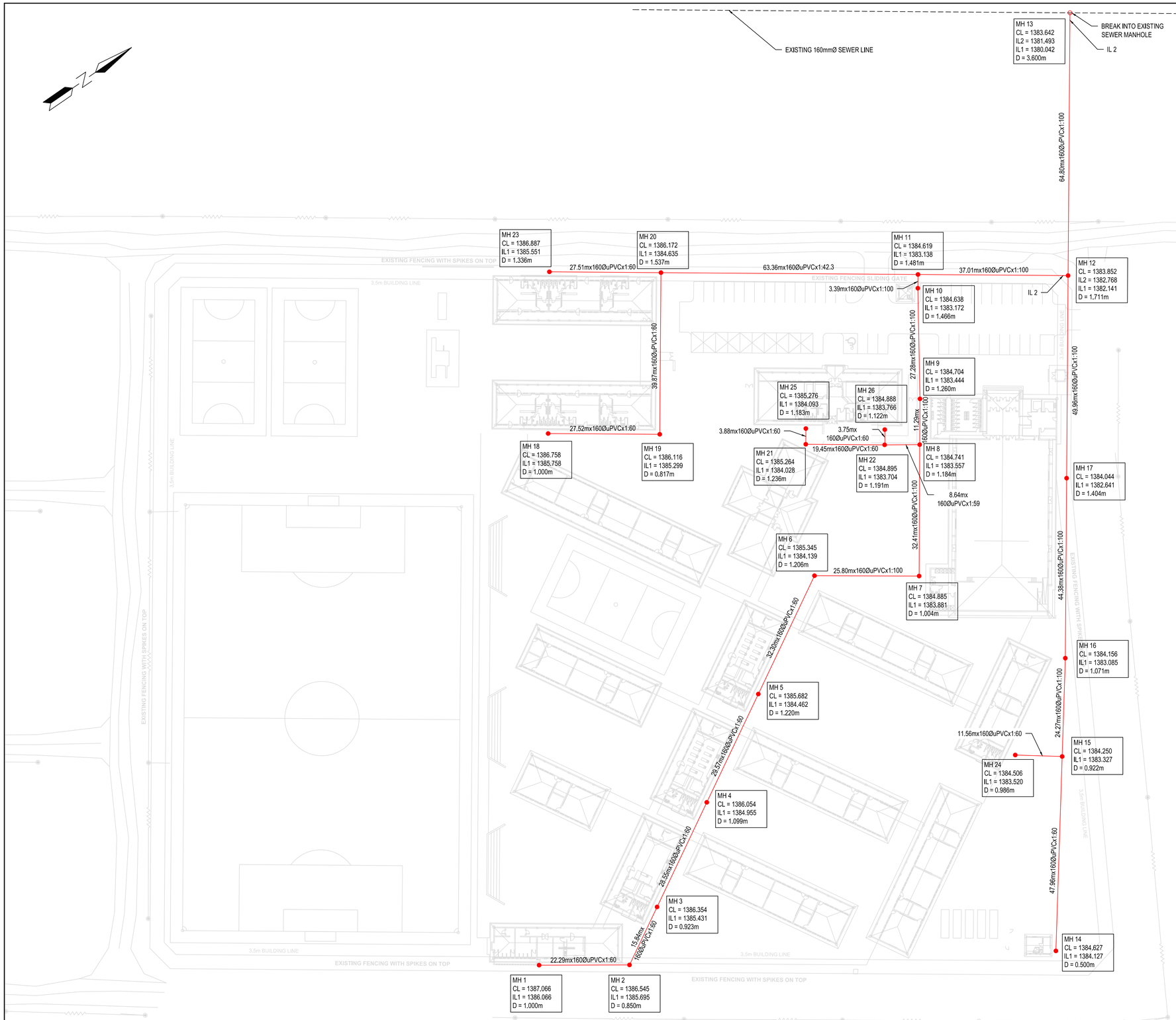

LEGEND:

MH1	NEW MANHOLE
39.2mx160ØuPVCx1:60	PIPE LENGTH(m)xDIAMETER(mm)xSLOPE(1:x)
RE1	NEW RODDING EYE
EX MH	EXISTING MANHOLE
	EXISTING SEWER LINE
MH5 CL = 1370.000 IL2 = 1369.200 IL1 = 1368.989 D = 1.011m	MANHOLE NUMBER CL = COVER LEVEL (m) IL2 = UPSTREAM INVERT OF DROP/RAMP (m) IL1 = INVERT LEVEL OF SEWER LINE (m) D = DEPTH OF MANHOLE/CONNECTION

NOTES:

1. REFER TO DETAILS DRAWING FOR TYPICAL SEWER DETAILS.
2. ALL INTERNAL SEWER LINES TO BE 160mm Ø uPVC SOLID WALL HEAVY DUTY CL34 (FREE FLOW OR SIMILAR APPROVED) UNLESS OTHERWISE SPECIFIED.
3. FINAL LEVELS AND POSITIONS OF MANHOLE AND SEWER LINE TO BE CONFIRMED ON SITE BY ENGINEER.
2. ALL COVER LEVELS MUST BE CONFIRMED WITH PAVING & STORM WATER LEVELS AND POSITIONS OF ALL MANHOLES (INCLUDING TIE-INS TO EXISTING) MUST BE CONFIRMED ON SITE BEFORE CONSTRUCTION COMMENCES.
3. IN ROADS TYPE 2A (176KG) HEAVY DUTY CAST IRON MANHOLE FRAME AND LIDS TO BE USED. ALL OTHER MANHOLE COVERS TO BE AS PER GENERAL DETAILS.
4. SEWAGE PIPES WITH LESS THAN 450mm FREE COVER UNDER GROUND LAYER MUST BE FULLY ENCASED WITH A MINIMUM OF 150mm THICK, CLASS 15/25 CONCRETE.
5. ALL EXCAVATIONS, BACK FILLINGS, SURFACE BEDS AND PLACING OF PIPES SHOULD BE DONE ACCORDING TO SABS 1200.
6. FLEXIBLE JOINTS:
   - 6.1. RUBBER RINGS COMPLYING WITH PART 1 OF SABS974 TO BE USED FOR FLEXIBLE PIPES.
   - 6.2. FLEXIBLE JOINTS TO BE TIGHT WITH NO SIGN OF LEAKAGE WHEN TESTED ACCORDING TO SUB CLAUSE 4.4 OF SECTION LD OF PART 3 OF SABS 1200
7. FIELD TEST:
   - 7.1. AIR TEST ACCORDING TO CLAUSE 7.2 OF SABS 1200 LD MUST BE CARRIED OUT BETWEEN MANHOLES DURING THE FOLLOWING PHASES OF CONSTRUCTION:
     - 7.1.1. AFTER THE PIPES HAVE BEEN LAID;
     - 7.1.2. AFTER THE INITIAL BACKFILLING HAS BEEN COMPLETED.
   - 7.2. THE AIR TEST IS ONLY AN INDICATION OF ACCEPTANCE OF A COMPLETED PORTION OF THE LINE.
   - 7.3. THE WATER TEST WILL BE CONDUCTED AS THE FINAL INSPECTION.
8. MANHOLES AND FITTINGS:
   - 8.1. ALL CONCRETE, BENCHING AND SEALERS SHALL COMPLY WITH SABS 1200 GA OR SABS 1200 AS APPLICABLE.
   - 8.2. PRECAST CONCRETE SECTIONS TO COMPLY WITH SABS 1294
   - 8.3. CLASSES OF CONCRETE:
     - 8.3.1. PRECAST CONCRETE SECTIONS = 30/19
     - 8.3.2. ALL OTHER CONCRETE = 25/19
   - 8.4. CHANNELS IN MANHOLES TO BE LAID IN THE WET CONCRETE FLOOR AND THE FIRST PRECAST CONCRETE SECTION TO BE PLACED AND BENCHING TO BE COMPLETED WITHIN 24 HOURS AFTER CASTING THE CONCRETE FLOOR. NO DRIERS WILL BE PERMITTED FOR THE BENCHING. BENCHING TO BE STEEL TROWEL TO A SMOOTH FINISH.

SEWER SETTING OUT CO-ORDINATES

MH NAME	Y	X
MH1	69 944.963	3 229 540.297
MH2	69 932.355	3 229 521.911
MH3	69 940.273	3 229 508.197
MH4	69 954.547	3 229 483.474
MH5	69 969.332	3 229 457.864
MH6	69 985.482	3 229 429.894
MH7	69 970.767	3 229 408.696
MH8	69 997.372	3 229 390.192
MH9	70 006.628	3 229 383.730
MH10	70 029.378	3 229 368.670
MH11	70 032.153	3 229 366.727
MH12	70 010.927	3 229 336.413
MH13	70 064.043	3 229 299.279
MH14	69 875.534	3 229 433.407
MH15	69 914.124	3 229 404.931
MH16	69 933.649	3 229 390.523
MH17	69 970,002	3 229 365.068
MH18	70 051.628	3 229 464.046
MH19	70 035.843	3 229 441.503
MH20	70 068.495	3 229 418.629
MH21	70 013.392	3 229 413.264
MH22	70 002.237	3 229 397.333
MH23	70 084.272	3 229 441.161
MH24	69 920.986	3 229 414.231
MH25	70 016.566	3 229 411.040
MH26	70 005.311	3 229 395.180

SEWER RETICULATION LAYOUT
SCALE 1:500

FOR TENDER

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SABS ISO 9001

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CLIENT

REFERENCE DRAWINGS	
DRG. No.	DESCRIPTION

No.	REVISIONS	DATE
A	REVISION DESCRIPTION	DATE

DRG SIZE	SCALE	DATE DRAWN
A1	1:500	2021/05/11
DESIGNED		CHECKED
V NAIDOO		S MARAIS
DRAWN		CHECKED
V NAIDOO		S MARAIS

PROJECT
FSDoE
MATLA 2 PRIMARY

DRAWING DESCRIPTION
SEWER
LAYOUT
SHEET 1 of 1

PROJECT NO	PHASE	DISCIPLINE	STAGE
BS033	A	CE	P

DOC TYPE	DRAWING NUMBER					REVISION
	TYPE	LEVEL	NUMBER		L/O	
DRG	M	T	300		A	A