

**GENERAL NOTES:**

- THE CONTRACTOR WILL BE REQUIRED TO HAVE INSPECTED THE SITE AND BE IN AGREEMENT WITH THE WORKS REQUIRED AS PER THE TENDER DOCUMENTS. UNLESS ALTERNATIVE PROPOSALS WITH COST IMPLICATIONS ARE RECEIVED TOGETHER WITH THE TENDER DOCUMENTS. ALTERNATIVE PROPOSALS SUBMITTED DURING CONSTRUCTION SHALL BE ON A DESIGN AND CONSTRUCT BASIS, WITH THE DESIGN AT CONTRACTOR'S EXPENSE.
- 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.
- SERVICES SHOWN ON DRAWING ARE KNOWN OR SOURCED FROM EXISTING DRAWINGS. THE CONTRACTOR MUST ENSURE THAT ALL SERVICES THAT INTERSECT OR RUN ALONGSIDE THE PROPOSED WORKS ARE LOCATED BEFORE CONSTRUCTION COMMENCES. ANY CHANGES SHALL BE REPORTED TO THE PROJECT MANAGER IN WRITING. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGES TO EXISTING SERVICES DUE TO NEGLIGENCE.
- ALL EXISTING PIPES AND MANHOLES INCORPORATED INTO THE NEW SYSTEM SHALL HAVE DEFECTS RECTIFIED TO COMPLY TO STANDARDS FOR NEW WORKS.
- DIMENSIONS SHOWN ON DRAWINGS SHALL TAKE PREFERENCE OVER DIMENSIONS SCALED.
- ALL LEVELS AND DIMENSIONS SHALL BE CHECKED BEFORE ANY WORK COMMENCES. FAILURE TO DO SO SHALL DEEM THE CONTRACTOR LIABLE FOR ANY WORK REQUIRED TO RECTIFY ERRORS AS A RESULT OF THE FAILURE TO CHECK THE LEVELS AND DIMENSIONS.
- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE INDICATED.
- THE LATEST REVISION OF SANS SPECIFICATIONS SHALL APPLY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH RELEVANT SANS SPECIFICATIONS, UNLESS OTHERWISE INDICATED.
- ALL LENGTHS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED ON SITE BY CONTRACTOR.
- THE CONTRACTOR MUST ENSURE THAT THE METHOD FOR CONSTRUCTION INSIDE THE EXISTING OIL LINE SERVICE AND CROSSING THE OIL LINE WITH ANY NEW SERVICE SHOULD BE CONFIRMED AND FOLLOWED EXACTLY. THE EXISTING OIL LINE SHOULD NOT BE DAMAGED OR DISTURBED IN ANY WAY DURING CONSTRUCTION.

**STORMWATER NOTES:**

- TRENCHES FOR PIPES TO BE EXCAVATED AND BACKFILLED IN ACCORDANCE WITH THE REQUIREMENT OF SANS 1203 (8) - PIPE TRENCHES
- ALL RIGID CONCRETE PIPES SHALL HAVE CLASS B BEDDING
- FOR STORMWATER PIPES SHALL BE SPIGOT & SOCKET CLASS 1000 (SANS 671)
- ALL CONCRETE PIPE JOINTS TO BE WRAPPED WITH 40 BDM (NONWOVEN CONTINUOUS FILAMENT NEEDLE PUNCHED POLYESTER/GEOTEXTILE) MIN. WIDTH TO BE 75mm FOR PIPES 3000 TO 6000
- NB ALL MANHOLE COVERS TO SUIT CROSSFALL OF FINISHED PAVING
- ON COMPLETION, THE INSTALLATION SHALL BE TESTED TO THE ENGINEER'S SPECIFICATION.
- THE CONTRACTOR SHALL SUBMIT A FULL SET OF AS-BUILT DRAWINGS UPON COMPLETION OF THE INSTALLATION.
- ALL EXISTING STORMWATER PIPES, MANHOLES AND CHANNELS TO BE CLEARED AND CLEARED OF ALL DEBRIS BEFORE ANY WORK COMMENCES
- ANY DISCREPANCIES IN LEVELS AND SETTING OUT DATA TO BE QUERIED WITH THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK.
- ALL EXISTING STORMWATER PIPES ARE CONCRETE
- WHERE MINIMUM COVER OF 1000mm FOR OPERATIONAL AREAS & 600mm FOR NON-OPERATIONAL AREAS CANNOT BE ACHIEVED, CONCRETE ENCASEMENT IS REQUIRED AS PER THE DETAIL DRAWINGS
- PLEASE SEE 520157-2-001-C-DE-0001-01 FOR ALL POND SETTING OUT COORDINATES AND POND DETAILS

**LEGEND - SERVICES**

PROPOSED	EXISTING	DESCRIPTION
		STORMWATER MANHOLE/PIPE
		SEWER MANHOLE/PIPE
		EFFLUENT MANHOLE/PIPE
		RAIL LINE
		COMMUNICATION MANHOLE/DUCTS
		ELECTRICAL MANHOLE/DUCTS
		WATERMAIN
		FENCE
		CATCHMENTS BOUNDARY
		EXISTING OIL LINE
		NEW STORMWATER IN ADJACENT PROJECT AREAS
		RELOCATED SERVICES
		DEMOLISH EXISTING SERVICE
		ASPHALT ROAD
		EARTH BANKS
		NEW BLOCK PAVEMENT
		PROPOSED MOUNTABLE KERB

**SETTING OUT COORDINATE:**

- R - RAIL EMBANKMENT
- M - MULTIPURPOSE TERMINAL
- S - STOPPLE
- C - CAUSEWAY
- T - TIPPLER

**BENCHMARK**

**NEW POND**

**ABBREVIATIONS:**

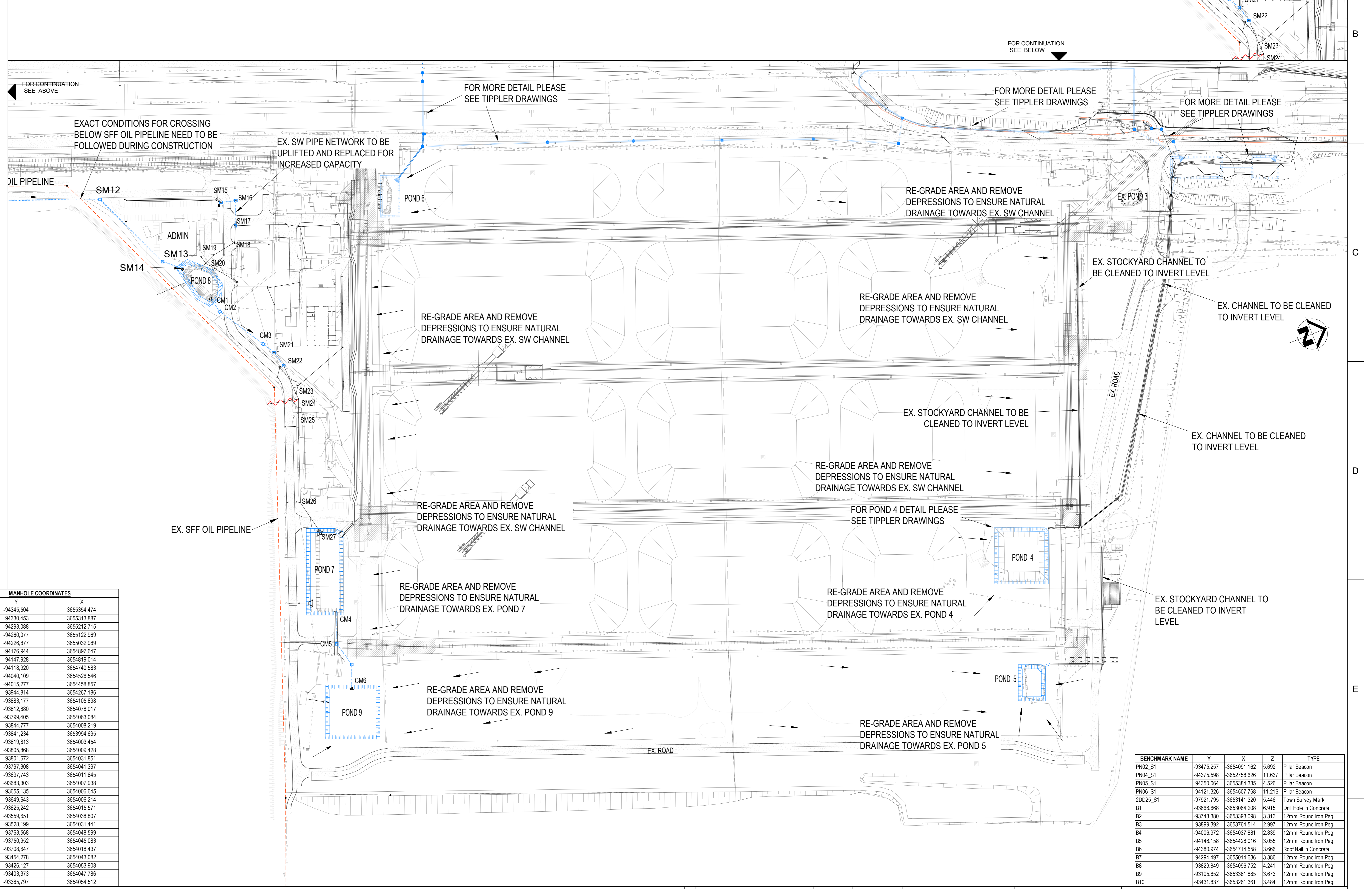
MH	MANHOLE	EX	EXISTING	FI	FIRE HYDRANT
ELP	ELECTRICAL LIGHT POLE	RM	REINFORCEMENT	SW	STORMWATER
HML	HIGHWAY LIGHT	EF	EFFLUENT	V	WATERMAIN VALVE

**NOTES:**

- MEASUREMENTS ARE BASED ON METRIC SYSTEM.
- ALL LEVELS ARE IN METERS TO MEAN SEA LEVELS (MSL).
- DO NOT SCALE DRAWING - ONLY DIMENSIONS SHOWN TO BE USED.
- THE CONTRACTOR SHALL VERIFY ALL SERVICES OR CONDITIONS ON THE SITE AND NOTIFY THE ENGINEERING OF ANY VARIATIONS FROM DIMENSIONS BEFORE CONSTRUCTION.

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
520157-2-001-C-LA-0001-01	STOCKYARD AREA GENERAL LAYOUT
520157-2-001-C-LA-0001-02	STOCKYARD AREA STORMWATER LAYOUT
520157-2-001-C-LA-0001-03	DEMOLITION LAYOUT
520157-2-001-C-SE-0001-01	STOCKYARD AREA STORMWATER LONG SECTIONS SHEET 1 OF 3
520157-2-001-C-SE-0001-02	STOCKYARD AREA STORMWATER LONG SECTIONS SHEET 2 OF 3
520157-2-001-C-SE-0001-03	STOCKYARD AREA STORMWATER LONG SECTIONS SHEET 3 OF 3
520157-2-001-C-DE-0001-01	STOCKYARD AREA POND DETAILS
520157-2-001-C-DE-0001-02	TYPICAL STORMWATER MANHOLE DETAILS
520157-2-001-C-DE-0001-03	TYPICAL STORMWATER GRD INLET & CATCHUP DETAILS
520157-2-001-C-DE-0001-04	TYPICAL HEADWALL, SCOUR & CONCRETE ENCASEMENT DETAILS



**CONTRACTOR / CONSULTANT**

TITLE	NAME	SIGN	DATE

**TRANSNET PORT TERMINALS**

TITLE	NAME	SIGN	DATE

**OPERATING DIVISIONS**

TITLE	NAME	SIGN	DATE

**REVISIONS**

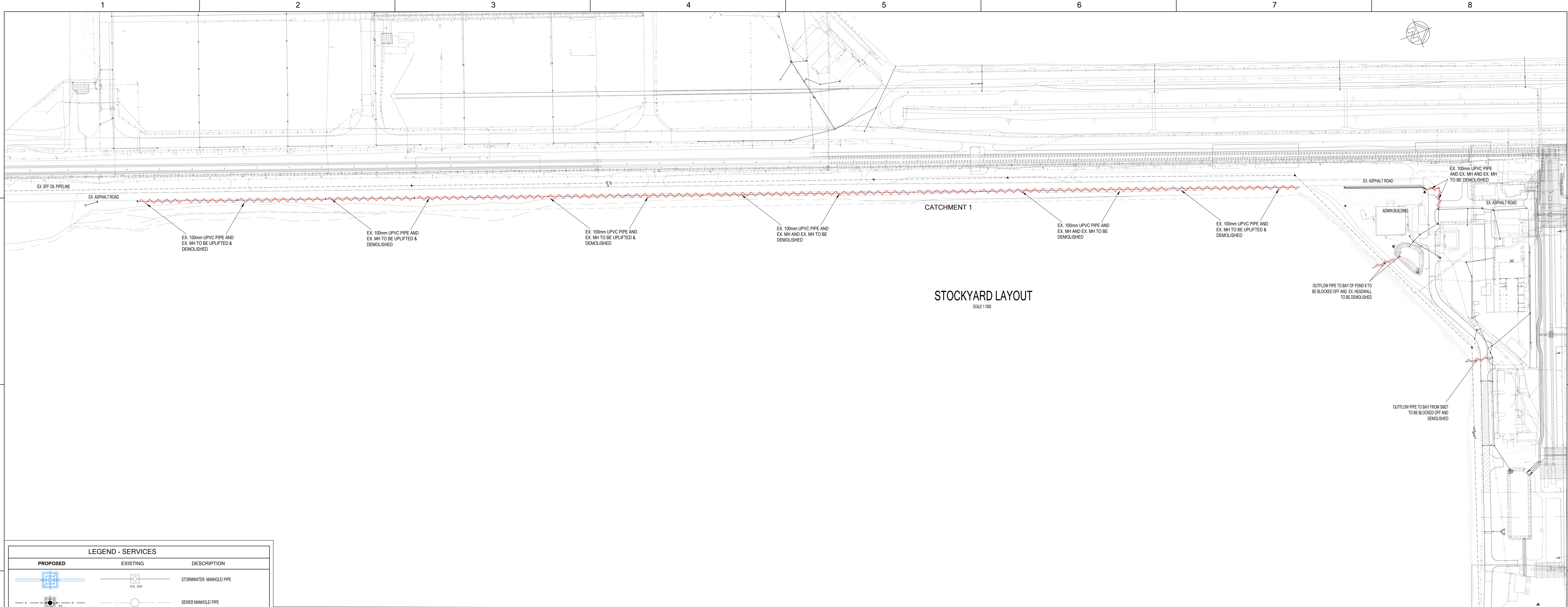
NO.	DESCRIPTION	BY	CHKD	APPD	DATE
00	ISSUED FOR CONSTRUCTION	HD	RM	RN	04/08/2023
01	ISSUED FOR CLIENT APPROVAL	HD	RM	RN	28/10/2022

**TRANSNET PORT TERMINALS**

**PORT OF SALDANHA**

**SALDANHA STORMWATER MANAGEMENT STOCKYARD AREA STORMWATER LAYOUT**

**PROJECT NUMBER:** 520157-2-001-C-LA-0001-02-00 HD



**STOCKYARD LAYOUT**  
SCALE: 1:500

LEGEND - SERVICES		
PROPOSED	EXISTING	DESCRIPTION
		STORMWATER MANHOLE PIPE
		SEWER MANHOLE PIPE
		EFFLUENT MANHOLE PIPE
		RAIL LINE
		COMMUNICATION MANHOLE DUCTS
		ELECTRICAL MANHOLE DUCTS
		WATERMAN
		FENCE
		CATCHMENTS BOUNDARY
		EXISTING OIL LINE
		NEW STORMWATER IN ADJACENT PROJECT AREAS
		RELOCATED SERVICE
		DEMOLISH EXISTING SERVICE
		ASPHALT ROAD
		EARTH BANKS
		NEW BLOCK PAVEMENT
		PROPOSED MOUNTABLE KERB
SETTING OUT COORDINATE • R - RAIL EMBANKMENT • M - MULTI PURPOSE TERMINAL • S - STOCKPILE • C - CAUSEWAY • T - TRIPPLER		
		BENCHMARK
ABBREVIATIONS MH = MANHOLE E.L.P. = ELECTRICAL LIGHT POLE H.M.L. = HIGH MAST LIGHT EX = EXISTING BM = BENCH MARKS SW = STORMWATER EF = EFFLUENT FH = FIRE HYDRANT W.V. = WATERMAIN VALVE		

MANHOLE COORDINATES		
MH ID	X	Y
SM1	-94345.904	3656364.474
SM2	-94330.453	3656313.887
SM3	-94293.088	3656212.715
SM4	-94260.077	3656122.969
SM5	-94226.977	3656032.989
SM6	-94176.944	3654897.547
SM7	-94147.928	3654819.014
SM8	-94118.920	3654740.583
SM9	-94040.109	3654526.546
SM10	-94015.277	3654436.657
SM11	-93944.814	3654267.186
SM12	-93883.177	3654105.898
SM13	-93812.880	3654078.017
SM14	-93799.405	3654063.084
SM15	-93844.777	3654006.219
SM16	-93841.234	3653994.695
SM17	-93819.813	3654003.454
SM18	-93805.868	3654009.428
SM19	-93801.872	3654031.881
SM20	-93797.308	3654041.397
SM21	-93697.743	3654011.845
SM22	-93683.303	3654007.938
SM23	-93655.135	3654006.645
SM24	-93649.643	3654006.214
SM25	-93626.242	3654016.571
SM26	-93595.651	3654030.807
SM27	-93528.199	3654031.441
SM1	-93763.568	3654048.599
CM2	-93750.952	3654046.083
CM3	-93726.647	3654018.437
CM4	-93454.278	3654043.082
CM5	-93426.127	3654053.908
CM6	-93403.373	3654047.786
CM7	-93385.797	3654054.512

**GENERAL NOTES:**

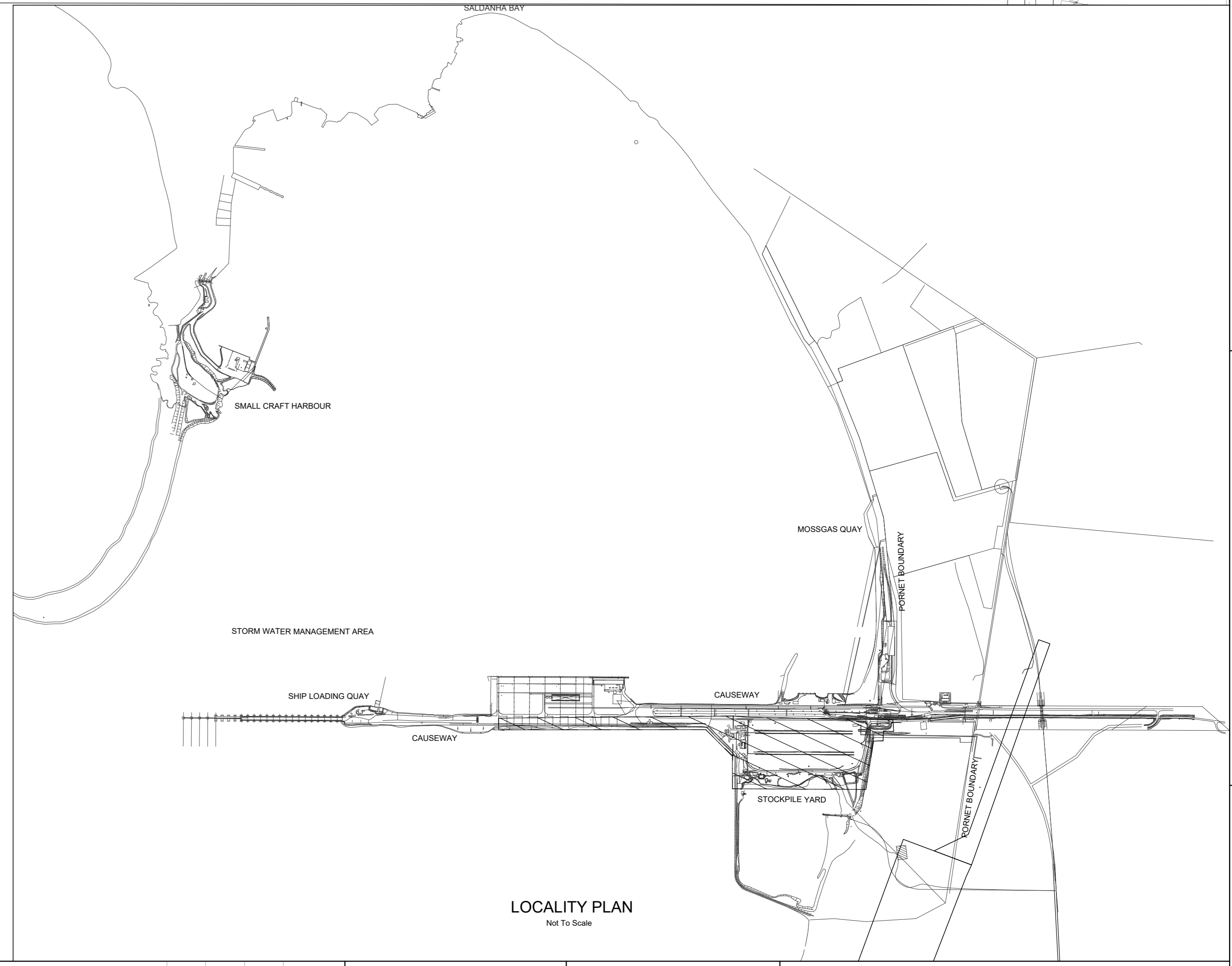
- THE CONTRACTOR WILL BE DEEMED TO HAVE INSPECTED THE SITE AND BE IN AGREEMENT WITH THE WORKS REQUIRED AS PER THE TENDER DOCUMENTS, UNLESS ALTERNATIVE PROPOSALS WITH COST IMPLICATIONS ARE RECEIVED TOGETHER WITH THE TENDER DOCUMENTS. ALTERNATIVE PROPOSALS SUBMITTED DURING CONSTRUCTION SHALL BE ON A DESIGN AND CONSTRUCT BASIS, WITH THE DESIGN AT CONTRACTOR'S EXPENSE.
- 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.
- SERVICES SHOWN ON DRAWINGS ARE KNOWN OR SOURCED FROM EXISTING DRAWINGS. THE CONTRACTOR MUST ENSURE THAT ALL SERVICES THAT INTERSECT OR RUN ALONGSIDE THE PROPOSED WORKS ARE LOCATED BEFORE CONSTRUCTION COMMENCES. ANY CLASHES SHALL BE REPORTED TO THE PROJECT MANAGER IN WRITING. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGES TO EXISTING SERVICES DUE TO NEGLIGENCE.
- ALL EXISTING PIPES AND MANHOLES INCORPORATED INTO THE NEW SYSTEM SHALL HAVE DEFECTS RECTIFIED TO COMPLY TO STANDARDS FOR NEW WORKS.
- DIMENSIONS SHOWN ON DRAWINGS SHALL TAKE PREFERENCE OVER DIMENSIONS SCALED.
- ALL LEVELS AND DIMENSIONS SHALL BE CHECKED BEFORE ANY WORK COMMENCES.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH RELEVANT SANS SPECIFICATIONS, UNLESS OTHERWISE INDICATED.
- ALL LENGTHS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED ON SITE BY CONTRACTOR.
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**EARTHWORKS**

- ANY DISCREPANCIES IN LEVELS AND SETTING OUT DATA TO BE QUERIED WITH THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK.
- ALL WORKMANSHIP TO BE IN ACCORDANCE WITH SANS 100 PART 7 - EARTHWORKS AND THE RELEVANT PROJECT SPECIFICATIONS AS INCLUDED IN THE CONTRACT.
- BEFORE PLACING ANY FILL MATERIAL, THE EXISTING GROUND SURFACE MUST BE CLEARED AND GRUBBED OF ALL VEGETATION AND ORGANIC MATTER.
- UNLESS OTHERWISE INDICATED, ALL BANK BATTERS TO BE 1:1.5 CUT AND 1:2 FILL.
- THE UNCOMPACTED THICKNESS OF FILL LAYERS SHALL NOT EXCEED 300mm.
- LOCATE ALL EXISTING SERVICES IN AREA PRIOR TO ANY CONSTRUCTION TAKING PLACE.

**STORMWATER NOTES**

- TRENCHES FOR PIPES TO BE EICANTED AND BACKFILLED ACCORDANCE WITH THE REQUIREMENT OF SANS 1000 DB - PIPE TRENCHES.
- ALL RIGID CONCRETE PIPES SHALL HAVE CLASS B BEDDING.
- FOR STORMWATER PIPES SHALL BE SPOOT & SOCKET CLASS 1000 (SANS 877).
- ALL CONCRETE PIPE JOINTS TO BE WRAPPED WITH 42 BIDIM NONWOVEN CONTINUOUS FILAMENT REELED PACKED POLYESTER GEOTEXTILE MIN. WIDTH TO BE 150mm FOR PIPES 3000 TO 6000.
- NO ALL MANHOLE COVERS TO SUIT CROSSFALL OF FINISHED PAVING.
- ON COMPLETION, THE INSTALLATION SHALL BE TESTED TO THE ENGINEER'S SPECIFICATION.
- THE CONTRACTOR SHALL SUBMIT A FULL SET OF AS-BUILT DRAWINGS UPON COMPLETION OF THE INSTALLATION.
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- WHERE MINIMUM COVER OF 100mm FOR OPERATIONAL AREAS & 600mm FOR NON OPERATIONAL AREA CANNOT BE ACHIEVED, CONCRETE ENCASEMENT IS REQUIRED AS PER THE DETAIL DRAWINGS.
- PLEASE SEE S20151-2-001-C-DE-001-01 FOR ALL POND SETTING OUT COORDINATES AND POND DETAILS.



**LOCALITY PLAN**  
Not To Scale

DRAWING NO.	DESCRIPTION
S20151-2-001-C-LA-0001-01	STOCKYARD AREA GENERAL LAYOUT
S20151-2-001-C-LA-0001-02	STOCKYARD AREA STORMWATER LAYOUT
S20151-2-001-C-LA-0001-03	DEMOLITION LAYOUT
S20151-2-001-C-SE-0001-01	STOCKYARD AREA STORMWATER LONG SECTIONS SHEET 1 OF 3
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S20151-2-001-C-DE-0001-04	TYPICAL HEADWALL SCOUR & CONCRETE ENCASEMENT DETAILS

**NOTES:**

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CONTRACTOR / CONSULTANT				TRANSNET PORT TERMINALS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
ISSUED FOR CONSTRUCTION	HD	RM	RN	04/08/2023	PR.ENG. / PR. TECH./PR. ARCH	NAME	R. MADDOX
ISSUED FOR CLIENT APPROVAL	HD	RM	RN	01/07/2022	REG. NUMBER	201010216	DATE
NO.	DESCRIPTION	BY	CHKD	APPD	DATE	SCALE	AS SHOWN

OPERATING DIVISIONS			
TITLE	NAME	SIGN	DATE
ISSUED FOR CONSTRUCTION	HD	RM	RN
ISSUED FOR CLIENT APPROVAL	HD	RM	RN
NO.	DESCRIPTION	BY	CHKD

**TRANSNET**

**PORT OF SALDANHA**

**SALDANHA STORMWATER MANAGEMENT STOCKYARD AREA DEMOLITION LAYOUT**

PROJECT NUMBER: A0520101572001C-LA-0001-03-00 HD