TAH-28
TT-29	MOTOR BEARING TEMPERATURE	TAH-29
TT-30	MOTOR CASING TEMPERATURE	TAH-30
TT-31	MOTOR COLD AIR TEMPERATURE	TAH-31
TT-32	MOTOR HOT AIR TEMPERATURE	TAH-32
VT-07	PUMP TRI AXIAL VIBRATION	VAH-07
VT-08	MOTOR TRI AXIAL VIBRATION	VAH-08
FS-04	DELIVERY FLOW SWITCH	FAL-04
PIT-07	SUCTION PRESSURE	
PIT-08	DELIVERY PRESSURE	PAH-08

IX ENGINEERS DRAWING NO.
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APPROVAL - CONSULTING ENGINEER

SIGNATURE PR No DATE
DESIGNED DRAWN CHECKED

REVISION SCHEDULE

No	DATE	DESCRIPTION	DRW	CHK
A	25/04/24	PRELIMINARY DESIGN	BvS	AdW
B	10/07/24	TENDER	BvS	AdW
C	09/09/24	TENDER	BvS	AdW
D	20/09/24	TENDER	BvS	AdW

TENDER

SCALE FOR REDUCED PLAN
50mm ON ORIGINAL PLAN

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WATER AND SANITATION

SANITATION OPERATIONS: MECHANICAL AND ELECTRICAL BRANCH

CONTRACT NO. 30661-5W

PROJECT TITLE
SOUTHERN WASTEWATER TREATMENT WORKS: ELECTRO-MECHANICAL UPGRADES

DRAWING TITLE
LOW-LEVEL PUMP STATION SYSTEM P&ID

PROJECT MANAGER & M&E ENG. R. Kandhai

MECHANICAL ENGINEER: B. Coles

WORKS PROJECT MANAGER: A. Pillay

DEPUTY HEAD: SANITATION OPS: S. Vilane

HEAD: WATER AND SANITATION: E. Msweli

SCALE: N.T.S. DATE: 2024-09-20

DRAWING NUMBER SHEET REV
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