

ASIA BINA IDAMAN SDN. BHD. (872920-D)

No. 26, Jalan Semarak 1, Taman Semarak,
33300 Gerik, Perak.
Tel : 05-7915633
Email Address : asiabinaidaman@yahoo.com

Ruj. Tuan : ABISB-TKP/KUDR/PIPE-01
Tarikh : 03-06-2025

KORIDOR UTILITI DARUL RIDZUAN SDN BHD
B-G-11, Greentown Suria,
Jalan Dato Seri Ahmad Said,
30450 Ipoh,
Perak Darul Ridzuan

U/P : Pegawai Koridor Negeri

Tuan,

PER: Cadangan kerja – kerja pengalihan paip utama di Jalan Intan Gerik berhadapan simpang masuk Taman Semarak Gerik.

- Serahan Dokumen Lengkap Bagi Permohonan Kelulusan Izin Lalu

Dengan segala hormatnya perkara di atas adalah dirujuk.

2. Bersama-sama ini kami sertakan dokumen-dokumen / lampiran berkaitan untuk rujukan dan kelulusan pihak tuan:-

- i. Lukisan Tapak (Pelan Skematik)
- ii. Peta Penandaan Lokasi
- iii. Gambar Lokasi

3. Mohon pihak tuan mengaturkan satu tarikh lawatan tapak bersama bagi menentukan serta meluluskan cadangan laluan yang dinyatakan seperti di atas.

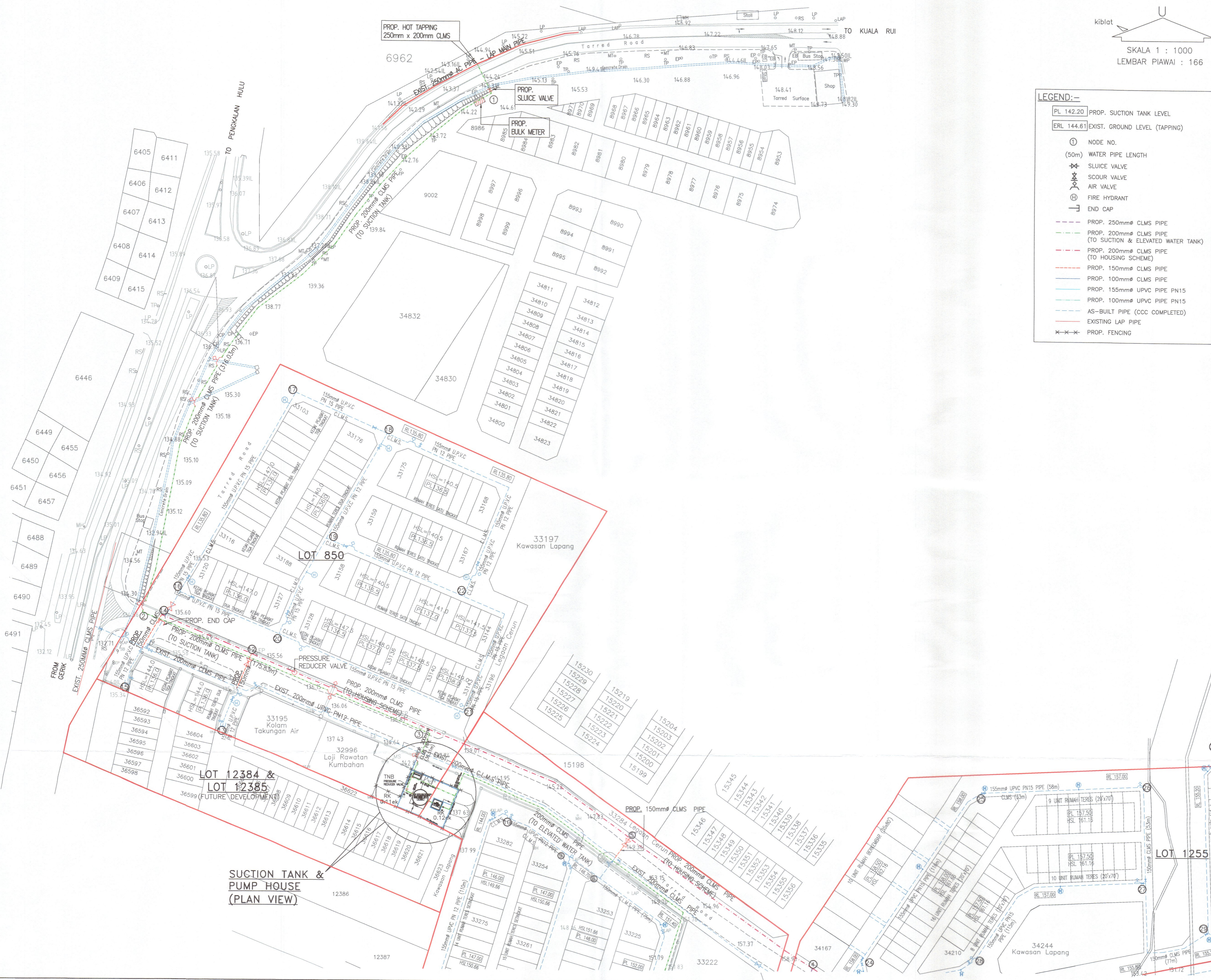
4. Sebarang pertanyaan atau kemusykilan berhubung perkara ini, pihak tuan boleh menghubungi pegawai kami ASIA BINA IDAMAN SDN BHD di talian 05-7915633 dan pada emel asiabinaidaman@yahoo.com untuk keterangan lanjut.

5. Perhatian serta kerjasama pihak tuan amat dihargai dan diucapkan terima kasih.

Yang Benar,



.....
Nama Pegawai Memohon: Tang Bak Thong
Jawatan: Pengarah



kiblat
 SKALA 1 : 1000
 LEMBAR PIAWAI : 166

LEGEND:-

PL 142.20	PROP. SUCTION TANK LEVEL
ERL 144.61	EXIST. GROUND LEVEL (TAPPING)
①	NODE NO.
(50m)	WATER PIPE LENGTH
+	SLUICE VALVE
+	SCOUR VALVE
+	AIR VALVE
+	FIRE HYDRANT
+	END CAP
- - -	PROP. 250mm CLMS PIPE
- - -	PROP. 200mm CLMS PIPE (TO SUCTION & ELEVATED WATER TANK)
- - -	PROP. 200mm CLMS PIPE (TO HOUSING SCHEME)
- - -	PROP. 150mm CLMS PIPE
- - -	PROP. 100mm CLMS PIPE
- - -	PROP. 155mm UPVC PIPE PN15
- - -	PROP. 100mm UPVC PIPE PN15
- - -	AS-BUILT PIPE (CCC COMPLETED)
- - -	EXISTING LAP PIPE
---x---	PROP. FENCING

Kelulusan diberi tetakluk kepada syarat-syarat seperti dalam surat Bil. (33) dtm LAP 6/48 - 128 bertarikh 10/1/2025
 PENGURUS BESAR
 LEMBAGA AIR PERAK
 Kelulusan ini adalah sah selama dua (2) tahun sahaja bermula dari 10 MAR 2025
 Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
 CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

 ASIA BINA IDAMAN SDN. BHD.
 (No. Syarikat : 872920-D)
 ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 TAPING, PERAK DARUL RIDZUAN.

SUBJECT :
 - LAYOUT PLAN 2
 - INCOMING MAIN
 (KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
 CIVIL & STRUCTURAL ENGINEERS
 MAIN OFFICE:
 NO. 4, LEBUH RAYA DI HILIR,
 30350 IPOH, PERAK DARUL RIDZUAN.
 TEL/FAX : 05-5492902 H/P : 016-5584865
 SITE OFFICE:
 NO. 37, FIRST FLOOR, JALAN TBC 5,
 TAMPING BUSINESS CENTRE, 34000 TAMPING, PERAK DARUL RIDZUAN.
 TEL : 05-8104455 H/P : 012-5121138

SCALE 1 : 1000
 DATE 01/2025
 SHEET 2/11
 DRAWN BY AYA
 CHECKED BY TANG

ENGINEER SIGNATURE :
 I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.



K. Pang Yoon Khong
 B.Eng (Hons), M.Eng., M.EM, P.Eng.
 (Principal)

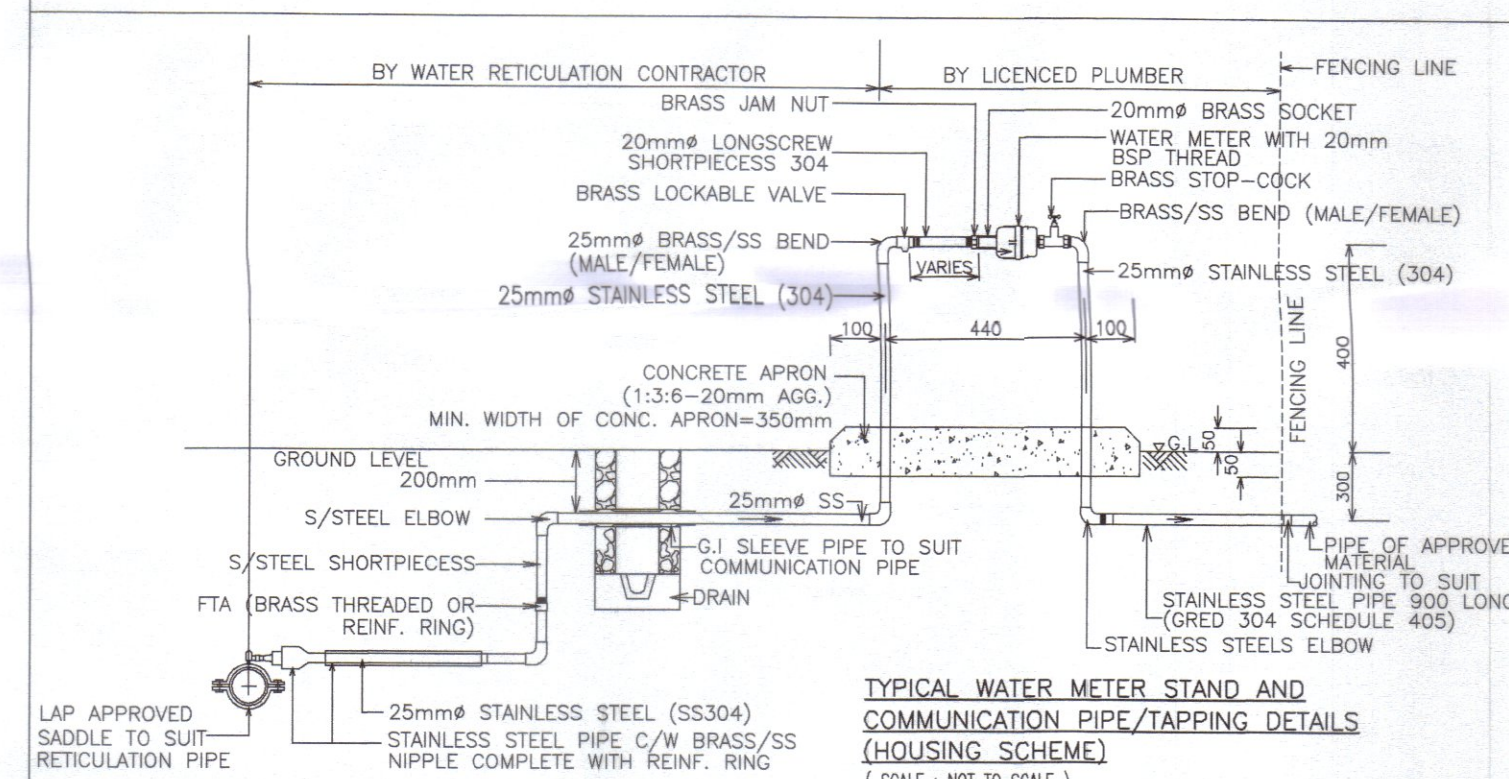


ELEVATED WATER TANK (PLAN VIEW)

PROP. 5.5m HIGH ELEVATED WATER TANK
 TANK SIZE: 10m x 10m x 5m
 CAPACITY REQUIRED: 486 m³
 CAPACITY PROVIDED: 500 m³
 TWL: 175.00m
 BWL: 170.00m

LEGEND:-

PL 142.20	PROP. SUCTION TANK LEVEL
ERL 144.61	EXIST. GROUND LEVEL (TAPPING)
①	NODE NO.
(50m)	WATER PIPE LENGTH
+	SLUICE VALVE
+	SCOUR VALVE
+	AIR VALVE
+	FIRE HYDRANT
+	END CAP
---	PROP. 250mm CLMS PIPE
---	PROP. 200mm CLMS PIPE (TO SUCTION & ELEVATED WATER TANK)
---	PROP. 200mm CLMS PIPE (TO HOUSING SCHEME)
---	PROP. 150mm CLMS PIPE
---	PROP. 100mm CLMS PIPE
---	PROP. 150mm UPVC PIPE PN15
---	PROP. 100mm UPVC PIPE PN15
---	AS-BUILT PIPE (OCC COMPLETED)
---	EXISTING LAP PIPE
---	PROP. FENCING



NOTA PIWAI :

- Paip hendaklah ditanam dengan bahagian atas paip berada di antara 0.91m hingga 1.52m bawah permukaan tanah.
- Semua pemasangan khusus (specials), injap pili bomba dan sebagainya yang digunakan di tapak mestilah yang diluluskan oleh SPAN.
- Jenis-jenis dan kelas paip yang diluluskan oleh SPAN seperti berikut hendaklah digunakan mengikut keutamaannya:-
 - Paip UPVC MS 628:1999 (PN 12 atau PN 15)
 - Paip AB-3P MS 628:1999 (PN 12 atau PN 15)
 - Paip HDPE MS 1058:2005 (kelas PN10)
 - Paip C.L.M.S. TS SPAN 21827 PART 1 & 2
 - Paip C.L.D.I BS EN 545:2010
- Injap udara hendaklah di tempatkan di injap yang tertinggi dan injap keruk dititik yang terendah.
- Kekotak besi tuang permukaan dari pengalng yang dikitarfah hendaklah digunakan untuk injap yang terletak di atas jalan bitumen atau jalan konkrit atau apa-apa turapan. Semua kebuk injap hendaklah sesuai dengan kehendak kebuk piawai L.A.P. Kekotak besi tuang permukaan untuk injap perlu blok penambat hendaklah dibina di setiap injap, tee dan penghujung.
- Semua paip melintasi bawah jalan utama, longkang dan pembumung konkrit, mestilah daripada jenis paip C.L.D.I. atau paip C.L.M.S. (wrapped).
- Di kawasan yang mana terdapat paras air tanah (water table) yang tinggi atau kawasan berair, kebuk injap mestilah dibina daripada batu-bata 225mm tebal.
- Semua paip di hadapan rumah kedai hendaklah menggunakan jenis paip C.L.D.I. AB-3P yang diluluskan oleh SPAN atau paip UPVC PN12 atau paip HDPE PN12.5.
- Kecerunan minima semua rangkaian paip hendaklah 1:500.
- Semua paip hendaklah diuji di tapak dengan disaksikan oleh wakil L.A.P. dalam ujian tekanan, 1.5 kali tekanan kerja paip digunakan dan dalam ujian tekanan paip HDPE sio rujuk kepada L.A.P.
- Semua paip lintasan melalui atas pembumung atau parit/ longkang mestilah menggunakan paip C.L.M.S. (unwrapped).
- Semua paip yang ditanam mestilah dilapik dengan lapisan pasir setebal 150mm yang telah dipadatkan dan ditimbus disekelilingnya dengan pasir sehingga 300mm tebal dari permukaan tanah, sekiranya tanah yang dikorek tidak sesuai.
- Penanda piawai L.A.P. hendaklah dipancang untuk semua injap dan pili bomba. Penanda juga hendaklah dipancang untuk idolan paip pada jarak 60m untuk menunjukkan jorjan sebenar paip.
- Semua paip yang ditanam bersebelahan dengan pembumung najia hendaklah diberi jarak 3m dan hendaklah menggunakan paip yang bersesuaian.
- Semua kebuk 'precast concrete' yang dipasang hendaklah dilengkapi dengan penutup plat keluli berpetak (chequer steel plate) yang bereslang.
- Semua injap peryekat yang digunakan hendaklah menepati piawain BSS163:1986, Type 'B' (D).
- Semua injap udara di atas lintasan pembumung paip konkrit atau kekotak, mestilah dipasang di atas Tee dengan 2 dia. 'offset' dan disambung menggunakan W.S.fittings.
- Sebelum kerja-kerja pemasangan paip dimulakan, semua paip, pemasangan khusus dan sebagainya hendaklah diperiksa terlebih dahulu oleh pihak L.A.P. sebelum diluluskan.
- Penyambungan paip pengguna (paip penghubung) ke paip utama dengan menggunakan 'Saddle' dan 'Kebuk' besi mestilah disudit dengan sistem tape petrologram yang diluluskan oleh pihak SPAN bagi mengelakkan kekaratan.

- KEHENDAK-KEHENDAK BOMBA :**
- Adakan 17 buah pili bomba berting dengan pengeluaran dua hala dan pemasangan hendaklah mematuhi peraturan (B.S. 550).
 - Jarak injap pili bomba dengan penutupnya hendaklah tidak melebihi 450mm dalam.
 - Pili bomba hendaklah diwarnakan dengan cat kuning yang berkilau.
 - Sistem pili bomba hendaklah diuji dan disahkan oleh jabatan ini setelah pasangannya siap.

Kelulusan diberi tetauk kepada syarat-syarat seperti dalam surat Bil. (32) dlm (A.P. 8/1/8 -13P) bertarikh 02/07/2025
PENGURUS BESAR
LEMBAGA AIR PERAK
 Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 1.0.MAR.2025... Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhannya Perkhidmatan Air Negara (SPAN)

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

 ASIA BINA IDAMAN SDN. BHD.
 (No. Syarikat : 872920-D)
 ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
 - LAYOUT PLAN 3
 - INCOMING MAIN
 - OUTLET TO HOUSING SCHEME
 (KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

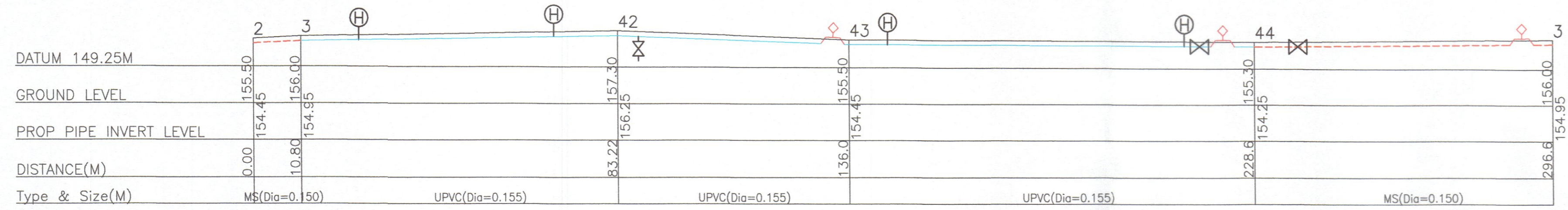
PYK CONSULTANT
 CIVIL & STRUCTURAL ENGINEERS
 MAIN OFFICE: NO. 5, LEBUH RAJA DI HILIR, 30350 POKH, PERAK DARUL RIDZUAN, TELUKAN : 05-3402002 H/P : 016-5584865
 SITE OFFICE: NO. 37, FIRST FLOOR, JALAN TBE 5, TAMPING BUSINESS CENTRE, 34000 TAMPING, PERAK DARUL RIDZUAN. TEL : 05-8104455 H/P : 012-5211138

SCALE : 1 : 1000
 DATE : 02/2025
 SHEET : 3/11
 DRAWN BY : AYA
 CHECKED BY : TANG

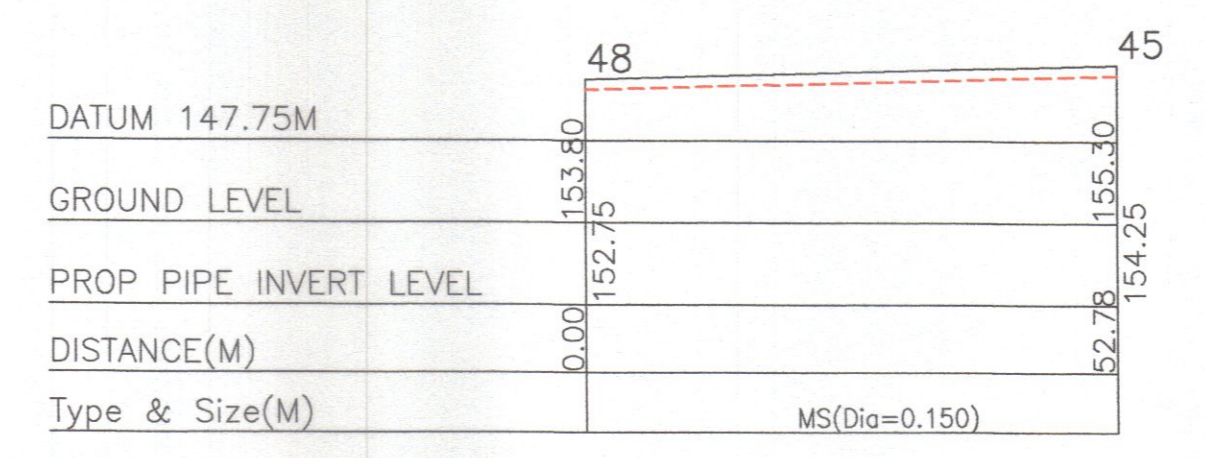
ENGINEER SIGNATURE :
 'I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.'



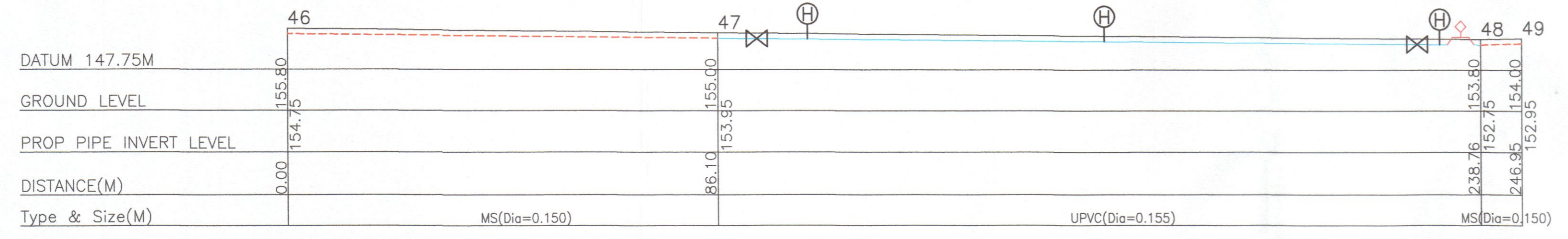
Pang Yoon Khong
 B.Eng.(Hons.)U.M.S., M.Eng., P.Eng.
 (Principal)



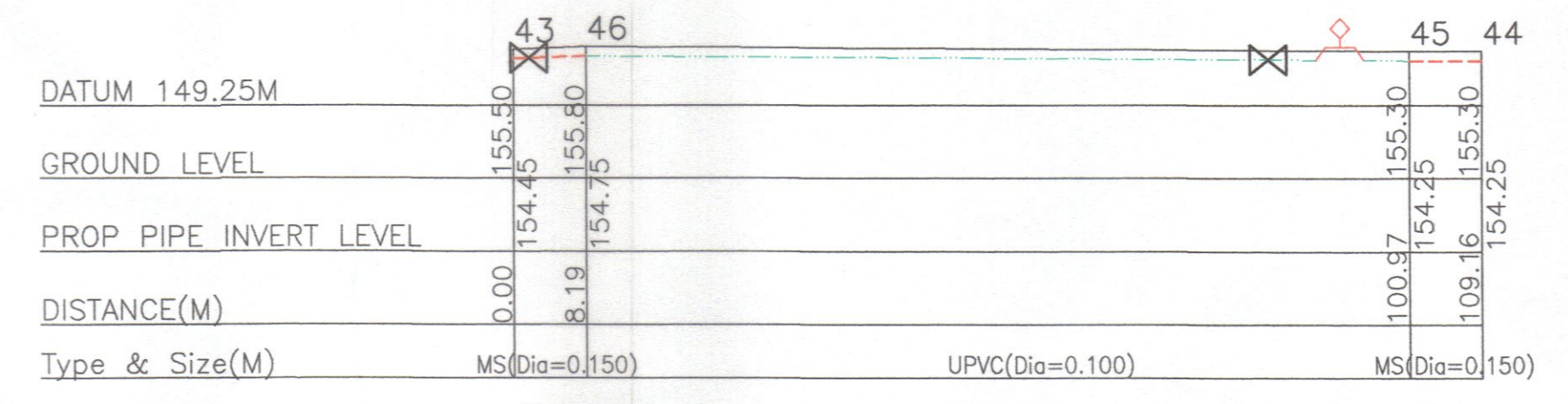
SECTION (PIPE MARK) 2,3,42,43,44,3



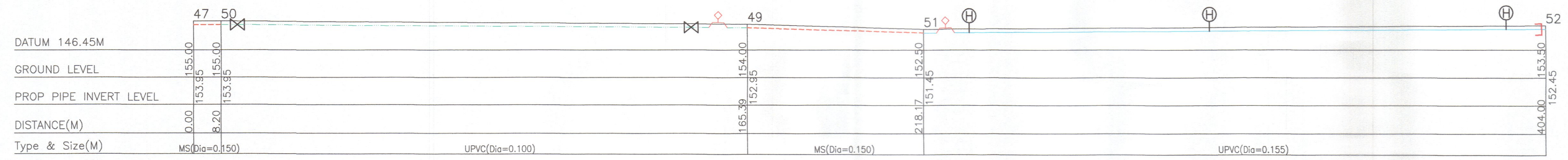
SECTION (PIPE MARK) 48,45



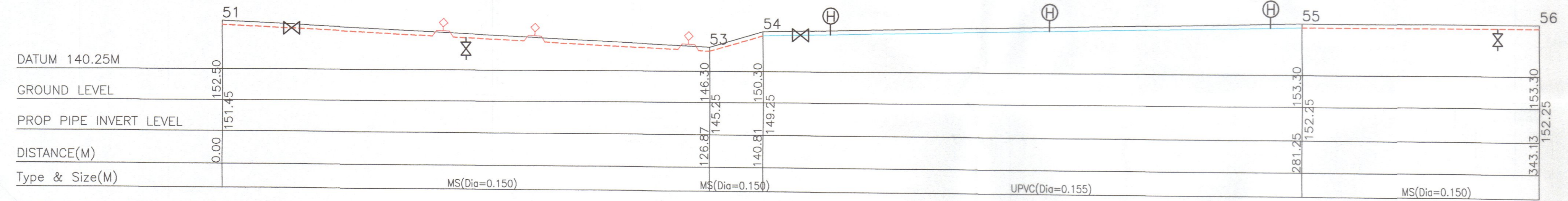
SECTION (PIPE MARK) 46, 47, 48, 49



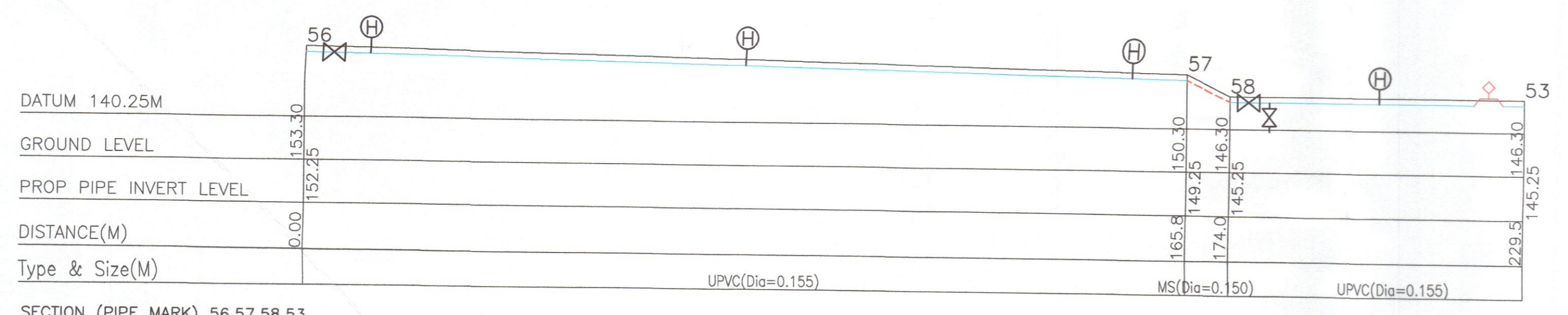
SECTION (PIPE MARK) 43,46,45,44



SECTION (PIPE MARK) 47,50,49,51,52



SECTION (PIPE MARK) 51,53,54,55,56



SECTION (PIPE MARK) 56,57,58,53

LEGEND:-

- NODE NO.
- ✕ SLUICE VALVE
- ✕ SCOUR VALVE
- ✕ AIR VALVE
- ⊕ FIRE HYDRANT
- └ END CAP
- PROP. 150mm CLMS PIPE
- PROP. 100mm CLMS PIPE
- PROP. 155mm UPVC PIPE PN15
- PROP. 100mm UPVC PIPE PN15

Kelulusan diberi tetakui kepada syarat - syarat seperti dalam surat Bil. (23) dlm. (HP 3/4/P-188) bertarikh... 1.0 MAR 2025

PENGURUS BESAR LEMBAGA AIR PERAK
 Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 1.0 MAR 2025
 Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatasi dan mengubah syarat-syarat kelulusan.

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
 CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN, UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

[Signature]
 ASIA BINA IDAMAN SDN. BHD.
 (No. Syarikat : 872920-D)
 ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
 LONGSECTION

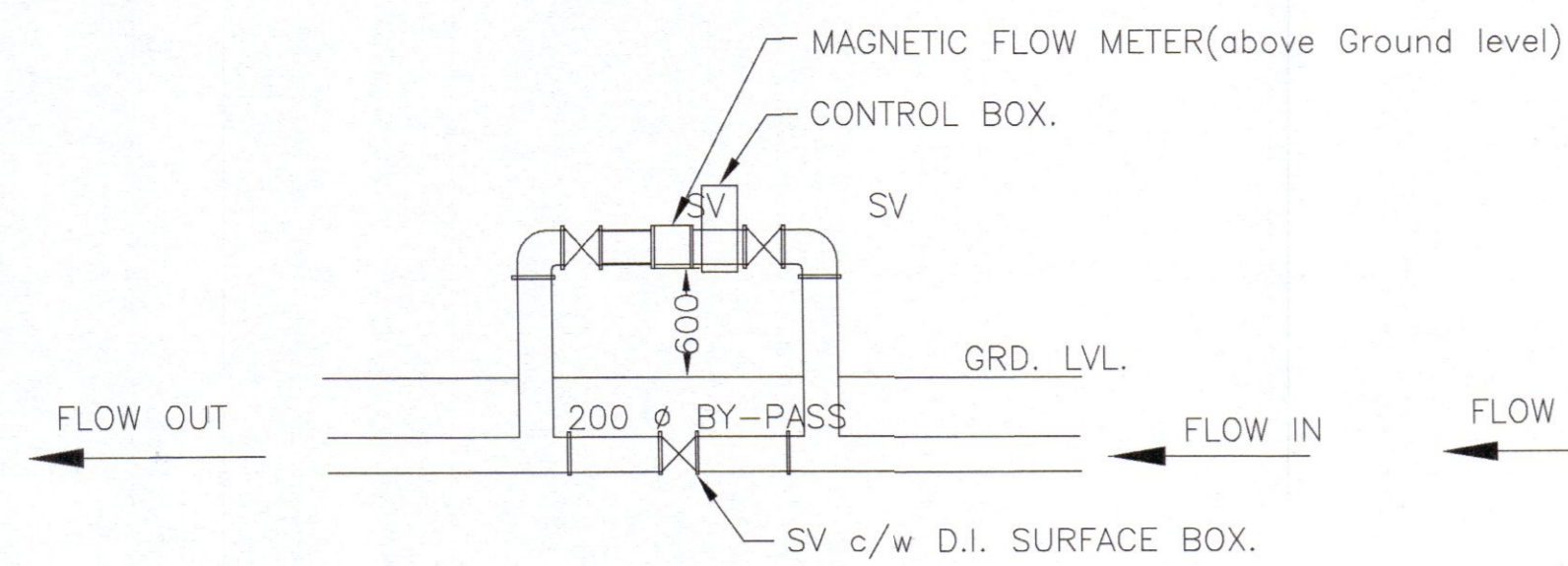
(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
 CIVIL & STRUCTURAL ENGINEERS
 MAIN OFFICE:
 NO. 6, LEBUH RAJA DI HILIR, 30300 IPOH, PERAK DARUL RIDZUAN
 TEL/FAX : 05-5482822 H/P : 016-5584865
 SITE OFFICE:
 NO. 37, FIRST FLOOR, JALAN TIC 5, TAMPING BUSINESS CENTRE, 34000 TAMPING, PERAK DARUL RIDZUAN.
 TEL : 05-8104455 H/P : 012-5121136

SCALE	1 : 1000
DATE	01/2024
SHEET	4/11
DRAWN BY	AYA
CHECKED BY	TANG

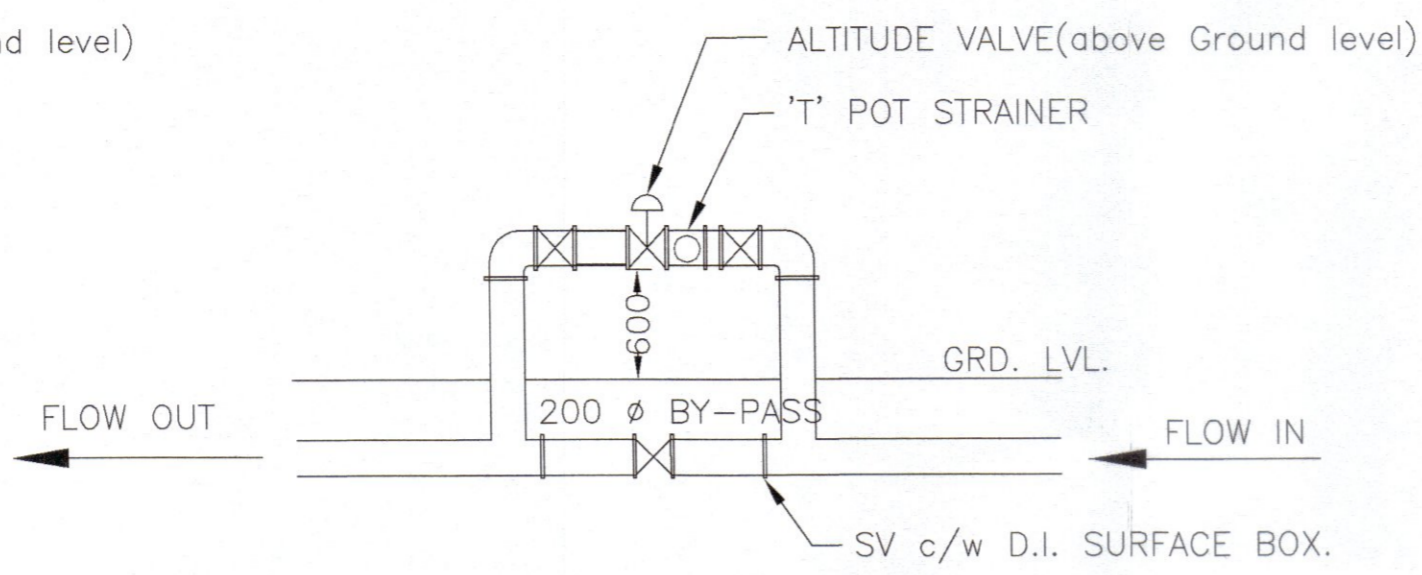
ENGINEER SIGNATURE :
 'I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.'

PROFESSIONAL ENGINEER
 CIVIL
 Ir. PANG YOON KHONG
 C114574
 MALAYSIA
 Ir. Pang Yoon Khong
 B.Eng.(Hons.),U.M.S., M.I.E.M., P.Eng.
 (Principal)



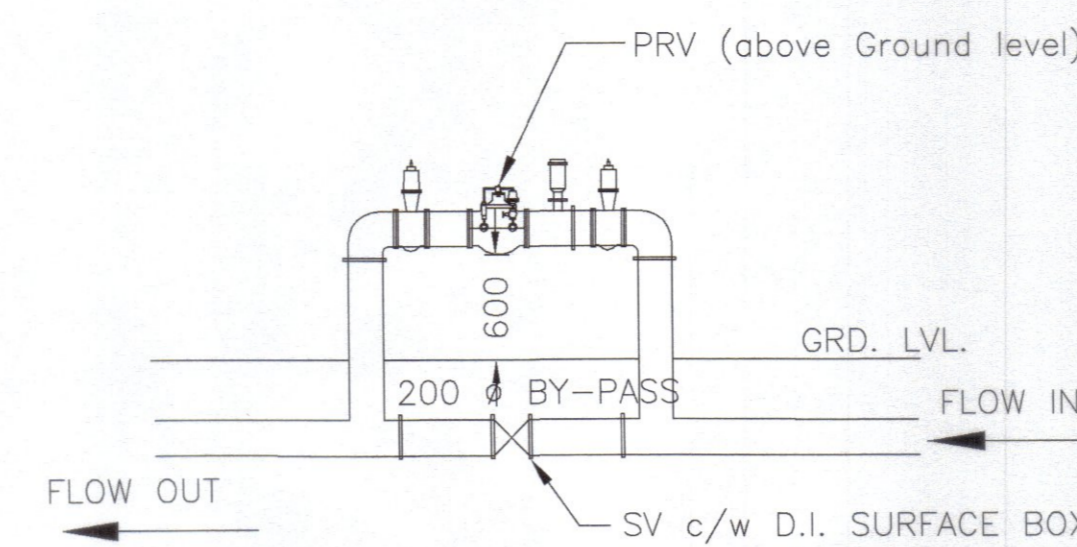
MAGNETIC FLOWMETER - PLAN VIEW

NOT TO SCALE



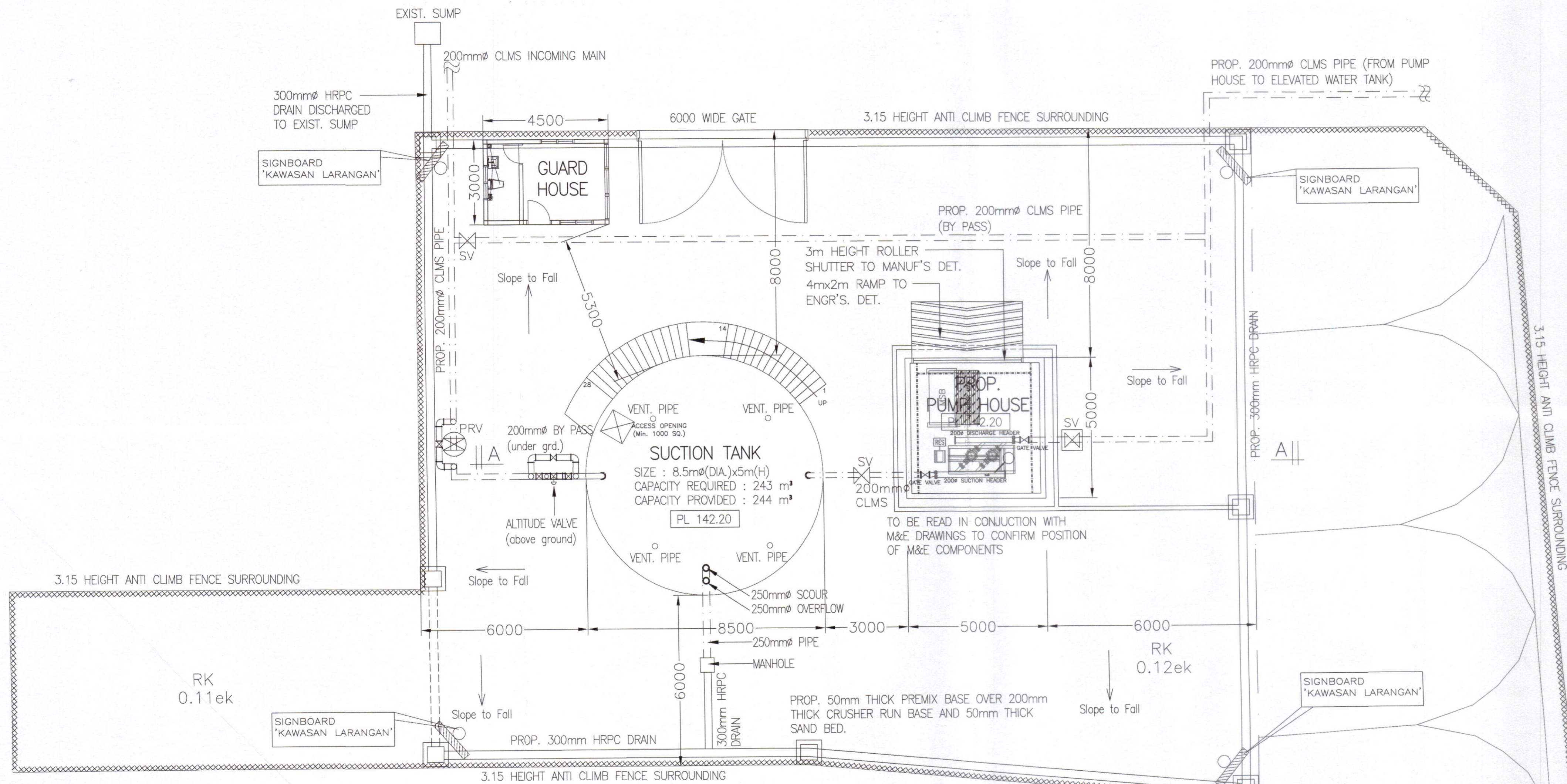
ALTITUDE VALVE - PLAN VIEW

NOT TO SCALE



PRESSURE REDUCING VALVE (PRV) - PLAN VIEW.

NOT TO SCALE



SUCTION TANK & PUMP HOUSE - PLAN VIEW

1 : 100

COLOUR SCHEME FOR TNB SUBSTATION			
LOCATION	PAINT TYPE (I.C.I)	COLOUR CODE	UNDERCOAT PRIMER
1. EXTERIOR WALL	WEATHER SHEILD	RIM GREY - 10397 TENAGA RED - 14238 TENAGA BLUE - 11326	ALKALI RESISTING WALL SEALER A931-18177
2. DOORS & WINDOWS ALL METAL & TIMBER SURFACES	GLOSS PAINT	RIM GREY - 10397 TENAGA RED - 14238 TENAGA BLUE - 11326	SPEED UNDERCOAT A545-101
3. INTERIOR WALLS & CEILINGS	EMULSION	WHITE	ALKALI RESISTING WALL SEALER A931-18177
4. INTERIOR FLOORS	EPOXY	GREEN	

SUCTION TANK CAPACITY	
TOTAL DAILY DEMAND :	728,100 LITRES/DAY 729m³/DAY
SUCTION TANK CAPACITY REQUIRED :	1/3 x (729m³/DAY) 243m³/DAY
SUCTION TANK CAPACITY PROVIDED :	8.5m Ø x 4.3m(H) 244m³/DAY

Kelulusan diberi tetauk kepada syarat-syarat seperti dalam surat Bil. (23) dlm. DP 9/4/8-139 bertarikh 10/3/2024

PENGURUS BESAR LEMBAGA AIR PERAK
Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 10 MAR 2025. Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

ASIA BINA IDAMAN SDN. BHD.
(No. Syarikat : 872920-D)
ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
SUCTION TANK & PUMP HOUSE - PLAN VIEW
(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
CIVIL & STRUCTURAL ENGINEERS
MAN OFFICE:
NO. 6, LEBUH RAJA DI HILIR, 30350 IPOH, PERAK DARUL RIDZUAN.
TEL/FAX : 05-5402902 H/P : 016-5584865
SITE OFFICE:
NO. 37, FIBRE FLOOR, JALAN TBC 5, TAPING BUSINESS CENTRE, 34000 TAPING, PERAK DARUL RIDZUAN.
TEL : 05-8104455 H/P : 012-5121136

SCALE	1 : 100
DATE	02/2025
SHEET	5/11
DRAWN BY	AYA
CHECKED BY	TANG

ENGINEER SIGNATURE :
I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.



Ir. Pang Yoon Khong
B.Eng. (Hons.), M.Eng., M.Eng. (Principal)

KAWASAN LARANGAN DAN TEMPAT LARANGAN
 PROTECTED AREAS AND PROTECTED PLACES
 DILARANGAN MASUK JIKA TIADA KEBENARAN
 NO ADMITTANCE TO UNAUTHORISED PERSONS

KAWASAN LARANGAN SIGNBOARD

COLOUR : BACKGROUND - RED
 LETTERING - WHITE

ELEVATED WATER TANK CAPACITY

TOTAL DAILY DEMAND : 728,100 LITRES/DAY
 : 729m³/DAY
 ELEVATED TANK CAPACITY REQUIRED : 2/3 x (729m³/DAY)
 : 486m³/DAY
 ELEVATED TANK CAPACITY PROVIDED : 10m x 10m x 5m(TWL)
 : 500m³/DAY

Kelulusan diberi tetapi kepada syarat - syarat seperti dalam surat Bil. (23) dlm LAP 3/4/8-138 bertarikh 10/03/2015
 PENGURUS BESAR LEMBAGA AIR PERAK
 Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 10 MAR 2025
 Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
 CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :
 ASIA BINA IDAMAN SDN. BHD.
 (No. Syarikat : 872920-D)
 ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
 ELEVATED WATER TANK - PLAN VIEW
 (KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

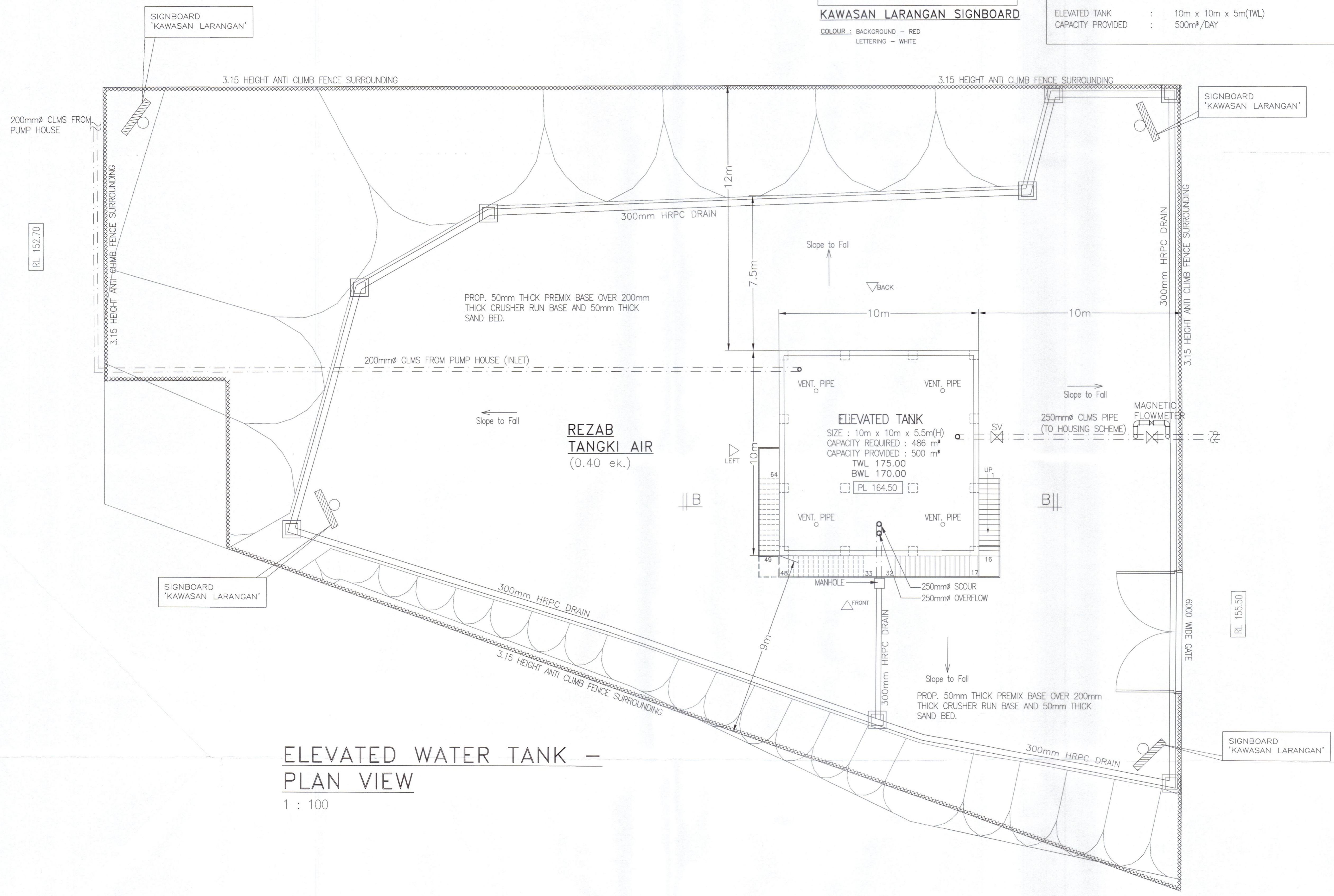
PYK CONSULTANT
 CIVIL & STRUCTURAL ENGINEERS
 MAIN OFFICE:
 NO. 16, LEMBANG BUKU DI HILIR, 30350 IPOH, PERAK DARUL RIDZUAN.
 TEL/FAX : 05-5492902 H/P : 016-5584865
 SITE OFFICE:
 NO. 37, FIRST FLOOR, JALAN TBC 5, TAMPUN BUSINESS CENTRE, 34000 TAMPUN, PERAK DARUL RIDZUAN.
 TEL : 05-9104455 H/P : 012-5121138

SCALE : 1 : 100
 DATE : 02/2025
 SHEET : 6/11
 DRAWN BY : AYA
 CHECKED BY : TANG

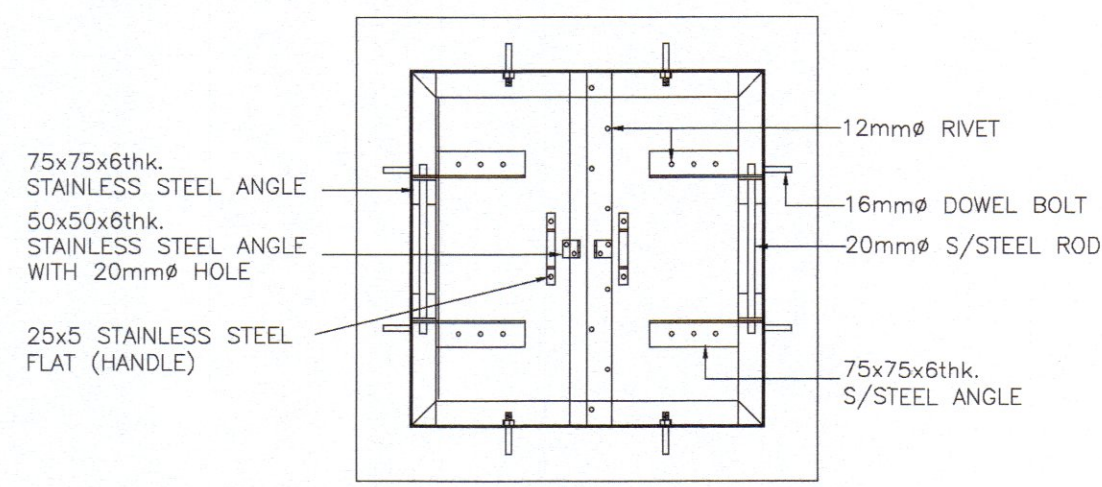
ENGINEER SIGNATURE :
 'I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.'



Mr. Pang Yoon Khong
 B.Eng. (Hon.) F.I.M.S., M.I.E.M., P.Eng.
 (Principal)

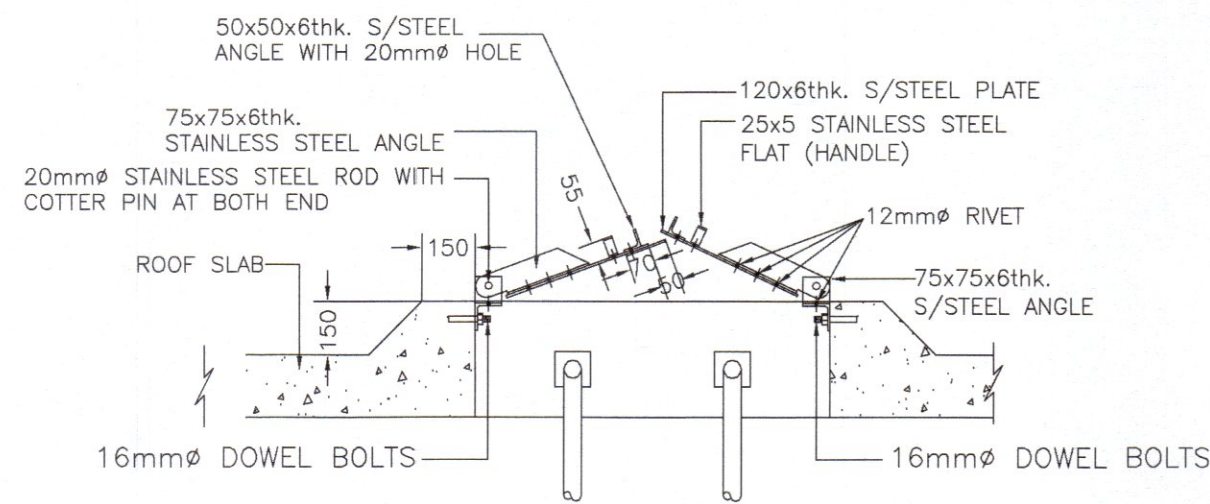


ELEVATED WATER TANK - PLAN VIEW
 1 : 100



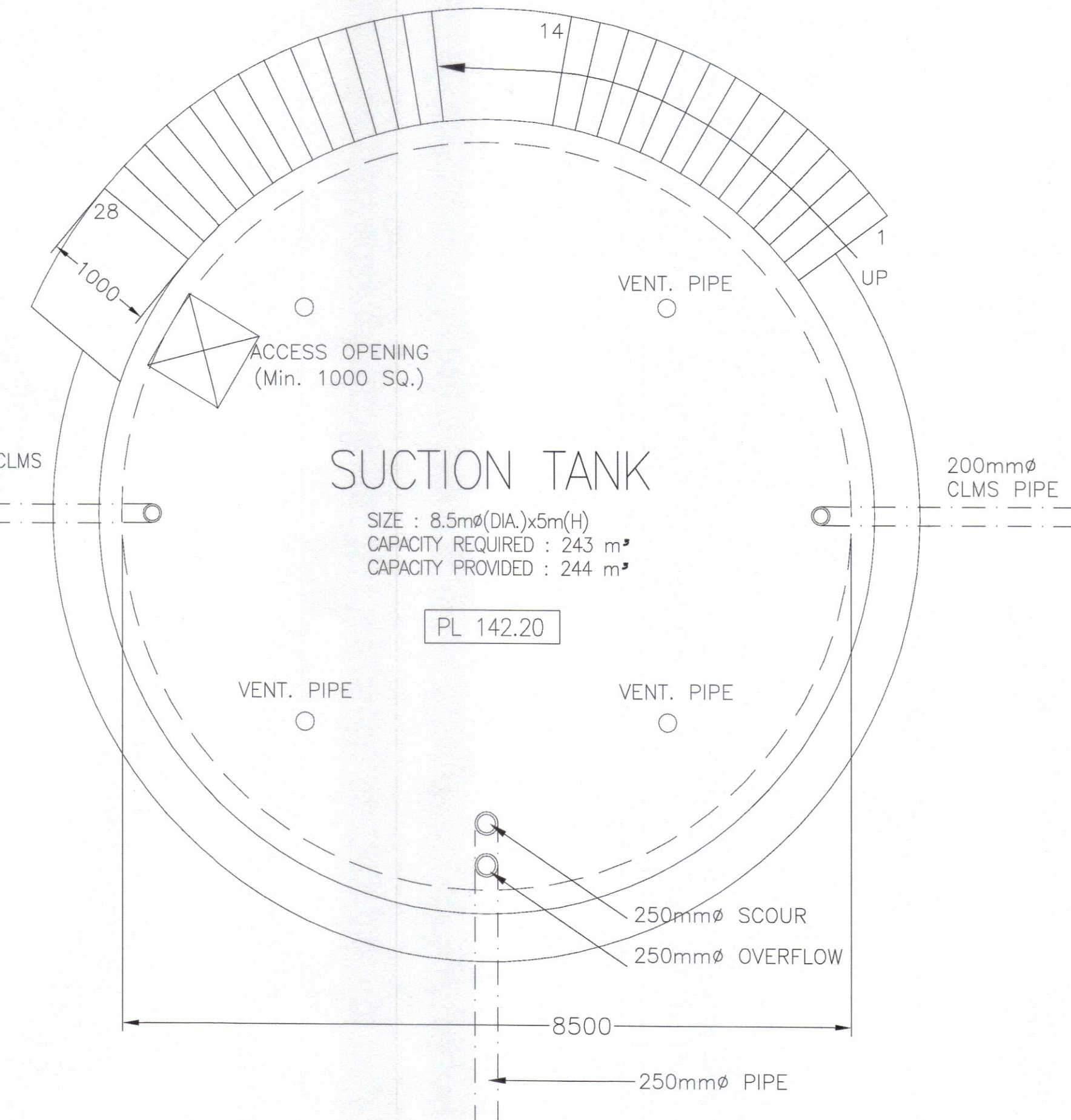
ACCESS MANHOLE DETAIL

SCALE : NTS

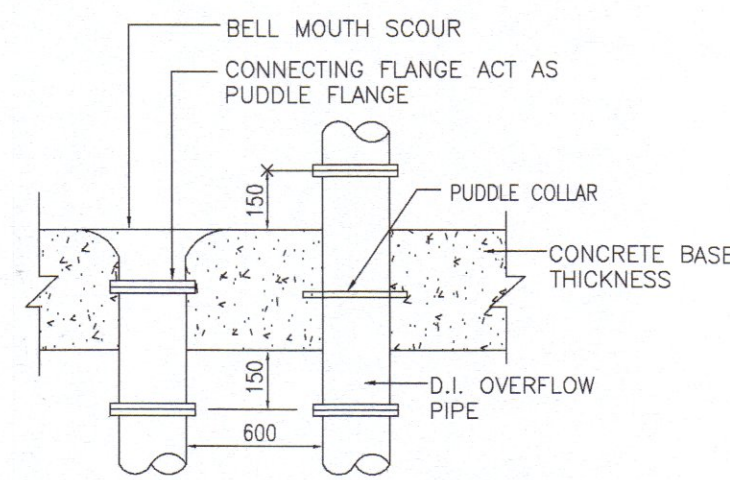


SECTION OF ACCESS MANHOLE

SCALE : NTS

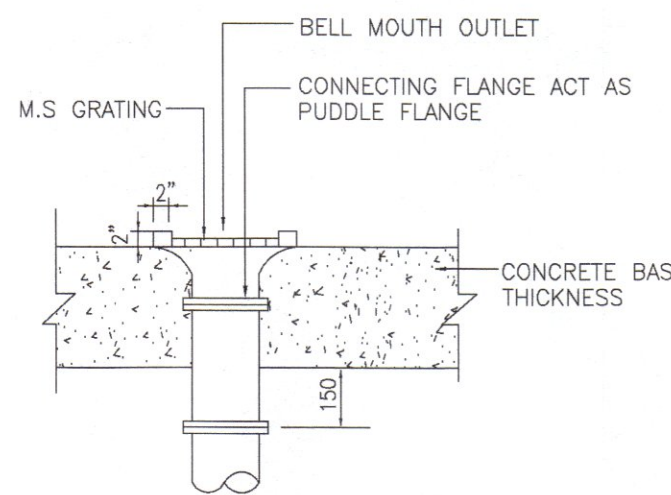


SUCTION TANK ROOF SLAB



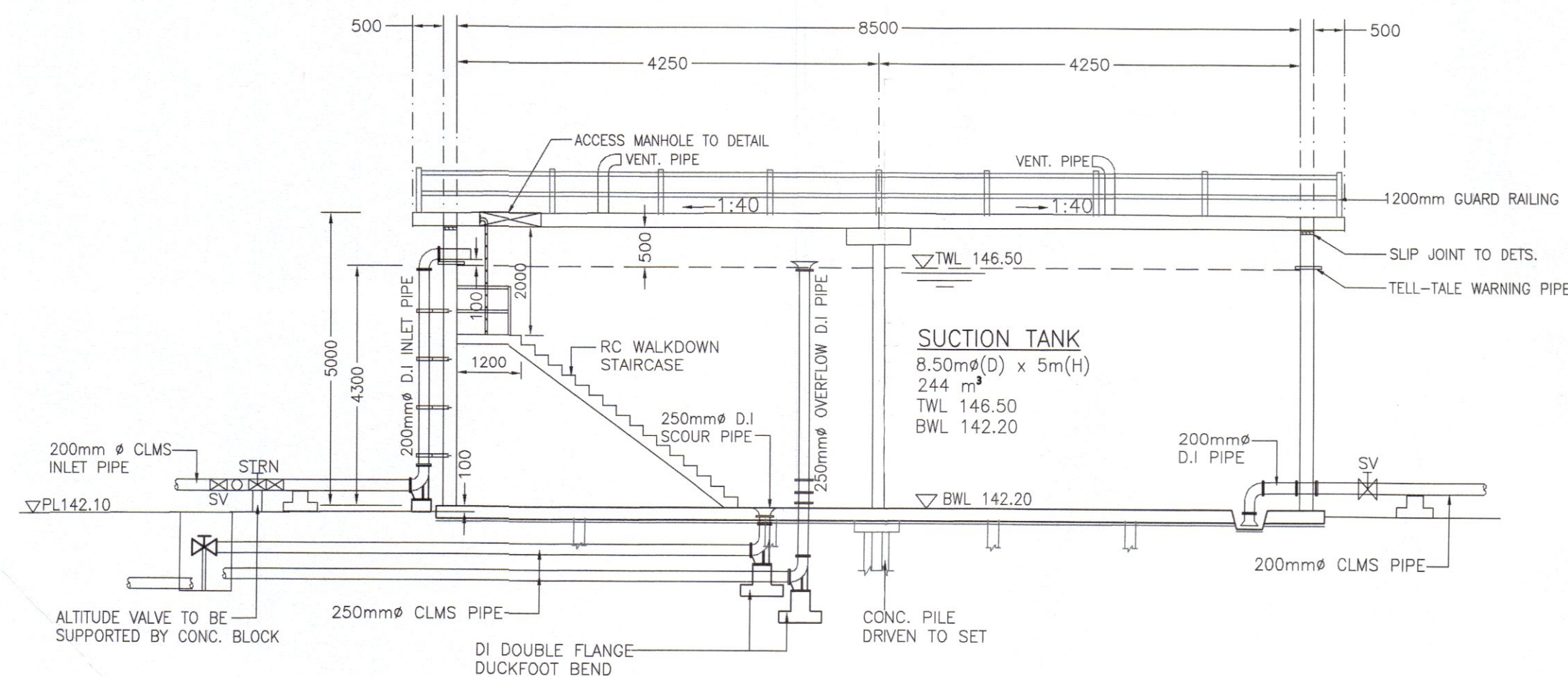
DETAIL OF BELLMOUTH SCOUR

NOT TO SCALE



DETAIL OF OUTLET

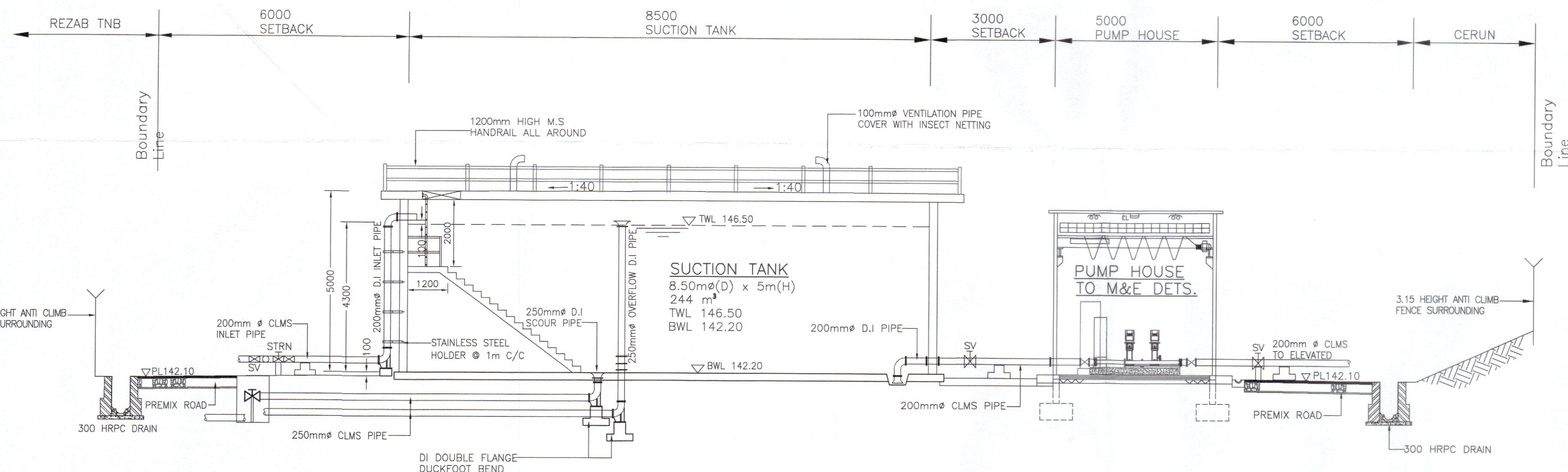
NOT TO SCALE



ARCHITECTURAL ELEVATION (INTERNAL PIPE)

(SUCTION TANK)

SCALE : NTS



SECTION A-A

(SUCTION TANK)

SCALE : NTS

Kelulusan diberi tetauk kepada syarat-syarat seperti dalam surat Bil. (33) dtm. **PPS/4/B-136** bertarikh **1.0.MAR.2025**

+ 7
PENGURUS BESAR
LEMBAGA AIR PERAK
Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari **1.0.MAR.2025**... Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

(Signature)
ASIA BINA IDAMAN SDN. BHD.
(No. Syarikat : 872920-D)

ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
ARCHITECTURAL ELEVATION OF SUCTION TANK ELEVATION & SECTION

(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
CIVIL & STRUCTURAL ENGINEERS
MAN OFFICE:
NO. 6, LEBUH RAJA DI HILIR,
33300 PERAK DARUL RIDZUAN,
TEL/FAX : 05-5492902 H/P : 016-5584865
SITE OFFICE:
NO. 37, FIRST FLOOR, JALAN TBC 5,
TAMPING BUSINESS CENTRE, 34000 TAMPING, PERAK DARUL RIDZUAN,
TEL : 05-8104455 H/P : 012-5121138

SCALE : 1 : 100

DATE : 02/2025

SHEET : 7/11

DRAWN BY : AYA

CHECKED BY : TANG

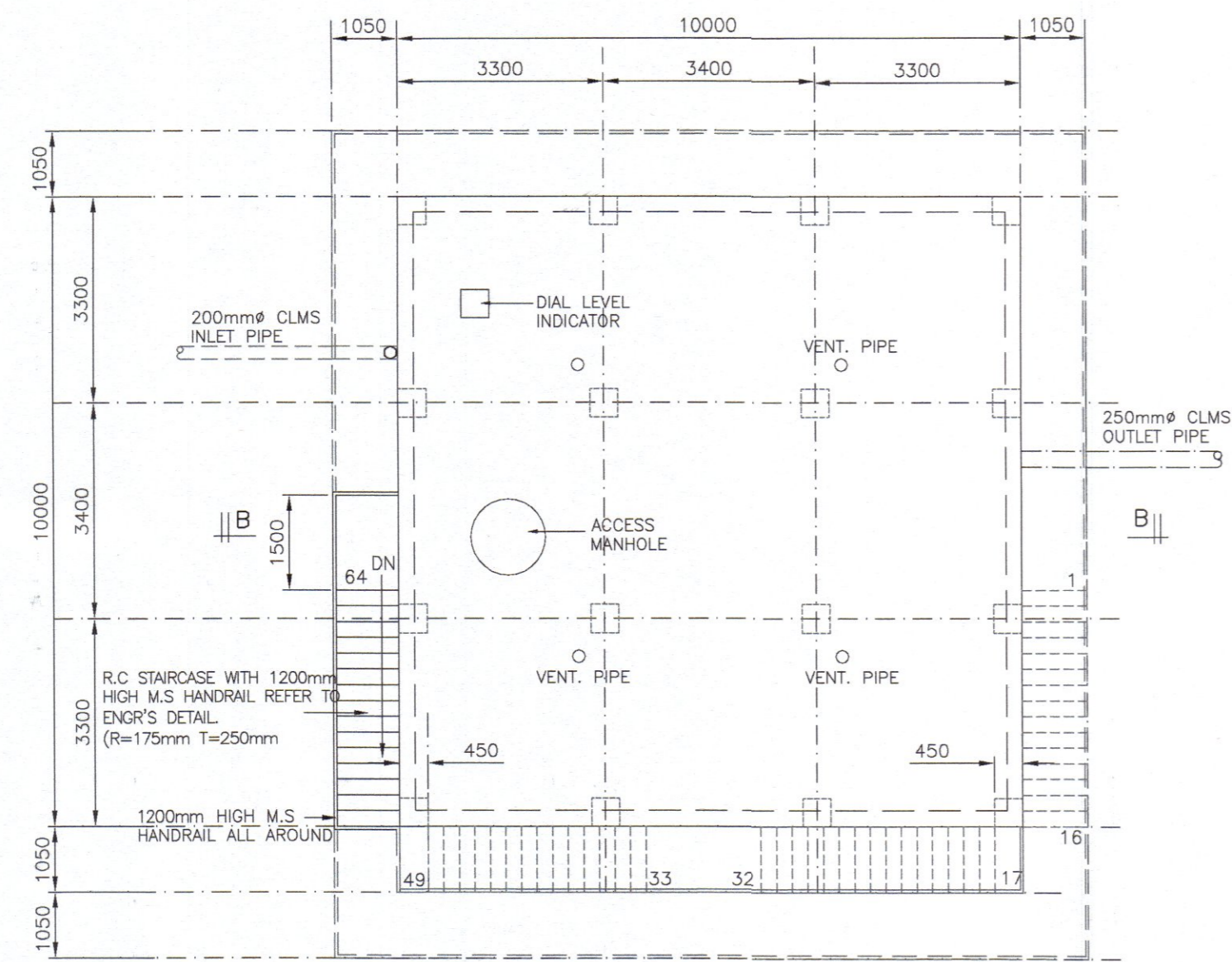
ENGINEER SIGNATURE :
I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and accept full responsibility for the design and the supervision of the work.



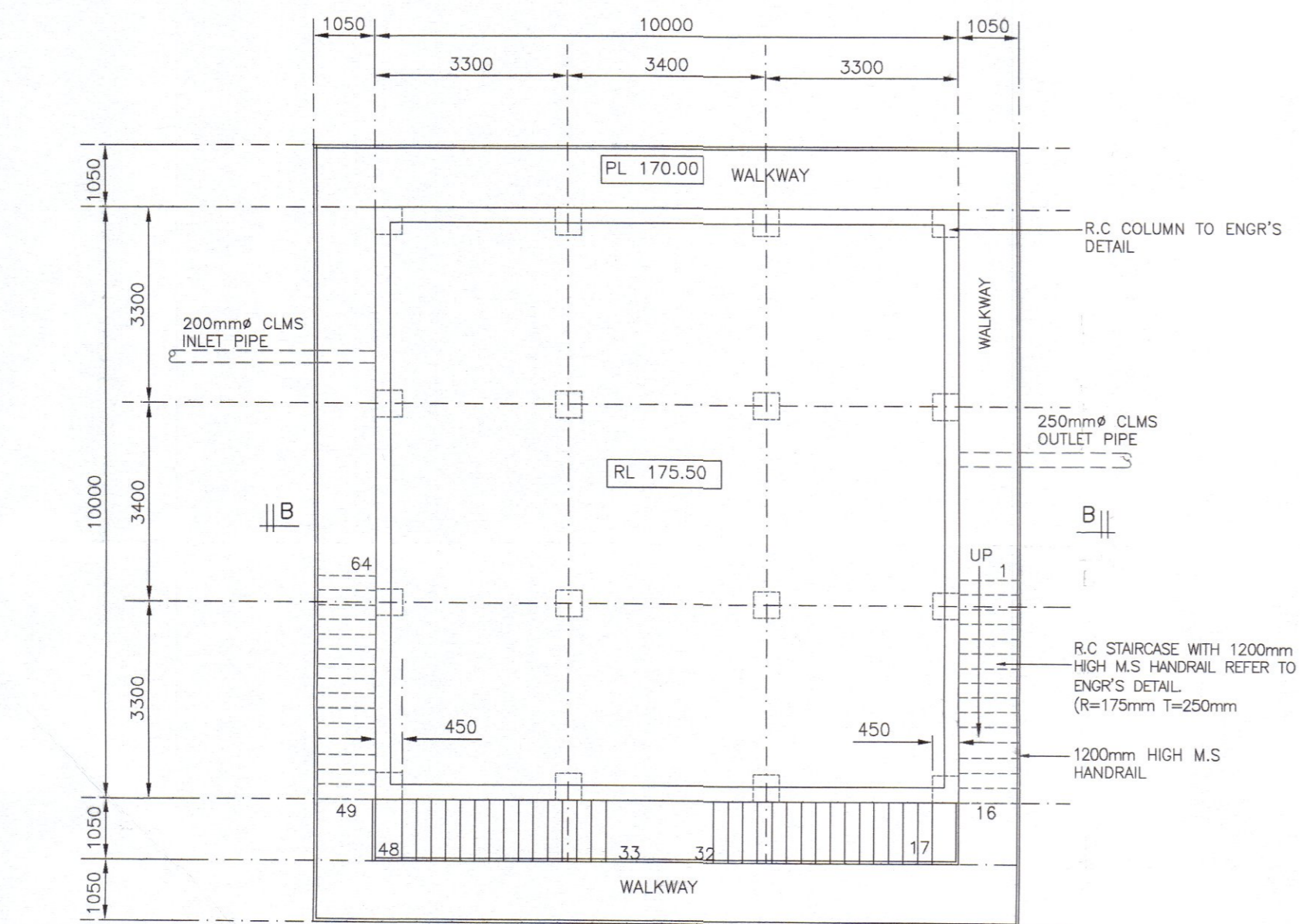
Ir. Pang Yoon Khong
B.Eng.(Hons.), M.S., MIE, P.Eng.
(Principal)

DRAWING NO :
PYK/ABI(LOT1396)/24 (WR)

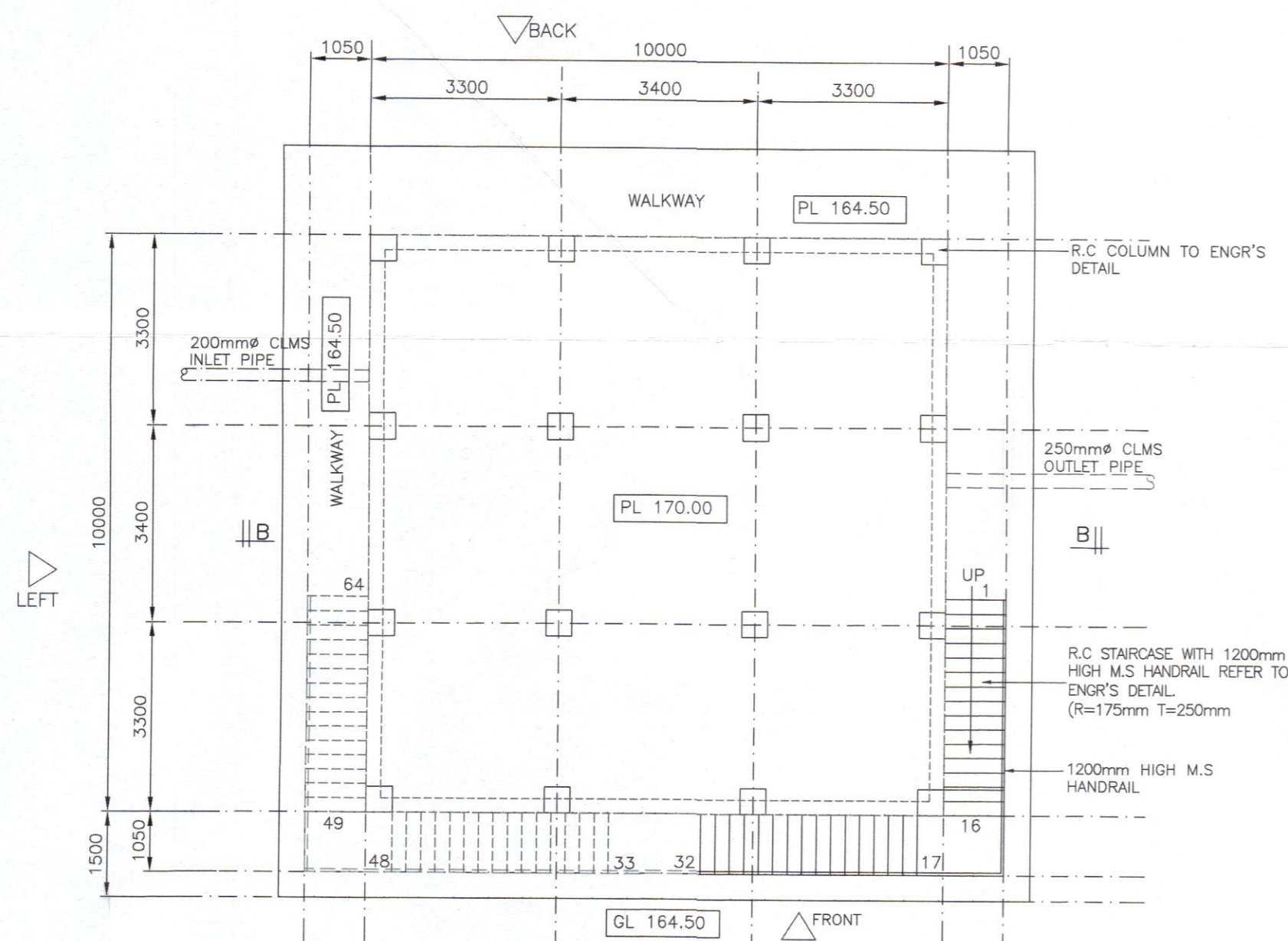
7/11



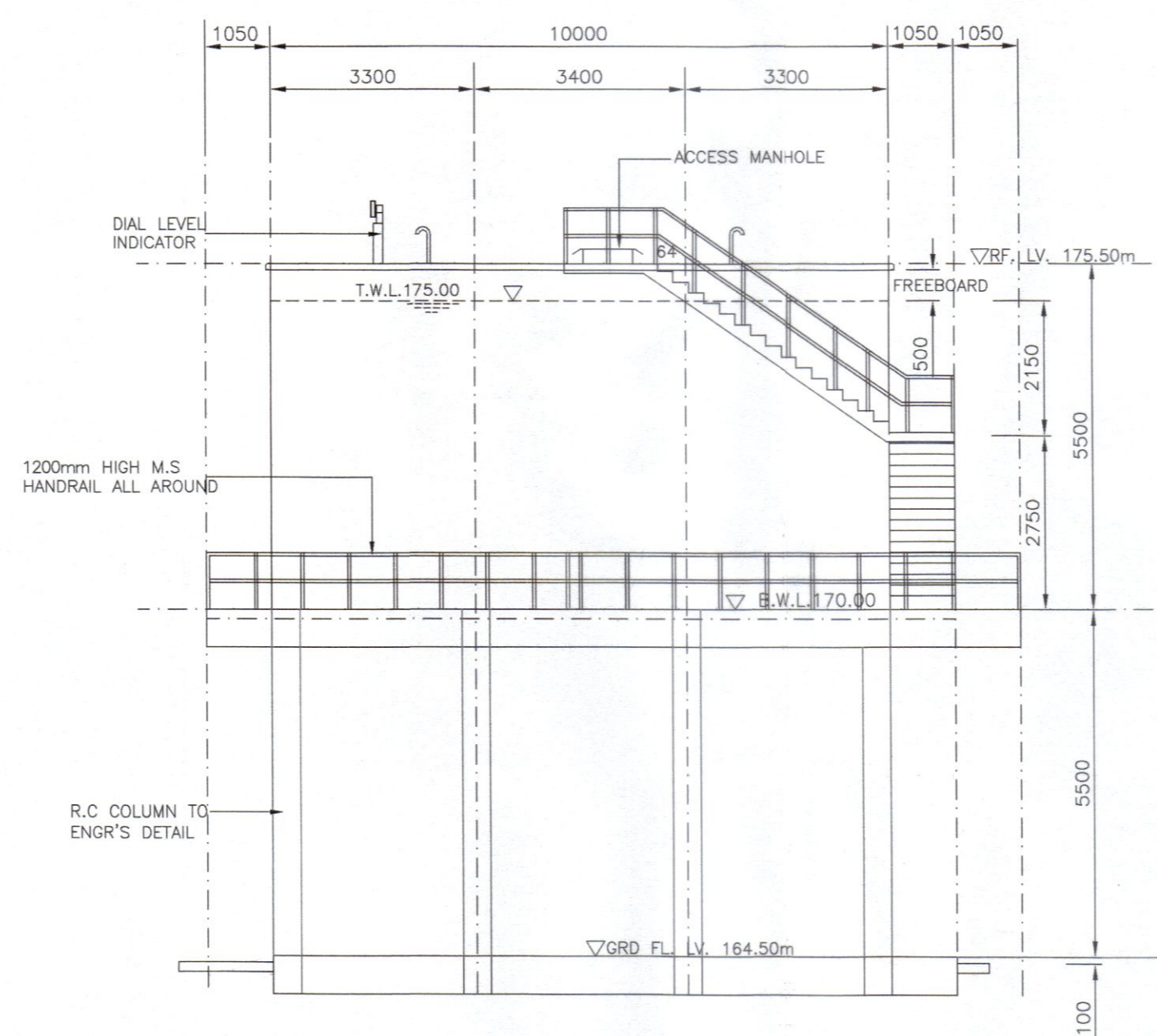
ROOF PLAN
(ELEVATED WATER TANK)
SCALE 1:100



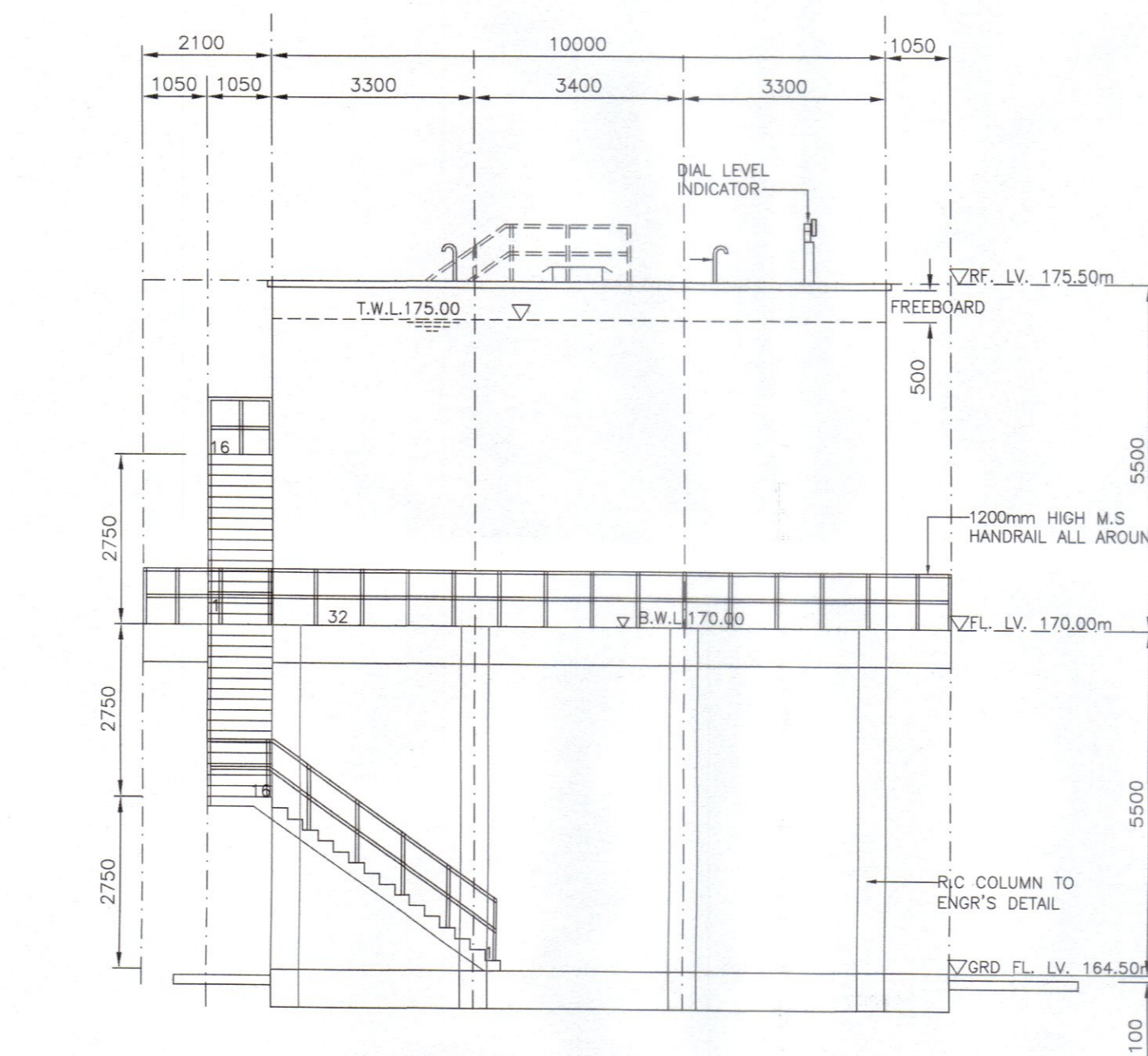
INTERMEDIATE FLOOR PLAN
(ELEVATED WATER TANK)
SCALE 1:100



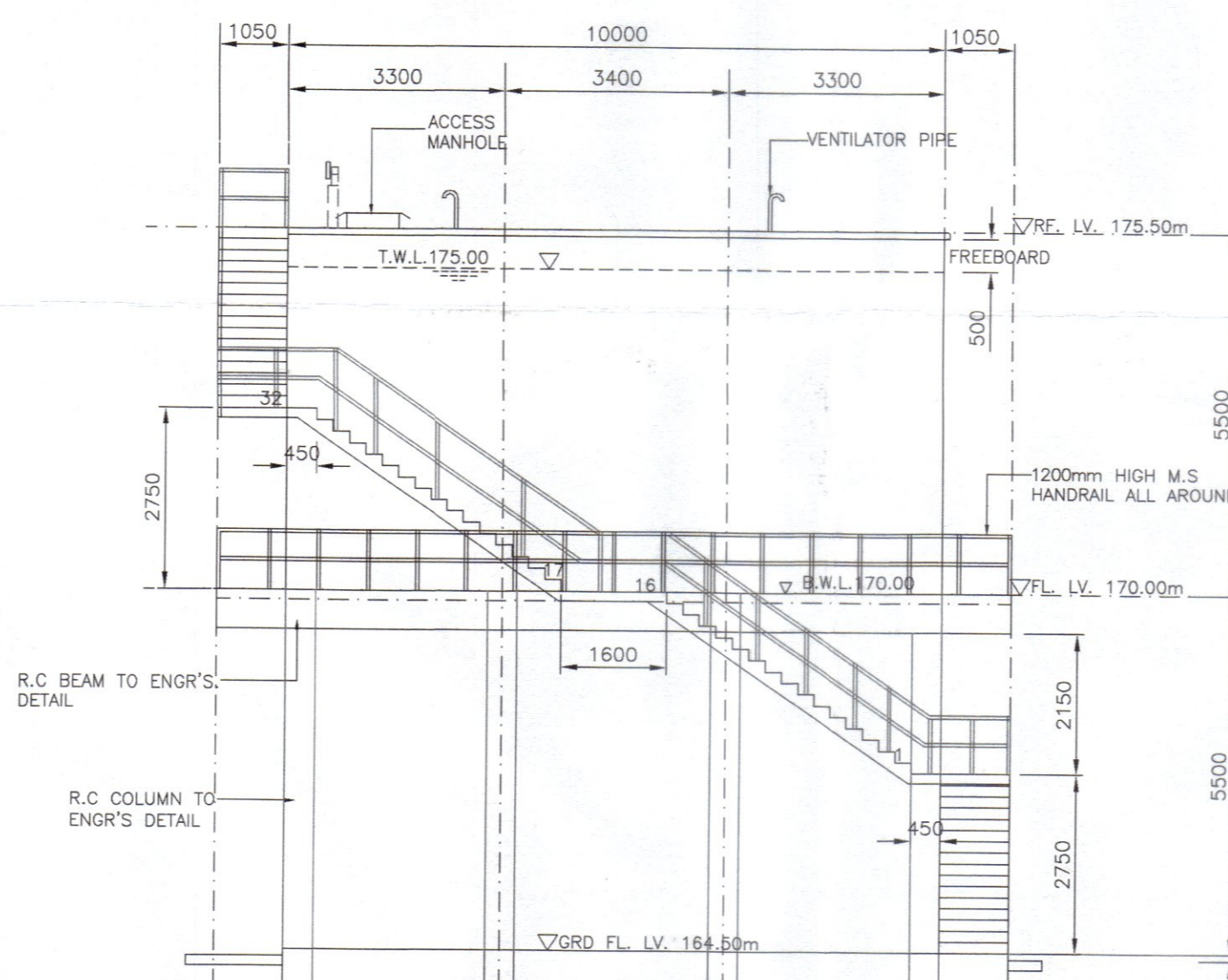
GROUND FLOOR PLAN
(ELEVATED WATER TANK)
SCALE 1:100



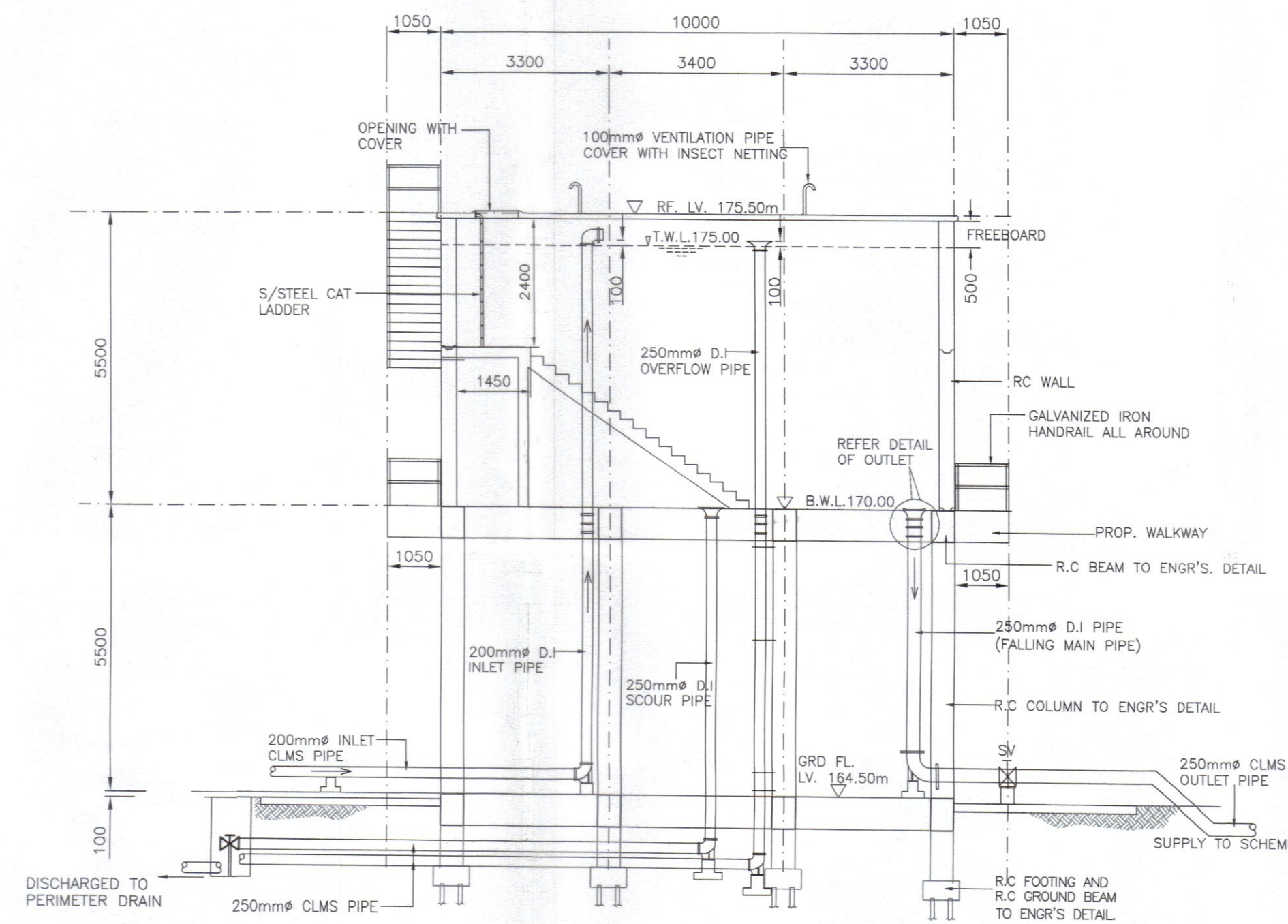
LEFT ELEVATION
SCALE 1:100



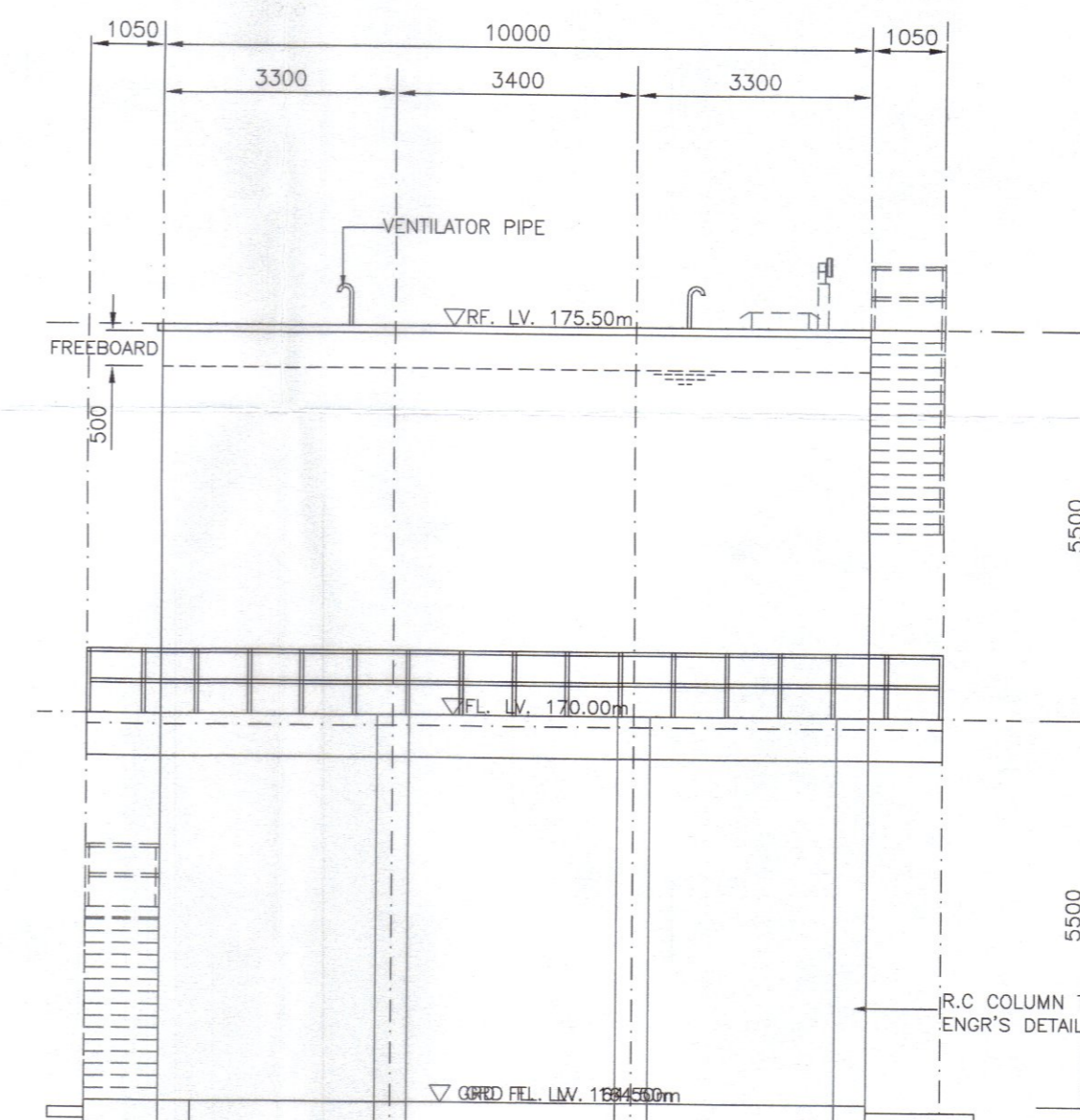
RIGHT ELEVATION
SCALE 1:100



FRONT ELEVATION
SCALE 1:100



SECTION B-B
SCALE 1:100



BACK ELEVATION
SCALE 1:100

Kelulusan diberi tetakluk kepada syarat - syarat seperti dalam surat Bil. (33) dtm. 10 MAR 2025 bertarikh 10 MAR 2025

PENGURUS BESAR
LEMBAGA AIR PERAK
Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 1.0 MAR 2025. Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

ASIA BINA IDAMAN SDN. BHD.
(No. Syarikat : 872920-D)
ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
PLAN VIEW OF ELEVATED WATER TANK ELEVATION & SECTION

(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
CIVIL & STRUCTURAL ENGINEERS
MAIN OFFICE:
NO. 6, LEBUH BAKA DI HILIR,
30350 POKI, PERAK DARUL RIDZUAN
TEL/FAX : 05-5492902 H/P : 016-5584865
SITE OFFICE:
NO. 37, FIRST FLOOR, JALAN TBC 5,
TAPING BUSINESS CENTRE, 34000 TAPING, PERAK DARUL RIDZUAN.
TEL : 05-8104455 H/P : 012-8121138

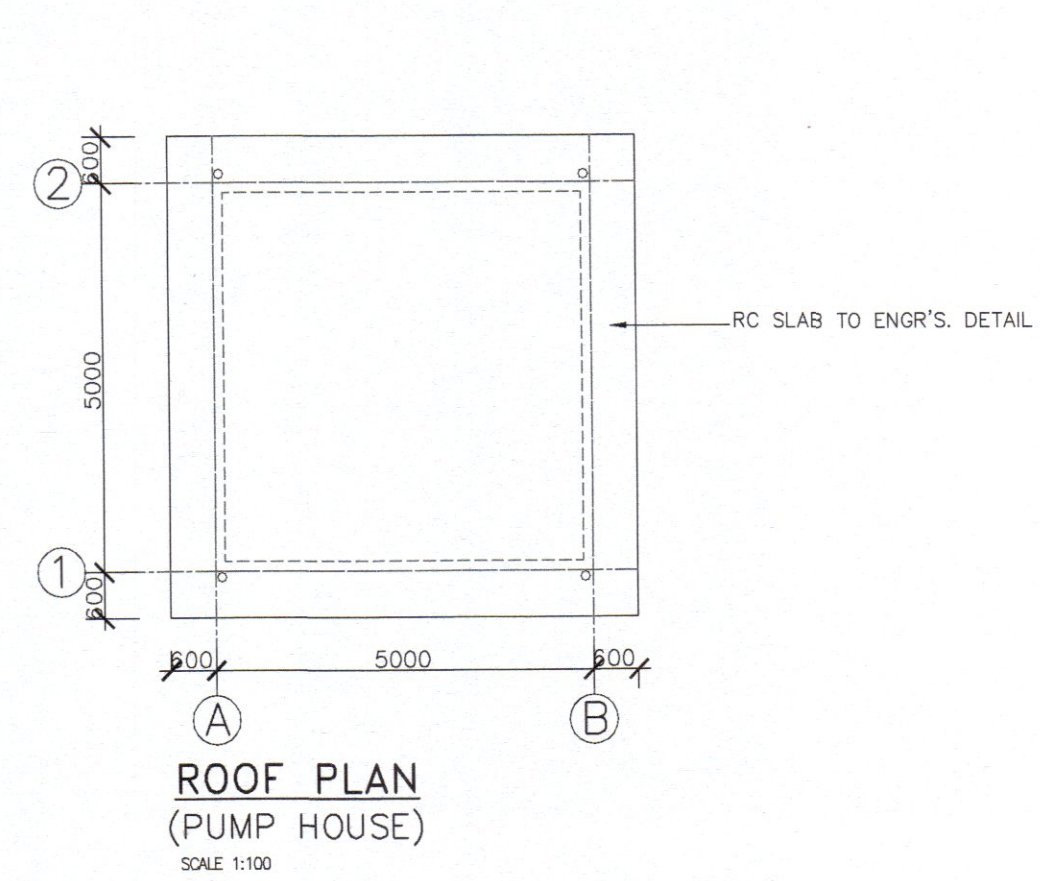
SCALE 1 : 100
DATE 02/2025
SHEET 8/11
DRAWN BY AYA
CHECKED BY TANG

ENGINEER SIGNATURE :
I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.

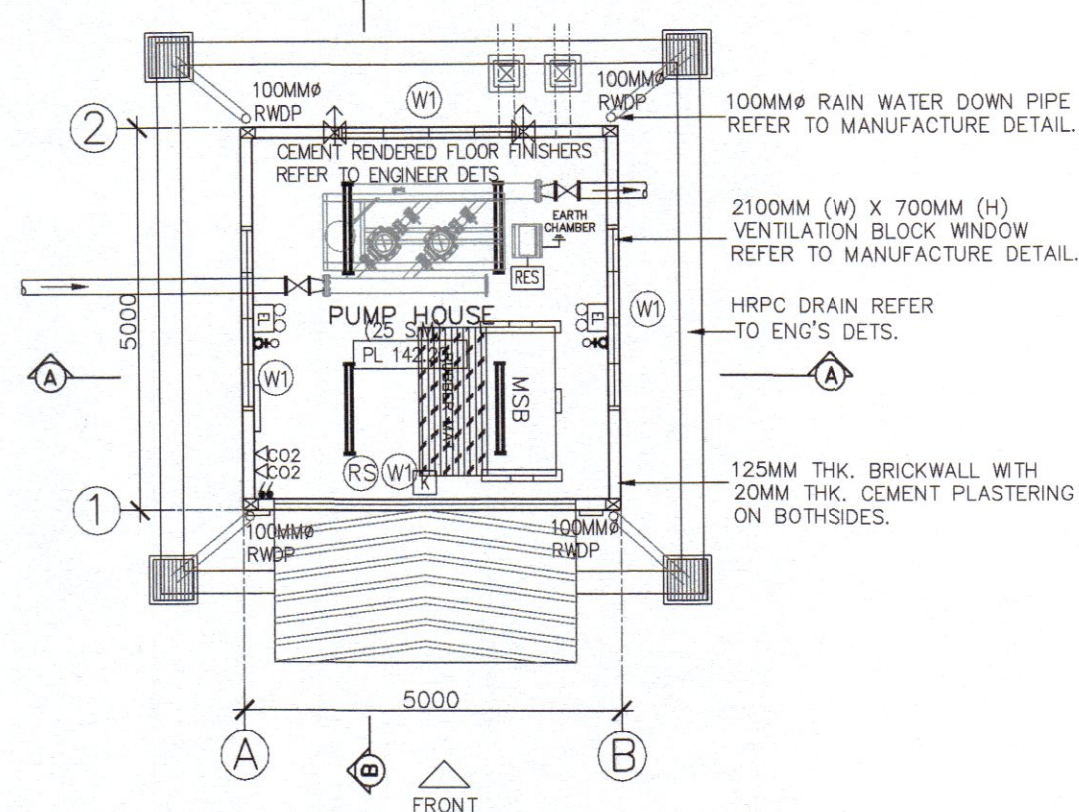


Ir. Pang Yoon Khong
B.Eng (Hons.) M.Eng., M.I.E.M., F.Eng.
(1980-2004)

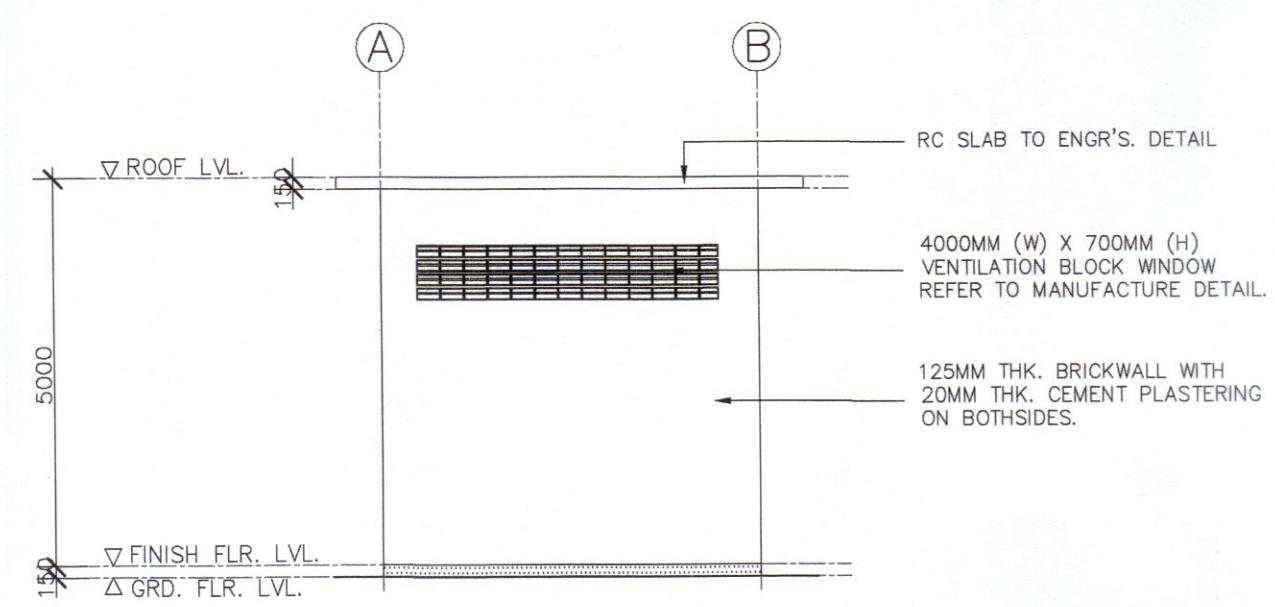
DRAWING NO :
PYK/AB(L0T1396)/24 (WR)



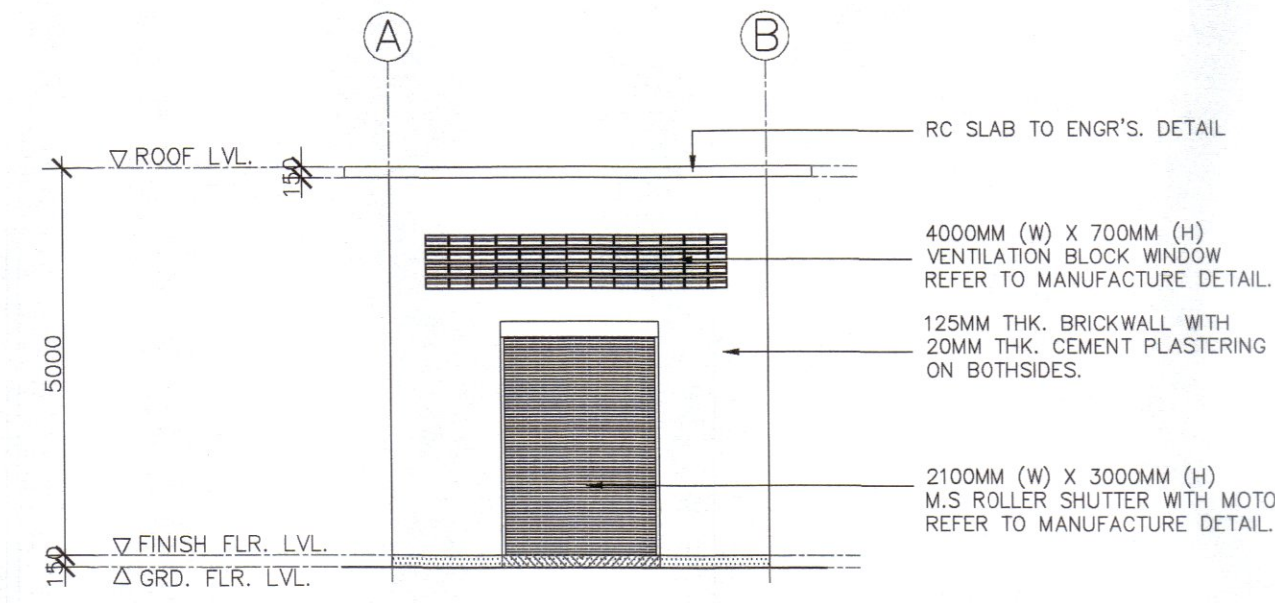
**ROOF PLAN
(PUMP HOUSE)**
SCALE 1:100



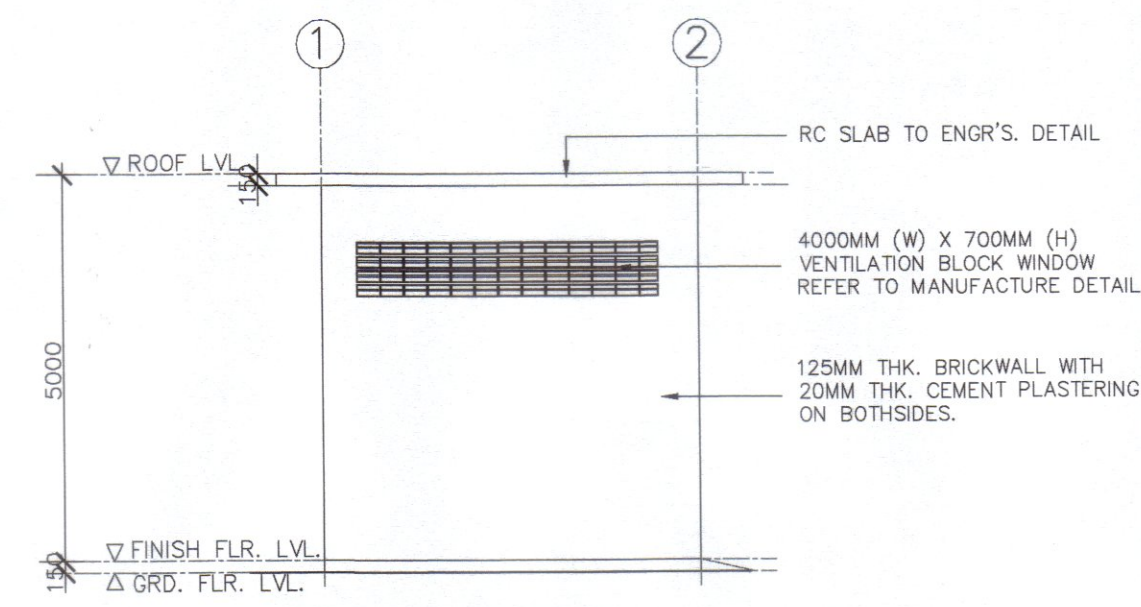
**GROUND FLOOR PLAN
(PUMP HOUSE)**
SCALE 1:100



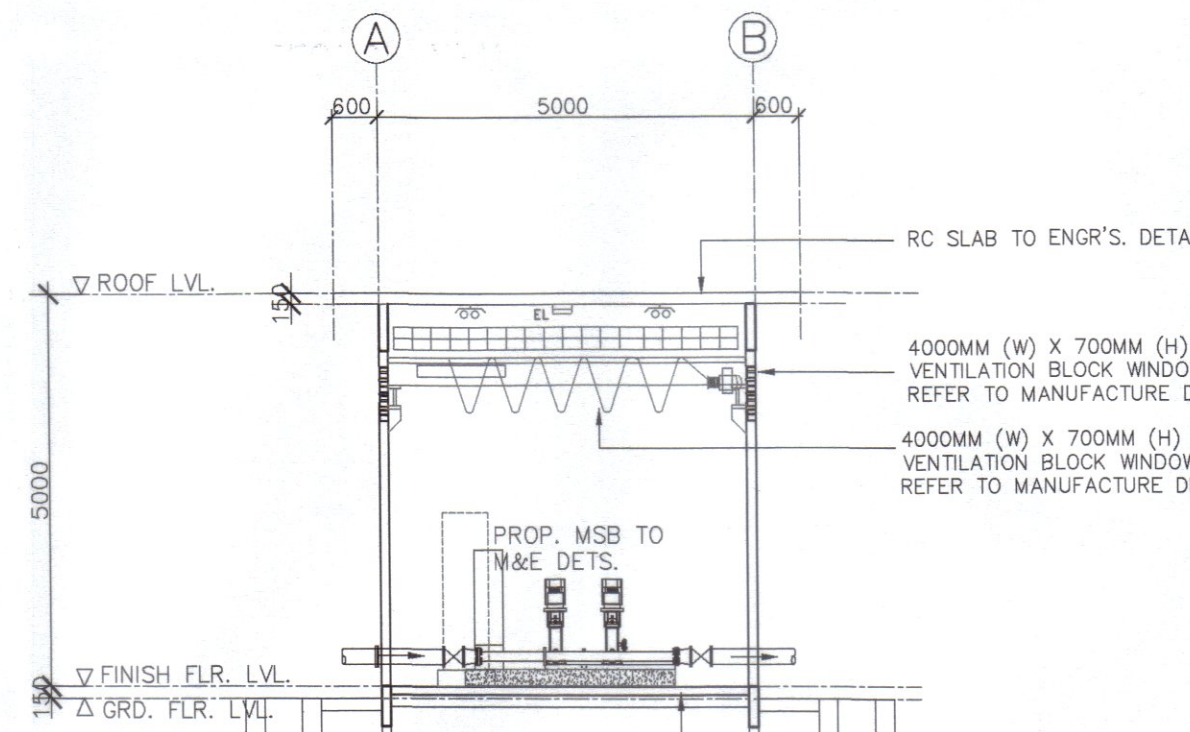
**REAR ELEVATION
(PUMP HOUSE)**
SCALE 1:100



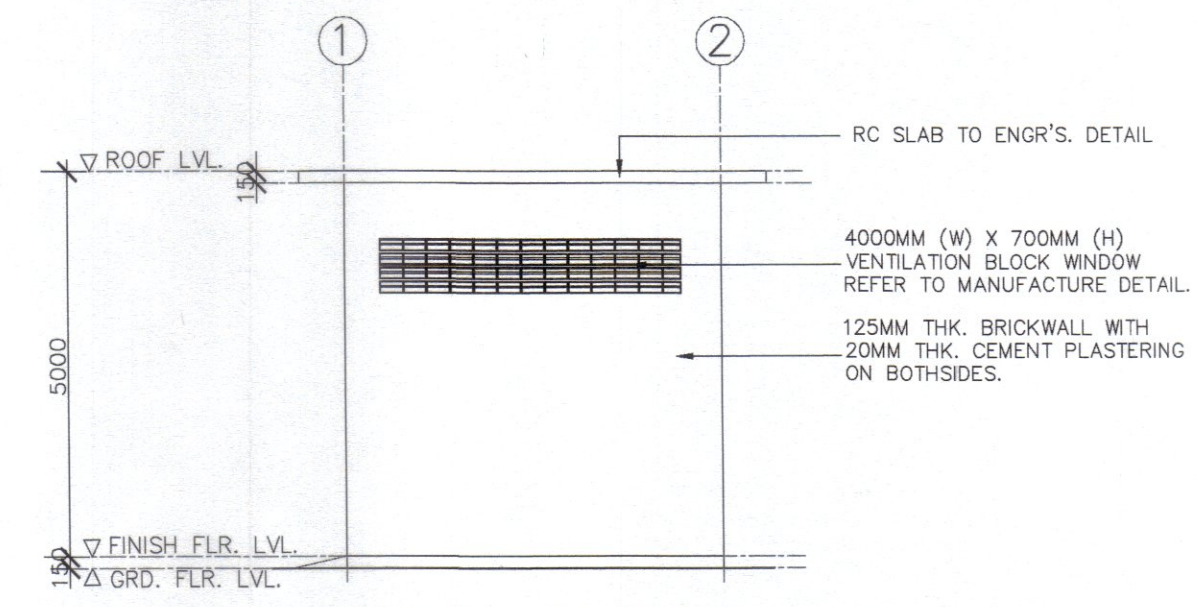
**FRONT ELEVATION
(PUMP HOUSE)**
SCALE 1:100



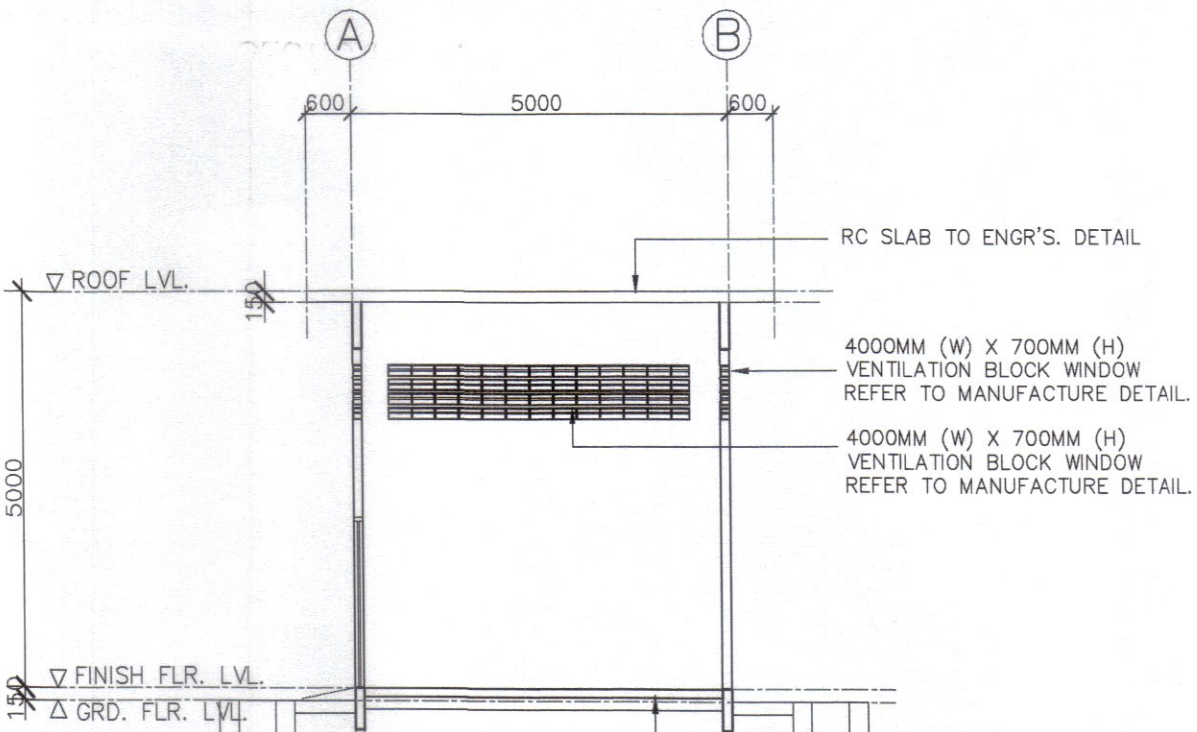
**LEFT ELEVATION
(PUMP HOUSE)**
SCALE 1:100



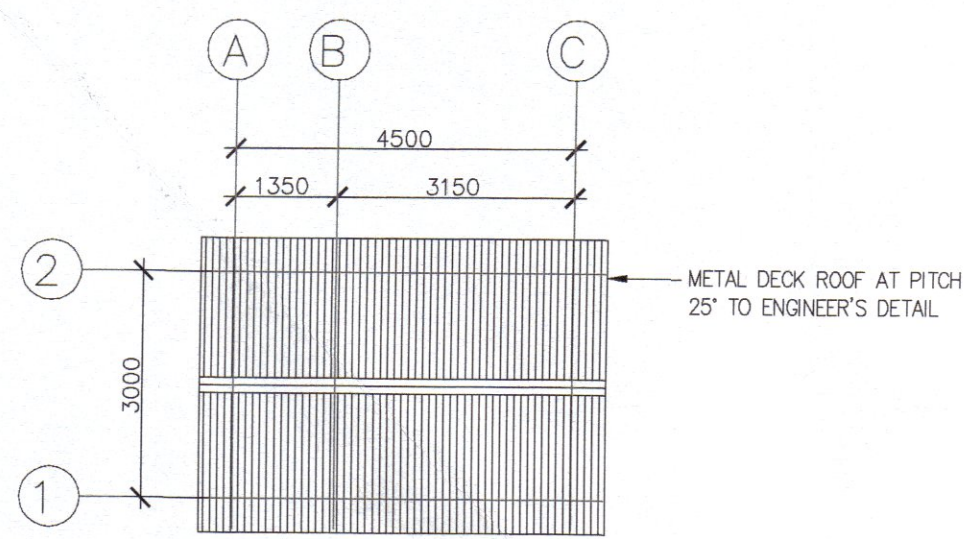
**SECTION A-A
(PUMP HOUSE)**
SCALE 1:100



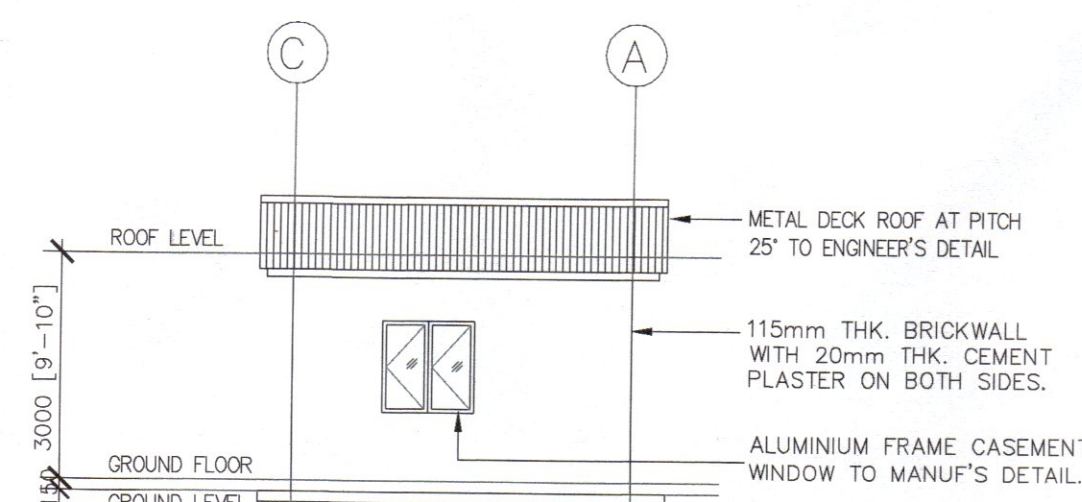
**RIGHT ELEVATION
(PUMP HOUSE)**
SCALE 1:100



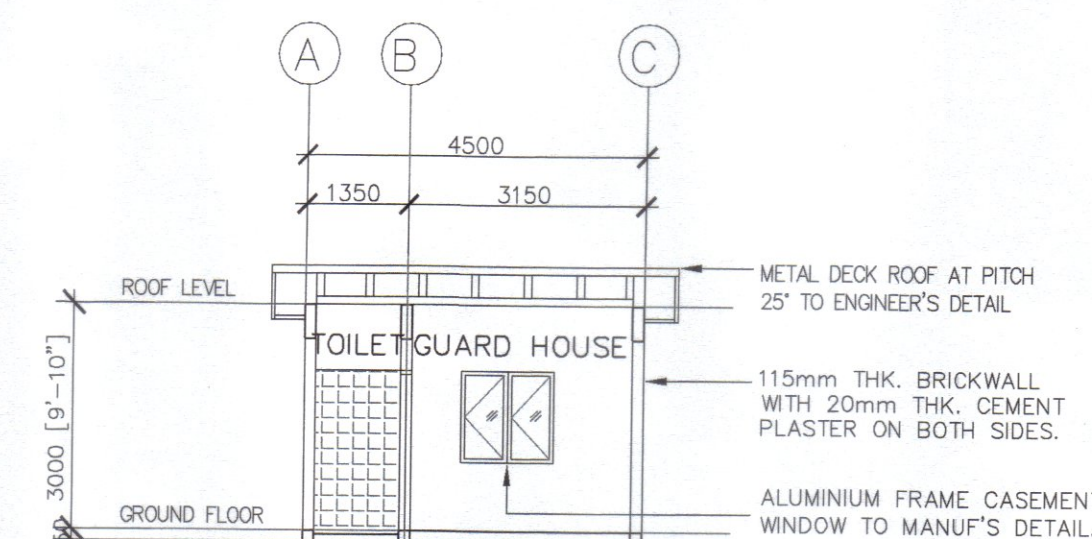
**SECTION B-B
(PUMP HOUSE)**
SCALE 1:100



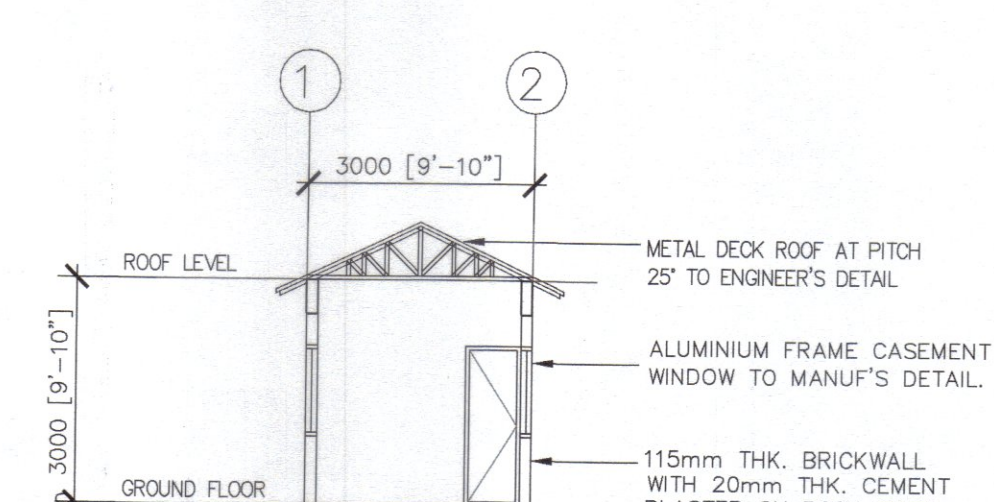
**ROOF PLAN
(GUARD HOUSE)**
SCALE 1:100



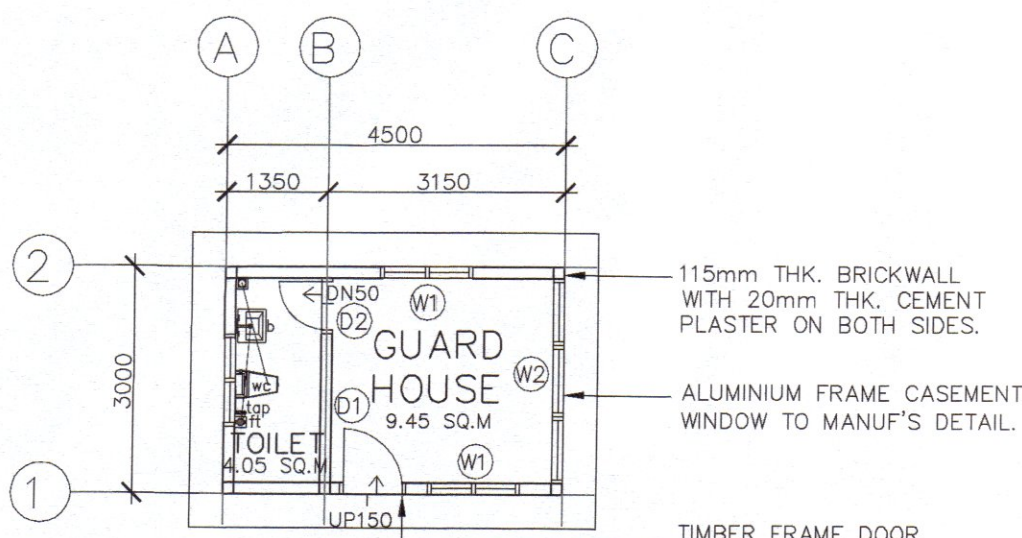
**REAR ELEVATION
(GUARD HOUSE)**
SCALE 1:100



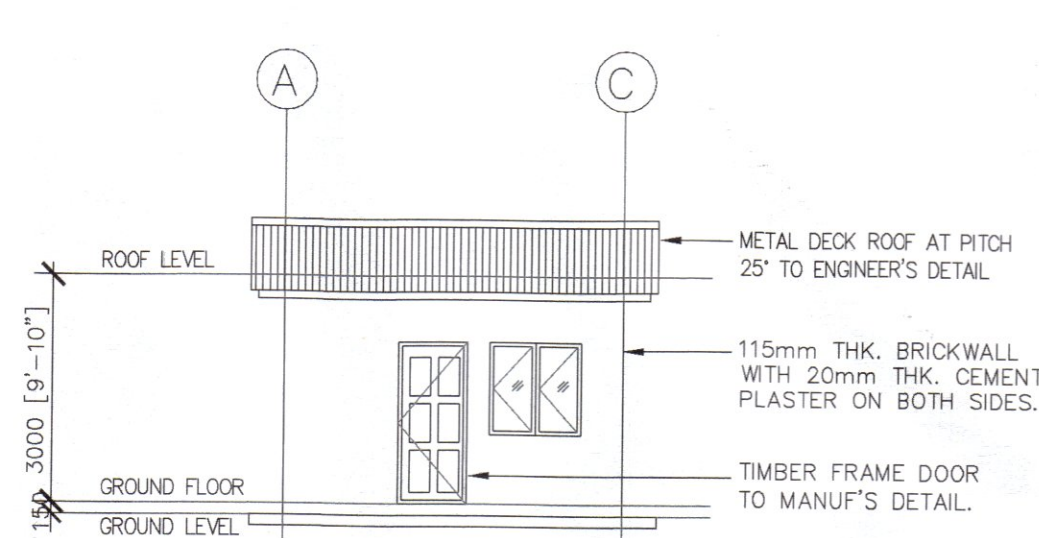
**SECTION X-X
(GUARD HOUSE)**
SCALE 1:100



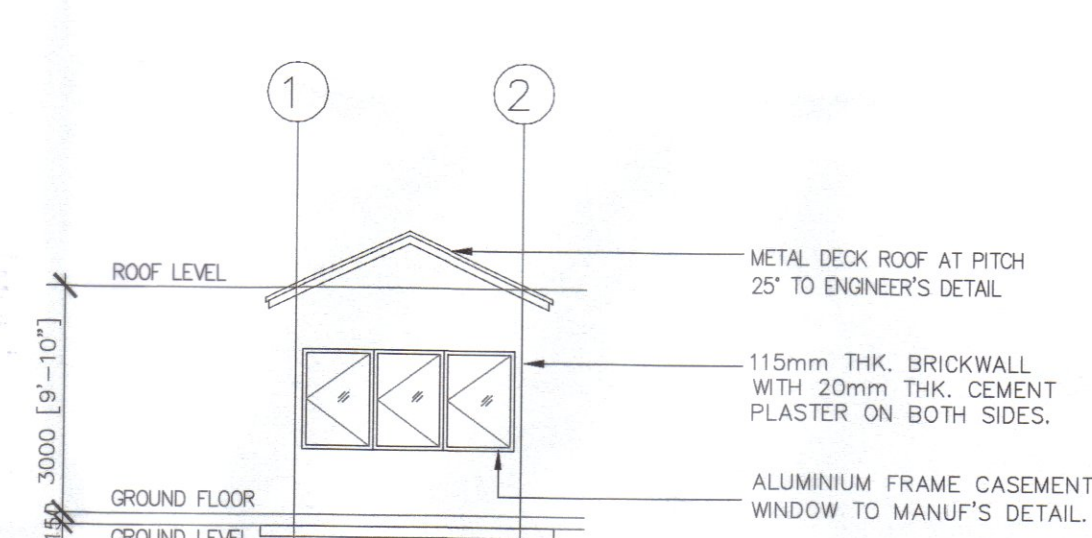
**SECTION Y-Y
(GUARD HOUSE)**
SCALE 1:100



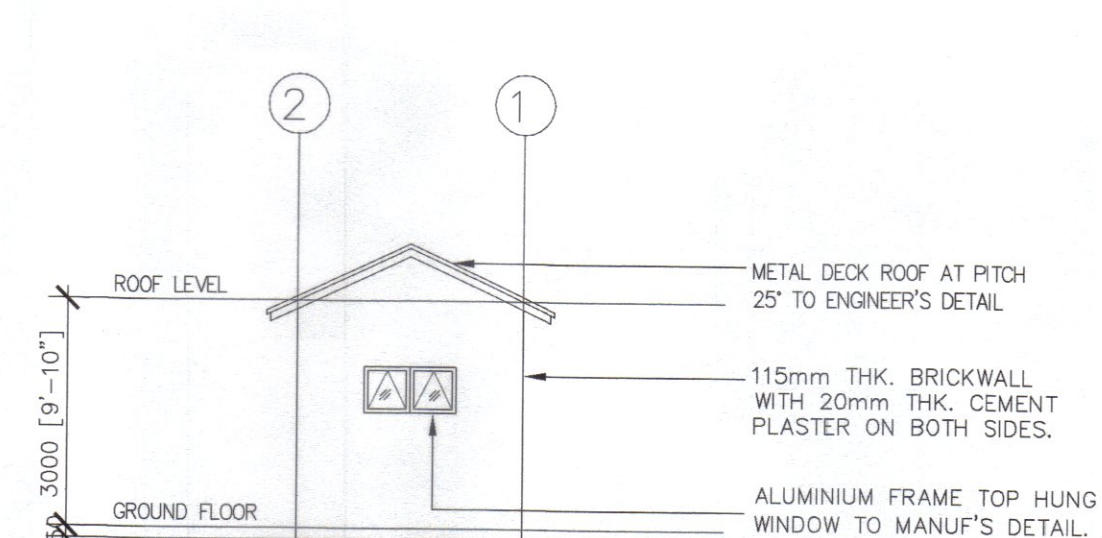
**GROUND FLOOR PLAN
(GUARD HOUSE)**
SCALE 1:100



**FRONT ELEVATION
(GUARD HOUSE)**
SCALE 1:100



**RIGHT ELEVATION
(GUARD HOUSE)**
SCALE 1:100



**REAR ELEVATION
(GUARD HOUSE)**
SCALE 1:100

Kelulusan diberi tetauk kepada syarat - syarat seperti dalam surah Bil. (33) dim. L.A.P. S/4/8 - 13P bertarikh... 1.0.MAR.2025

+

PENGURUS BESAR
LEMBAGA AIR PERAK

Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 1.0.MAR.2025

Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhannya Perkhidmatan Air Negara (SPAN)

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

[Signature]

ASIA BINA IDAMAN SDN. BHD.
(No. Syarikat : 872920-D)

ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
GROUND FLOOR, ELEVATION & SECTION OF PUMP HOUSE & GUARD HOUSE

(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
CIVIL & STRUCTURAL ENGINEERS

MAN OFFICE : NO. 8, LEBUH RAJA DI HILIR, 30350 IPOH, PERAK DARUL RIDZUAN. TEL/FAX : 05-5482922 H/P : 016-5584865

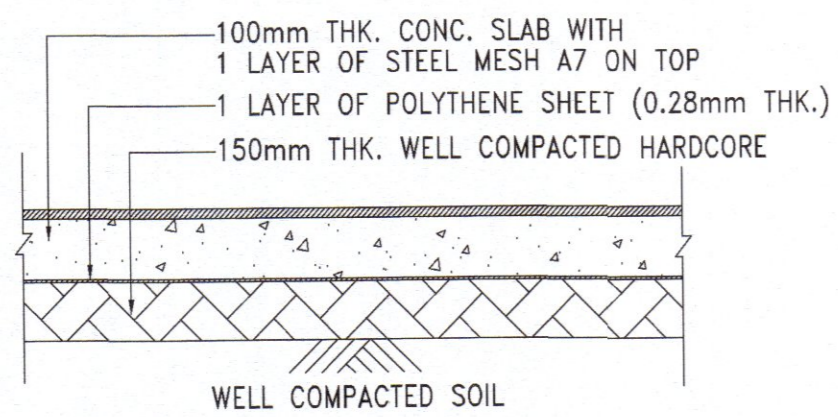
SITE OFFICE : NO. 37, FIRST FLOOR, JALAN TIC 5, TAPING BUSINESS CENTRE, 34000 TAPING, PERAK DARUL RIDZUAN. TEL : 05-8104455 H/P : 012-5121138

SCALE : 1:100
DATE : 02/2025
SHEET : 9/11
DRAWN BY : AYA/NITHA
CHECKED BY : TANG

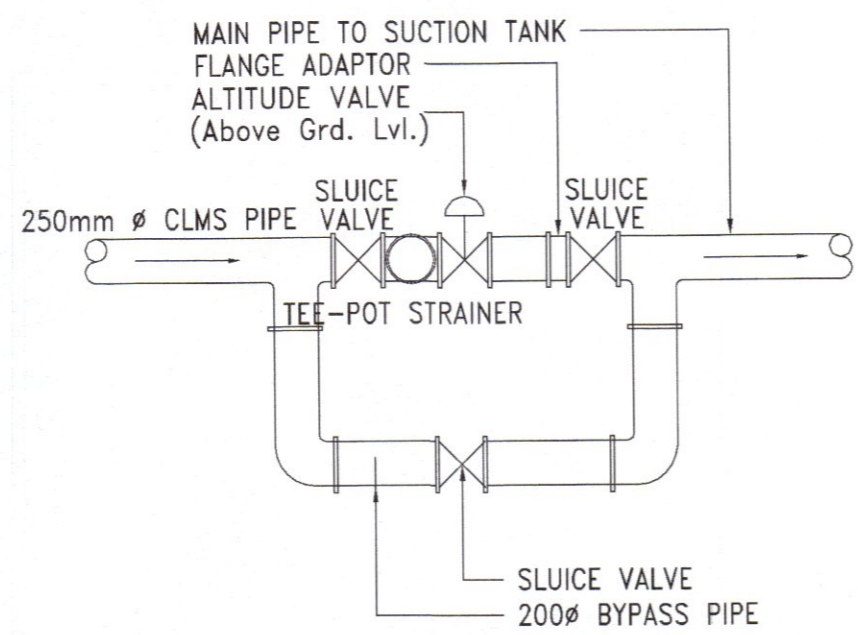
ENGINEER SIGNATURE :
I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and accept full responsibility for the design and the supervision of the work.



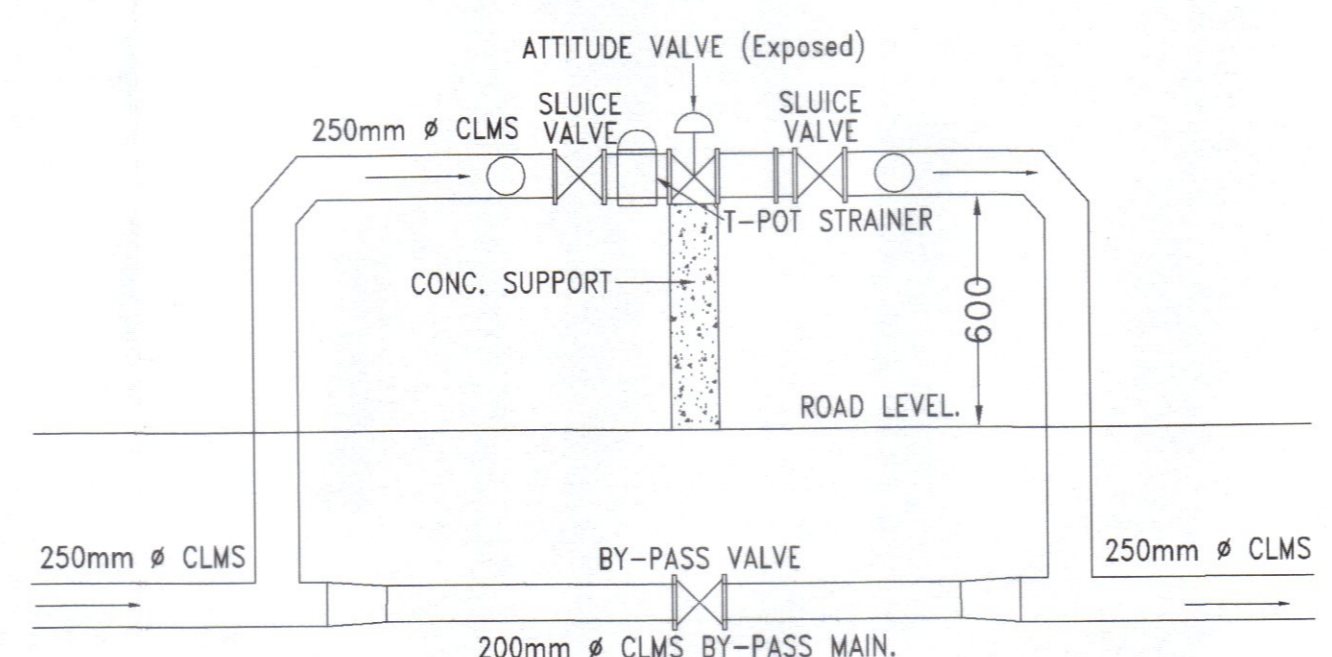
Dr. Pang Yoon Khong
B.Eng. (Hons.) B.Sc. (Hons.), M.Eng., P.Eng.
(Principal)



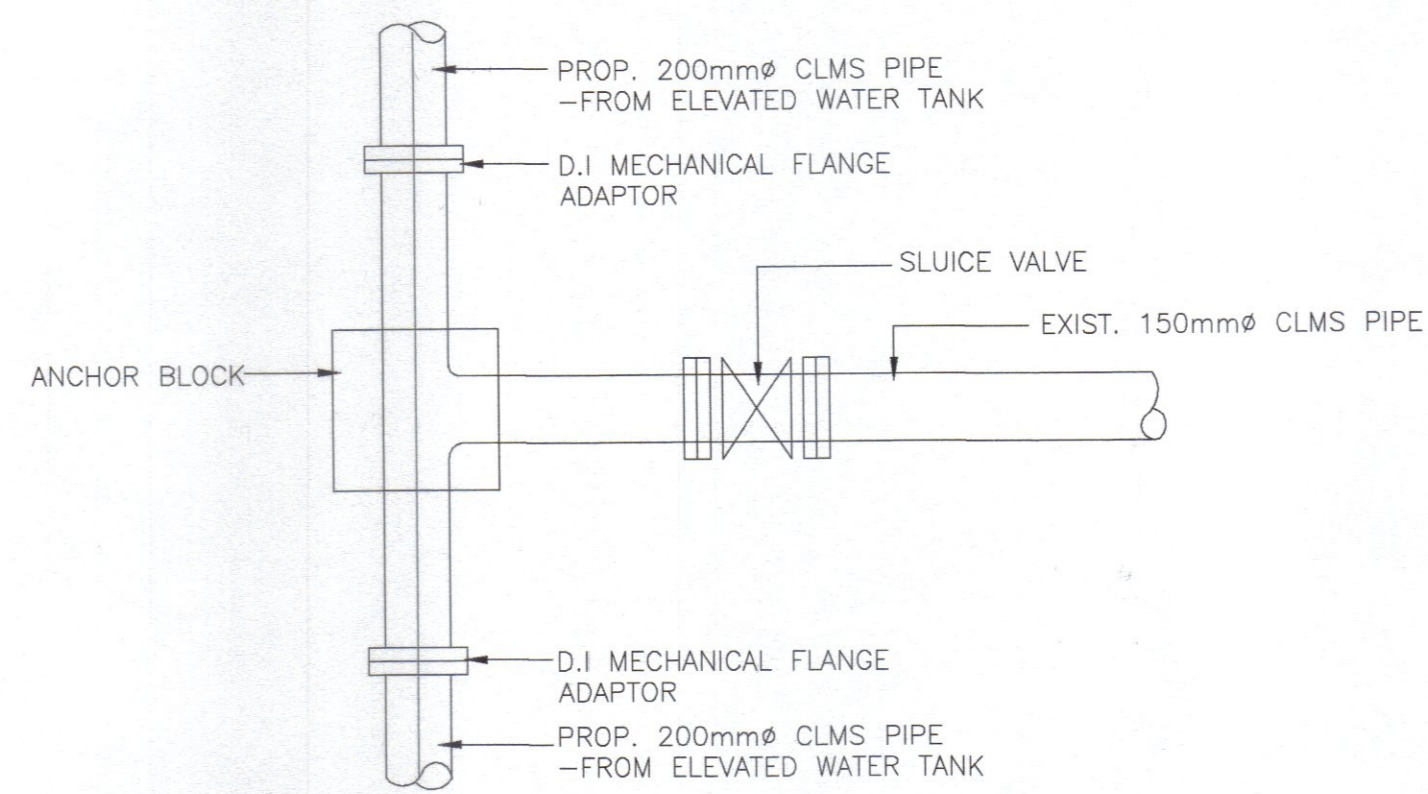
TYPICAL FLOOR SLAB DETAILS
SCALE : NOT TO SCALE



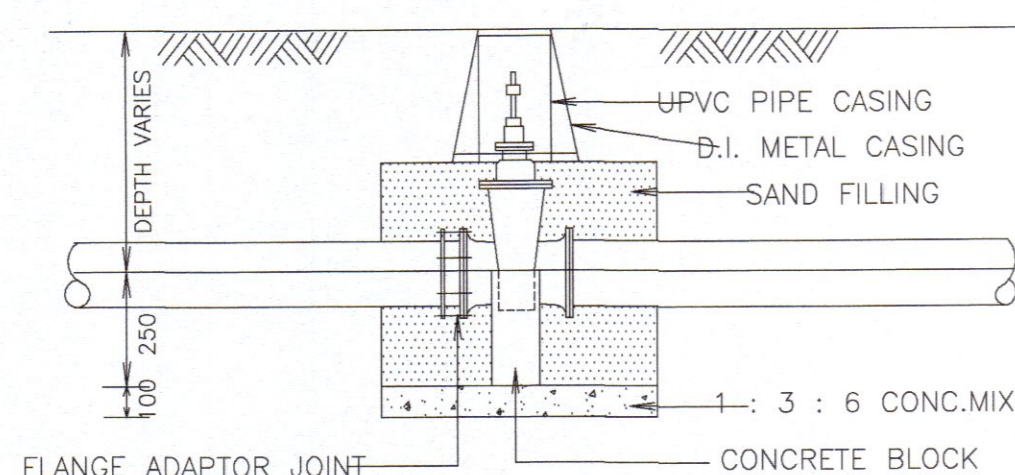
PLAN OF ALTITUDE & SLUICE VALVE.
SCALE : NOT TO SCALE



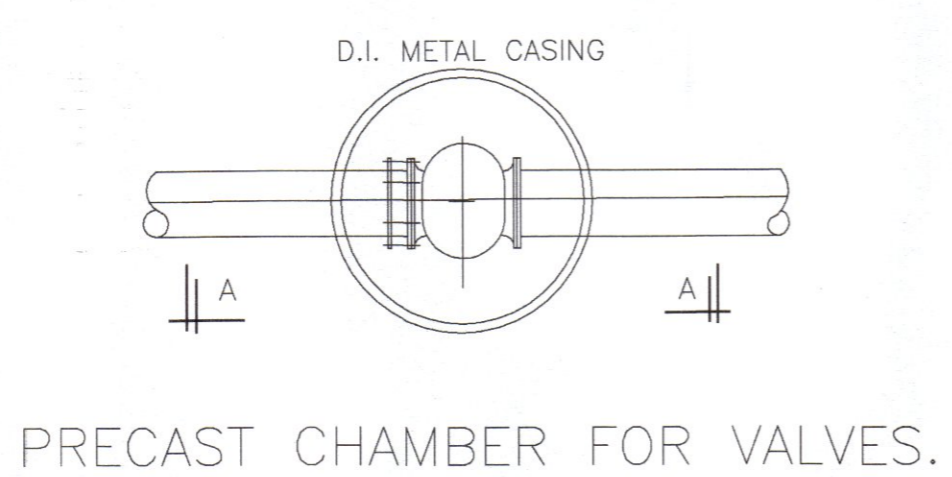
SECTION OF ALTITUDE VALVE.
SCALE : NOT TO SCALE



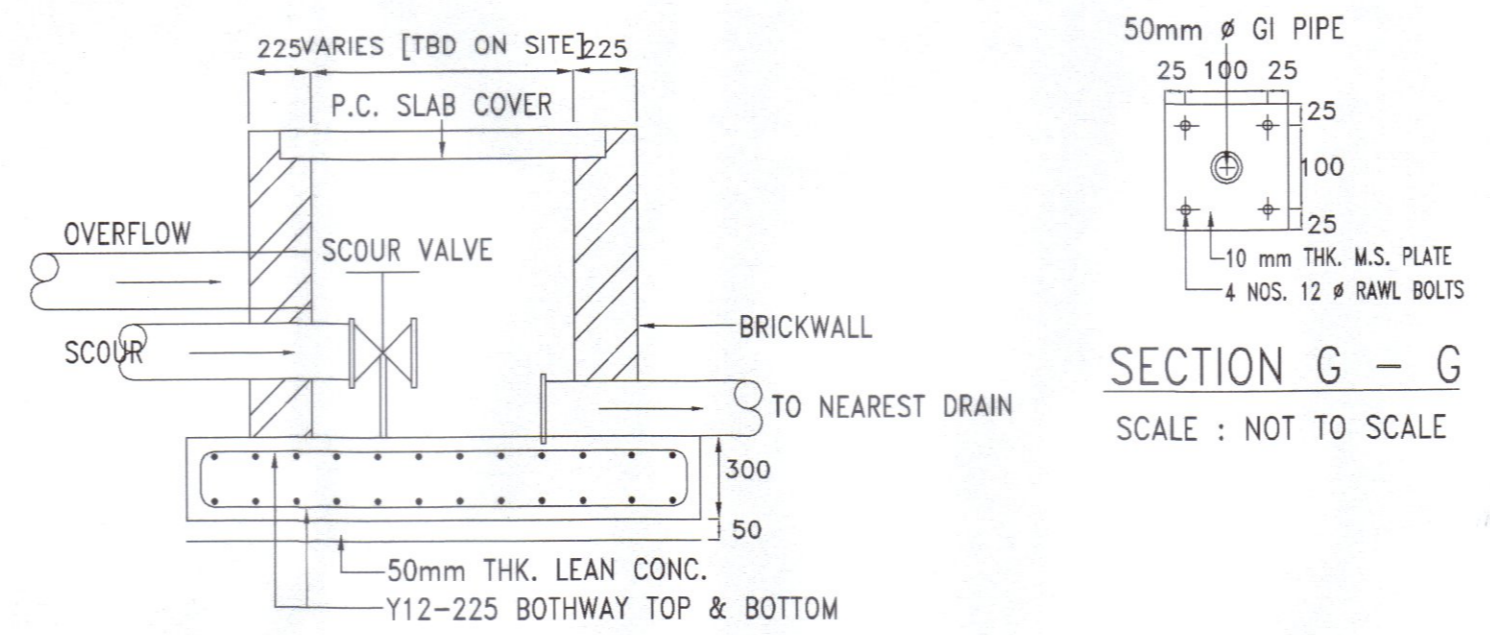
DETAIL OF TEE CONNECTION
SCALE N.T.S.



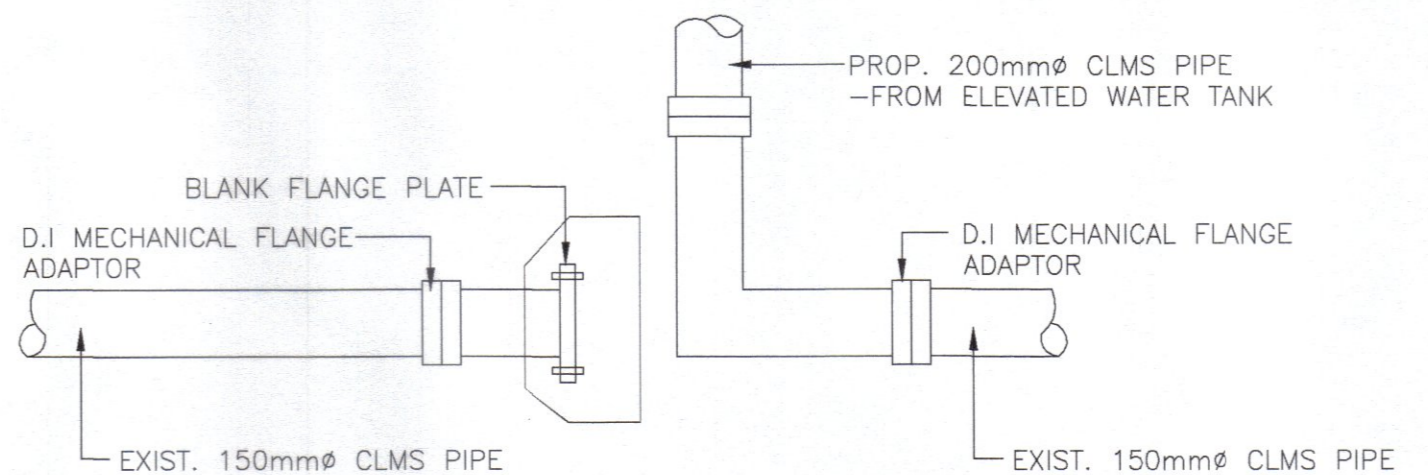
CROSS SECTION A - A



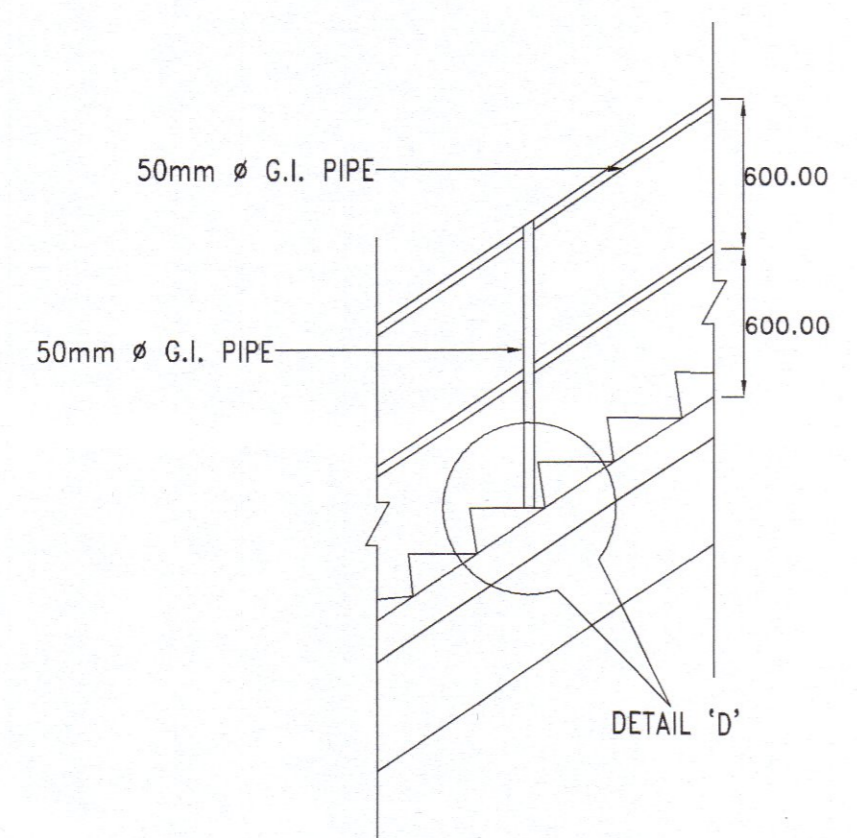
PRECAST CHAMBER FOR VALVES.



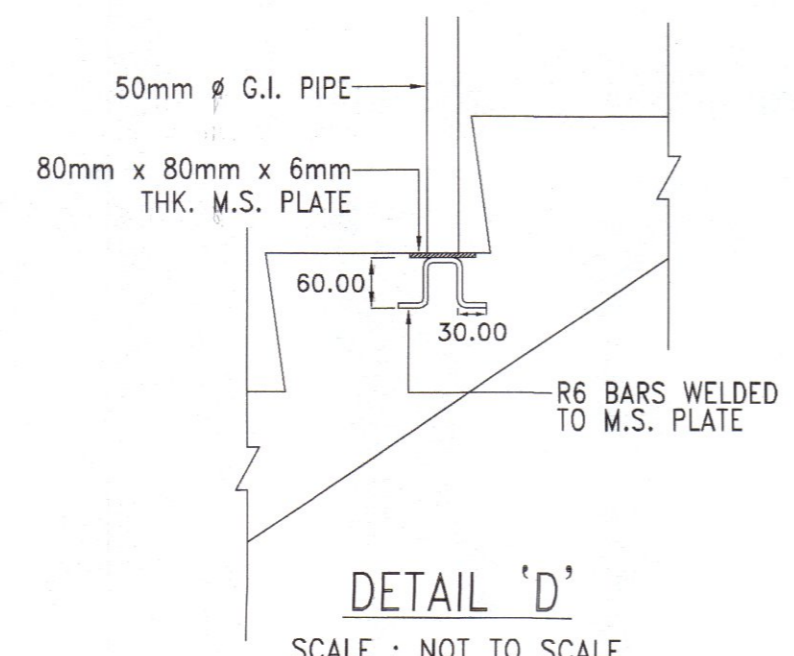
SCOUR AND OVERFLOW PIPE CHAMBER
SCALE : NOT TO SCALE



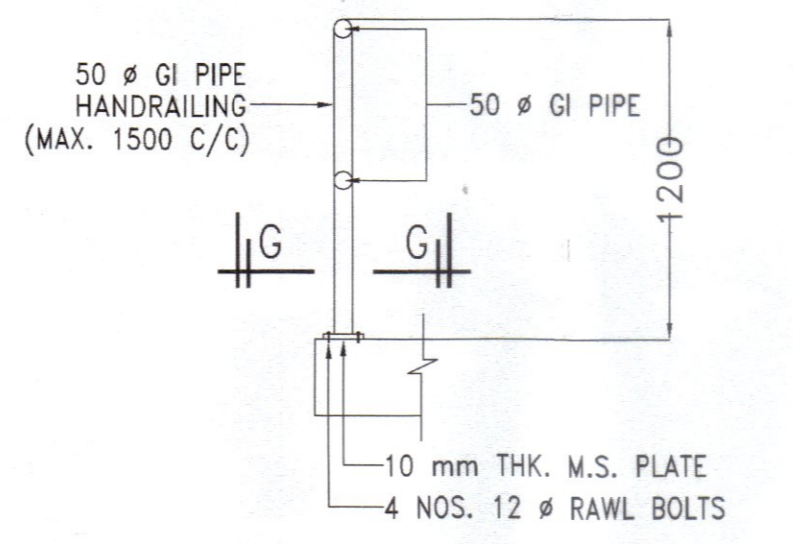
DETAIL OF END CAPS
SCALE N.T.S.



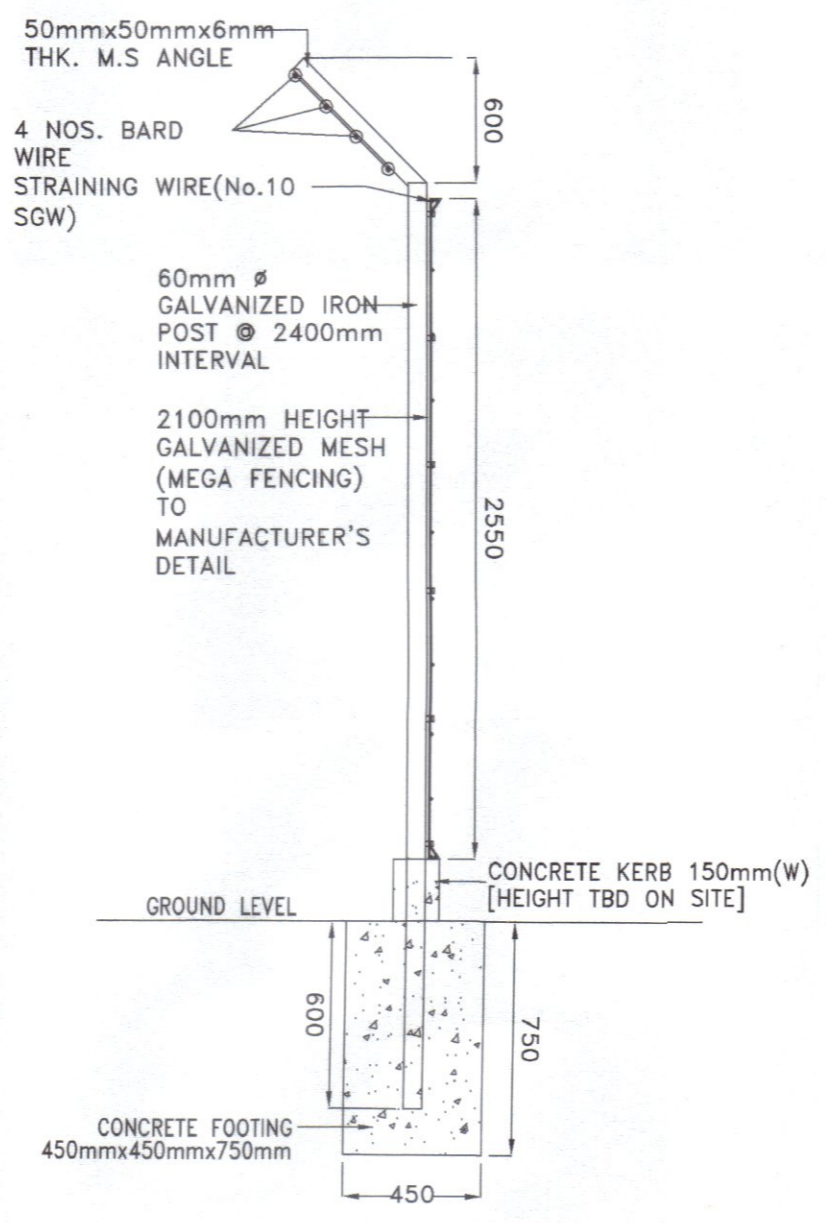
RAILINGS IN CONTACT WITH WATER TO BE S/S 304.
TYPICAL STAIRCASE RAILING DETAIL
SCALE : NOT TO SCALE



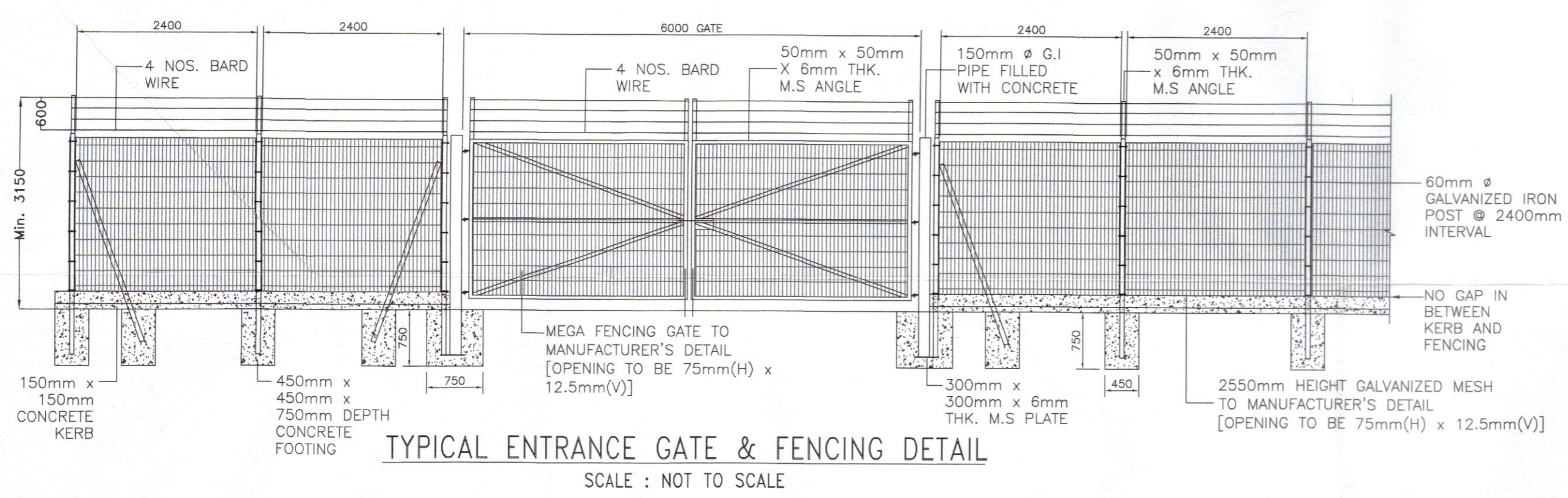
DETAIL 'D'
SCALE : NOT TO SCALE



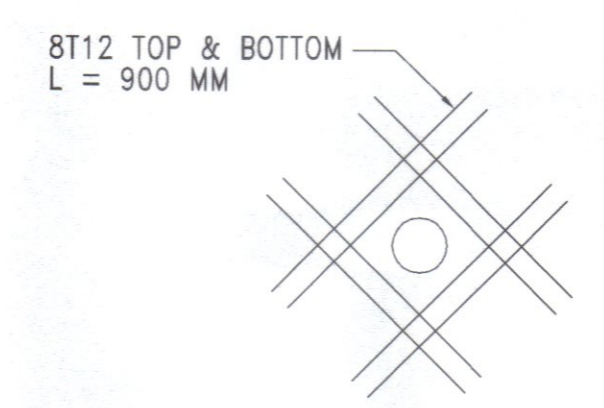
CROSS-SECTION OF HANDRAILING
SCALE : NOT TO SCALE



SECTIONAL VIEW OF G.I. POST
SCALE : NOT TO SCALE



TYPICAL ENTRANCE GATE & FENCING DETAIL
SCALE : NOT TO SCALE



EXTRA REINFORCEMENT TO BE PROVIDED AROUND OPENINGS IN RC. WALLS AND SLABS
NOT TO SCALE

Kelulusan diberi tetakluk kepada syarat - syarat seperti dalam surat Bil. (33) di atas bertarikh 10 MAR 2025
PENGURUS BESAR LEMBAGA AIR PERAK
Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 10 MAR 2025
Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan

b.p. Suruhanjaya Perkhidmatan Air Negara (SPAN)

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

ASIA BINA IDAMAN SDN. BHD.
(No. Syarikat : 872920-D)
ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
STANDARD DETAILS OF PRESSURE REDUCER VALVE, T-CONNECTION, END CAPS

(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

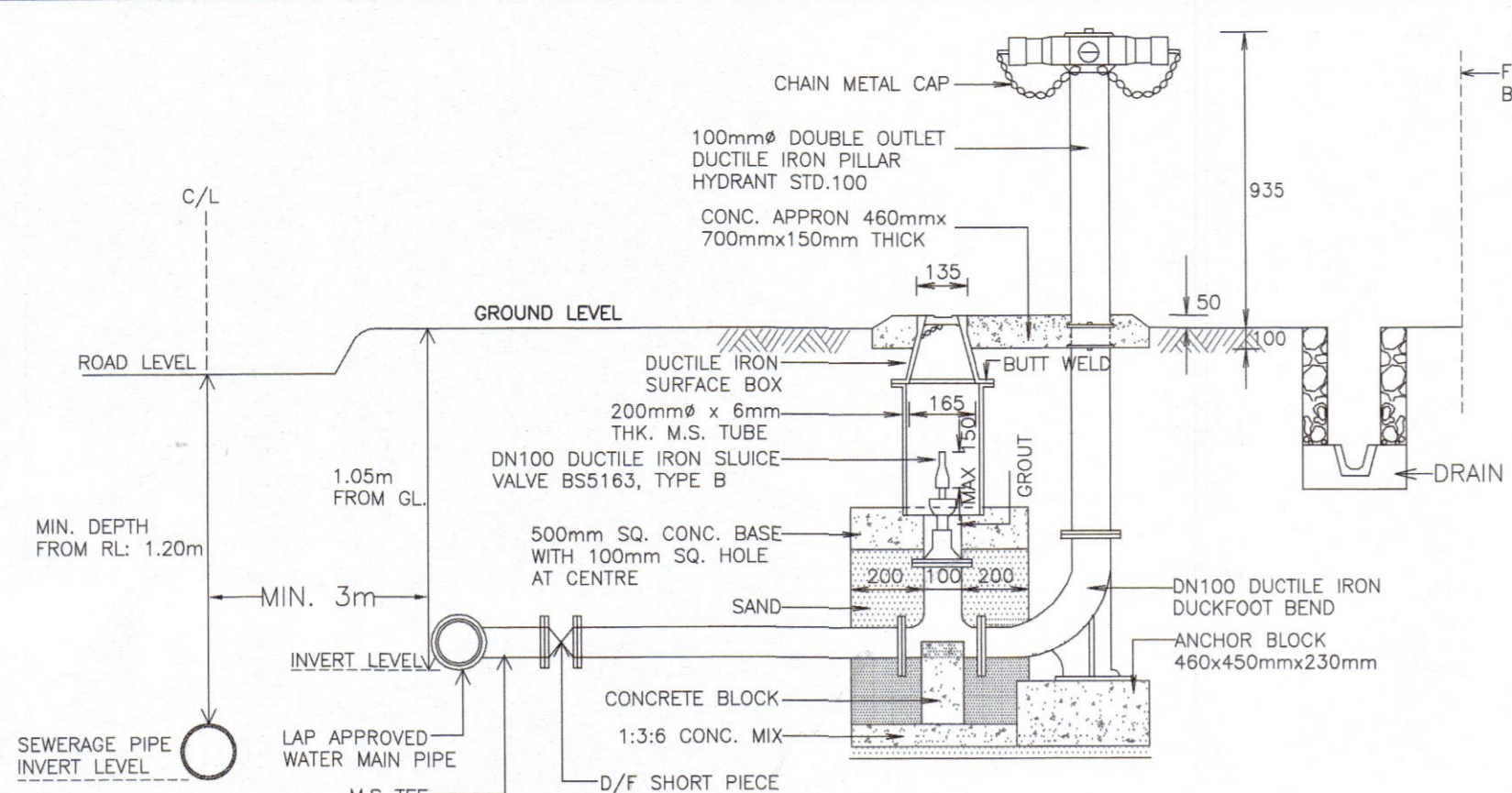
PYK CONSULTANT
CIVIL & STRUCTURAL ENGINEERS
MAIN OFFICE:
NO. 6, LEBUH RAJA DI HILIR, 30350 PERAK DARUL RIDZUAN
TEL/FAX : 05-5492902 H/P : 016-5584885
SITE OFFICE:
NO. 37, FIRST FLOOR, JALAN TBC 5, TAMAN BUSINESS CENTRE, 3400 TAMPIN, PERAK DARUL RIDZUAN.
TEL : 05-8104455 H/P : 012-5121138

SCALE : 1 : 750
DATE : 02/2025
SHEET : 10/11
DRAWN BY : AYA
CHECKED BY : TANG

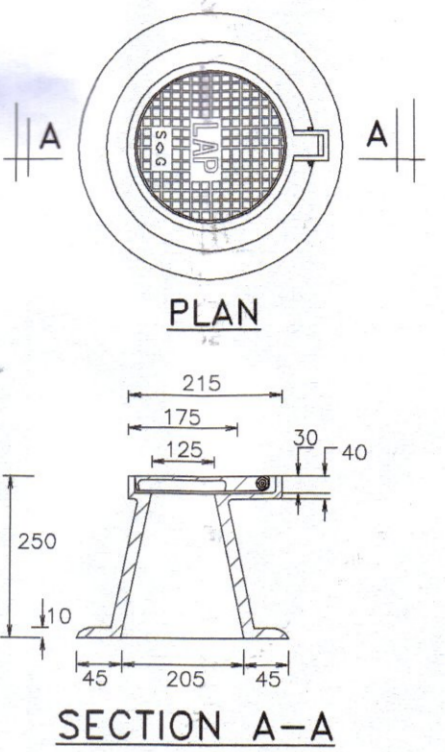
ENGINEER SIGNATURE :
I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.



I. Pang Yoon Khong
B.Eng.(Hons.)U.M.S., MIEM, P.Eng.
[Principal]



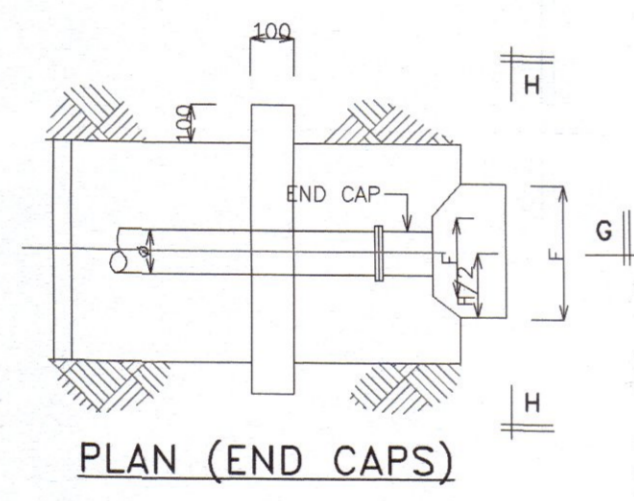
DETAIL OF TYPICAL CONNECTION TO PILLAR HYDRANT
(SCALE : NOT TO SCALE)



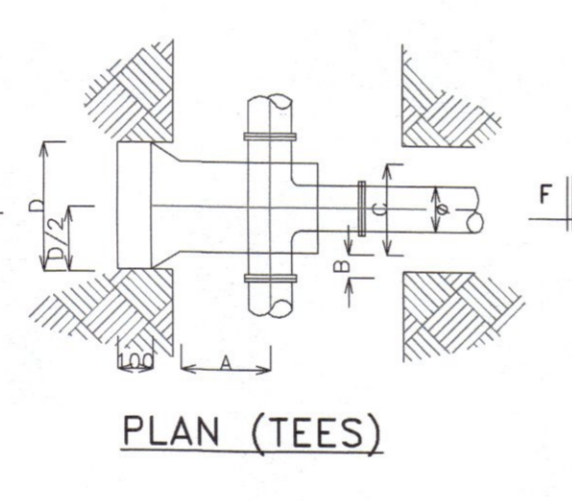
DETAIL OF D.I. SURFACE BOX & SLUICE VALVE
(SCALE : NOT TO SCALE)

(DUCTILE IRON SURFACE BOX TO BE USED INSTEAD OF PRECAST VALVE CHAMBER ON METAL SURFACE)

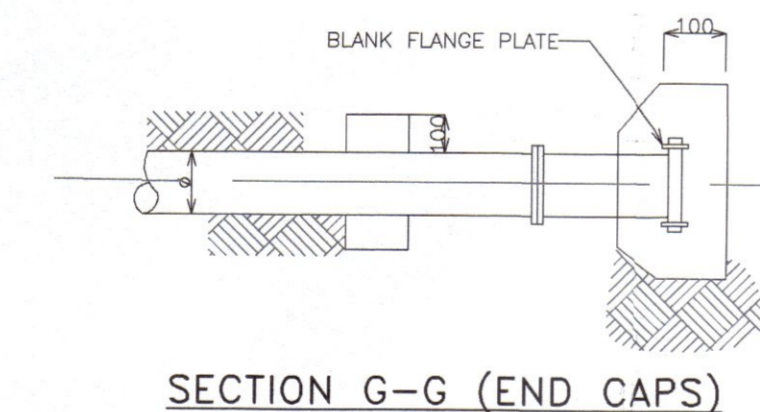
- NOTA :**
1. THE CONC.MIX FOR THRUST BLOCK SHALL BE GRADE 15.
 2. REINFORCED CONCRETE BLOCK SHALL BE GRADE 20.
 3. THRUST BLOCK SHALL BE PROVIDED WHEREVER THE PIPE LINE :
(i) CHANGES DIRECTION
(ii) ENDS AND
(iii) IS EXPECTED TO DEVELOP A THRUST
 4. THE BEARING SURFACE OF CONCRETE BLOCK SHALL BE CAST IN-SITU AGAINST UNDISTURBED GROUND
 5. THE SIZING OF THRUST/ANCHOR BLOCK IS BASED ON THE FOLLOWING DESIGN CRITERIA
(i) FOR CLASS 20, FIELD TEST PRESSURE = 150m
(ii) SAFE BEARING CAPACITY OF SOIL = 50 KN/m² (e.g. clay)
= 100 KN/m² (e.g. sandy loam)
= 150 KN/m² (e.g. gravel area, compacted sand, laterite etc.)
 6. ALL DIMENSION ARE IN mm UNLESS OTHERWISE STATE.
 7. SBC = SAFE BEARING CAPACITY OF SOIL
a = DIAMETER OF PIPE
b = PIPE TRENCH WIDTH
c = THRUST BLOCK WIDTH IN TRENCH
 8. SELECTED FILL SHALL BE OF UNIFORM READILY COMPACTIBLE MATERIAL FREE FROM TREE ROOTS, VEGETABLE MATTER BUILDING RUBBISH AND PREFERABLY EXCLUDING CLAY LUMP RETAINED ON 75 SIEVE AND STONE ON 25 SIEVE
 9. FOR FIELD TEST PRESSURE OF PIPES AND SBC LESS THAN STATED CONSULTANT ARE REQUIRED TO PUT UP NECESSARY DESIGNS FOR ANCHOR BLOCK



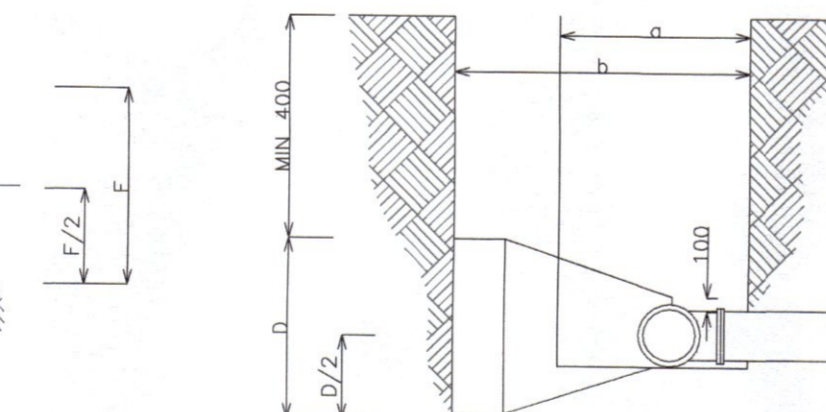
PLAN (END CAPS)



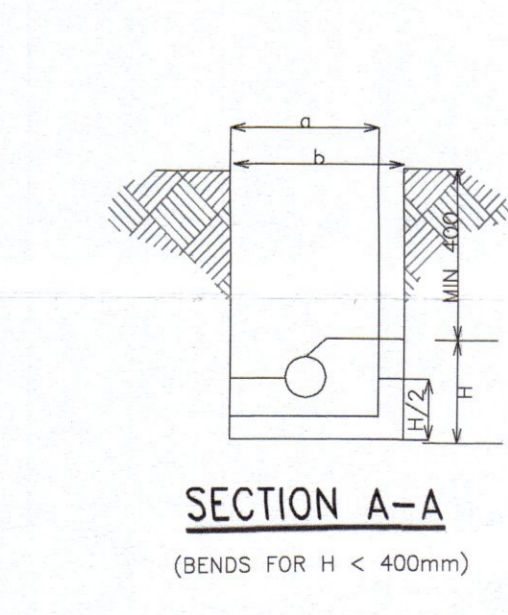
PLAN (TEES)



SECTION G-G (END CAPS)

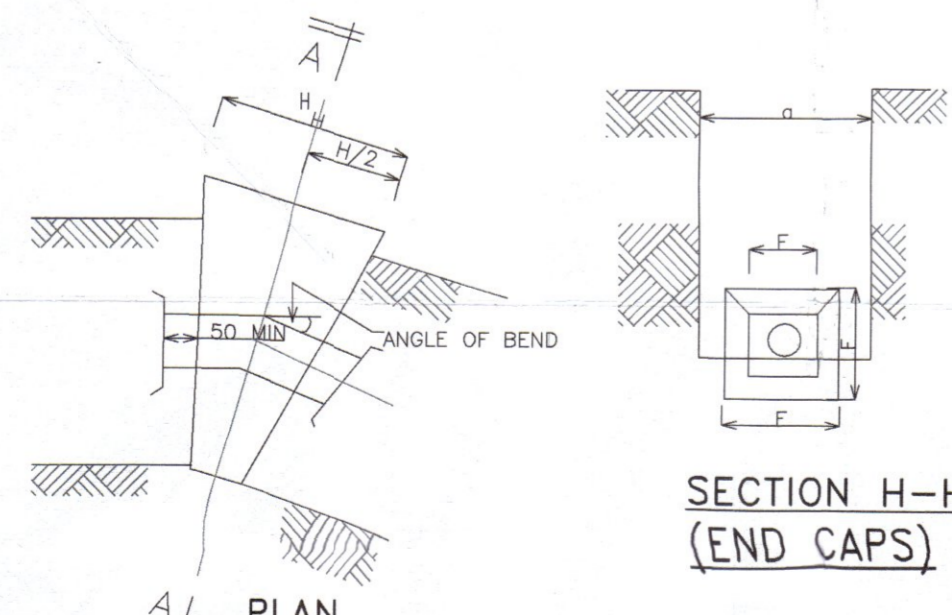


SECTION F-F (TEES)



SECTION A-A
(BENDS FOR H < 400mm)

THRUST BLOCK FOR HORIZONTAL BEND



SECTION H-H (END CAPS)

TABLE 1 : SCHEDULE FOR HORIZONTAL BENDS

PIPE DIAMETER	SAFE SOIL (HORIZONTAL) BEARING CAPACITY				
	90°	45°	30°	22 1/2°	11 1/4°
150	400	300	250	200	200
200	650	500	350	300	250
250	1000	700	550	400	300

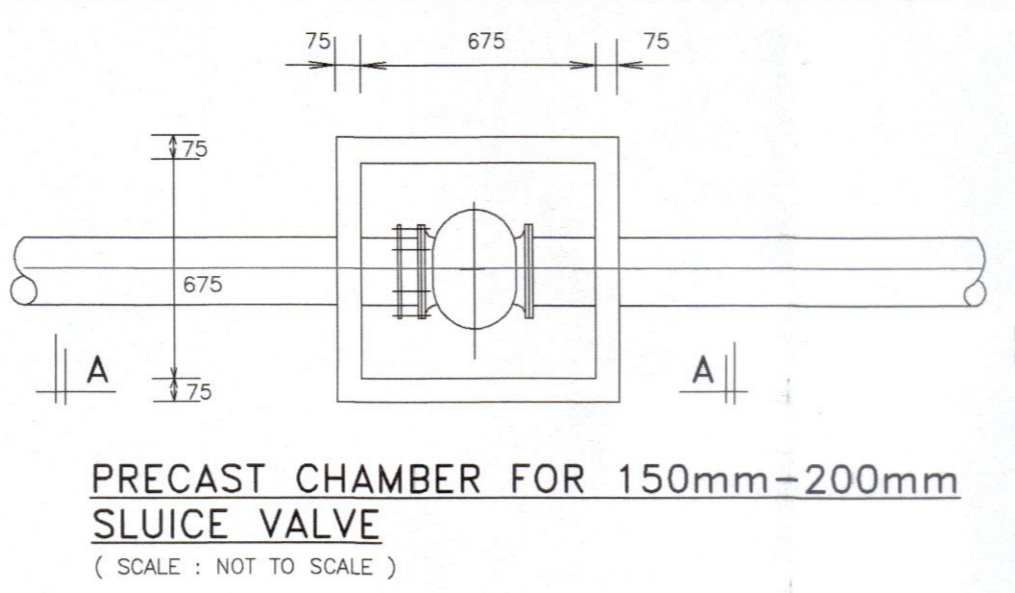
TABLE 2 : SCHEDULE FOR END CAP

PIPE DIAMETER (mm)	FIELD TEST PRESSURE OF PIPE = 15.0 BARS (150 m)		
	SBC = 50 KN/m ²	SBC = 100 KN/m ²	SBC = 150 KN/m ²
150	200	900	700
200	250	1200	1000
250	300	1500	1250

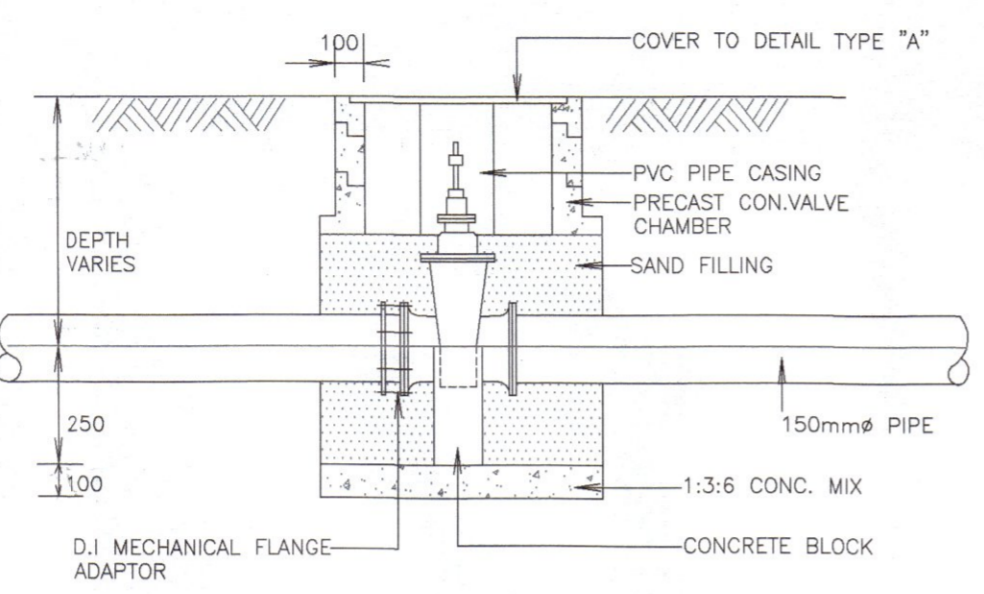
TABLE 3 : SCHEDULE FOR TEE

PIPE DIAMETER (mm)	DIMENSION FOR THRUST BLOCK			FIELD TEST PRESSURE OF PIPE = 15 BARS (150 m)		
	A	B	C	SBC = 50 KN/m ²	SBC = 100 KN/m ²	SBC = 150 KN/m ²
150	500	210	300	900	750	700
200	500	250	400	1250	1000	900
250	600	250	450	1500	1300	1100

B = MIN. CLEARANCE FOR MECHANICAL COUPLING



PRECAST CHAMBER FOR 150mm-200mm SLUICE VALVE
(SCALE : NOT TO SCALE)

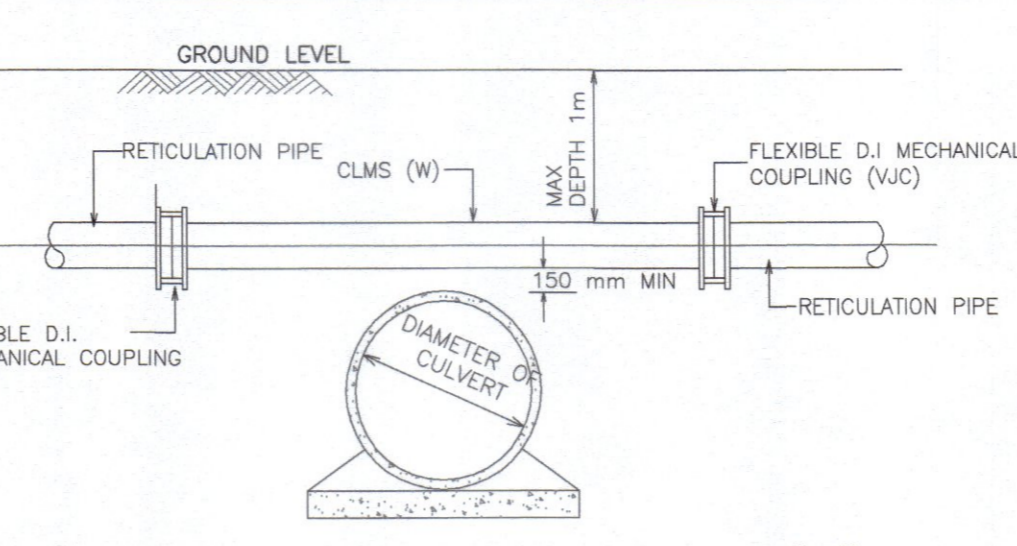


SECTION A-A OF P.C. CHAMBER
(SCALE : NOT TO SCALE)

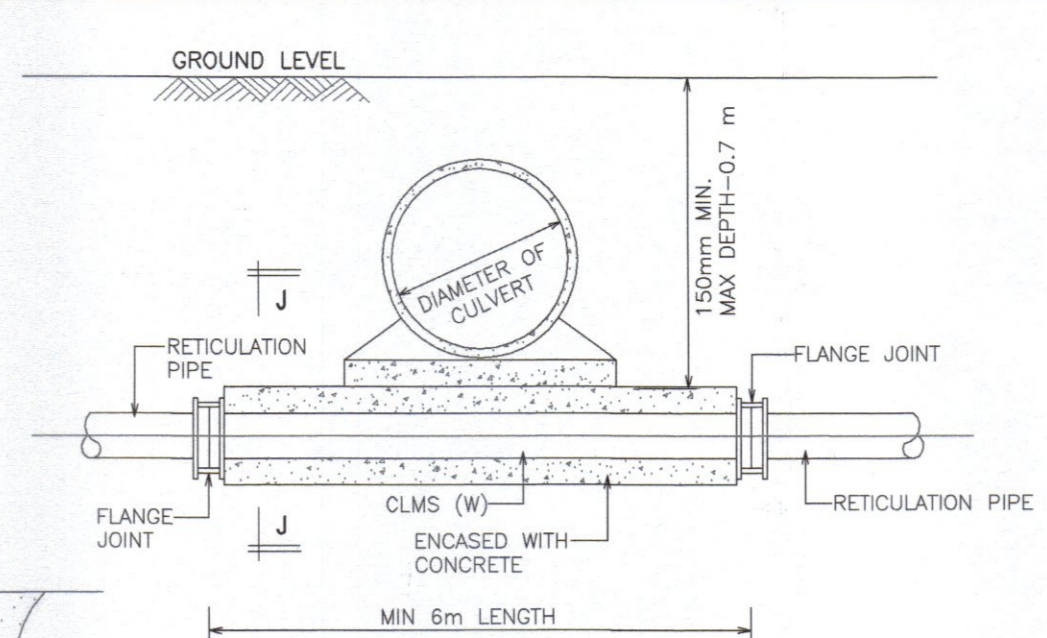
SLUICE VALVE CHAMBER DIMENSION

DIA	250mm	300mm	350mm	450mm	500mm	600mm
B	1100	1100	1220	1220	1525	1525
D	150	200	250	300	300	375

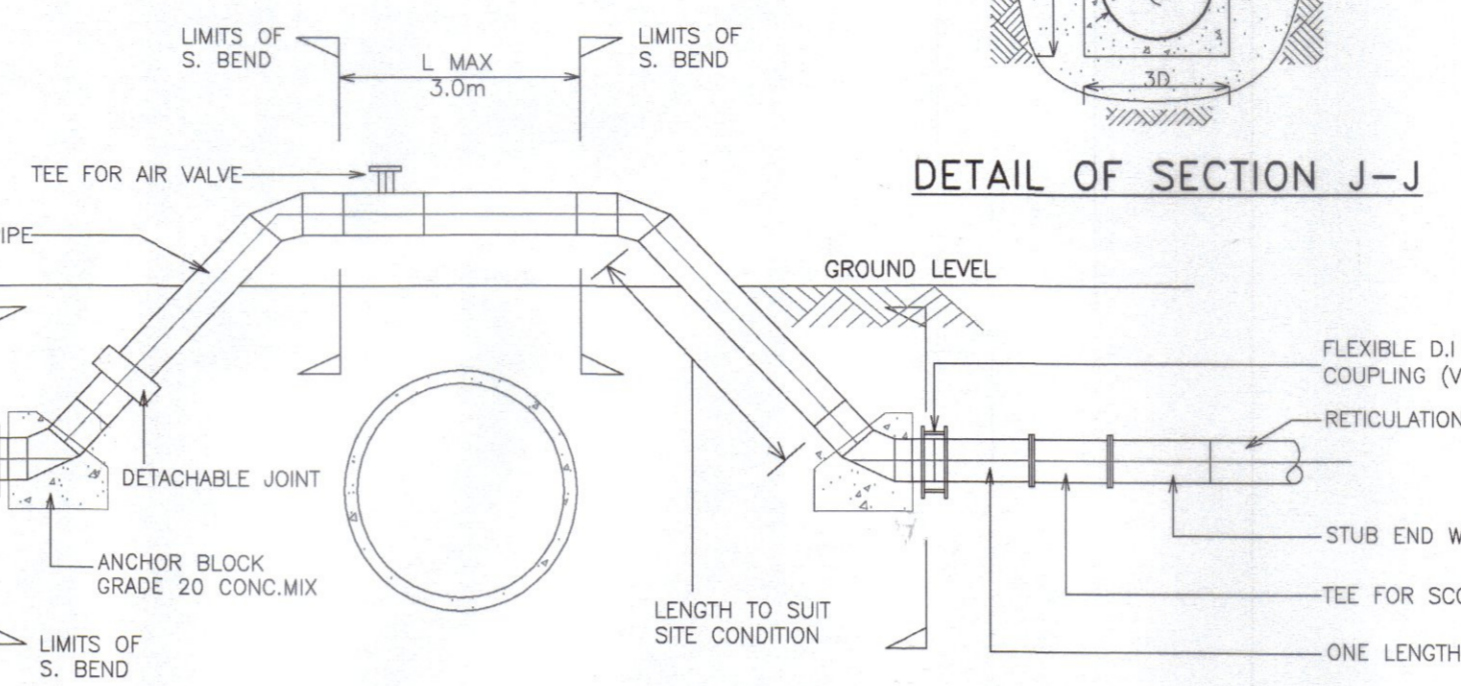
NOTA :
FOR SLUICE VALVE CHAMBERS CONSTRUCTED UNDER METALLED ROAD CAST IRON SURFACE BOX TO BE USED. (SEE DWG. NO. PR-DMS 1/6/97) OR VALVE CHAMBER FOR METALLED ROAD (SEE DWG. NO. PR-DMS 2/13/97) AS DIRECTED BY LAP.



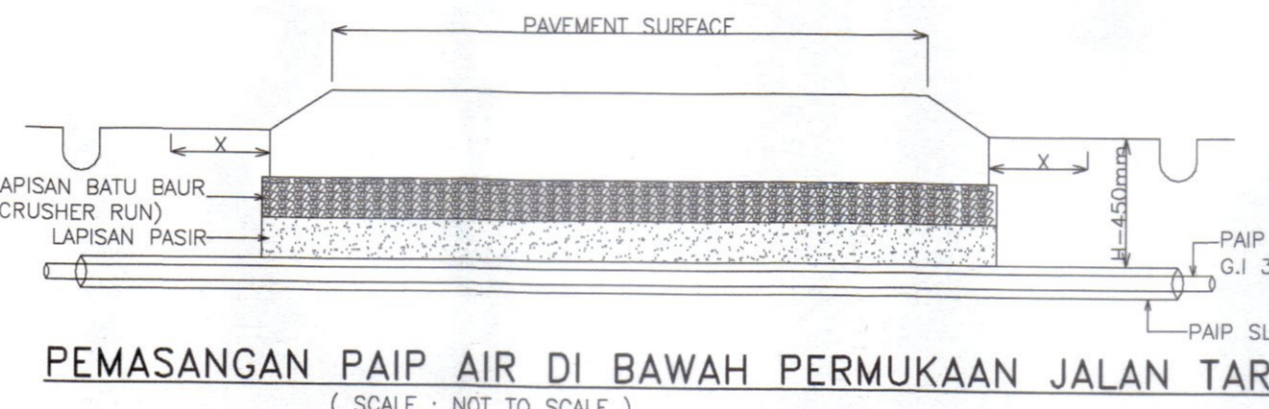
TYPICAL CULVERT CROSSING TYPE "A"
(FOR SMALL CULVERT ONLY)
(SCALE : NOT TO SCALE)



TYPICAL CULVERT CROSSING TYPE "B"
(FOR SMALL CULVERT ONLY)
(SCALE : NOT TO SCALE)



TYPICAL CULVERT CROSSING TYPE "C"
(SCALE : NOT TO SCALE)

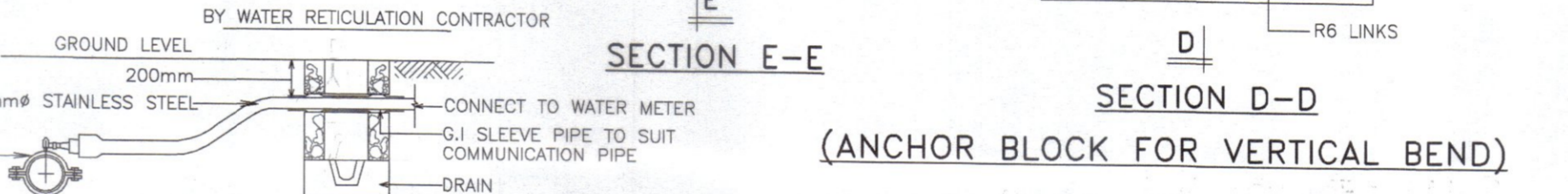


PEMASANGAN PAIP AIR DI BAWAH PERMUKAAN JALAN TAR
(SCALE : NOT TO SCALE)

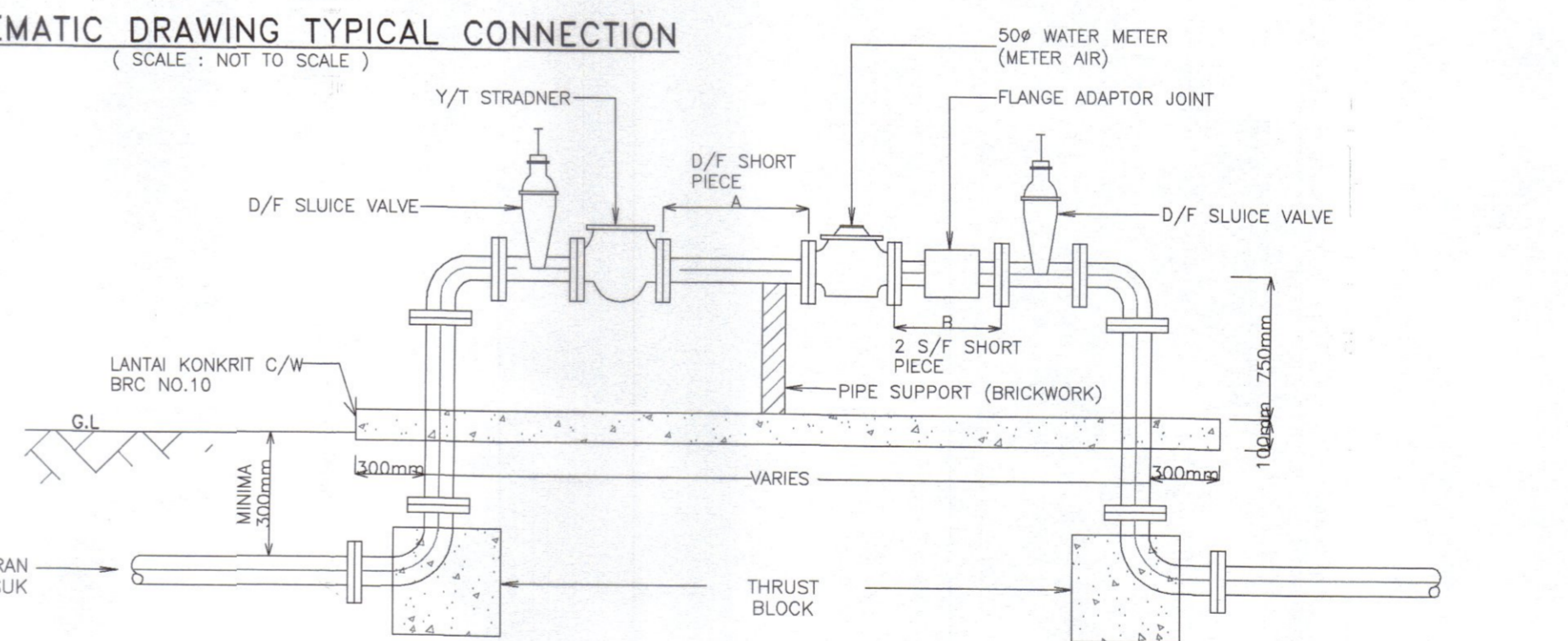
TABLE 4 : SCHEDULE FOR VERTICAL BENDS

PIPE DIAMETER	SAFE SOIL (HORIZONTAL) BEARING CAPACITY				
	90°	45°	30°	22 1/2°	11 1/4°
150	400	300	250	200	200
200	650	500	350	300	250
250	1000	700	550	400	300

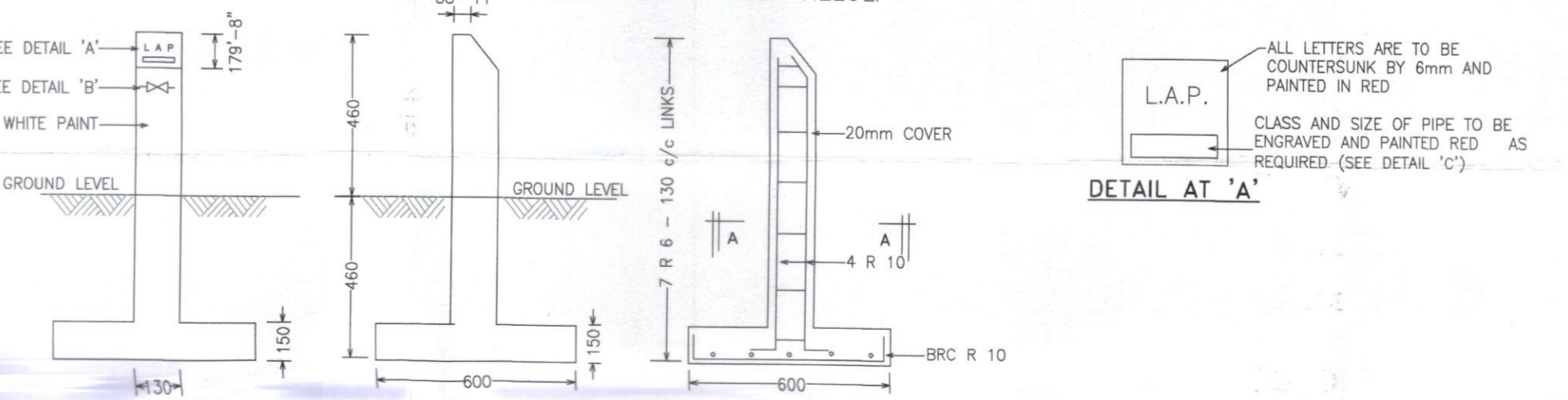
FOR PIPE GRADIENT GREATER THAN 1:10, ANCHOR BLOCK IS TO BE PROVIDED AT 6mm INTERVALS



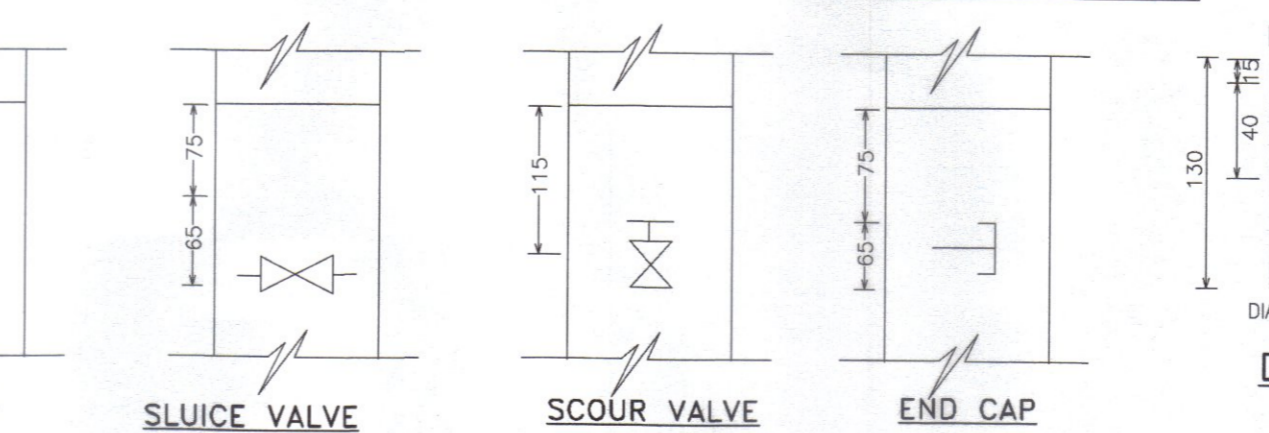
SCHEMATIC DRAWING TYPICAL CONNECTION
(SCALE : NOT TO SCALE)



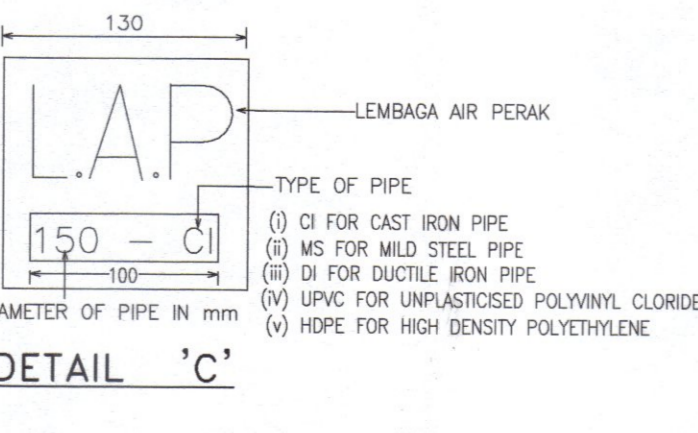
GAMBARAJAH SISTEM PEMASANGAN METER AIR BESAR (BULK METER)
JENIS PAIP = PAIP KELULI



FRONT ELEVATION END ELEVATION SECTION SHOWING REINFORCEMENT



DETAIL AT "A" AIR VALVE SLUICE VALVE SCOUR VALVE END CAP



DETAIL "C"

Kelulusan diberi tetauk kepada syarat-syarat seperti dalam surat Bil. (33) dlm. LAP 9/4/8 - 128 bertarikh 10 MAR 2025

4-4
PENGURUS BESAR
LEMBAGA AIR PERAK
Kelulusan ini adalah selama dua (2) tahun sahaja bermula dari 10 MAR 2025
Kegagalan untuk menyiapkan kerja-kerja dalam tempoh yang ditetapkan bermakna LEMBAGA AIR PERAK berhak membatalkan dan mengubah syarat-syarat kelulusan.

b.p. Suruhjanya Perkhidmatan Air Negara (SPAN)

TYPE OF METER	UPSTREAM A	UPSTREAM B
HELIK 3000	MIN 100	50
MEINCKE WPD_WP	MIN 30	NO RESTRICTION
MAGNETIC FLOW METER	MIN 3D	2D
ULTRA SONIC FLOW METER	MIN 10D	5D
LAIN-LAIN	MIN 10D	MIN 5D

1. ALL FLANGES DRILLED TO PN 18
2. ALL BOLTS & NUTS TO BE S.S. STEEL OR HOT DIPPED GALVANISED M. STEEL
3. WIDTH OF CONC. APRON = 600mm
4. D IS NOMINAL DIAMETER OF THE WATER METER

PROJECT :
CADANGAN SISTEM RETIKULASI AIR LUARAN BAGI SKIM PERUMAHAN DI ATAS LOT 1396 DAN LOT 1625, MUKIM GERIK, DAERAH HULU PERAK, PERAK DARUL RIDZUAN. UNTUK TETUAN ASIA BINA IDAMAN SDN. BHD.

OWNER SIGNATURE :

ASIA BINA IDAMAN SDN. BHD.
(No. Syarikat : 872920-D)
ADDRESS : NO. 26, JALAN SEMARAK 1, TAMAN SEMARAK, 33300 GERIK, PERAK DARUL RIDZUAN.

SUBJECT :
STANDARD DETAILS

(KELULUSAN PELAN SISTEM RETIKULASI AIR LUARAN)

PYK CONSULTANT
CIVIL & STRUCTURAL ENGINEERS
MAN OFFICE:
NO. 6, LEMBANG RAJA DI HILIR, 30300 PERAK DARUL RIDZUAN
TEL/FAX : 05-5492902 H/P : 016-5584885
SITE OFFICE:
NO. 37, FIRST FLOOR, JALAN TBC 5, TAMPING BUSINESS CENTRE, 34000 TAMPING, PERAK DARUL RIDZUAN.
TEL : 05-8104455 H/P : 012-9211136

SCALE : 1 : 750
DATE : 01/2025
SHEET : 11/11
DRAWN BY : AYA
CHECKED BY : TANG

ENGINEER SIGNATURE :
I hereby certify that the details are in accordance with the Water Supply Enactment and By-Laws and Accept full responsibility for the design and the supervision of the work.

PROFESSIONAL ENGINEER
CIVIL
IF. PANG YOON KHONG
C114574
MALAYSIA

Dr. Pang Yoon Khong
B.Eng. (Hons.) J.M.S., M.I.E.M., P.Eng.
(Principal)

DRAWING NO :
PYK/AB(L0T1396)/24 (WR) 11/11

