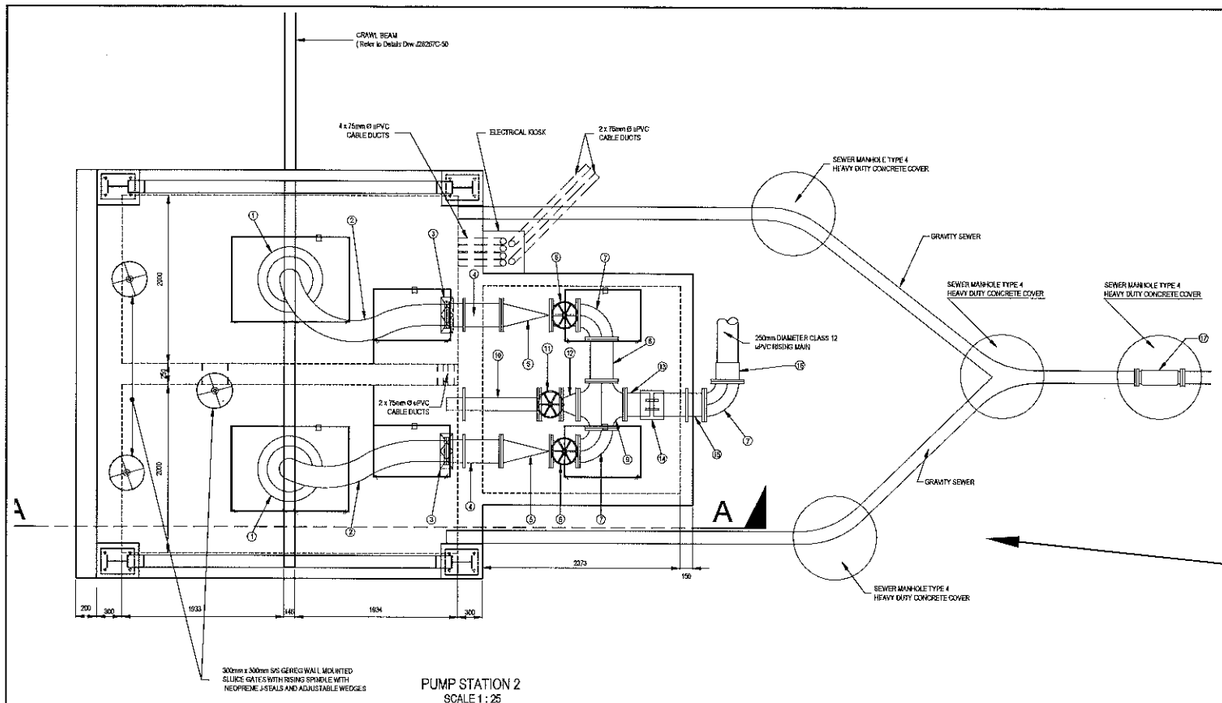
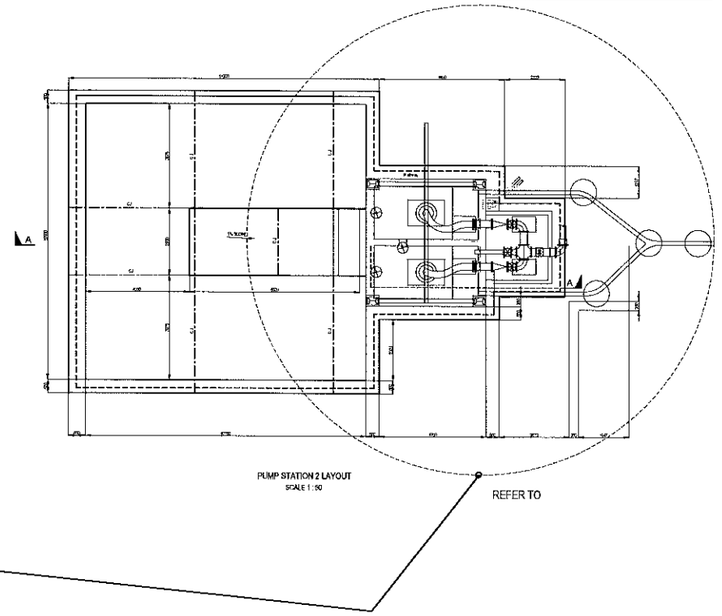
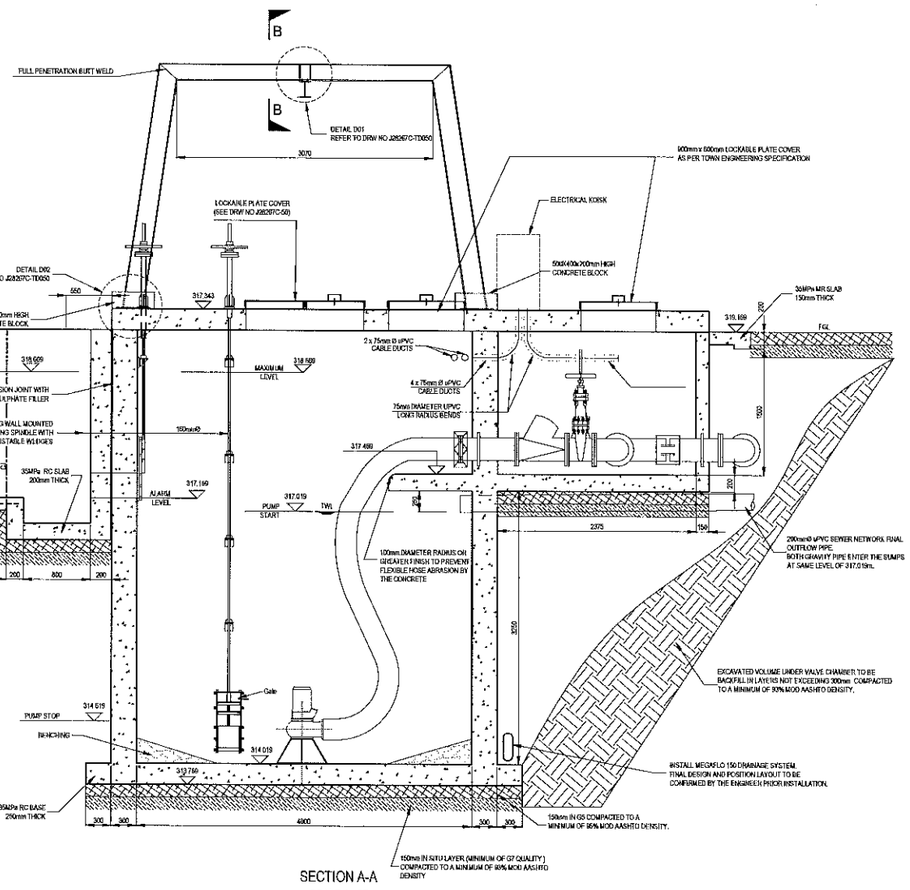


PUMP STATION 2
SCALE 1 : 25



PUMP STATION 2 LAYOUT
SCALE 1 : 50

REFER TO



SECTION A-A
SCALE 1 : 25

ITEM	DESCRIPTION	No.	APPROX. LENGTH (mm)
1	ASB KRTD80-315/5620/3-ASBW -80mm solids screw type impeller - 2900l/min	2	
2	250mm diameter Thuro 25 bar reinforced flexible rubber hose WITH quick coupling designed for 16 bar pressure to connect thuro pipe to cast in GMS puddle flange pipe	2	To be determined on site
3	250mm diameter quick coupling designed for 16 bar pressure to connect thuro pipe to cast in GMS puddle flange pipe	2	
4	250mm diameter GMS flanged at one end with quick coupling fitting on the other end puddle pipe	2	664
5	250mm diameter AVK flanged ball check valve series 53/25 PN16	2	600
6	250mm diameter flanged AVK gate valve with rising stem	2	330
7	250mm diameter flanged GMS 90 degree bend	3	470
8	250mm diameter GMS flanged straight pipe	1	500
9	250mm diameter GMS cross special	1	540 in both directions
10	150mm diameter GMS flanged at one end only puddle pipe	1	1 822
11	150mm diameter flanged AVK gate valve with rising stem	1	267
12	250mm x 150mm diameter GMS flanged reducer	2	205
13	250mm diameter GMS flanged at one end only straight pipe	1	295
14	250mm diameter Dresflex coupling	1	600
15	250mm diameter GMS flanged at one end only straight puddle pipe	2	600
16	250mm flanged steel/uPVC adaptor	1	549
17	150mm flanged in-line macerator - 2.2 kW motor standard 2% 1 exducer, tungsten carbide tips and cartridges 100mm diameter cutters. Safe working pressure up to 8.0 bar	1	549

NOTE:
1. ALL DIMENSIONS TO BE CHECKED ON SITE - (FINAL RESPONSIBILITY WITH THE CONTRACTOR)
2. ALL PIPES ARE TO BE MANUFACTURED FROM MILD STEEL AND GALVANISED UNLESS OTHERWISE STATED
3. SANS 604, BS 4504/10 DRILLING

ISSUED FOR TENDER

ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING ANY WORK.

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ON ORIGINAL

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS.
2. DIMENSIONS ARE TO BE CHECKED ON SITE
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
4. 50mm BLINDING LAYER TO BE PLACED ON ON ALL GROUND LEVEL SLABS UNLESS OTHERWISE INDICATED
5. ALL EXCAVATIONS TO BE INSPECTED BY ENGINEER PRIOR TO ANY CONCRETE BEING PLACED.
6. COMPACTION OF INSITU MATERIAL UNDER STRUCTURES TO BE UNDERTAKEN AS INSTRUCTED BY THE ENGINEER AFTER INSPECTION OF THE FOUNDATION PLATFORM
7. CONTRACTOR TO CONFIRM LEVELS WITH ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. BEFORE COMMENCING WITH THE MANUFACTURE OF ALL STEELWORK, DRAWINGS MUST BE CHECKED ON SITE.
9. ALL STEELWORK TO BE HOT DIP GALVANISED.
10. STEEL FITTINGS AND PIPEWORK TO BE HOT DIP GALVANISED (HDG) AND PAINTED WITH AN APPROVED DULUX EPOXY PAINT SYSTEM AS SPECIFIED IN THE SPECIFICATION AND THE DRAWINGS. ALL STEELWORK WHICH IS TO BE HDG AND THEN PAINTED SHALL NOT BE PASSIVATED DURING THE HDG PROCESS.
11. ALL PIPEWORK, VALVES, SUPPORT BRACKETS, ETC. ARE TO BE SUPPLIED UNDER A SEPERATE CONTRACT BY THE MECHANICAL AND ELECTRICAL PLANT CONTRACTOR.
12. POSITIONS AND SIZES OF ALL HOLES, POCKETS, DUCTS, ETC MUST BE DETERMINED ON SITE BETWEEN THE CIVIL AND PLANT CONTRACTORS
13. THE ENGINEER TO INSPECT PIPE SPECIALS AT EACH PHASE OF PREPARATION AND APPLICATION OF PAINT SYSTEM.
14. ALL BOLTS, WASHERS, NUTS, ETC. SHALL BE STAINLESS STEEL AND WITH STRENGTHS THESE REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THAT THE MATERIAL OF THE BOLTS, WASHERS AND NUTS USED WILL NOT CAUSE ANY GALVANIC ACTION BETWEEN ITSELF AND THE SURROUNDING MATERIALS. SHOULD GALVANIC ACTION BE POSSIBLE, THE CONTRACTOR SHALL PROVIDE SUITABLE NON-METALLIC SLEEVES AND WASHERS FOR SUCH BOLTS.
15. ALL CONCRETE SHALL BE OF THE FOLLOWING GRADES AND MIN. OR DAYS WORKS CUBE STRENGTHS :-
FOUNDATION - 35 MPa / 19
WALLS - 35 MPa / 19
WALKWAYS SLABS - 30 MPa / 19
FLOORS - 35 MPa / 19
16. CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS :-
FOUNDATIONS - 75mm
WALLS - 50mm
FLOORS - 50mm
NOTE THAT CLEAR CONCRETE COVER IS MAINTAINED BY THE USE OF CONCRETE COVER BLOCKS MANUFACTURED FROM CONCRETE WITH THE SAME STRENGTHS AS THE UNITS IN WHICH IT IS INCORPORATED ON THE BASIS OF A MINIMUM OF ONE (1) COVER BLOCK PER 0.75 SQUARE METRE.
17. ALL REINFORCEMENT SHALL COMPLY WITH SANS 920, TYPE G, CLASS 2 GRADE 1.
18. WHERE IT IS NECESSARY TO UTILISE CONSTRUCTION JOINTS, SUCH JOINTS SHALL BE INSPECTED BY THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION
19. UNLESS OTHERWISE STATED THE CORNERS OF ALL EXPOSED CONCRETE SHALL BE PROVIDED WITH A 20mm x 20mm CHAMFER.
20. THE DEGREE OF ACCURACY SHALL BE IN ACCORDANCE WITH SANS 1200 G LEVEL II.
21. ALL FORMED SURFACES SHALL BE AS FOLLOWS :-
EDGES OF FOUNDATION - ROUGH
ALL WALLS ON BOTH SURFACES - SMOOTH
22. HANDRAILING MUST NOT BE PAINTED
23. ALL FENCE RELATED STEEL MANUFACTURING WORKS TO BE HOT DIP GALVANIZED.

No.	Date	Details	Drawn	Approved
0	24/10/2013	ISSUED FOR TENDER	ES	TS

Revisions

Client
DEPARTMENT OF HUMAN SETTLEMENTS

human settlements
Department:
Human Settlements
REPUBLIC OF SOUTH AFRICA

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Approved By
ECO-CHARGE

Drawn By	Designed By	Reviewed By
A ALBERTS	A ALBERTS	S SCHNEIDER

Project
ENGCOBO EXT 11
PUMP STATION

Description
PUMP STATION 2
LAYOUT AND DETAILS

Scale	Date
AS SHOWN	JULY 2013

Project No	Drg No	Rev
J28267C	TD030	0

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