

# KUDR SUBMISSION

IWK FILE NO : IWK/C/PK.11/11/043A  
 CONTRACT NO : -

OWNER ADDRESS & SIGNATURE :



LIM GEE TEK  
 700104-10-6027  
**AGACIA LAND SDN.BHD**  
 SUITES D3A13-D3A16, LEVEL 3A, BLOCK D, KELANA  
 SQUARE, NO.17 JALAN SS 7/26, 47301, PETALING  
 JAYA, SELANGOR DARUL EHSAN.

CONSULTANT ENGINEERS :  
**JURUTERA PERUNDING  
 ALPHAREKA SDN. BHD.**  
 9-2 & 9-3, Jalan USJ 9/5N  
 47630 Subang Jaya,  
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 Selangor Darul Ehsan  
 Tel : +603 - 8024 0842  
 Fax : +603 - 8024 0849

SYSTEM CONTRACTOR :  
**LEGEND WATER SDN. BHD.**  
 (1100714-WJ)(201401024626)  
 No.3A-2, JALAN CEMPAKA SD 12/12,  
 BANDAR SRI DAMANSARA,  
 52200 KUALA LUMPUR,  
 WILAYAH PERSEKUTUAN, MALAYSIA.

TEL : 1700 81 0094  
 E-MAIL : legend.water.sb@gmail.com

PROJECT NAME :  
 CADANGAN PEMBANGUNAN BERCAMPUR FASA 1, 2 & 3 YANG  
 MENGANDUNGI:

- FASA 1
    - BANGUNAN 1 (BLOK A) 18 TINGKAT
      - A) 5 UNIT VILLA
      - B) 601 UNIT JENIS 'SERVICE SUITES'
      - C) 7 UNIT PREMIS PERNIAGAAN
      - D) 1 UNIT RUANG PERNIAGAAN PELBAGAI GUNA (CADANGAN BARU)
      - E) KOLAM MANDI
      - F) GIMNASIUM
      - G) 1 UNIT TNB SUB-STATION
    - BANGUNAN 2
      - A) 4 TINGKAT PODIUM TEMPAT LETAK KERETA
      - B) 1 UNIT TNB SUB-STATION
  - FASA 2
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      - B) 1 TINGKAT PERNIAGAAN
      - C) 1 UNIT TNB SUB-STATION
  - FASA 3
    - BANGUNAN 1 (BLOK C) 30 TINGKAT
      - A) 2 UNIT VILLA
      - B) 1,105 UNIT JENIS 'SERVICE SUITES'
      - C) 12 UNIT PREMIS PERNIAGAAN
      - D) 3 UNIT KONDOMINIUM
      - E) KOLAM MANDI
      - F) GIMNASIUM
      - G) 1 UNIT TNB SUB-STATION
      - H) 1 UNIT RUMAH SAMPAH
    - BANGUNAN 2
      - A) 4 TINGKAT PODIUM TEMPAT LETAK KERETA
- BESERTA 1 UNIT PENCAWANG PEMBAHANGAN UTAMA (PPU),  
 'SEWERAGE' STESAN PAM KUMBAHAN, DAN 1 UNIT RUMAH SAMPAH  
 DI ATAS SEBAGIAN LOT 404704 MUKIM KAMPAR, DAERAH  
 KAMPAR, PERAK DARUL RIDZUAN.
- UNTUK TETUAN AGACIA LAND SDN BHD.

GPS Coordinate : 4.322169, 101.122552

TITLE:  
 UPGRADING SEWERAGE TREATMENT PLANT KAN095 FOR  
 CAPACITY 7.160PE WITH ULTIMATE 14.120PE  
 - SITE LAYOUT PLAN

SYSTEM CONSULTANT SIGNATURE :  
 I HEREBY CERTIFY THAT THESE WORKS HAVE BEEN DESIGNED BY ME IN  
 ACCORDANCE WITH SOUND ENGINEERING PRACTICE AND THAT I TAKE FULL  
 RESPONSIBILITY FOR THE DESIGN AND PROPER PERFORMANCE OF THE SAME

PROFESSIONAL ENGINEER  
 CIVIL  
 IR. CHONG YUEH TONG  
 1114388  
 MALAYSIA

**QUALITY CONSULTANT (P04 S/P)**  
 No.23-6, BLOCK F2, JALAN PUJ 1/42A,  
 DATARAN PRIMA,  
 47301 PETALING JAYA, SELANGOR DARUL  
 EHSAN, MALAYSIA.  
 TEL : 1700 81 0094  
 E-MAIL : aqconsultant2021@gmail.com

DRAWN : SAIFUL  
 CHECKED : IVAN

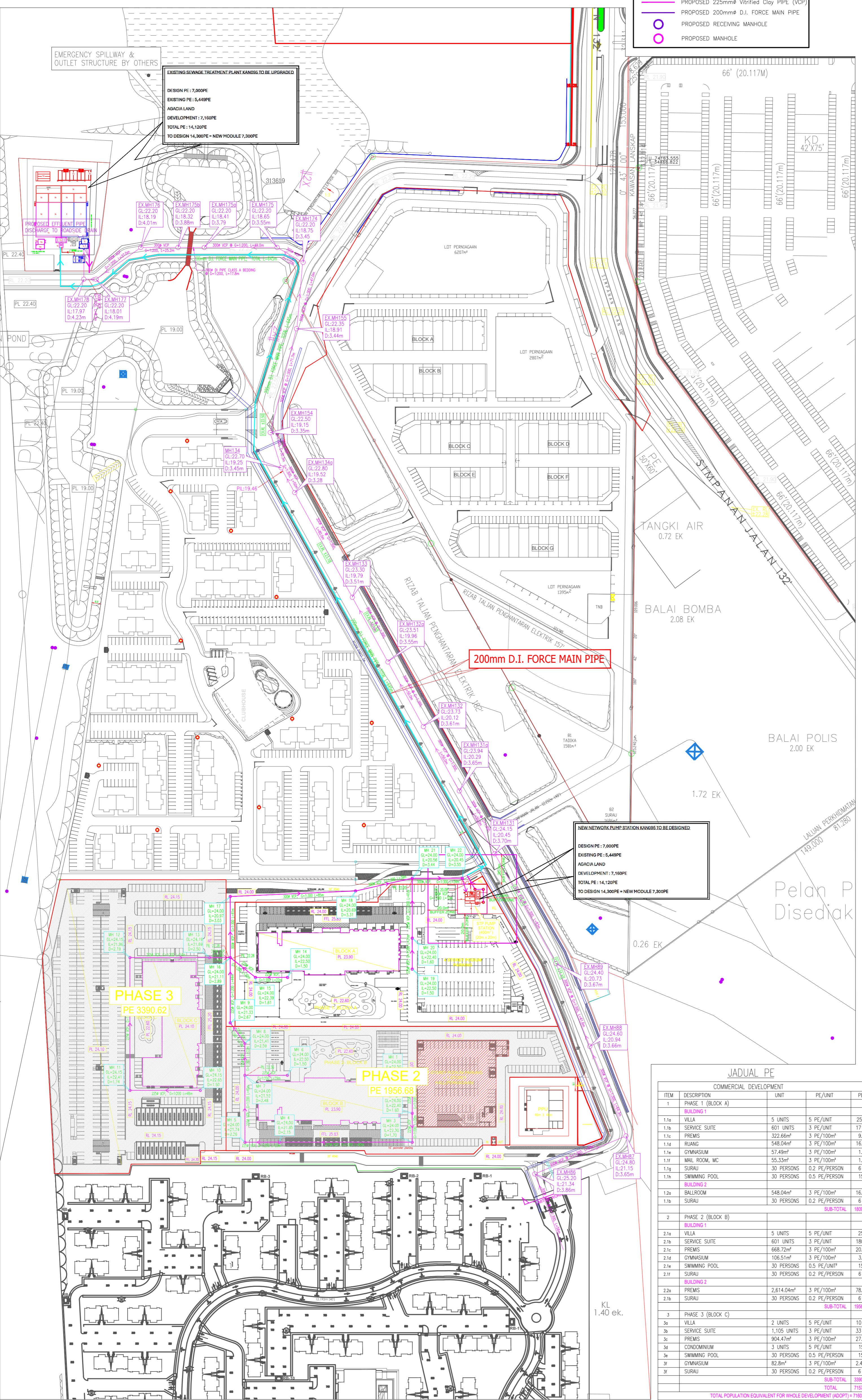
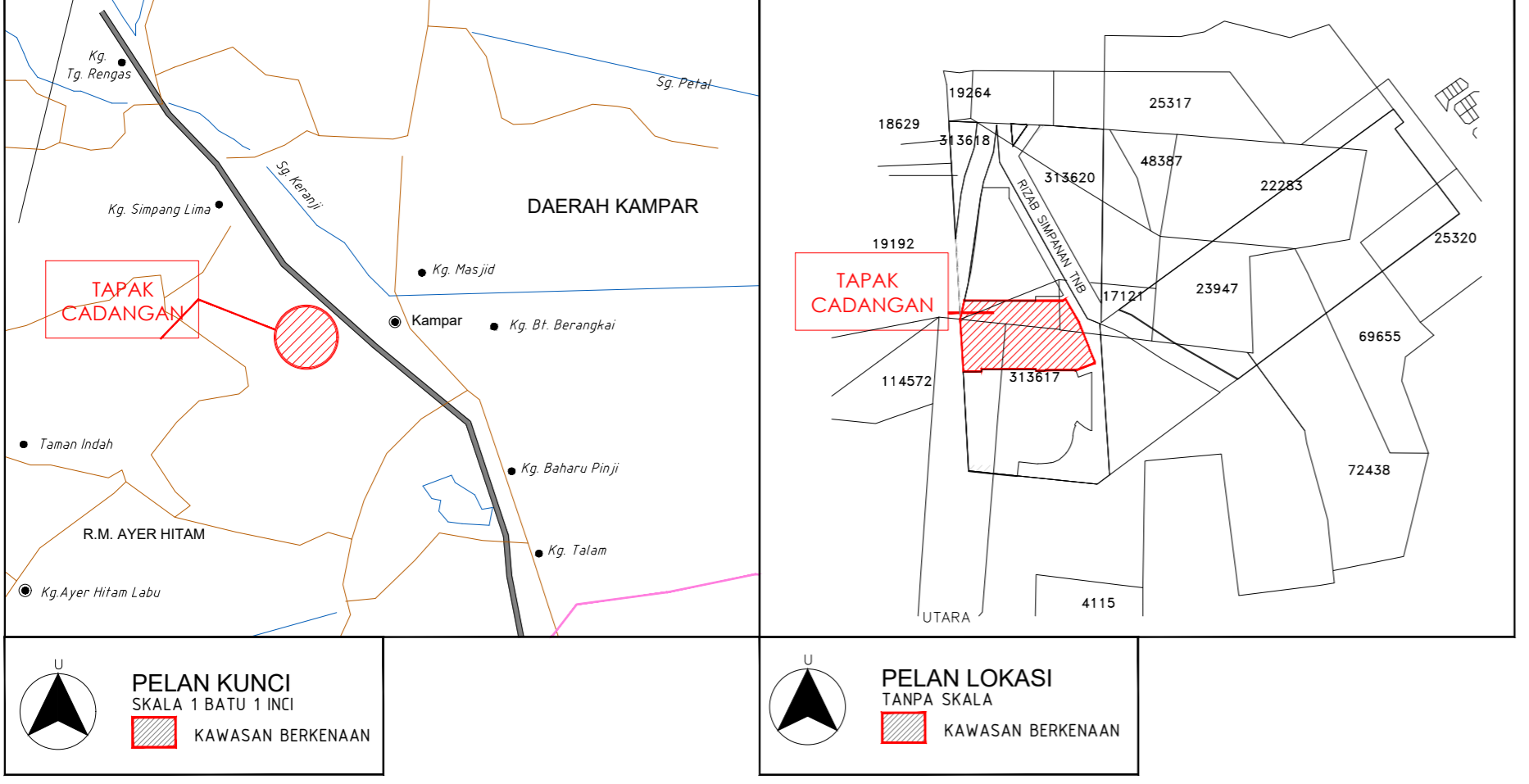
DESIGNED : DVD  
 SCALE : N.T.S

DATE : 08 AUGUST 2025  
 REVISION : 00

DWG. NO : LW-W2409-KUDR-AGACIA-LOT404704-7.160PE-R00-01-SITE

- SEWERAGE NOTES:**
- 1) ALL MAIN AND SECONDARY SEWER SHALL BE OF 225mm Ø VITRIFIED CLAY PIPE UNLESS OTHERWISE SPECIFIED. THE PIPE SHALL CONFORM TO THE REQUIREMENTS OF B.S 65 1981 OR ITS EQUIVALENT.
  - 2) ALL SEWER SHALL BE LAID ON PIPE BEDDING TYPE 'B' EXCEPT ROAD, DRAIN OR CULVERT CROSSING OR AS INSTRUCTED BY THE ENGINEER.
  - 3) SEWER UNDER ROAD, DRAINS AND CULVERT CROSSING SHALL BE LAID IN PIPE BEDDING TYPE 'A'
  - 4) MEDIUM DUTY C.I MANHOLE COVER SHALL BE USED FOR MANHOLE IN TURFED GROUNDS AND HEAVY DUTY C.I MANHOLE COVER SHALL BE USED FOR MANHOLE IN ROAD PAVEMENT OR CAR PARK CONFORMING TO BS 497 1967
  - 5) FOR DROP IN MANHOLES LESS THAN 900mm STEPPING IN MANHOLES SHALL BE PROVIDED
  - 6) FOR DROP IN MANHOLES GREATER THAN 900mm MANHOLES WITH EXTERNAL BACKDROP SHALL BE PROVIDED
  - 7) FLEXIBLE JOINTS OF RUBBER RING OR POLYESTER TYPE OF A DESIGN AND FORM APPROVED BY THE ENGINEER SHALL BE USED
  - 8) VITRIFIED CLAY PIPES SHALL CONFORM TO BS TYPE "STANDARD STRENGTH" WITH A CRUSHING STRENGTH OF 20kn/m AND BS 540:1971
  - 9) CAST IRON PIPES SHALL CONFORM TO BS 78 1961 AND BS 1211:1958 AND SHALL BE OF CLASS 'B'
  - 10) MINIMUM CRUSHING STRENGTH IS 4000 P.S.I
  - 11) SUBJECT TO SITE CONDITION, A MINIMUM DEPTH OF MANHOLE 1200mm MUST BE ADHERED TO AT ALL TIMES.

- LEGEND:**
- RL 38.00 PROPOSED ROAD LEVEL
  - PINDAAN P.E.
  - PROPOSED 225mm Ø Vitrified Clay Pipe (VCP)
  - PROPOSED 200mm Ø D.I. FORCE MAIN PIPE
  - PROPOSED RECEIVING MANHOLE
  - PROPOSED MANHOLE



**JADUAL PE**

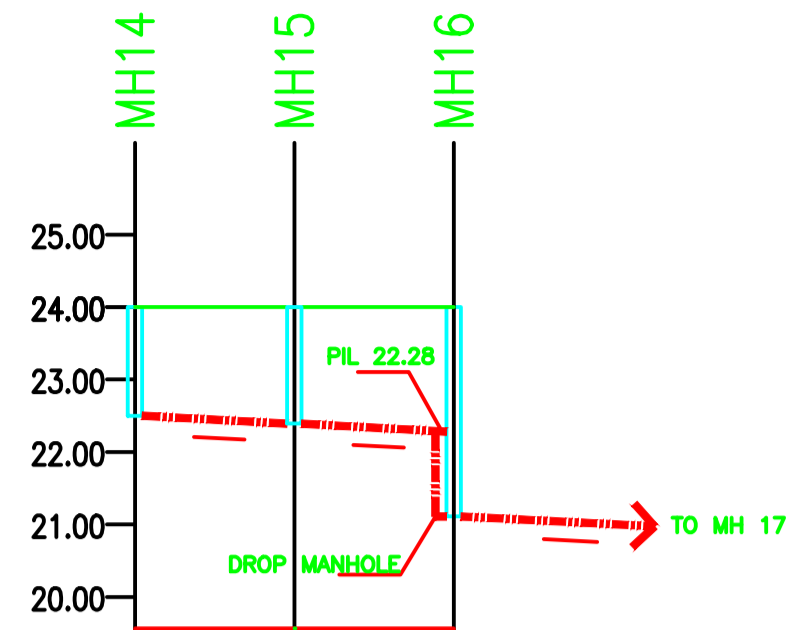
ITEM	DESCRIPTION	UNIT	PE/UNIT	PE
<b>1 PHASE 1 (BLOCK A)</b>				
<b>BUILDING 1</b>				
1.1a	VILLA	5 UNITS	5 PE/UNIT	25
1.1b	SERVICE SUITE	601 UNITS	3 PE/UNIT	1712
1.1c	PREMIS	322.66m <sup>2</sup>	3 PE/100m <sup>2</sup>	9.68
1.1d	RUANG	548.04m <sup>2</sup>	3 PE/100m <sup>2</sup>	16.44
1.1e	GIMNASIUM	57.49m <sup>2</sup>	3 PE/100m <sup>2</sup>	1.73
1.1f	MAIL ROOM, MC	55.33m <sup>2</sup>	3 PE/100m <sup>2</sup>	1.66
1.1g	SURAU	30 PERSONS	0.2 PE/PERSON	6
1.1h	SWIMMING POOL	30 PERSONS	0.5 PE/PERSON	15
<b>BUILDING 2</b>				
1.2a	BALROOM	548.04m <sup>2</sup>	3 PE/100m <sup>2</sup>	16.44
1.2b	SURAU	30 PERSONS	0.2 PE/PERSON	6
<b>SUB-TOTAL</b>				
				1909.96
<b>2 PHASE 2 (BLOCK B)</b>				
<b>BUILDING 1</b>				
2.1a	VILLA	5 UNITS	5 PE/UNIT	25
2.1b	SERVICE SUITE	601 UNITS	3 PE/UNIT	1803
2.1c	PREMIS	668.72m <sup>2</sup>	3 PE/100m <sup>2</sup>	20.06
2.1d	GIMNASIUM	106.51m <sup>2</sup>	3 PE/100m <sup>2</sup>	3.2
2.1e	SWIMMING POOL	30 PERSONS	0.5 PE/UNIT	15
2.1f	SURAU	30 PERSONS	0.2 PE/PERSON	6
<b>BUILDING 2</b>				
2.2a	PREMIS	2,614.04m <sup>2</sup>	3 PE/100m <sup>2</sup>	78.42
2.2b	BALROOM	3 UNITS	5 PE/UNIT	15
2.2c	SURAU	30 PERSONS	0.2 PE/PERSON	6
<b>SUB-TOTAL</b>				
				1098.98
<b>3 PHASE 3 (BLOCK C)</b>				
<b>BUILDING 1</b>				
3a	VILLA	2 UNITS	5 PE/UNIT	10
3b	SERVICE SUITE	1,105 UNITS	3 PE/UNIT	3315
3c	PREMIS	904.47m <sup>2</sup>	3 PE/100m <sup>2</sup>	27.13
3d	KONDOMINIUM	3 UNITS	5 PE/UNIT	15
3e	SWIMMING POOL	30 PERSONS	0.5 PE/PERSON	15
3f	GIMNASIUM	82.8m <sup>2</sup>	3 PE/100m <sup>2</sup>	2.49
3g	SURAU	30 PERSONS	0.2 PE/PERSON	6
<b>SUB-TOTAL</b>				
				7197.25
<b>TOTAL</b>				
				3306.62
TOTAL POPULATION EQUIVALENT FOR WHOLE DEVELOPMENT (ADOPT) = 7160 PE				

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DWG FILE NO.: LWK/GPK/11/11043A  
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### MANHOLE MH14 - MH16

HORIZONTAL 1 : 1000  
VERTICAL 1 : 100

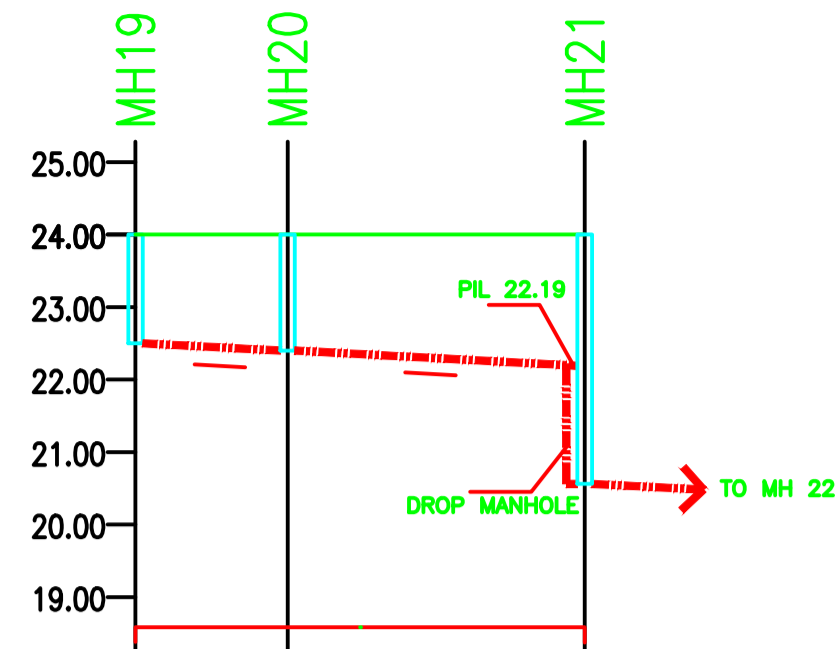


DATUM 19.00m

GROUND LEVEL	24.00	24.00	24.00
INVERT LEVEL OF PIPE / M.H.	22.50	22.28	21.11
DISTANCE IN METER	0.00	22.00	44.00
DEPTH OF MANHOLE IN METER	1.50	1.81	2.89

### MANHOLE MH19 - MH21

HORIZONTAL 1 : 1000  
VERTICAL 1 : 100

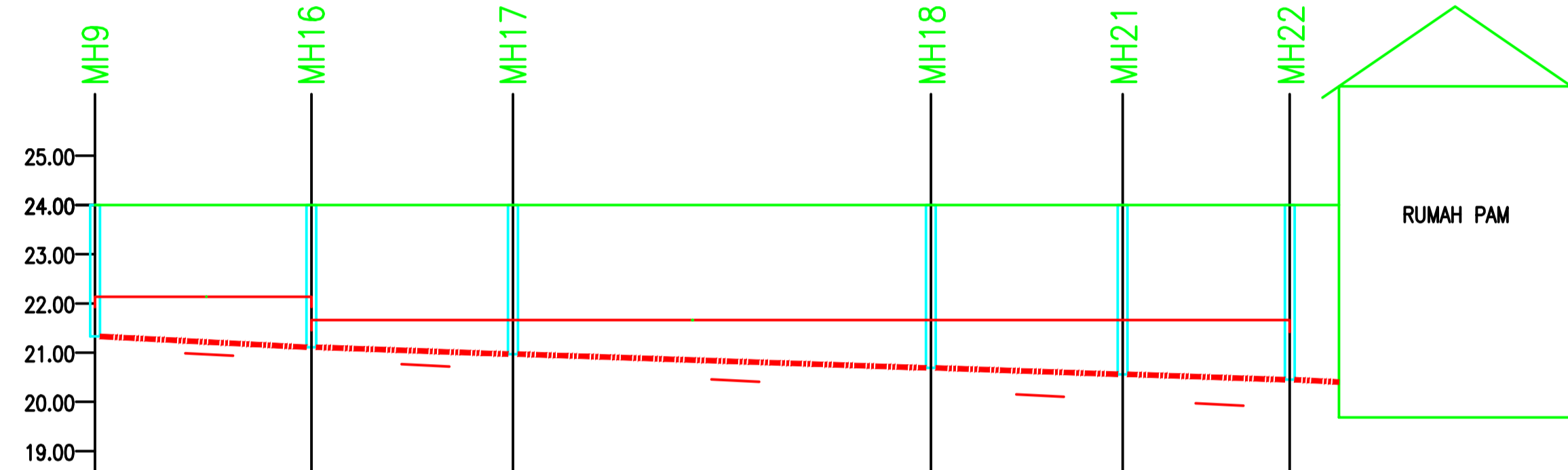


DATUM 18.00m

GROUND LEVEL	24.00	24.00	24.00
INVERT LEVEL OF PIPE / M.H.	22.50	22.40	20.56
DISTANCE IN METER	0.00	21.00	208.00
DEPTH OF MANHOLE IN METER	1.50	1.60	3.44

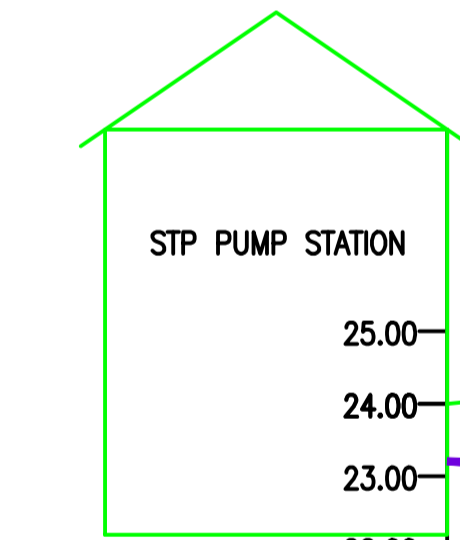
### MANHOLE MH9 - MH22 TO PUMP STATION

HORIZONTAL 1 : 1000  
VERTICAL 1 : 100



DATUM 18.00m

GROUND LEVEL	24.00	24.00	24.00	24.00	24.00	24.00
INVERT LEVEL OF PIPE / M.H.	21.33	21.11	20.97	20.89	20.56	20.45
DISTANCE IN METER	0.00	44.00	65.00	170.00	208.00	243.00
DEPTH OF MANHOLE IN METER	2.67	2.89	3.03	3.31	3.44	3.55

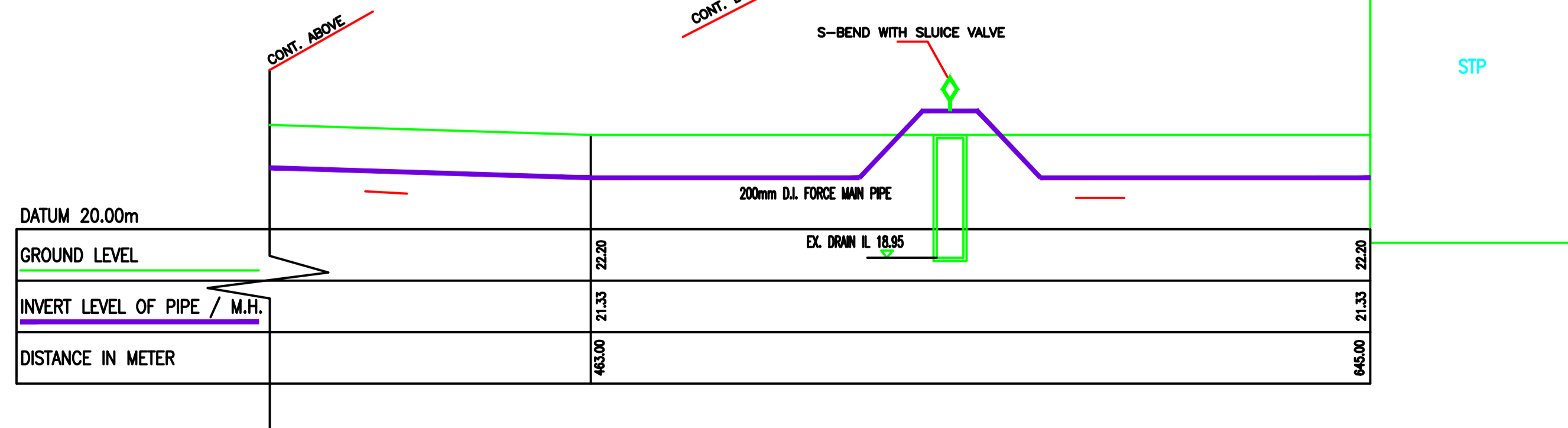


DATUM 20.00m

GROUND LEVEL	24.00	24.15	23.94	23.73	23.51	23.30	22.80	22.70	22.50
INVERT LEVEL OF PIPE / M.H.	21.33	21.33	21.33	21.33	21.33	21.33	21.33	21.33	21.33
DISTANCE IN METER	0.00	15.00	66.00	118.00	168.00	216.00	286.00	338.00	397.00

### FROM PUMP STATION TO STP - ( FORCE MAIN PIPE )

HORIZONTAL 1 : 1000  
VERTICAL 1 : 100



DATUM 20.00m

GROUND LEVEL	22.20	22.20
INVERT LEVEL OF PIPE / M.H.	21.33	21.33
DISTANCE IN METER	465.00	645.00

OWNER ADDRESS & SIGNATURE:

LIM GEE TEK  
700104-10-6027  
**AGACIA LAND SDN.BHD**  
SUITES D3A13-D3A16, LEVEL 3A, BLOCK D, KELANA  
SQUARE, NO.17, JALAN SS 7 /26, 47301, PETALING  
JAYA, SELANGOR DARUL EHSAN.

CONSULTANT ENGINEERS:  
**JURUTERA PERUNDING  
ALPHAREKA SDN. BHD.**  
9-2 & 9-3, Jalan USJ 9/9N  
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SYSTEM CONTRACTOR:  
**LEGEND WATER SDN. BHD.**  
(1100714-WJ/201401024634)

No.3A-2, JALAN CEMPAKA SD 12/12,  
BANDAR SRI DAMANSARA,  
52200 KUALA LUMPUR,  
WILAYAH PERSEKUTUAN, MALAYSIA.  
TEL : 1700 81 0094  
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PROJECT NAME:  
CADANGAN PEMBANGUNAN BERCAMPUR FASA 1, 2 & 3 YANG  
MENGANDUNGI:

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KAMPAR, PERAK DARUL RIDZUAN.

UNTUK TETUAN AGACIA LAND SDN BHD.

GPS Coordinate: 4.318060, 101.124645

TITLE:  
UPGRADING SEWERAGE TREATMENT PLANT KAN095 FOR  
CAPACITY 7,160PE WITH ULTIMATE 14,120PE  
- FORCE MAIN PIPE

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**QUALITY CONSULTANT** (1964 S/PT)  
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TEL : 1700 81 0094  
E-MAIL : qcconsultant2021@gmail.com

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