



VARIES FROM 125mm to 750mm Ø CONCRETE INLET PIPE FROM STORM WATER (SEE LAYOUT AND LONG SECTION DRAWINGS). INVERT LEVEL VARIES. SEE TABLE 1 (C)

TOP OF CONCRETE. SEE TABLE 1 (A)

VARIES

VARIES

VARIES

Ø OF FOUNDATION. RES. SEE TABLE 1 (B)

7900

400 + 2100 + 400 + 2100 + 400 + 2100 + 400

1000

TOP OF WEIR VARIES. SEE TABLE (D)

200 + 400 + 500 + 600

NEW 200mm Ø DIA. HDPE PIPE TO FLOW TO ECO STORM FILTERS. INVERT LEVEL VARIES. SEE TABLE 1 (E)

ULTRA HEAVY DUTY CIRCULAR 1.5m MH COVER

TOP OF CONCRETE. SEE TABLE 1 (A)

1500

ECO STORM PLUS 1000 FILTRATION SYSTEM INSIDE Ø 1.5m CIRCULAR PRECAST HEAVY DUTY MANHOLE. FILTRATION SYSTEM WITH SIMILAR SPECIFICATIONS.

Ø1.5m CIRCULAR PRECAST HEAVY DUTY MANHOLE

Ø200mm HDPE OUTLET PIPE TO TIE INTO EXISTING MANHOLE FOR OUTLET TO SEA. LEVEL VARIES. SEE TABLE (F)

DIA. 200mm HDPE OUTFLOW PIPE CONNECTION TO ECO STORM PLUS FILTER SYSTEM

STILLING BASIN SECTION A-A

1:40

1. THE CONTRACTOR WILL BE DEEMED TO HAVE INSPECTED THE SITE AND TO BE IN AGREEMENT WITH THE WORKS REQUIRED AS PER THE TENDER DOCUMENTS. UNLESS ALTERNATIVE PROPOSALS WITH COST IMPLICATIONS ARE RECEIVED THROUGH WITH THE TENDER DOCUMENTS. ALTERNATIVE PROPOSALS SUBMITTED DURING CONSTRUCTION SHALL BE ON A DESIGN AND CONSTRUCT BASIS, WITH THE DESIGN AT CONTRACTORS EXPENSE.
2. VARIATIONS DEEMED NECESSARY BY THE CONTRACTOR SHALL BE FORWARDED TO THE PROJECT MANAGER IN WRITING FOR APPROVAL BEFORE ANY CONSTRUCTION BASED ON THE VARIATION COMMENCES
3. SERVICES SHOWN ON DRAWING ARE KNOWN OR SOURCED FROM EXISTING DRAWINGS. THE CONTRACTOR MUST ENSURE THAT ALL SERVICES THAT INTERSECT OR CROSS THE PROPOSED WORKS ARE LOCATED BEFORE CONSTRUCTION COMMENCES. ANY CLAIMS SHALL BE REPORTED TO THE PROJECT MANAGER IN WRITING. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGES TO EXISTING SERVICES DUE TO NEGLIGENCE.
4. ALL EXISTING PIPES AND MANHOLES INCORPORATED INTO THE NEW SYSTEM SHALL HAVE DEFECTS RECTIFIED TO COMPLY TO STANDARDS FOR NEW WORKS.
5. DIMENSIONS SHOWN ON DRAWINGS SHALL TAKE PREFERENCE OVER DIMENSIONS SCALED
6. ALL LEVELS AND DIMENSIONS SHALL BE CHECKED BEFORE ANY WORK COMMENCES
7. FAILURE TO DO SO SHALL RESULT THE CONTRACTOR LIABLE FOR ANY WORK REQUIRED TO RECTIFY ERRORS AS A RESULT OF THE FAILURE TO CHECK THE LEVELS AND DIMENSIONS.
8. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS. UNLESS OTHERWISE INDICATED
9. THE LATEST REVISION OF SANS SPECIFICATIONS SHALL APPLY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH RELEVANT SANS SPECIFICATIONS UNLESS OTHERWISE INDICATED.
10. ALL LENGTHS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED ON SITE BY CONTRACTOR
11. FOR SETTING OUT LAYOUT DETAILS PLEASE SEE S200157/15/1-CL-LA-00042

1. TRENCHES FOR PIPES TO BE EXCAVATED AND BACKFILLED IN ACCORDANCE WITH THE REQUIREMENT OF SANS 1200 DB - PIPE TRENCHES.
2. ALL RIGID CONCRETE PIPES SHALL HAVE CLASS B BEDDING UNLESS STATED OTHERWISE.
3. FOR STORMWATER PIPES SHALL BE SPIGOT & SOCKET CLASS 1000 (SANS 677)
4. ALL CONCRETE PIPE JOINTS TO BE WRAPPED WITH 202BIM (NONWOVEN/TEXTILE/ NON FILAMENT NEEDLE PUNCHED, POLYESTER GEOTEXTILE) MIN. WIDTH TO BE 750mm FOR PIPES 3000 TO 6000
5. NR ALL MANHOLE COVERS TO SUIT CROSSFALL OF FINISHED PAVING.
6. ON COMPLETION, THE INSTALLATION SHALL BE TESTED TO THE ENGINEER'S SPECIFICATION.
7. THE CONTRACTOR SHALL SUBMIT A FULL SET OF AS-BUILT DRAWINGS UPON COMPLETION OF THE INSTALLATION.
8. ALL EXISTING STORMWATER PIPES, MANHOLES, CHANNELS AND ANY OTHER STORMWATER INFRASTRUCTURE TO BE CLEANED AND CEMENTED OF ALL DEBRIS BEFORE ANY WORK COMMENCES. ALL DAMAGED EXISTING STORMWATER INFRASTRUCTURE SHALL BE RENAIATED TO ORIGINAL CONDITION.
9. ANY DISCREPANCIES IN LEVELS AND SETTING OUT DATA TO BE QUERIED WITH THE ENGINEER PRIOR TO WORK COMMENCEMENT OF ANY WORK.
10. ALL EXISTING STORMWATER PIPES ARE CONCRETE UNLESS STATED OTHERWISE.
11. WHERE MINIMUM COVER OF 1000mm FOR OPERATIONAL DEPTH OF 4500 AND NO OPERATIONAL AREA CANNOT BE ACHIEVED, CONCRETE ENCASEMENT IS REQUIRED AS PER THE DETAIL DRAWINGS.
12. FOR ANY FURTHER DETAIL AND INFORMATION FOR NEW AND EXISTING STORMWATER STRUCTURES, PLEASE SEE LONG SECTION DRAWINGS SHEET 1 TO 3.
13. ALL EXISTING STORMWATER PIPES AND MANHOLES TO BE DEMOLISHED AND REMOVED WHERE AN UPGRADED NETWORK IS TO BE CONSTRUCTED.

1. ANY DISCREPANCIES IN LEVELS AND SETTING OUT DATA TO BE QUERIED WITH THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK.
2. ALL WORKMANSHIP TO BE IN ACCORDANCE WITH SANDS 1200 PART D: EARTHWORKS AND THE RELEVANT PROJECT SPECIFICATIONS AS INCLUDED IN THE CONTRACT.
3. BEFORE PLACING ANY FILL MATERIAL, THE EXISTING GRASS SURFACE MUST BE CLEARED AND GRUBBED OF ALL VEGETATION AND ORGANIC MATTER.
4. UNLESS OTHERWISE INDICATED, ALL BANK BATTERS TO BE: 1:1.5 CUT AND 1:2 FILL
5. THE UNCOMPACTED THICKNESS OF FILL LAYERS SHALL NOT EXCEED 300mm
6. LOCATE ALL EXISTING SERVICES IN AREA PRIOR TO ANY CONSTRUCTION TAKING PLACE.

[illegible]

MANHOLE COORDINATES		
MH ID	Y	X
CMH1	-84422.732	365554.740
CMH2	-84430.729	365529.670
CMH3	-84435.385	365568.557
CMH4	-84436.131	365572.768
CMH5	-84438.444	365526.519
CMH6	-84435.385	365572.768
CMH8	-84598.182	365582.152
CMH9	-84615.764	365523.681
CMH11	-84422.001	365521.017
CMH12	-84474.707	365521.017
CMH13	-84465.794	3655308.175
CMH14	-84476.973	3655208.466
CMH15	-84385.415	365510.275
CMH16	-84472.705	365510.275
CMH17	-84434.843	3655119.081
CMH18	-84466.915	3655118.825
CMH19	-84438.185	3655178.970
CMH20	-84452.339	3655178.970
CMH21	-84565.217	3655152.783
CMH22	-84582.847	3655145.570
CMH23	-84582.847	3655129.676
CMH24	-84462.718	3655129.676
CMH25	-84406.591	365510.532
CMH26	-84433.972	365509.456
CMH27	-84461.244	365508.913
CMH28	-84462.108	365508.913
CMH29	-84462.108	3655093.297
CMH30	-84430.485	3655056.566
CMH31	-84520.289	3655039.739
CMH32	-84462.108	3655039.739
CMH33	-84374.268	3655019.924
CMH34	-84400.724	3655010.006
CMH35	-84428.078	3655000.006
CMH36	-84548.260	3654989.816
CMH37	-84469.286	3654977.817
CMH38	-84516.493	3654967.244
CMH39	-84534.564	3655003.287
CMH40	-84550.712	3655016.464
CMH41	-84287.533	3654993.739
CMH42	-84531.639	3654980.257
CMH43	-84346.117	3654930.122
CMH44	-84396.116	3654910.106
CMH45	-84423.270	3654910.106
CMH46	-84463.481	3654884.295
CMH47	-84483.091	3654877.794
CMH48	-84524.808	3654860.193
CMH49	-84331.072	3654849.841
CMH50	-84374.268	3654840.180
CMH51	-84381.914	3654820.788
CMH52	-84390.106	3654810.353
CMH53	-84423.270	3654810.353
CMH54	-84530.485	3654788.214
CMH55	-84522.749	3654780.812
CMH56	-84272.076	3654806.263
CMH57	-84288.985	3654806.263
CMH58	-84268.002	3654894.410
CMH59	-84218.375	3654899.446
CMH60	-84183.592	3654894.445
CMH61	-84282.847	3654877.817
CMH62	-84155.617	3654670.208
CMH63	-84125.875	3654609.029
CMH64	-84262.444	3654833.074
CMH65	-84262.444	3654833.074
CMH66	-84175.517	3654663.648
CMH67	-84147.105	3654660.431
CMH68	-84165.859	3654622.068
CMH69	-84139.329	3654622.068
CMH70	-84349.989	3654615.042
CMH71	-84389.551	3654606.068
Filter 1	-84585.031	3655247.357
Filter 2	-84585.031	3655247.357
Filter 3	-84516.107	3655008.145
Filter 4	-84486.616	3654978.191
Filter 5	-84453.283	3654888.957
Filter 6	-84424.364	3654877.817
Filter 7	-84374.323	3654860.257
Filter 8	-84622.547	3655233.201
Outlet 2	-84559.409	3655143.969
Outlet 3	-84558.438	3655095.165
Outlet 4	-84552.335	3655095.165
Outlet 5	-84490.316	3654875.273
Outlet 6	-84457.243	3654874.785
M1	-84174.959	3654945.458
M2	-84389.617	3654945.458
M3	-84300.690	3654921.938
M4	-84292.630	3654910.800
M5	-84276.455	3654909.800
M6	-84273.881	3654894.466
M7	-84286.961	3654894.064
M8	-84282.453	3654872.933
M9	-84277.620	3654867.587
M10	-84262.778	3654661.541
M11	-84247.610	3654662.559
M12	-84240.705	3654662.559
M13	-84230.789	3654676.866
M14	-84227.959	3654688.732
M15	-84226.955	3654690.511
M16	-84210.892	3654863.118
M17	-84194.814	3654860.580
M17	-84175.208	3654655.296
M18	-84168.565	3654675.676
M19	-84188.670	3654903.976
M20	-84212.756	3654918.611
M21	-84236.961	3654939.688
M22	-84269.218	3654660.924
M23	-84279.057	3654848.218
M24	-84286.613	3654848.218
M25	-84284.403	3654632.494
M26	-84290.183	3654630.485
M27	-84294.797	3654828.641
M28	-84375.281	3654856.458
M29	-84265.013	3654677.943
M30	-84250.895	3654898.271
M31	-84244.240	3654626.757
M32	-84259.609	3654614.914
M33	-84384.598	3654646.668
M34	-84332.476	3654614.356
M35	-84373.181	3654662.004
M36	-84338.152	3654616.161
M37	-84312.698	3654616.161
M38	-84329.741	3654670.381
M39	-84345.460	3654612.054
M40	-8381.218	3654855.616
M41	-84376.311	3654855.616
M42	-84385.267	3654948.886
M43	-84383.243	3655259.930
M44	-84676.000	3655239.474
M45	-84550.222	3655188.588
M46	-84534.094	3655150.000
M47	-84510.276	3655080.008
M48	-84517.307	3655090.575
M49	-84484.387	3655090.575
M50	-84477.224	3654970.881
M51	-84471.514	3654900.493
M52	-84444.346	3654881.473
M53	-84419.956	3654881.473
M54	-84411.415	3654911.804

PORT OF SALDANHA