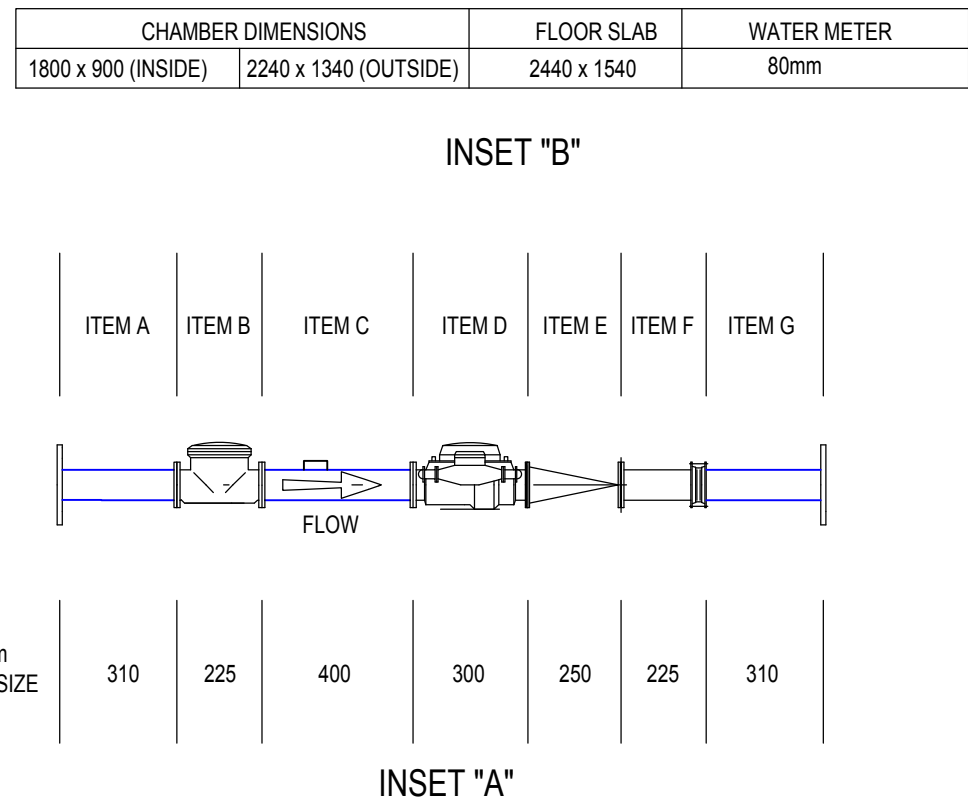
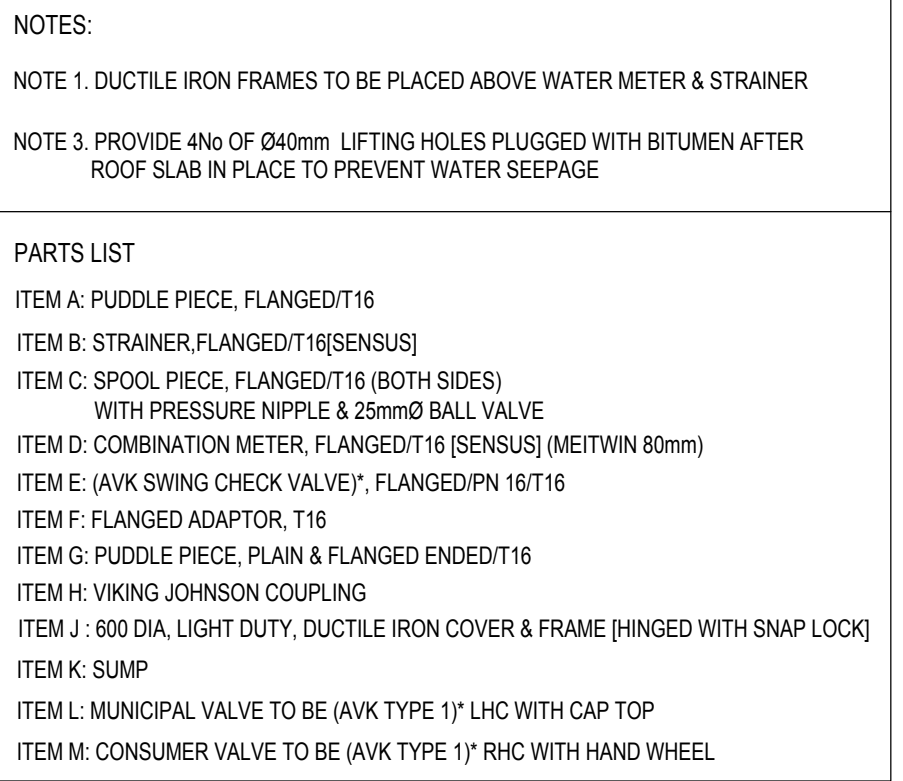
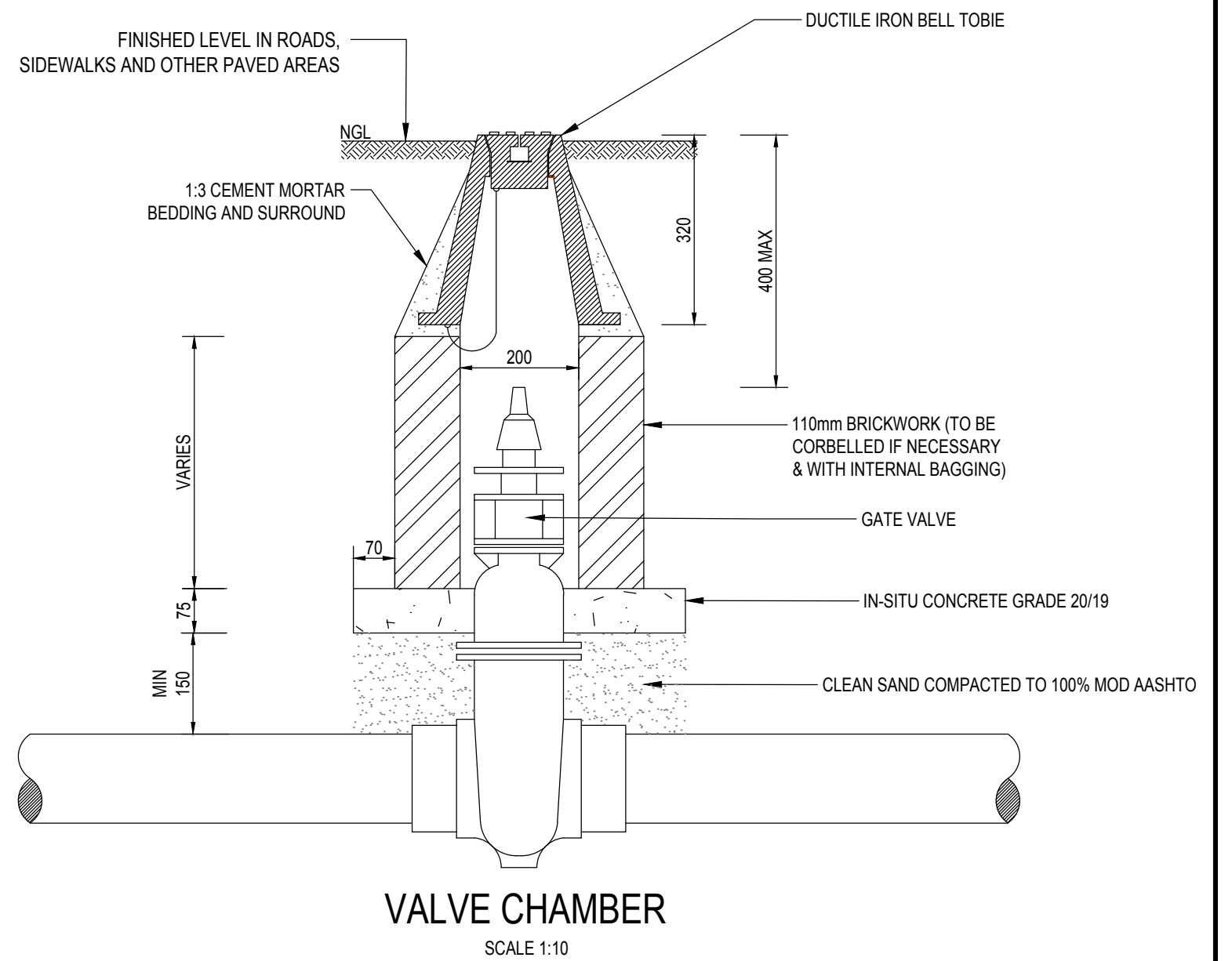


STRUCTURE LIST-Richards Bay - Sewer		
STRUCTURE NAME	Y	X
EX.MH.1	-3187205.278	107285.979
EX.MH.2	-3187208.356	107288.055
FS-PC1	-3187237.101	107292.049
FS-PC2	-3187231.876	107275.490
FS-PC3	-3187227.831	107275.445
FS-PC4	-3187209.325	107281.437
FS-PC5	-3187194.034	107308.565

[illegible]



TYPICAL BULK WATER METER
1:20

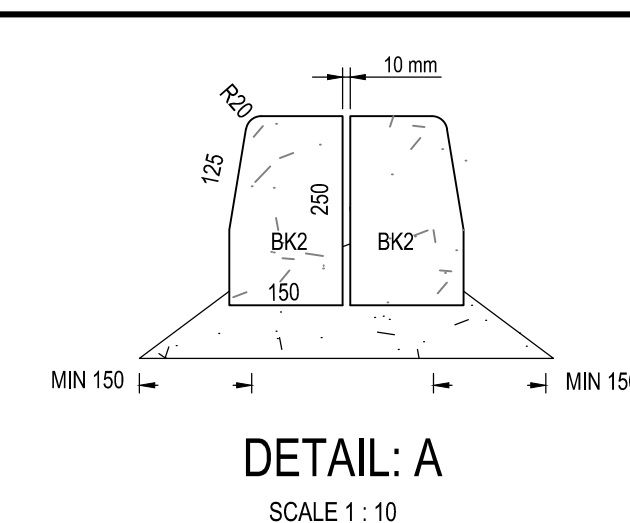
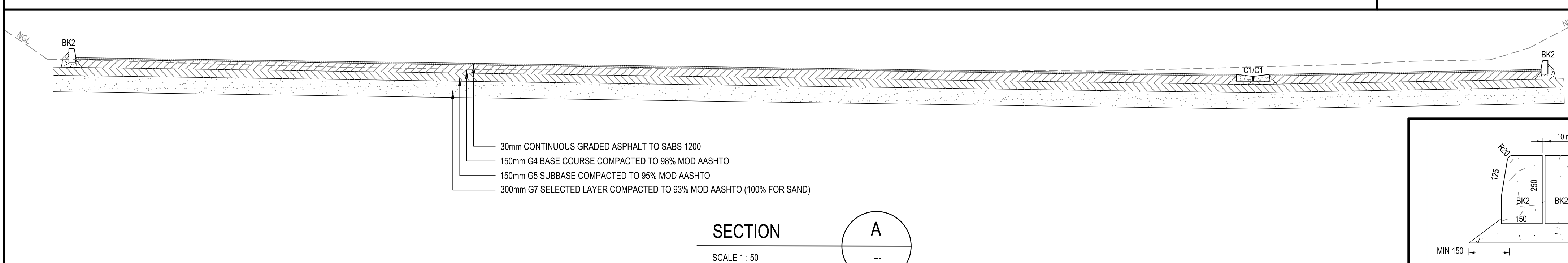
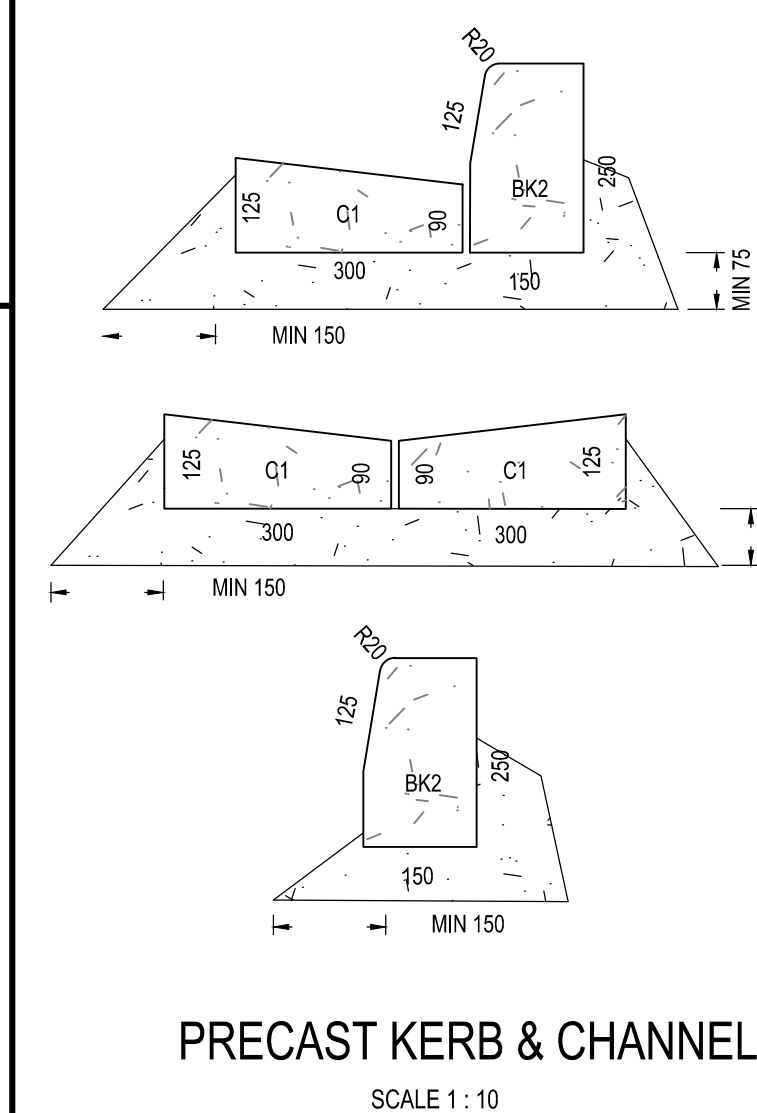
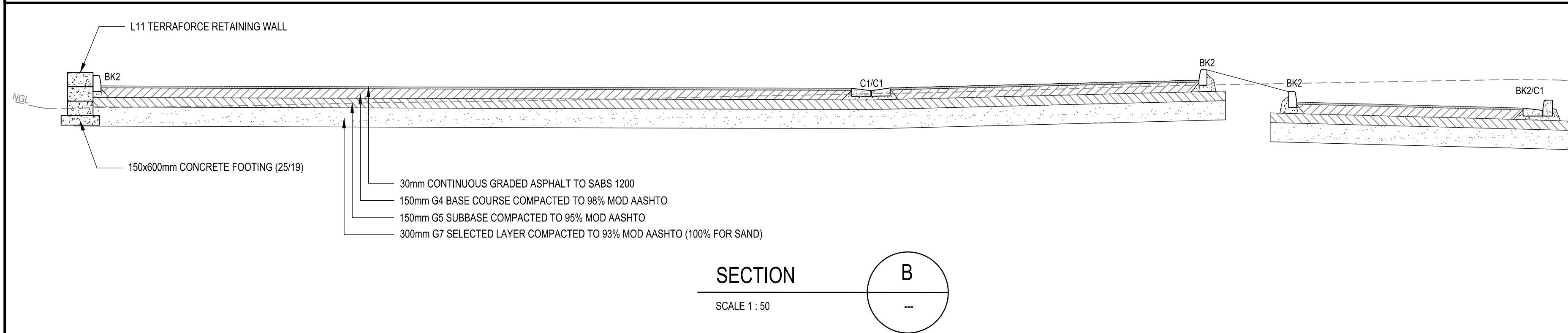
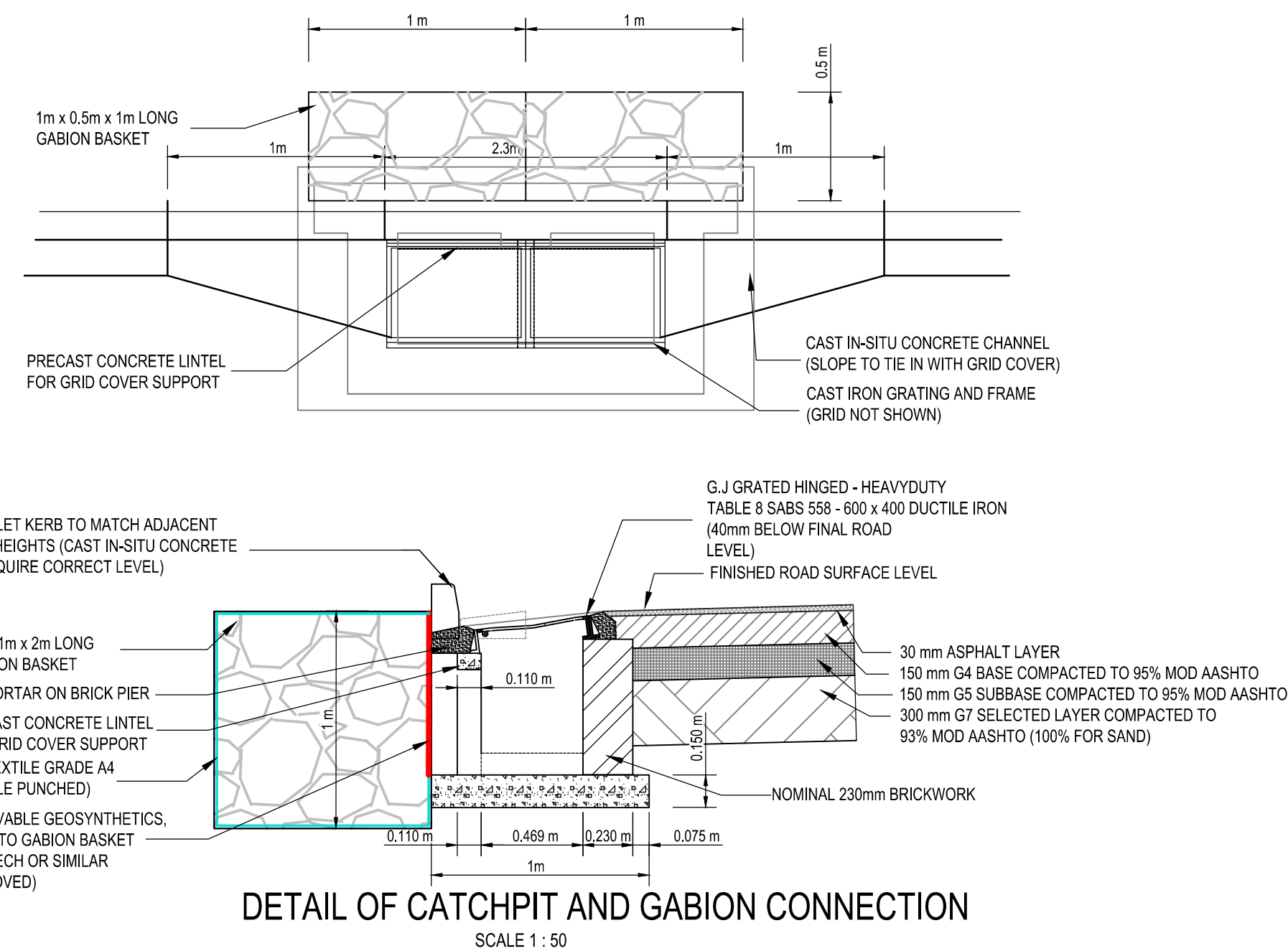
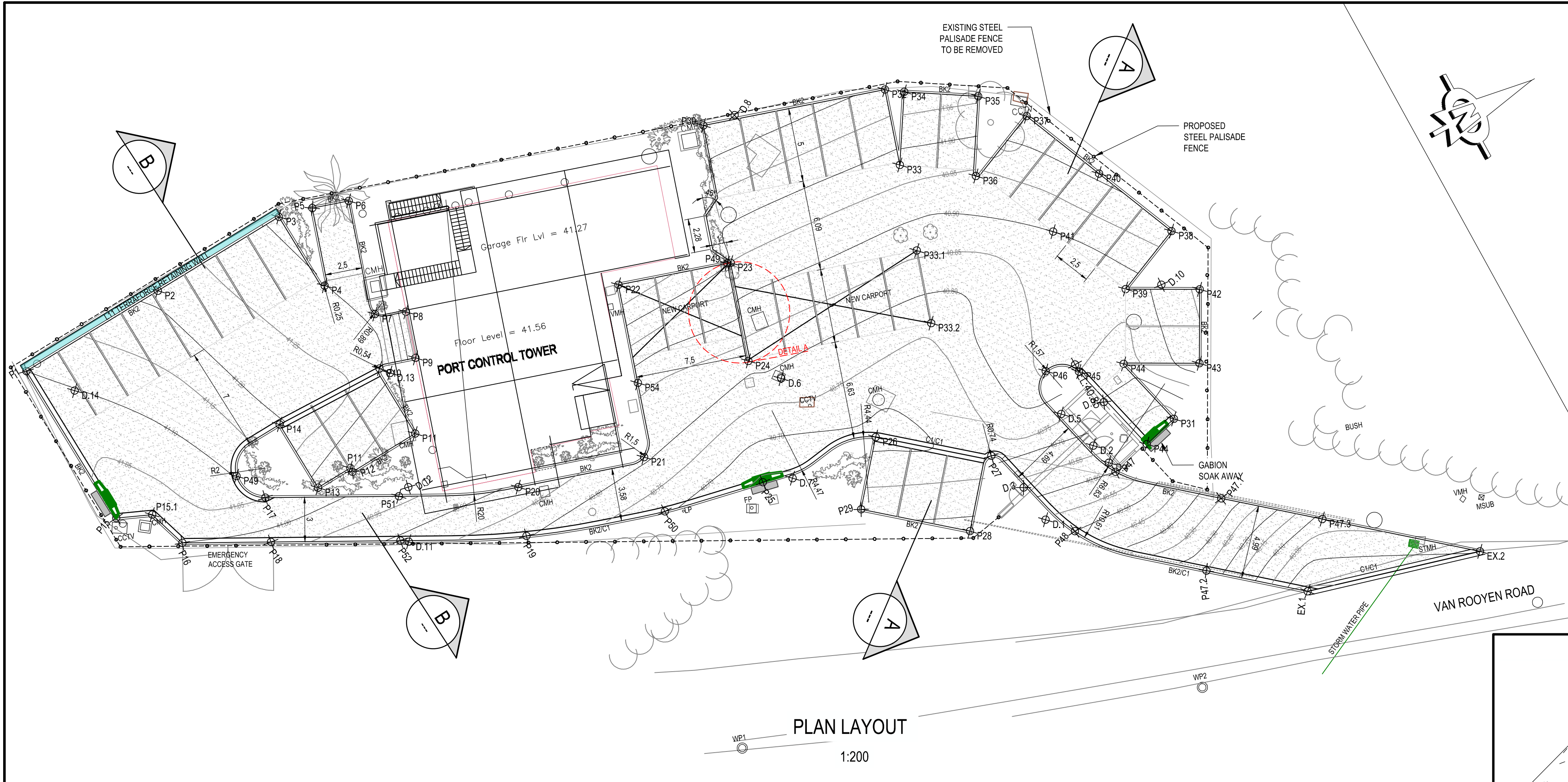


NOMINAL DIA Ø (mm)	DEPTH OF BLOCK D (mm)	MAXIMUM TESTING PRESSURE					
		900 kPa		1350 kPa		1800 kPa	
		X (mm)	A (m)	X (mm)	A (m)	X (mm)	A (m)
150	600	250	0.13	350	0.91	450	0.25
100	400	150	0.06	250	0.09	300	0.11
75	300	100	0.03	150	0.05	200	0.06
50	200	100	0.02	100	0.02	150	0.03

FIRE HYDRANT

SCALE 1:10

APPROVED BY BVI			
 ENGINEER/TECHNOLOGIST		REG. NO.	DATE
SCALE	AS SHOWN	DRAWN	ML
DESIGNED	ML	CHECKED	LP
PLAN NUMBER		REVISION NO.	DATE SAVED
C32442.00c-104-01		0	27 May 2020



PARKING LEVELS			
DESCRIPTION	X	Y	Z
EX.1	-3187186.677	107328.962	39.94
EX.2	-3187175.166	107332.202	40.00
P1	-3187255.376	107274.230	41.10
P2	-3187244.977	107273.750	41.21
P3	-3187235.397	107273.307	41.31
P4	-3187234.934	107278.873	41.29
P5	-3187233.132	107273.879	41.33
P6	-3187230.748	107274.632	41.36
P7	-3187232.873	107282.192	41.31
P8	-3187230.968	107283.067	41.56
P9	-3187231.901	107286.109	41.56
P10	-3187234.380	107285.569	41.27
P11	-3187239.348	107290.508	41.34
P11	-3187234.384	107290.579	41.40
P12	-3187239.334	107290.808	41.35
P13	-3187241.890	107290.625	41.32
P14	-3187242.115	107285.631	41.13
P15	-3187254.832	107285.860	41.03
P15.1	-3187252.593	107286.830	41.01
P16	-3187251.722	107289.477	41.00
P17	-3187245.341	107289.496	41.05
P18	-3187246.446	107292.308	40.97
P19	-3187231.127	107300.266	40.80
P20	-3187230.021	107297.110	40.89
P21	-3187221.596	107299.428	40.81
P22	-3187217.503	107288.383	41.10
P23	-3187210.142	107290.727	40.95
P24	-3187212.288	107297.122	40.82
P25	-3187215.372	107304.777	40.64
P26	-3187207.232	107305.771	40.68
P27	-3187200.994	107310.647	40.72
P28	-3187204.705	107314.412	40.82

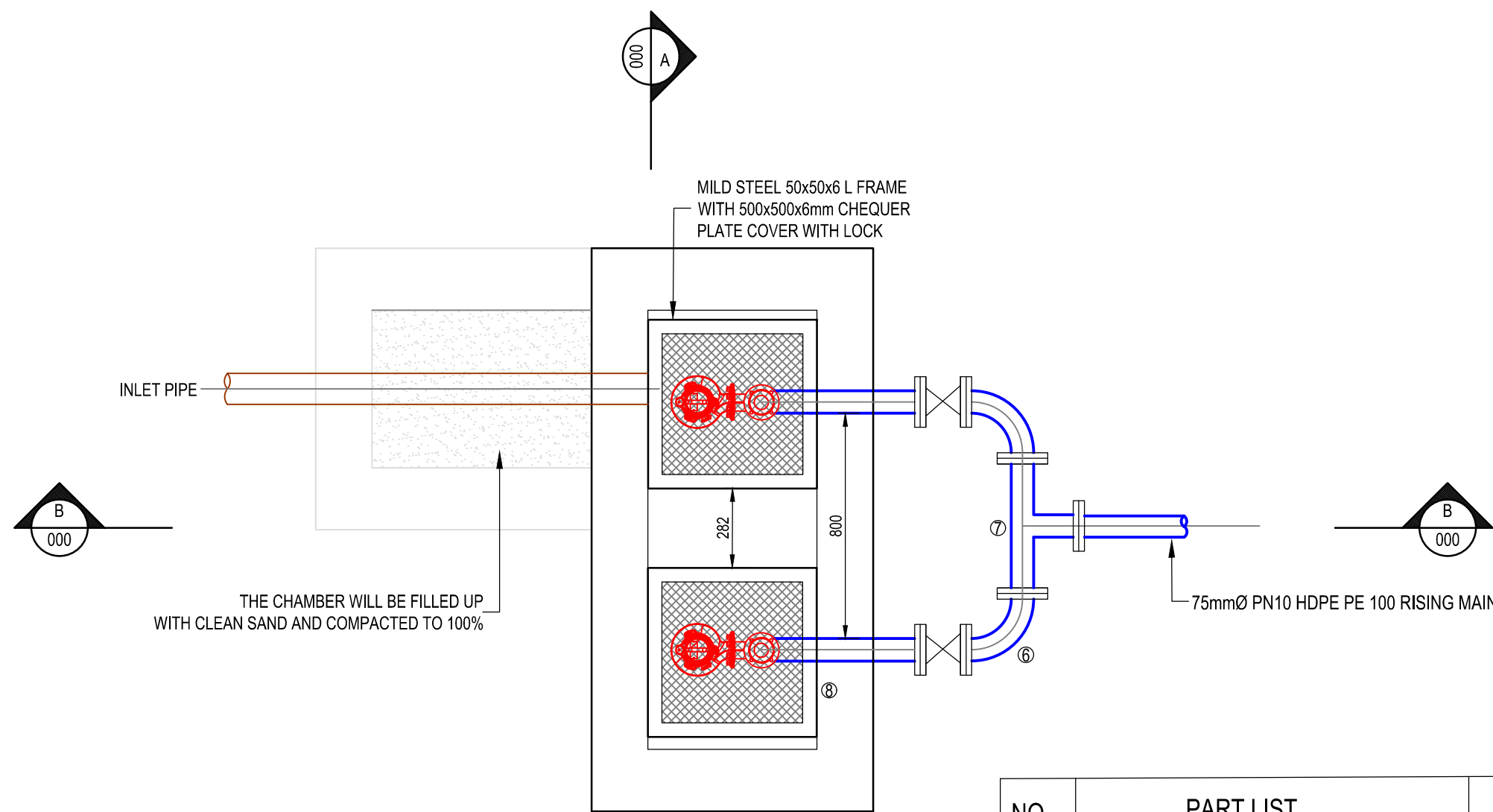
PARKING LEVELS			
DESCRIPTION	X	Y	Z
P29	-3187210.441	107309.580	40.780
P30	-3187207.286	107281.713	41.150
P31	-3187188.980	107314.399	40.725
P32	-3187195.370	107285.488	41.090
P33	-3187196.939	107290.443	40.976
P33.1	-3187198.722	107296.064	40.860
P33.2	-3187200.233	107300.827	40.760
P34	-3187194.299	107286.255	41.084
P35	-3187190.070	107288.921	41.060
P36	-3187192.793	107293.570	40.940
P37	-3187187.843	107291.675	41.040
P38	-3187183.001	107303.196	40.980
P39	-3187187.609	107305.137	40.870
P40	-3187185.422	107297.436	41.010
P41	-3187190.035	107299.378	40.900
P42	-3187183.235	107307.561	40.960
P43	-3187185.657	107311.934	40.935
P44	-3187190.162	107309.509	40.825
P44	-3187191.403	107315.015	40.713
P45	-3187193.060	107308.501	40.850
P46	-3187195.010	107307.397	40.860
P47	-3187194.158	107315.633	40.600
P47.1	-3187188.761	107320.644	40.350
P47.2	-3187191.992	107324.445	40.250
P47.3	-3187183.447	107325.162	40.880
P48	-3187198.496	107317.831	40.500
P49	-3187210.355	107290.655	41.000
P49	-3187246.346	107287.290	41.102
P50	-3187222.130	107303.316	40.710
P51	-3187237.387	107293.763	40.965
P52	-3187238.742	107296.440	40.890
P54	-3187219.549	107294.821	40.860

NOTES / LEGEND	APPROVED BY COUNCIL / CLIENT	DATE	INITIAL	No./CODE	REVISION DESCRIPTION
		26/06/2020	ML	1/D	FOR CONSTRUCTION
	CITY ENGINEER / CLIENT REG. NO. DATE				
	AMENDMENTS CODE				
A,B,C, / BEFORE TENDER	I.A. BY CLIENT				
0 / / TENDER DRAWING	I.B. BY ARCHITECT				
1,2,3, / AFTER TENDER	I.C. BY MECHANICAL OR ELECTRICAL				
Z / AS BUILT	I.D. BY BVI				
	I.E. BY OTHER()				

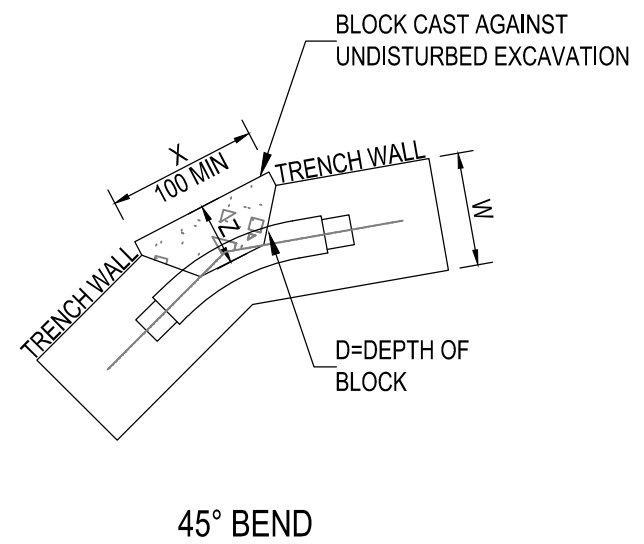
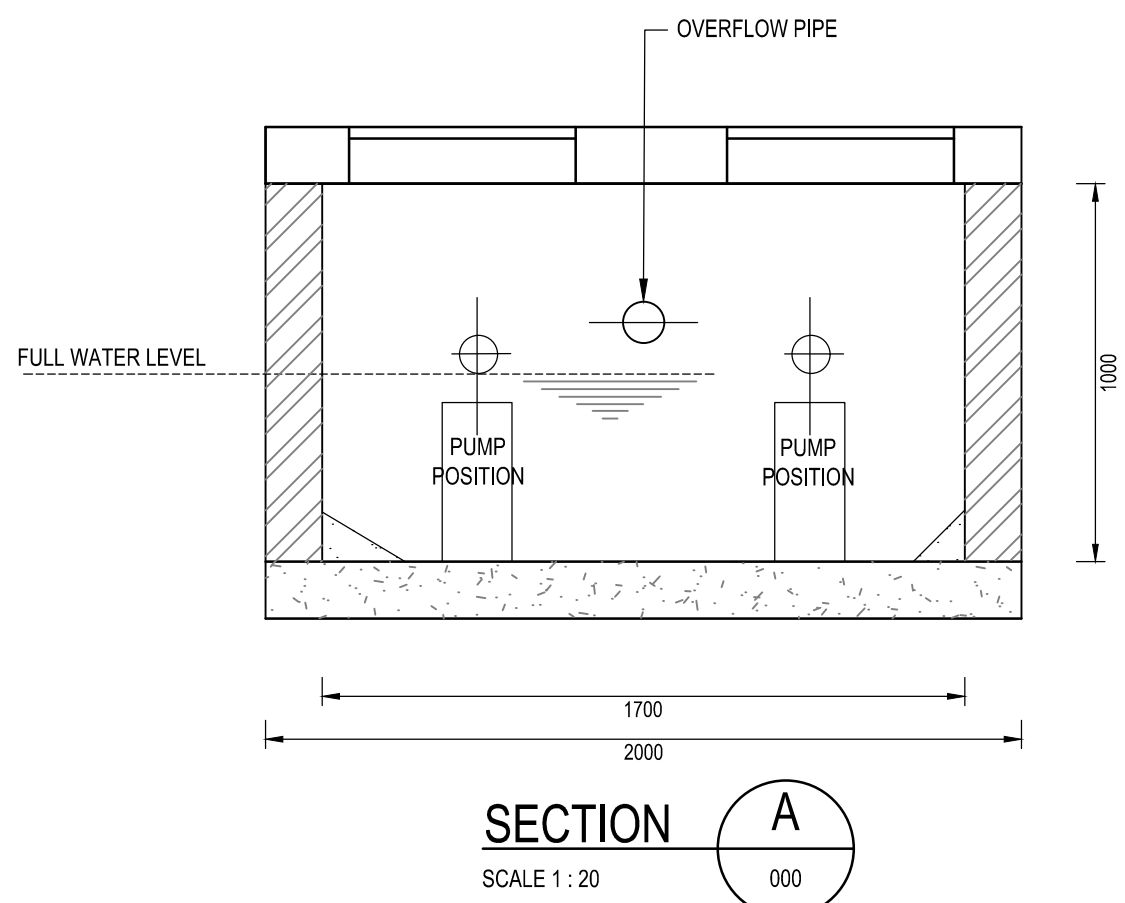


PROVINCE	OFFICE	PHONE	E-MAIL
Gauteng	Tshwane	(012) 340-1111	pa@wgc.co.za
	Pretoria	(012) 340-6800	pa@wgc.co.za
	Benoni	(011) 490-2117	pa@wgc.co.za
Free State	Welkom	(057) 280-6800	pa@wgc.co.za
North Cape	Upington	(054) 532-4400	up@wgc.co.za
	Springsburg	(027) 712-3614	sp@wgc.co.za
KwaZulu Natal	Durban	(031) 266-8342	du@wgc.co.za
	Empangeni	(035) 774-1111	em@wgc.co.za
Eastern Cape	Port Elizabeth	(043) 590-6800	pe@wgc.co.za
	East London	(043) 750-6800	el@wgc.co.za
Western Cape	Cape Town	(021) 527-7000	cp@wgc.co.za

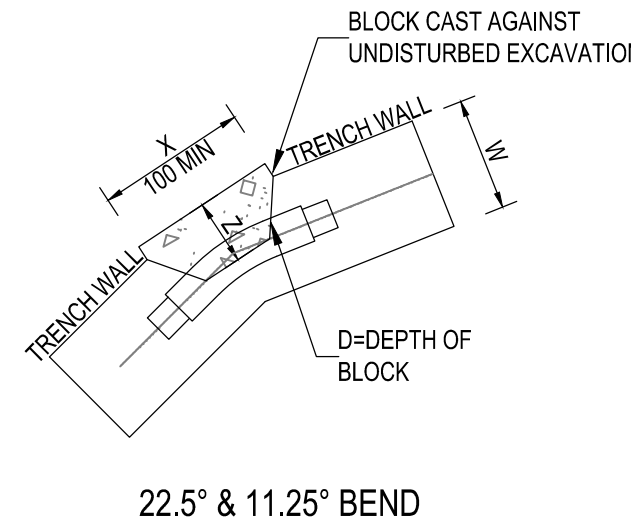
PROJECT		APPROVED BY BVI	
PORT RICHARDS BAY - CONTROL TOWER		 ENGINEER/TECHNOLOGIST 970672 REG. NO. DATE	
DRAWING TITLE		SCALE	AS SHOWN@A1
ROAD AND STORMWATER LAYOUT		DRAWN	ML
		DESIGNED	ML
		CHECKED	LP
		PLAN NUMBER	REVISION NO.
		32442-110-01	1
			02 October 2018



NO.	PART LIST	QTY
1	0.75 Kw WATER PUMP	2
2	FLANGED 80mm DUTILE 90° BEND	2
3	FLANGED 80mm NON-RETURN VALVE	2
4 & 6	FLANGED 80mm CAST IRON 90° BEND	4
5	FLANGED 80mm GATE VALVE	2
7	FLANGED 80mm x 80mm x 75mm DUCTILE T-PIECE	1
8	MILD STEEL 50x50x6 L FRAME WITH 500x500x6mm CHEQUER PLATE COVER WITH LOCK	2

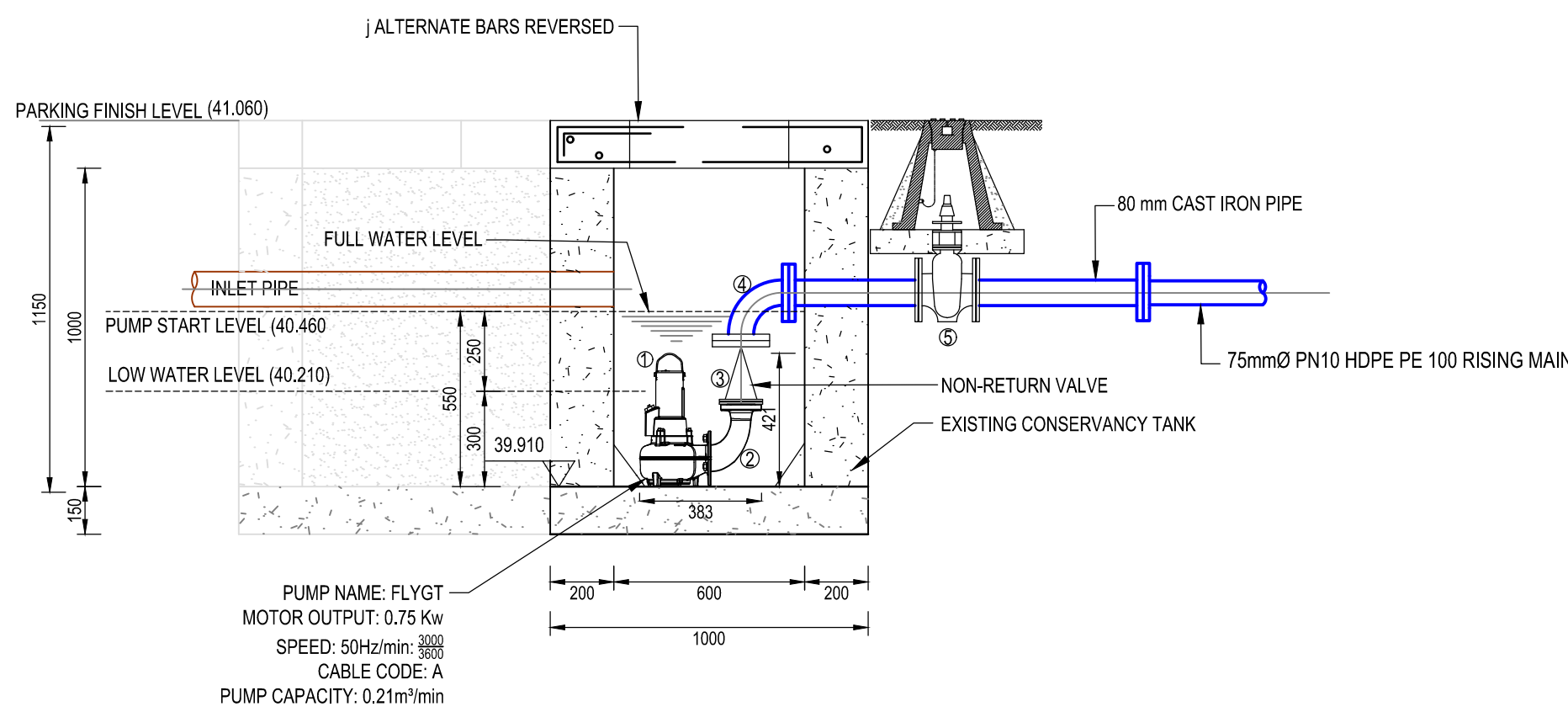


NOMINAL DIA Ø (mm)	DEPTH OF BLOCK D (mm)	MAXIMUM TESTING PRESSURE					
		900 kPa		1350 kPa		1800 kPa	
75	300	X	A	X	A	X	A
		(mm)	(m)	(mm)	(m)	(mm)	(m)

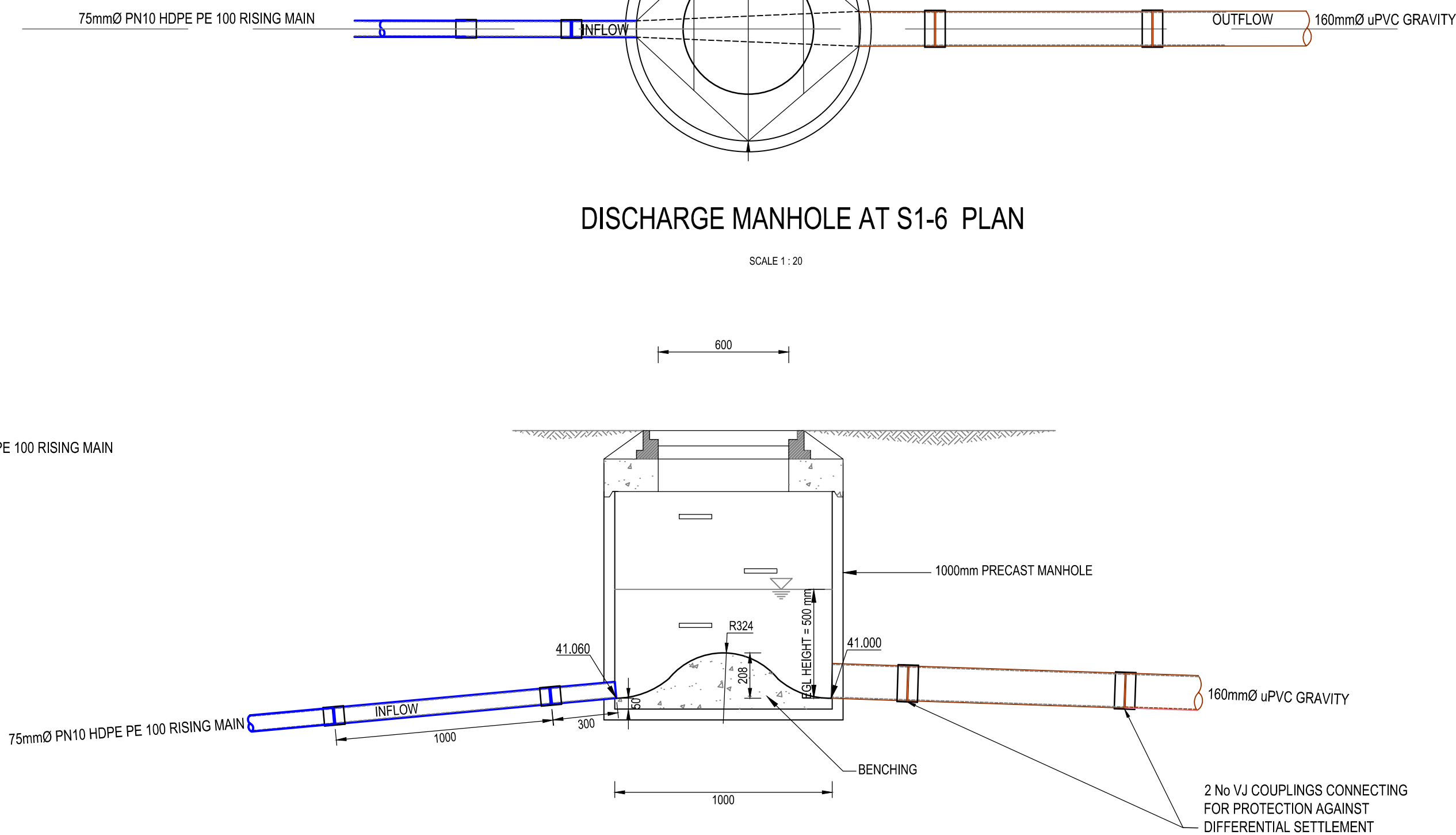


NOMINAL DIA Ø (mm)	DEPTH OF BLOCK D (mm)	MAXIMUM TESTING PRESSURE					
		900 kPa		1350 kPa		1800 kPa	
75	300	X	A	X	A	X	A
		(mm)	(m)	(mm)	(m)	(mm)	(m)

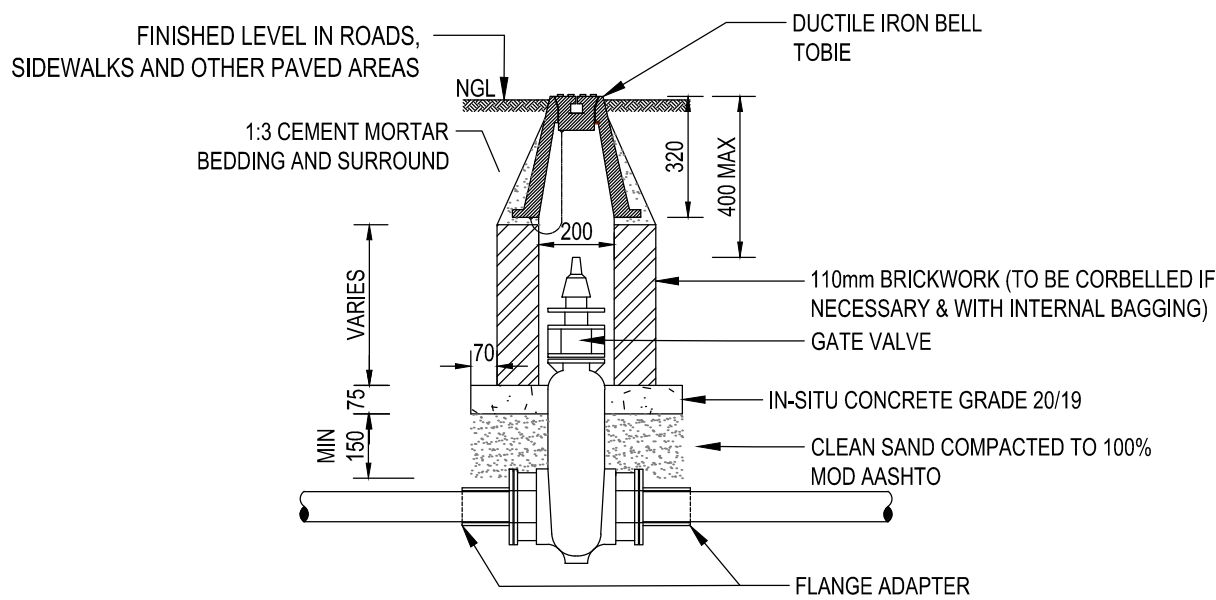
- THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
- X- DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
- X- DIMENSION SHALL BE 150mm MINIMUM
- THE BLOCK DEPTH SHALL BE MEASURED FROM THE PIPE AXIS DOWNWARDS
- KEEP COUPLINGS AND FLANGES 25mm CLEAR FROM CONCRETE



DISCHARGE MANHOLE AT S1-6 PLAN
SCALE 1 : 20



THRUSTBLOCK DETAILS
SCALE 1 : 20



DISCHARGE MANHOLE AT S1-6
SCALE 1 : 20

RAISINGMAIN AND PUMP DETAIL LAYOUT

NOTES / LEGEND	APPROVED BY COUNCIL / CLIENT	DATE	INITIAL	No./CODE	REVISION DESCRIPTION	CLIENT	PROVINCE	OFFICE	PHONE	E-MAIL	PROJECT	APPROVED BY BVI
		26/09/2018	ML	0/0	FOR CONSTRUCTION	TRANSNET	Gauteng	Tshwane	(012) 940-1111	ph@bvi.co.za	PORT RICHARDS BAY - CONTROL TOWER	ENGINEER/TECHNOLOGIST
		26/05/2020	ML	1/0	ADDED PART-LIST TO THE DRW		Free State	Pretoria	(015) 291-0400	ph@bvi.co.za		970672
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		North West	Kimberley	(053) 442-1217	ph@bvi.co.za		REG. NO.
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Western Cape	Upington	(054) 337-8900	ph@bvi.co.za		DATE
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Free State	Springbok	(057) 710-3614	ph@bvi.co.za		SCALE
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Free State	Orkney	(051) 295-8382	ph@bvi.co.za		DRAWN
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Free State	Springfontein	(056) 710-0112	ph@bvi.co.za		ML
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Free State	Port Elizabeth	(041) 725-4543	ph@bvi.co.za		CHECKED
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Free State	East London	(043) 725-3888	ph@bvi.co.za		LP
		20/04/2020	A.A.A	1/0	CHANGE TO PEN 1 WHEN USING		Free State	Cape Town	(021) 521-7000	ph@bvi.co.za		DATE SAVED
												1 July 2020

AS.C. / BEFORE TENDER
TO / TENDER DRAWING
0.12.1. / AFTER TENDER
Z / AS BUILT

A. BY CLIENT
B. BY ARCHITECT
C. BY MECHANICAL OR ELECTRICAL
D. BY BVI
E. BY OTHER()

TRANSNET

bvi 50th YEAR CELEBRATION EST 1967-2017

ENGINEERING • PROCUREMENT • MANAGEMENT

PROVINCE

OFFICE

PHONE

E-MAIL

PROJECT

PORT RICHARDS BAY - CONTROL TOWER

DRAWING TITLE

RAISINGMAIN AND PUMP DETAIL LAYOUT

APPROVED BY BVI

ENGINEER/TECHNOLOGIST

970672

REG. NO.

DATE

SCALE

AS SHOWN@A1

DRAWN

ML

DESIGNED

ML

CHECKED

LP

PLAN NUMBER

C32442c-133-01

REVISION NO.

1

DATE SAVED

1 July 2020