

**Annex B**

---

*Drainage Layout Plans*

**GENERAL NOTES**

- THE WHOLE DRAINAGE INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING ORDINANCE AND BUILDINGS (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS AND LATRINES) REGULATIONS AND CHAPTER 123(I) SUBSIDIARY LEGISLATION.
- UNLESS OTHERWISE STATED, BRANCH PIPE SIZE SHALL BE AS FOLLOWS:
  - WASTE BRANCH FOR EACH WASH BASIN  $\phi 32mm$
  - WASTE BRANCH FOR EACH KITCHEN/PANTRY/CLEANER SINK  $\phi 40mm$
  - WASTE BRANCH FOR EACH SHOWER  $\phi 50mm$
  - WASTE BRANCH FOR EACH BATH  $\phi 40mm$
  - WASTE BRANCH FOR EACH FLOOR DRAIN IN TOILET  $\phi 50mm$
  - SOIL BRANCH FOR EACH URINAL (FOR UK FIXTURE)  $\phi 40mm$
  - SOIL BRANCH FOR EACH URINAL (FOR US FIXTURE)  $\phi 50mm$
  - SOIL BRANCH FOR EACH WATER CLOSET  $\phi 100mm$
  - VENT BRANCH FOR EACH WATER CLOSET  $\phi 50mm$
  - VENT BRANCH FOR EACH URINAL  $\phi 40mm$
- WHETHER SHOWN ON THE DRAWINGS OR NOT, SUFFICIENT ACCESS SHALL BE PROVIDED BY MEANS OF CLEANING EYES OR OTHER APPROVED METHOD TO ENABLE ALL DRAINAGE PIPES TO BE CLEARED OF ANY OBSTRUCTION. SUCH ACCESS POINTS SHALL BE SITED SO AS TO ALLOW CLEARANCE FOR THE EASY ENTRY OF CLEANING ROD.
- ALL BENDS IN SOIL PIPES AND WASTE PIPES SHALL HAVE AN OBTUSE ANGLE AND HAVE THE LARGEST PRACTICABLE RADIUS OF CURVATURE. THE BENDS SHALL NOT CHANGE IN ANY WAY OF THE SECTION OF THE PIPE AND A CLEANING EYE SHALL BE PROVIDED AT OR NEAR THE BEND.
- TYPE & DETAILS OF TRAPS OF VARIOUS SANITARY FITMENTS SHALL BE AS FOLLOWS:
 

SANITARY FITMENT	TYPE OF TRAP	DEPTH OF WATER SEAL
WATER CLOSET	INTEGRAL	50mm
URINAL		
WASH BASIN	UPVC ANTI-SYPHONAGE	80mm
KITCHEN/PANTRY/CLEANER SINK		
BATH TUB (INSIDE FLAT SUNKEN SLAB)	UPVC TOP-ACCESS ANTI-SYPHONAGE TRAP	
FLOOR/SHOWER DRAIN(INSIDE FLAT SUNKEN SLAB)		
WASHING MACHINE/ DISH WASHER	UPVC ANTI-SYPHONAGE	
FLOOR/SHOWER DRAIN (EXCEPT INSIDE FLAT SUNKEN SLAB)	BRASS/C.I. RESEALING TRAP	
- ALL SOIL VENTILATING PIPES AND WASTE VENTILATING PIPES ARE TO BE TERMINATED ABOVE ROOF LEVEL EITHER 1100mm OR 2500mm OR 3000MM AS SPECIFIED IN RELEVANT DRAWINGS.
- HORIZONTAL VENT PIPES SHALL BE SLIGHTLY INCLINED UPWARD CONNECTED TO VENT STACK.
- EVERY DRAIN OR SEWER SHALL BE LAID WITH A MINIMUM FALL AS FOLLOWS OR AS INDICATED ON DRAWINGS:
  - $\phi 100mm$  & BELOW AT 1 IN 40
  - $\phi 150mm$  AT 1 IN 70
  - $\phi 200mm/225mm/250mm$  AT 1 IN 100
  - $\phi 300mm$  & ABOVE AT 1 IN 150
- FACES OF EVERY MANHOLE SHALL BE RENDERED WITH CEMENT MORTAR SO AS TO PROVIDE A SMOOTH AND IMPERVIOUS SURFACE.
- EVERY DRAINAGE CHANNEL IN A MANHOLE SHALL NOT BE LESS THAN HALF ROUND OF GLAZED EARTHEN WARE OF CEMENT RENDERED AND SHALL HAVE A DIAMETER NOT LESS THAN THAT OF THE LARGEST DRAINAGE INLET INTO AND NOT MORE THAN THAT OF THE OUTLET FROM THE MANHOLE.
- UNLESS OTHERWISE INDICATED, ALL MANHOLE FRAMES AND COVERS SHALL BE OF AN APPROVED DESIGN CONFORMING TO THE FOLLOWING REQUIREMENTS:
  - (a) AREA SUBJECT TO VEHICLE TRAFFIC – HEAVY DUTY TYPE, DOUBLE SEAL AIRTIGHT TYPE
  - (b) AREA SUBJECT TO PEDESTRIAN TRAFFIC – MEDIUM DUTY TYPE, DOUBLE SEAL AIRTIGHT TYPE
- SUPPORT SHALL BE PROVIDED FOR ALL UNDERGROUND DRAINAGE AT AN INTERVAL OF NOT MORE THAN 1500mm.
- ALL PIPES PASSING THROUGH FIRE PROTECTED AREAS SHALL BE ENCLOSED BY FIRE RATED PROOFING MATERIALS OF APPROPRIATE FIRE RATING REQUIRED BY THE MAIN CONTRACTOR.
- ALL SURFACE CHANNELS SHALL BE PROVIDED WITH GRATING COVER. UNLESS OTHERWISE SPECIFIED ON DRAWING, MATERIAL & TYPE SHALL BE AS FOLLOW:
  - (a) AREA SUBJECT TO VEHICLE TRAFFIC – C.I. MATCHING COVER, HEAVY DUTY
  - (b) AREA SUBJECT TO PEDESTRIAN TRAFFIC – C.I. MATCHING COVER, MEDIUM DUTY
- UNLESS OTHERWISE STATED, ALL FLAT CHANNEL SHOULD BE STARTED AT 5mm DEPTH AND LAID ON 1:100 FALL.
- UNLESS OTHERWISE STATED, ALL SURFACE CHANNEL W/ GRATING SHOULD BE STARTED AT 40mm DEPTH AND LAID ON 1:100 FALL.
- UNLESS OTHERWISE STATED, ALL CANOPY SHOULD BE LAID WITH A FALL OF 1:75 TOWARDS THE DRAIN OUTLET.
- ALL CONDENSATE DRAIN SHOULD BE DISCHARGED / CONNECTED TO STORM WATER SYSTEM.
- WHETHER SHOWN ON THE DRAWINGS OR NOT, ALL DIMENSIONS FOR PETROL INTERCEPTOR SHOULD REFER TO EPD APPROVED STANDARD.
- EVERY OPENING FOR THE PASSAGE OF PIPES, CONDUITS, WIRES THROUGH A COMPARTMENT WALL OR FLOOR, AND EVERY HOLE IN SUCH A WALL OR FLOOR LEFT AFTER CONSTRUCTION SHOULD BE PROTECTED WITH SUITABLE FORM OF FIRE STOP TO MAINTAIN THE REQUIRED FRP OF THAT WALL OR FLOOR. WHERE THE PIPES AND WIRES PASSING THROUGH SUCH A WALL OR FLOOR IS OF COMBUSTIBLE MATERIAL, SUCH MATERIAL SHOULD BE CONTAINED WITHIN AN ENCLOSURE HAVING AN FRP OF NOT LESS THAN THAT OF THE WALL OR FLOOR.

SYMBOL	ABBREVIATION	DESCRIPTION
	SWP	SOIL & WASTE PIPE
	SP	SOIL PIPE
	PSP	PUMPED SOIL & WASTE PIPE
	WP	WASTE PIPE
	PWP	PUMPED WASTE PIPE
	RWP	RAIN WATER PIPE
	PRWP	PUMPED RAIN WATER PIPE
	VP	VENT PIPE
	CD	A/C CONDENSATE DRAIN PIPE
		SUB-SOIL DRAIN PIPE
	RWO	RAIN WATER OUTLET
	F.D./B.D./TSD/TFD	FLOOR DRAIN/BATH DRAIN/TOP ACCESS SHOWER DRAIN/TOP ACCESS FLOOR DRAIN
	O.T.G.	OPEN TRAPPED GULLY
	B.I.G.T.	BACK INLET GULLY TRAP
	P.D.	PLANTER DRAIN
	VG	VERTICAL GRATING
	F.A.I.	FRESH AIR INLET
		WIRE BALLOON/VENT COWL
	WMH	WASTE WATER MANHOLE
	FMH	FOUL WATER MANHOLE
	STMH	STORMWATER MANHOLE
	TFMH	FOUL WATER MANHOLE WITH DISCONNECTING TRAP
	TSTMH	STORMWATER MANHOLE WITH DISCONNECTING TRAP
	PI	PETROL GREASE INTERCEPTOR
		SUBMERSIBLE PUMP SET (1 DUTY, 1 STANDBY)
		RE-SEALING TRAP
		PVC RUNNING P-TRAP
		PVC ANTI-SYPHON BOTTLE TRAP
		WATER CLOSET
		WASH BASIN
		URINAL
		BATH TUB
		SINK
		SHOWER TRAY
		SUNKEN SLAB AREA
		SUNKEN SLAB AREA WITH MASS CONCRETE FILL

**MODIFICATIONS / EXEMPTION GRANTED IN THE CURRENT SUBMISSION**

DESCRIPTION	CONDITION	LOCATION WITH MODIFICATION / EXEMPTION GRANTED	DATE OF MODIFICATION / EXEMPTION GRANTED	PERMIT NO.
1) BUILDING (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS & LATRINES) REGULATION 29(1) AND 29(2) TO PERMIT THE PROVISION OF CLEANING ACCESS TO BE OTHER THAN CLEANING EYES.	(a) THE SAID WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE PLANS APPROVED ON 15 FEBRUARY 2023 UNDER BD REF. NO. BD 4/7011/09(1).	WHOLE DEVELOPMENT		
(b) BUILDING (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS & LATRINES) REGULATION 44(4) TO PERMIT THE PROTECTION OF CAST IRON PIPES TO BE OTHER THAN ASPHALTIC COATING.	(b) THE CONDITIONS IMPOSED IN THIS PARAGRAPH ARE TO BE INCORPORATED IN THE SUBSEQUENT AGREEMENT PLANS FOR APPROVAL BEFORE THE APPLICATION FOR AN OCCUPATION PERMIT IS SUBMITTED.			
(c) BUILDING (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS & LATRINES) REGULATION 50(2) TO PERMIT JOINING OF CAST IRON TO BE OTHER THAN LEAD CALKING.	(c) A CHECKLIST OF VALID FORMS BD106 IS TO BE SUBMITTED AT THE TIME OF THE APPLICATION FOR AN OCCUPATION PERMIT.			
(d) BUILDING (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS & LATRINES) REGULATION 48 TO PERMIT DRAINS OR SEWERS TO HAVE A LESSER FALL.	(d) THIS PERMIT WILL EXPIRE ON 14 FEBRUARY 2025 IF THE CONSENT TO COMMENCE THE ABOVE WORKS IS NOT OBTAINED ON OR BEFORE THE SPECIFIED DATE OR WHERE SUCH CONSENT HAS BEEN OBTAINED BUT IS DEEMED TO BE REVOKED UNDER SECTION 20(1) OF THE BUILDINGS ORDINANCE AFTER THE SPECIFIED DATE.			
(e) BUILDING (STANDARDS OF SANITARY FITMENTS, PLUMBING, DRAINAGE WORKS & LATRINES) REGULATION 44(1) AND 54(1) TO PERMIT THE USE OF DUCTILE IRON PIPES WITH METALLIC COATING FOR THE COVERED DRAIN AND SEWERS.				

LEGEND: # FIRST GRANTED ✓ STILL APPLICABLE X NOT APPLICABLE

**GENERAL ABBREVIATION**

GENERAL ABBREVIATION	DESCRIPTION
S	SEWAGE / SOIL
MH	MANHOLE
FFL	FINISHED FLOOR LEVEL
SFL	STRUCTURAL FLOOR LEVEL
CL	COVER LEVEL
IL	INVERT LEVEL
PSWP	PUMPED SOIL AND WASTE PIPE
PWP	PUMPED WASTE PIPE
PRWP	PUMPED RAINWATER PIPE
VRWO	VERTICAL RAINWATER OUTLET
F/A	FROM ABOVE
F/B	FROM BELOW
T/A	TO ABOVE
T/B	TO BELOW
H/L	HIGH LEVEL
M/L	MID LEVEL
L/L	LOW LEVEL
AFLL	ABOVE FINISHED FLOOR LEVEL



**BLOCK PLAN**  
SCALE 1 : 500

**DRAWING LIST**

DRAWING NO.	TITLE	SCALE
2502591A-DR-001	BLOCK PLAN, LEGENDS, ABBREVIATIONS, PIPEWORK SCHEDULE AND GENERAL NOTES FOR DRAINAGE SYSTEM	NTS@A1
2502591A-DR-101	SOIL AND WASTE DRAINAGE INSTALLATION SCHEMATIC DIAGRAM	NTS@A1
2502591A-DR-201	DRAINAGE LAYOUT PLAN FOR LG/F (UNDERGROUND)	1:100@A1
2502591A-DR-202	DRAINAGE LAYOUT PLAN FOR LG/F (HIGH LEVEL)	1:100@A1
2502591A-DR-203	DRAINAGE LAYOUT PLAN FOR GROUND FLOOR	1:100@A1
2502591A-DR-204	DRAINAGE LAYOUT PLAN FOR 1/F	1:100@A1
2502591A-DR-205	DRAINAGE LAYOUT PLAN FOR 2/F TO 5/F	1:100@A1
2502591A-DR-206	DRAINAGE LAYOUT PLAN FOR R/F	1:100@A1
2502591A-DR-301	DRAINAGE INSTALLATION DETAILS (1)	NTS@A1
2502591A-DR-302	DRAINAGE INSTALLATION DETAILS (2)	NTS@A1

**PIPEWORK MATERIAL SCHEDULE**

SYSTEM	DESCRIPTION	SIZE	MATERIAL	
SOIL & WASTE / SOIL / WASTE / VENT PIPE	RESIDENTIAL TOWER	ABOVE TRANSFER PLATE	INTERNAL AND PIPE WELL	
			300mm AND BELOW	EPOXY COATED CAST IRON PIPE TO BS EN 877
			ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT
		EXTERNAL	ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT
		PIPEWORK PASSING THROUGH TRANSFER PLATE	100mm AND 80mm	DUCTILE IRON PIPE TO BS EN 598 & EPOXY COATED CAST IRON PIPE TO BS EN 877
		BELOW TRANSFER PLATE, PIPEWORK RUNNING THROUGH PODIUM AND BASEMENT FLOORS	300mm AND BELOW	EPOXY COATED CAST IRON PIPE TO BS EN 877
		ABOVE 300mm	DUCTILE IRON PIPE TO BS EN 598	
PODIUM/BASEMENT FLOORS		300mm AND BELOW	EPOXY COATED CAST IRON PIPE TO BS EN 877	
		EXTERNAL	ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT
UNDERGROUND		ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT	
		100mm AND ABOVE	DUCTILE IRON PIPE TO BS EN 598	
		80mm AND ABOVE	DUCTILE IRON PIPE TO BS EN 598	
PUMPED DRAINAGE PIPE	ABOVE GROUND	80mm AND ABOVE	DUCTILE IRON PIPE TO BS EN 598	
		50mm AND BELOW	UPVC PIPE TO BS 3505 CLASS E OR BSEN 1452 OF EQUIVALENT PRESSURE RATING	
	BELOW GROUND	80mm AND ABOVE	DUCTILE IRON PIPE TO BS EN 598	
		50mm AND BELOW	UPVC PIPE TO BS 3505 CLASS E OR BSEN 1452 OF EQUIVALENT PRESSURE RATING	
STORM	RESIDENTIAL TOWER	ABOVE TRANSFER PLATE	EXTERNAL AREA	
			ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT
		PIPEWORK PASSING THROUGH TRANSFER PLATE	100mm AND 80mm	DUCTILE IRON PIPE TO BS EN 598
	BELOW TRANSFER PLATE, PIPEWORK RUNNING THROUGH PODIUM AND BASEMENT FLOORS	65mm - 300mm	EPOXY COATED CAST IRON PIPE TO BS EN 877	
		ABOVE 300mm	DUCTILE IRON PIPE TO BS EN 598	
PODIUM/BASEMENT FLOORS		65mm - 300mm	EPOXY COATED CAST IRON PIPE TO BS EN 877	
		EXTERNAL	ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT
UNDERGROUND		CONNECTED TO PUBLIC STORMWATER DRAINAGE SYSTEM	ALL	CONCRETE PIPE TO BS 5911 PART 100 CLASS H
PUMPED DRAINAGE PIPE	ABOVE GROUND	80mm AND ABOVE	DUCTILE IRON PIPE TO BS EN 598	
		50mm AND BELOW	UPVC PIPE TO BS 3505 CLASS E OR BSEN 1452 OF EQUIVALENT PRESSURE RATING	
	BELOW GROUND	80mm AND ABOVE	DUCTILE IRON PIPE TO BS EN 598	
		50mm AND BELOW	UPVC PIPE TO BS 3505 CLASS E OR BSEN 1452 OF EQUIVALENT PRESSURE RATING	
A/C CONDENSATE	RESIDENTIAL TOWER	ABOVE TRANSFER PLATE	EXTERNAL	
			ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT
		INTERNAL AND PIPE WELL	ALL	EPOXY COATED CAST IRON PIPE TO BS EN 877
	PIPEWORK RUNNING THROUGH TRANSFER PLATE	100mm AND BELOW	EPOXY COATED CAST IRON PIPE TO BS EN 877	
	BELOW TRANSFER PLATE, PIPEWORK RUNNING PODIUM AND BASEMENT FLOORS	ALL	EPOXY COATED CAST IRON PIPE TO BS EN 877	
PODIUM/ BASEMENT FLOORS	INTERNAL	ALL	EPOXY COATED CAST IRON PIPE TO BS EN 877	
	EXTERNAL	ALL	UPVC PIPE TO BS 5255/BS 4514/BS EN 1329-1 W/ SOLVENT CEMENT JOINT	

BD REF : 4/9414/23  
FSD REF : FP 8/31908  
BIM REF :

NO.	DATE	REVISION	APP.
-	2025-01	1ST BD SUBMISSION	

DO NOT SCALE DRAWING. FIGURED DIMENSIONS ARE TO BE FOLLOWED. COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.

PROJECT  
PROPOSED RESIDENTIAL DEVELOPMENT  
AT KA SHUE ROAD  
LOT 1109RP IN D.D.253  
SAI KUNG, NEW TERRITORIES

DRAWING TITLE  
BLOCK PLAN, LEGENDS,  
ABBREVIATIONS, PIPEWORK SCHEDULE  
AND GENERAL NOTES  
FOR DRAINAGE SYSTEM

DRAWING NO.	REV. NO.	PROJECT NO.
DR-001	0	2502591A
DESIGNED	CHECKED	SCALE
TCS	TCS	NTS@A1
DRAWN	APPROVED	DATE
JLTS	TTL	JAN, 2025

**C Y S Associates ( H K ) Ltd.**  
Architects & Urban Designers.

**B.D. SUBMISSION**  
07 JAN 2025



NO.	DATE	REVISION	APP.
-	2025-01	1ST BD SUBMISSION	

PROJECT  
 PROPOSED RESIDENTIAL DEVELOPMENT  
 AT KA SHUE ROAD  
 LOT 1109RP IN D.D.253  
 SAI KUNG, NEW TERRITORIES

DRAWING TITLE  
 DRAINAGE LAYOUT PLAN  
 FOR LG/F (UNDERGROUND)

DRAWING NO.	REV. NO.	PROJECT NO.
DR-201	0	2502591A
DESIGNED TCS	CHECKED TCS	SCALE 1:100@A1
DRAWN JLTS	APPROVED TTL	DATE JAN, 2025

**C Y S Associates (H K) Ltd.**  
 Architects & Urban Designers.

B.D. SUBMISSION  
 07 JAN 2025

FROM L TO R:  
 ø100 VP FROM U/G TO H/L  
 ø100 RWP F/A TO U/G  
 ø200 RWP F/A TO U/G

FROM T TO B:  
 ø100 PSWP FROM U/G TO H/L  
 ø100 PSWP FROM U/G TO H/L  
 ø100 VP FROM U/G TO H/L  
 ø150 SWP AT H/L TO U/G

FROM L TO R:  
 ø200 RWP AT H/L TO U/G  
 ø100 VP FROM U/G TO H/L  
 ø150 PRWP FROM U/G TO H/L  
 ø150 PRWP FROM U/G TO H/L

FROM T TO B:  
 ø100 VP FROM U/G TO H/L  
 ø100 PWP FROM U/G TO H/L  
 ø100 PWP FROM U/G TO H/L

FROM T TO B:  
 ø150 WP AT H/L TO U/G  
 ø150 SWP AT H/L TO U/G  
 ø100 PSWP FROM U/G TO H/L  
 ø100 PSWP FROM U/G TO H/L  
 ø100 VP FROM U/G TO H/L

SHORT TERM TENANCY  
 SX 2155 D.D. 253  
 FROM T TO B:  
 ø150 RWP AT H/L TO U/G  
 ø150 RWP AT H/L TO U/G

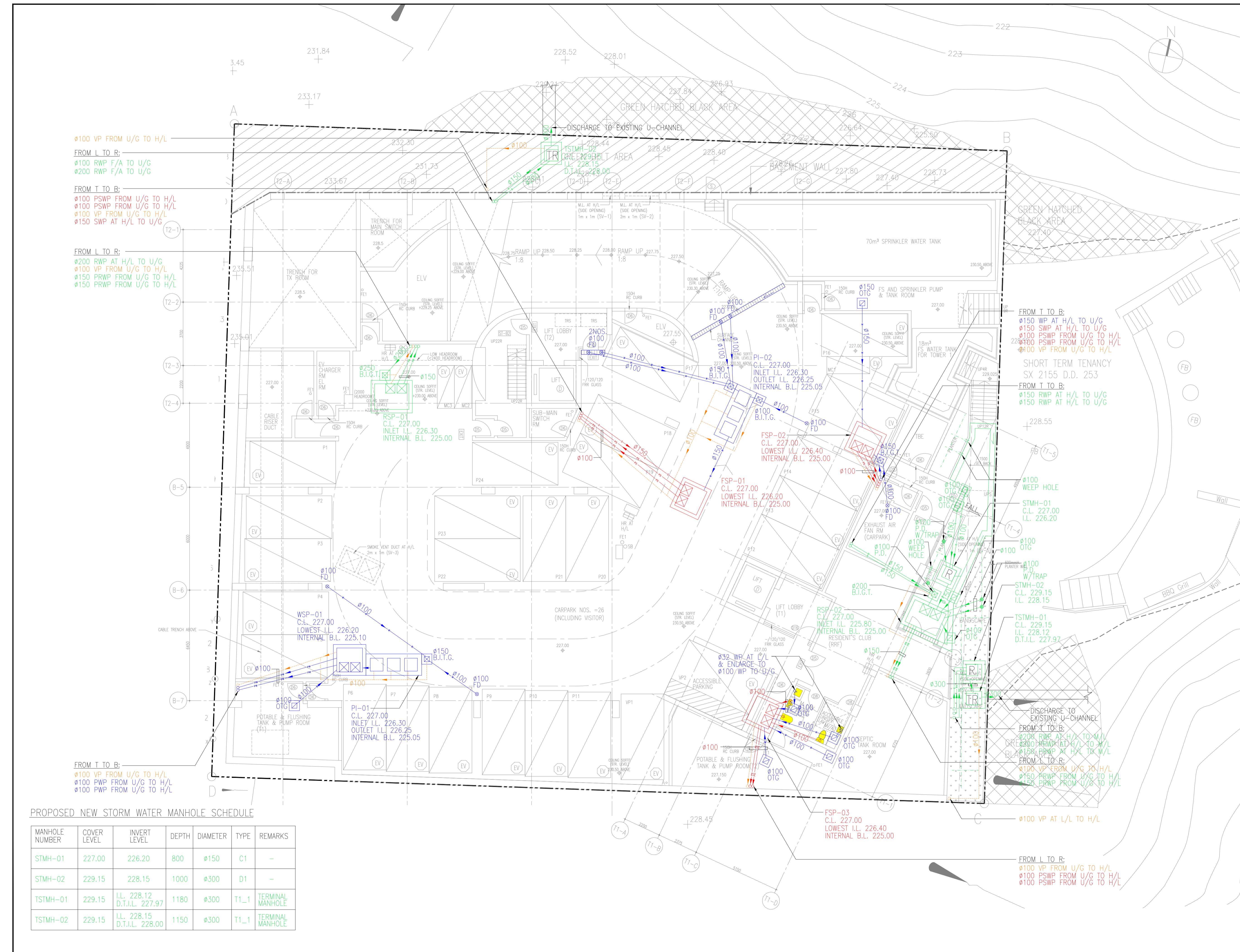
ø100 WEEP HOLE  
 ø100 OTG  
 ø100 W/TRAP  
 ø100 W/TRAP

DISCHARGE TO EXISTING U-CHANNEL  
 FROM T TO B:  
 ø200 RWP AT H/L TO U/G  
 ø200 RWP AT H/L TO U/G  
 ø150 RWP AT H/L TO U/G  
 FROM L TO R:  
 ø100 VP FROM U/G TO H/L  
 ø150 PRWP FROM U/G TO H/L  
 ø150 PRWP FROM U/G TO H/L

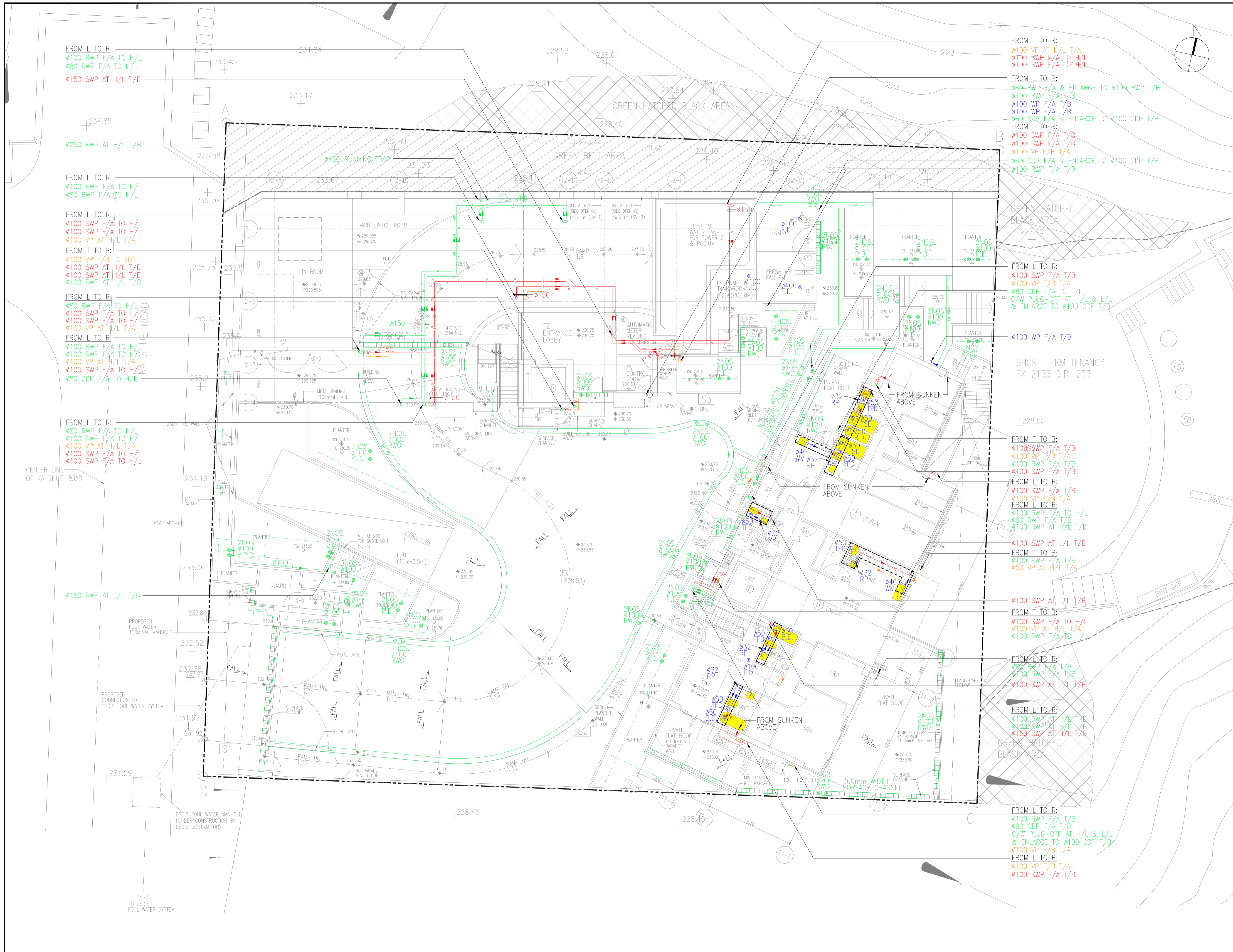
FROM L TO R:  
 ø100 VP FROM U/G TO H/L  
 ø100 PSWP FROM U/G TO H/L  
 ø100 PSWP FROM U/G TO H/L

PROPOSED NEW STORM WATER MANHOLE SCHEDULE

MANHOLE NUMBER	COVER LEVEL	INVERT LEVEL	DEPTH	DIAMETER	TYPE	REMARKS
STMH-01	227.00	226.20	800	ø150	C1	-
STMH-02	229.15	228.15	1000	ø300	D1	-
TSTMH-01	229.15	I.L. 228.12 D.T.I.L. 227.97	1180	ø300	T1_1	TERMINAL MANHOLE
TSTMH-02	229.15	I.L. 228.15 D.T.I.L. 228.00	1150	ø300	T1_1	TERMINAL MANHOLE







BD REF : 4/9414/23  
 FSD REF : FP 8/31908  
 BIM REF :

NOTES

- 450mm SUNKEN SLAB WITH LIGHT WEIGHT CONCRETE BACKFILLED (TYPICAL)
- 350mm SUNKEN SLAB WITH LIGHT WEIGHT CONCRETE BACKFILLED (TYPICAL)
- 100 RWP F/A TO H/L

DO NOT SCALE DRAWING.  
 FIGURED DIMENSIONS ARE TO BE FOLLOWED.  
 COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.

NO.	DATE	REVISION	APP.
-	2025-01	1ST BD SUBMISSION	

PROJECT  
 PROPOSED RESIDENTIAL DEVELOPMENT  
 AT KA SHUE ROAD  
 LOT 1109RP IN D.D.253  
 SAI KUNG, NEW TERRITORIES

DRAWING TITLE  
 DRAINAGE LAYOUT PLAN  
 FOR G/F

DRAWING NO.	REV. NO.	PROJECT NO.
DR-203	0	2502591A

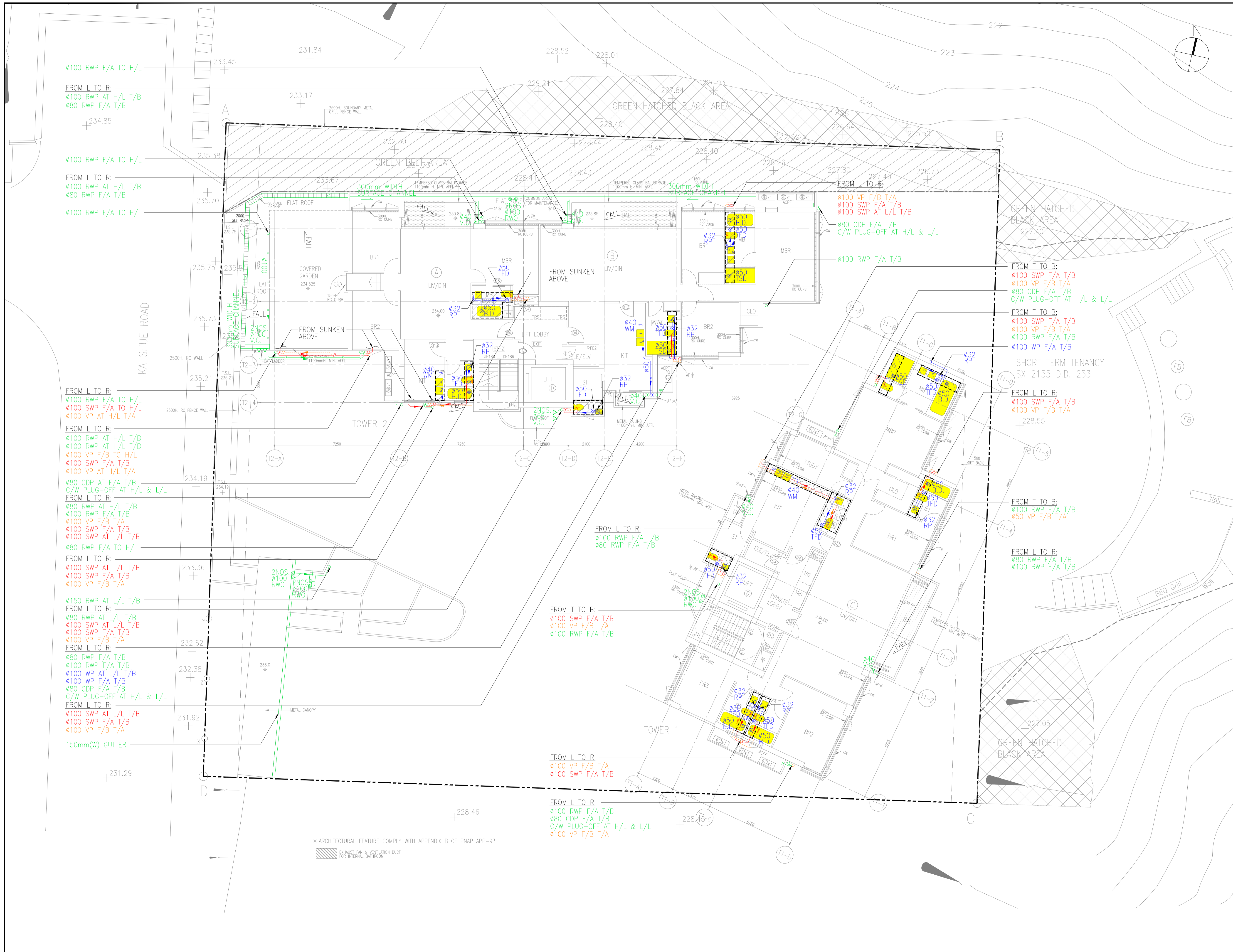
DESIGNED	CHECKED	SCALE
TCS	TCS	1:100@A1

DRAWN	APPROVED	DATE
JLTS	TTL	JAN, 2025

CAD REF :

**C Y S Associates (H K) Ltd.**  
 Architects & Urban Designers.

**B.D. SUBMISSION**  
 07 JAN 2025



BD REF : 4/9414/23  
 FSD REF : FP 8/31908  
 BM REF :

NOTES  
 [Symbol] 450mm SUNKEN SLAB WITH LIGHT WEIGHT CONCRETE BACKFILLED (TYPICAL)  
 [Symbol] 350mm SUNKEN SLAB WITH LIGHT WEIGHT CONCRETE BACKFILLED (TYPICAL)

NO.	DATE	REVISION	APP.
-	2025-01	1ST BD SUBMISSION	

DO NOT SCALE DRAWING.  
 FIGURED DIMENSIONS ARE TO BE FOLLOWED.  
 COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.

PROJECT  
 PROPOSED RESIDENTIAL DEVELOPMENT  
 AT KA SHUE ROAD  
 LOT 1109RP IN D.D.253  
 SAI KUNG, NEW TERRITORIES

DRAWING TITLE  
 DRAINAGE LAYOUT PLAN  
 FOR 1/F

DRAWING NO.	REV. NO.	PROJECT NO.
DR-204	0	2502591A

DESIGNED	CHECKED	SCALE
TCS	TCS	1:100@A1

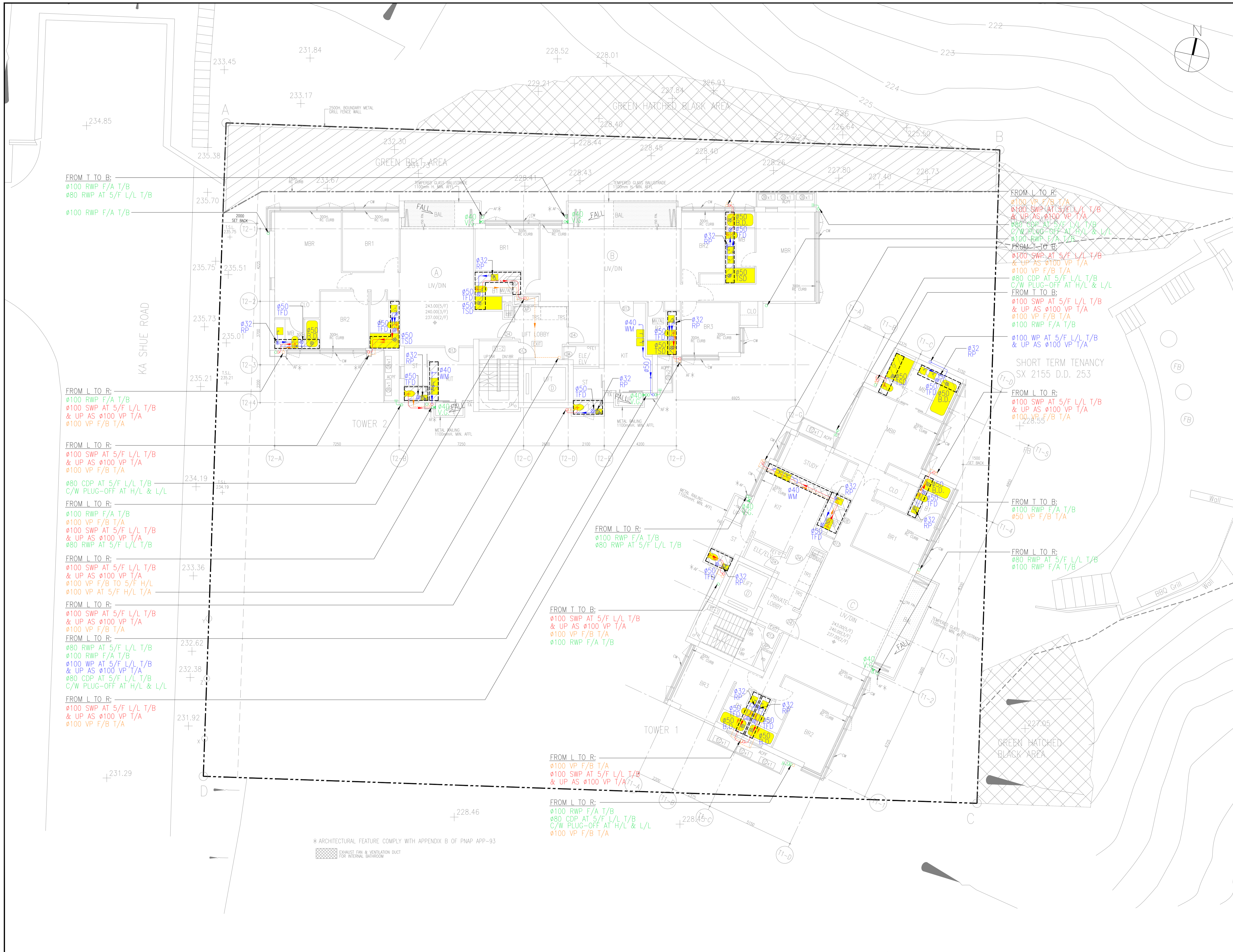
DRAWN	APPROVED	DATE
JLTS	TTL	JAN, 2025

CAD REF :

**C Y S Associates (H K) Ltd.**  
 Architects & Urban Designers.

**B.D. SUBMISSION**  
 07 JAN 2025

\* ARCHITECTURAL FEATURE COMPLY WITH APPENDIX B OF PNP APP-93  
 [Symbol] EXHAUST FAN & VENTILATION DUCT FOR INTERNAL BATHROOM



BD REF :	4/9414/23
FSD REF :	FP 8/31908
BIM REF :	
NOTES	
	450mm SUNKEN SLAB WITH LIGHT WEIGHT CONCRETE BACKFILLED (TYPICAL)
	350mm SUNKEN SLAB WITH LIGHT WEIGHT CONCRETE BACKFILLED (TYPICAL)
DO NOT SCALE DRAWING. FIGURED DIMENSIONS ARE TO BE FOLLOWED. COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.	
PROJECT	PROPOSED RESIDENTIAL DEVELOPMENT AT KA SHUE ROAD LOT 1109RP IN D.D.253 SAI KUNG, NEW TERRITORIES
DRAWING TITLE	DRAINAGE LAYOUT PLAN FOR TYP/F (2/F - 5/F)
DRAWING NO.	DR-205
REV. NO.	0
PROJECT NO.	2502591A
DESIGNED	TCS
CHECKED	TCS
SCALE	1:100@A1
DRAWN	JLTS
APPROVED	TTL
DATE	JAN, 2025
CAD REF :	

**C Y S Associates (H K) Ltd.**  
Architects & Urban Designers.

**B.D. SUBMISSION**  
07 JAN 2025

\* ARCHITECTURAL FEATURE COMPLY WITH APPENDIX B OF PNPAP APP-93  
 EXHAUST FAN & VENTILATION DUCT FOR INTERNAL BATHROOM

FROM I TO B:  
 ø100 RWP F/A T/B  
 ø80 RWP AT 5/F L/L T/B  
 ø100 RWP F/A T/B

FROM L TO R:  
 ø100 RWP F/A T/B  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A

FROM L TO R:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A

FROM L TO R:  
 ø80 CDP AT 5/F L/L T/B  
 C/W PLUG-OFF AT H/L & L/L

FROM L TO R:  
 ø100 RWP F/A T/B  
 ø100 VP F/B T/A  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø80 RWP AT 5/F L/L T/B

FROM L TO R:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B TO 5/F H/L  
 ø100 VP AT 5/F H/L T/A

FROM L TO R:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A

FROM L TO R:  
 ø80 RWP AT 5/F L/L T/B  
 ø100 RWP F/A T/B  
 ø100 WP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø80 CDP AT 5/F L/L T/B  
 C/W PLUG-OFF AT H/L & L/L

FROM L TO R:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A

FROM I TO B:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A  
 ø100 RWP F/A T/B

FROM L TO R:  
 ø100 VP F/B T/A  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A

FROM L TO R:  
 ø100 RWP F/A T/B  
 ø80 CDP AT 5/F L/L T/B  
 C/W PLUG-OFF AT H/L & L/L  
 ø100 VP F/B T/A

FROM L TO R:  
 ø100 VP F/B T/A  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø80 CDP AT 5/F L/L T/B  
 C/W PLUG-OFF AT H/L & L/L  
 ø100 RWP F/A T/B

FROM I TO B:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A  
 ø80 CDP AT 5/F L/L T/B  
 C/W PLUG-OFF AT H/L & L/L

FROM I TO B:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A  
 ø100 RWP F/A T/B

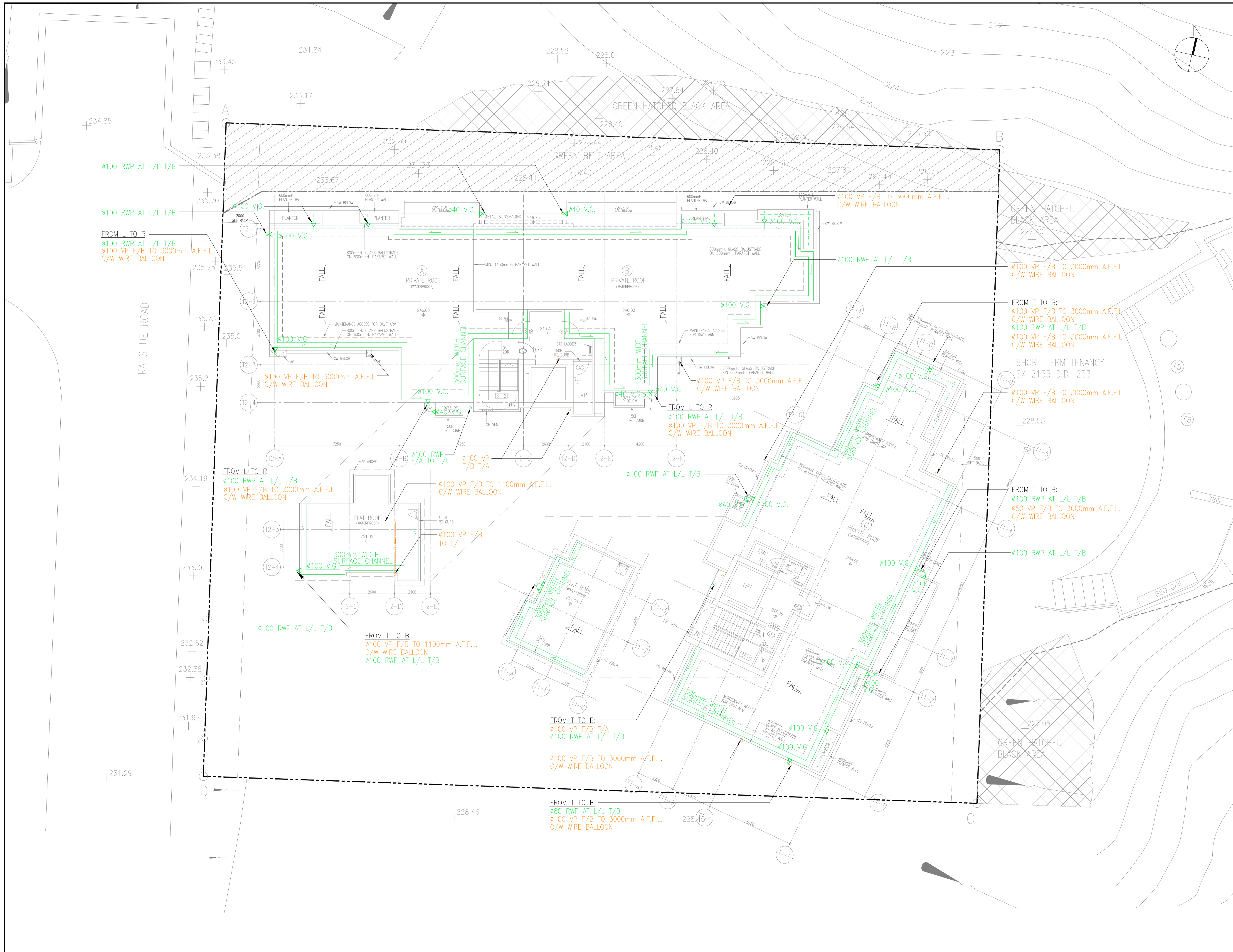
FROM I TO B:  
 ø100 WP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A

FROM L TO R:  
 ø100 SWP AT 5/F L/L T/B  
 & UP AS ø100 VP T/A  
 ø100 VP F/B T/A

FROM I TO B:  
 ø100 RWP F/A T/B  
 ø50 VP F/B T/A

FROM L TO R:  
 ø80 RWP AT 5/F L/L T/B  
 ø100 RWP F/A T/B





BD REF :	4/9414/23
FSD REF :	FP 8/31908
BIM REF :	

NO.	DATE	REVISION	APP.
-	2025-01	1ST BD SUBMISSION	

DO NOT SCALE DRAWING.  
FIGURED DIMENSIONS ARE TO BE FOLLOWED.  
COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.

PROJECT  
PROPOSED RESIDENTIAL DEVELOPMENT  
AT KA SHUE ROAD  
LOT 1109RP IN D.D.253  
SAI KUNG, NEW TERRITORIES

DRAWING TITLE  
DRAINAGE LAYOUT PLAN  
FOR R/F

DRAWING NO.	REV. NO.	PROJECT NO.
DR-206	0	2502591A
DESIGNED	CHECKED	SCALE
TCS	TCS	1:100@A1
DRAWN	APPROVED	DATE
JLTS	TTL	JAN, 2025

CAD REF :

**C Y S Associates (H K) Ltd.**  
Architects & Urban Designers.

**B.D. SUBMISSION**  
07 JAN 2025

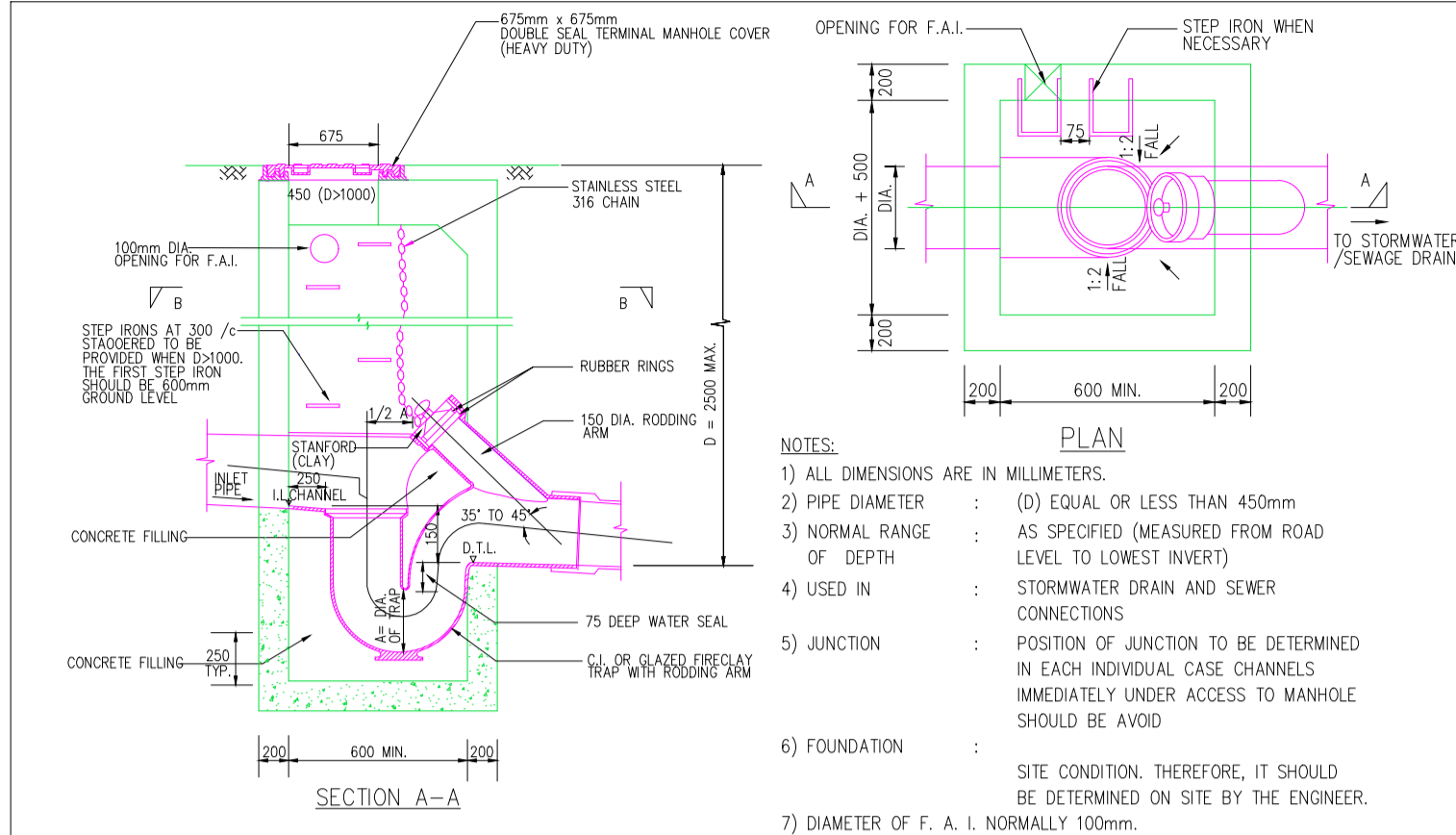
DESIGN CALCULATION OF SOIL & WASTE WATER SUMP PIT

FOUL WATER SUMP PIT SCHEDULE										
SUMP PUMP NO./SUMP PIT NO.	INFLOW RATE (L/S)	SUMP PIT DIMENSION (L x W x H(m))	EFFECTIVE RAINFALL DEPTH (mm)	EFFECTIVE WATER VOLUME (M <sup>3</sup> )	FILLING TIME (MIN)	PUMP DUTY (L/S)	DISCHARGE TIME (MIN)	FREQUENCY OF PUMP OPERATION (CYCLES/HR)	SUMP PIT LOCATION	QUANTITY (NO.)
FSP-01-01802 WASTE WATER SUMP PIT (WSP-01)	5.0 L/S	1.5 x 1.4 x 2.0	0.5	1.05	3.5	6 L/S	10	17.5	2.85	LG/F
FSP-01-01802 FRESH WATER SUMP PIT (FSP-01)	5.0 L/S	1.5 x 1.4 x 2.0	0.5	1.05	3.5	6 L/S	10	17.5	2.85	LG/F
FSP-01-01802 FOUL WATER SUMP PIT (FSP-01)	5.0 L/S	1.5 x 1.4 x 2.0	0.5	1.05	3.5	6 L/S	10	17.5	2.85	LG/F
FSP-01-01802 FRESH WATER SUMP PIT (FSP-01)	5.0 L/S	1.5 x 1.4 x 2.0	0.5	1.05	3.5	6 L/S	10	17.5	2.85	LG/F

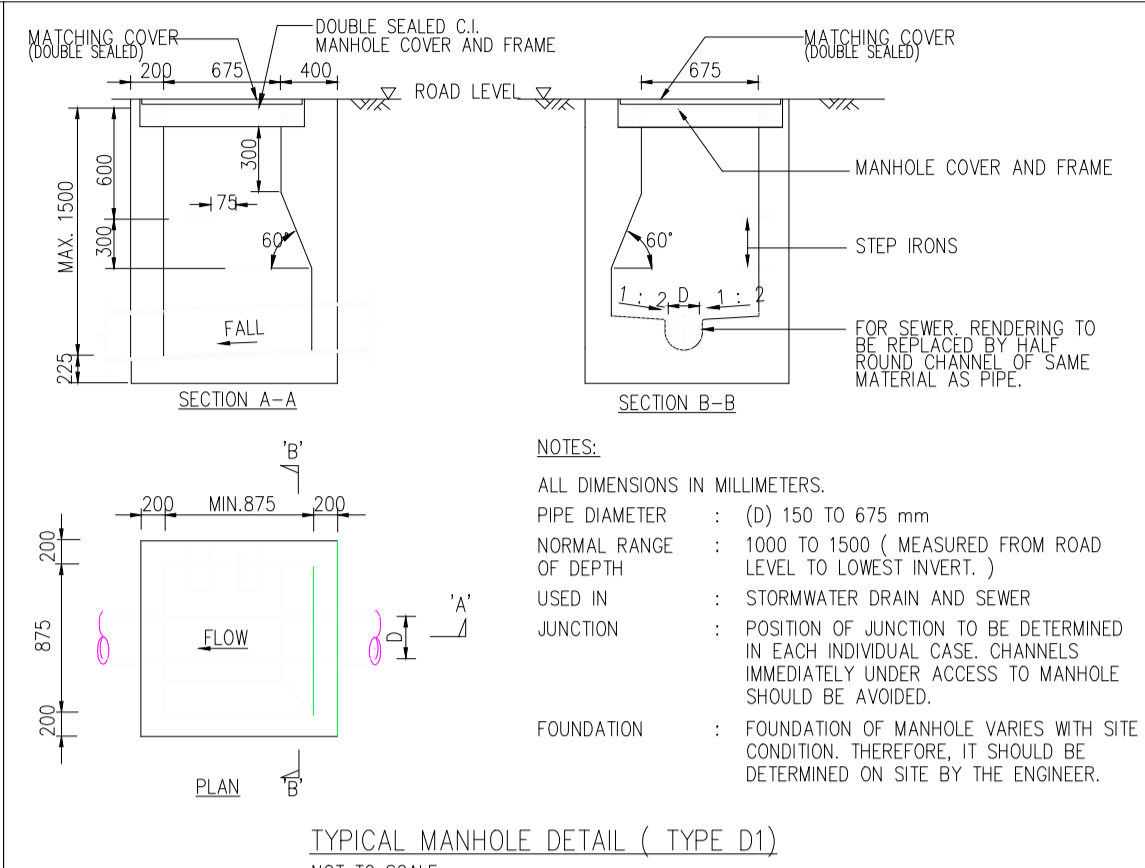
DESIGN CALCULATION OF STORM WATER SUMP PIT

STORM WATER SUMP PIT SCHEDULE										
SUMP PUMP NO./SUMP PIT NO.	INFLOW RATE (L/S)	SUMP PIT DIMENSION (L x W x H(m))	EFFECTIVE RAINFALL DEPTH (mm)	EFFECTIVE WATER VOLUME (M <sup>3</sup> )	FILLING TIME (MIN)	PUMP DUTY (L/S)	DISCHARGE TIME (MIN)	FREQUENCY OF PUMP OPERATION (CYCLES/HR)	SUMP PIT LOCATION	QUANTITY (NO.)
FSP-01-01802 STORM WATER SUMP PIT (FSP-01)	30.0 L/S	2.0 x 1.5 x 2.0	1	3	1.87	35 L/S	15	10	5.14	LG/F
FSP-01-01802 STORM WATER SUMP PIT (FSP-01)	30.0 L/S	2.0 x 1.5 x 2.0	0.6	1.8	1	35 L/S	10	6	8.57	LG/F

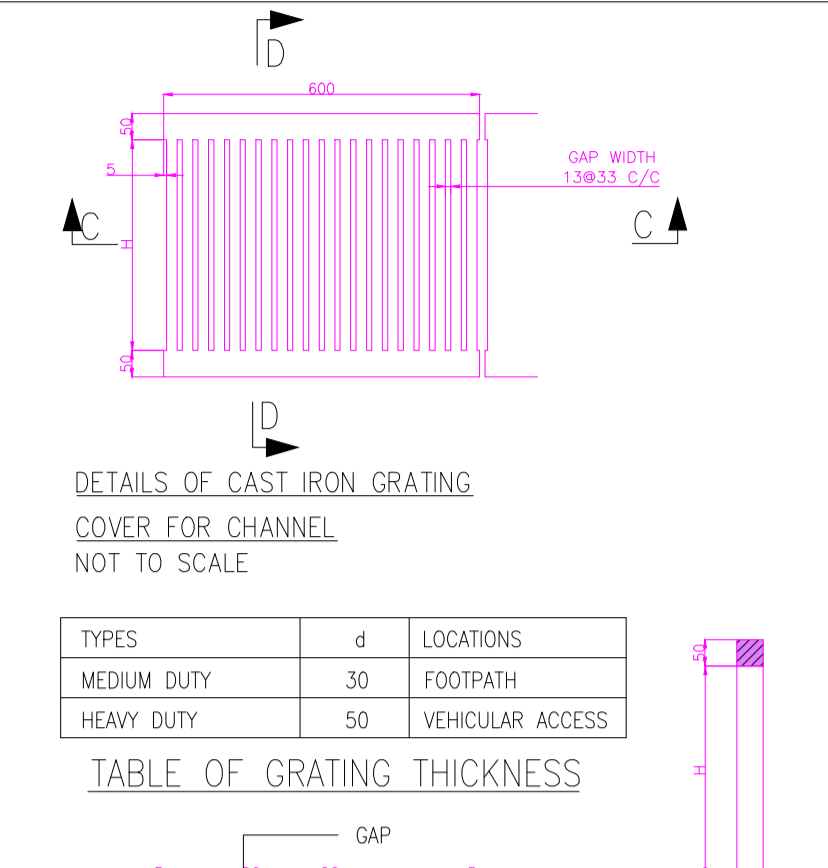
REFER TO ABOVE CALCULATION, THE FREQUENCY OF PUMP OPERATION WILL NOT BE MORE THAN TEN ON-OFF CYCLE PER HOUR.



DETAIL OF FOUL WATER TERMINAL MANHOL (TYPE T1.1)



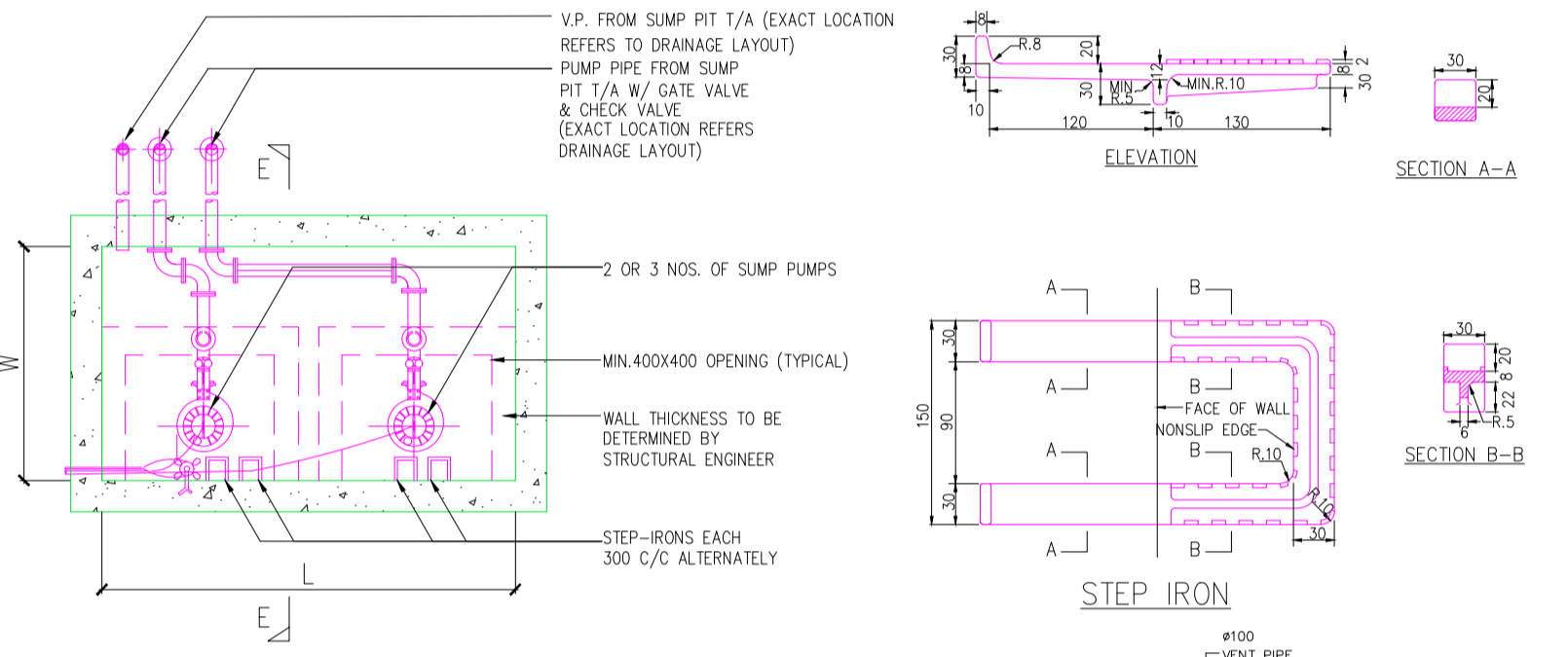
TYPICAL MANHOLE DETAIL (TYPE D1)



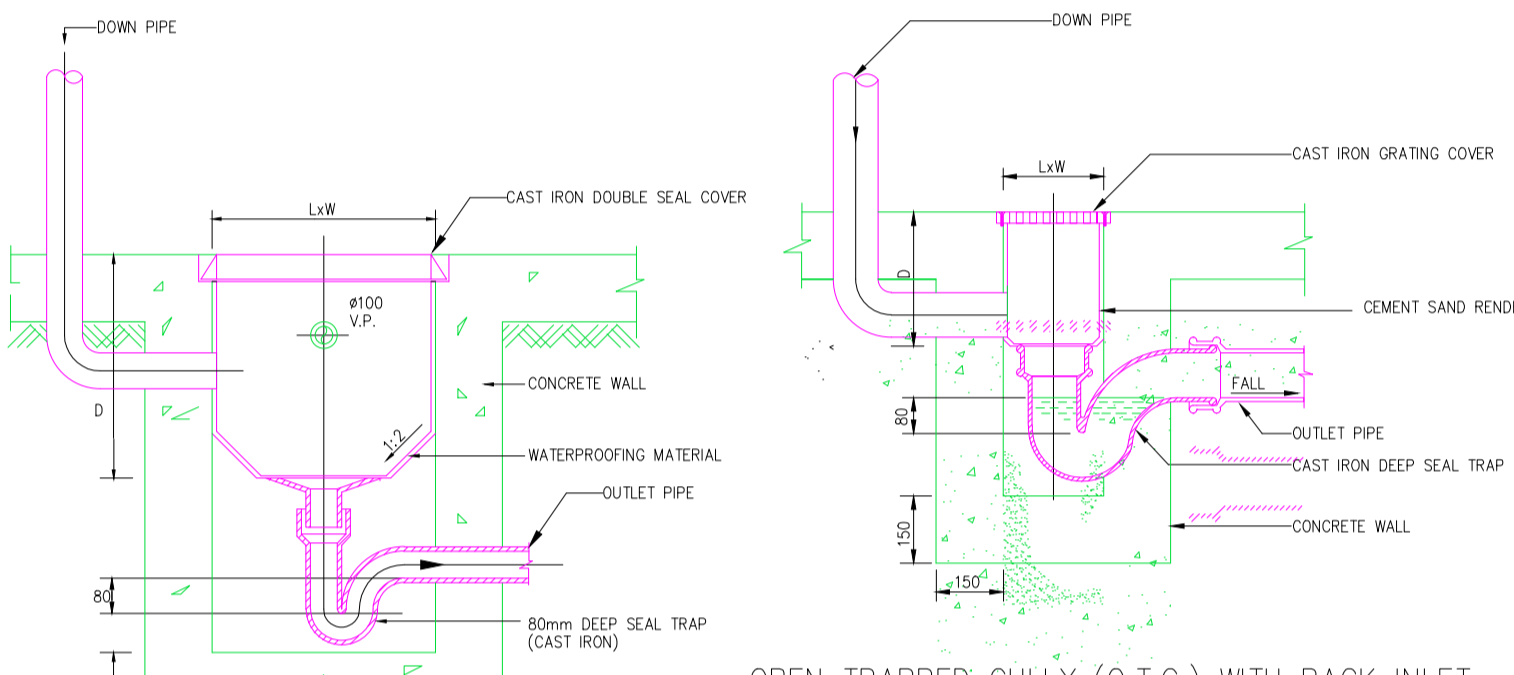
DETAILS OF CAST IRON GRATING COVER FOR CHANNEL

TYPES	d	LOCATIONS
MEDIUM DUTY	30	FOOTPATH
HEAVY DUTY	50	VEHICULAR ACCESS

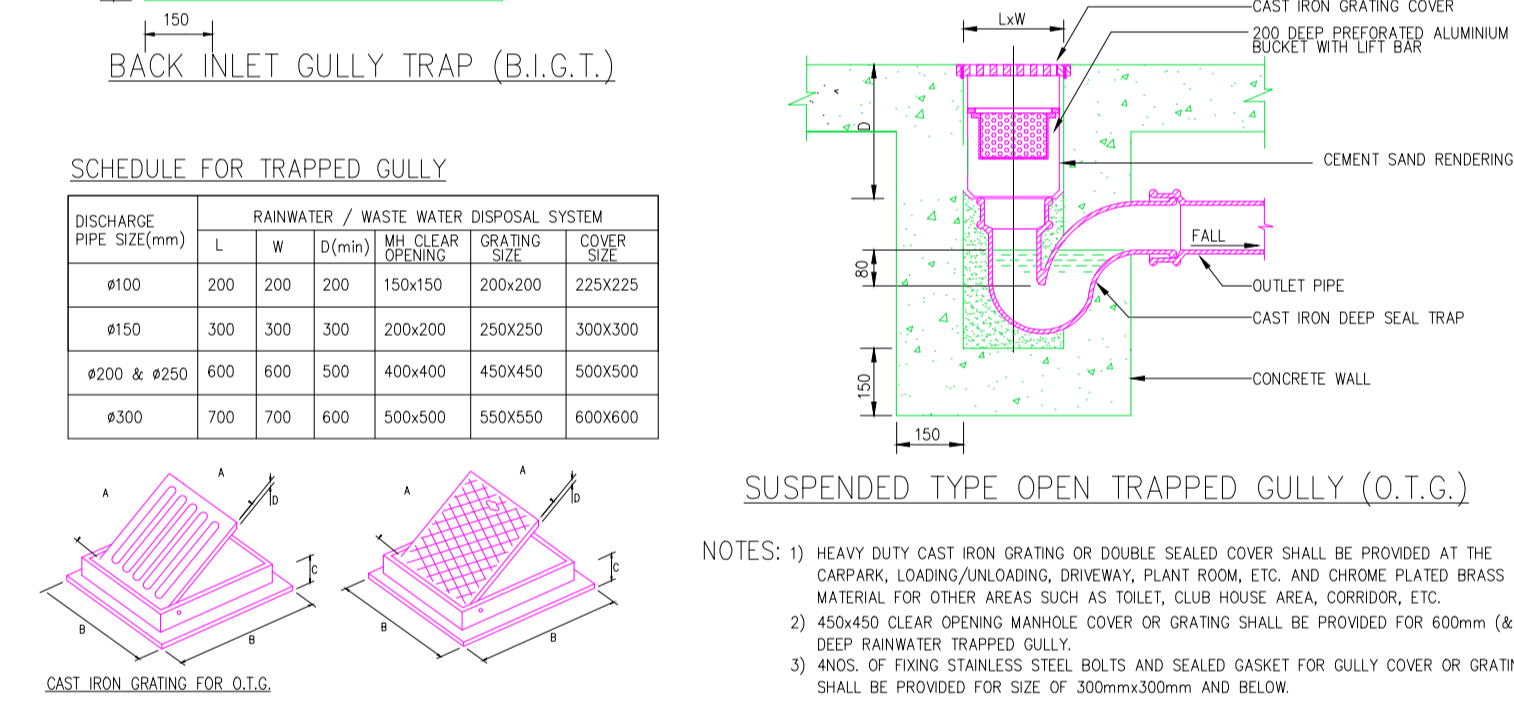
TABLE OF GRATING THICKNESS



DETAILS OF SUMP PUMP



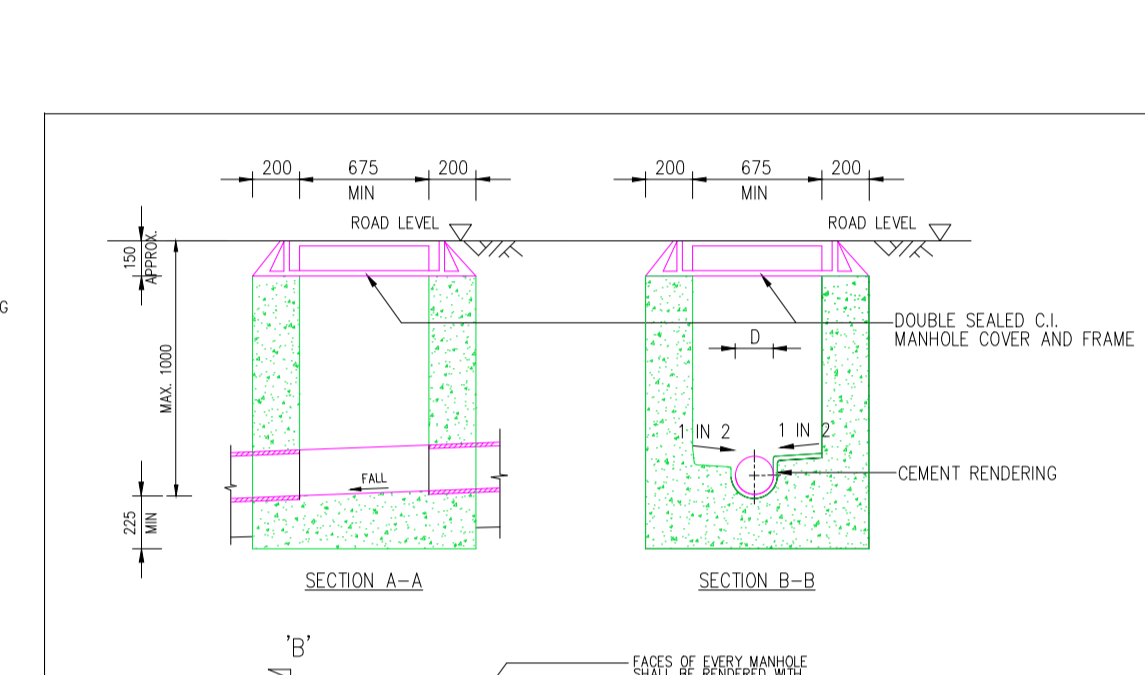
OPEN TRAPPED GULLY (O.T.G.) WITH BACK INLET



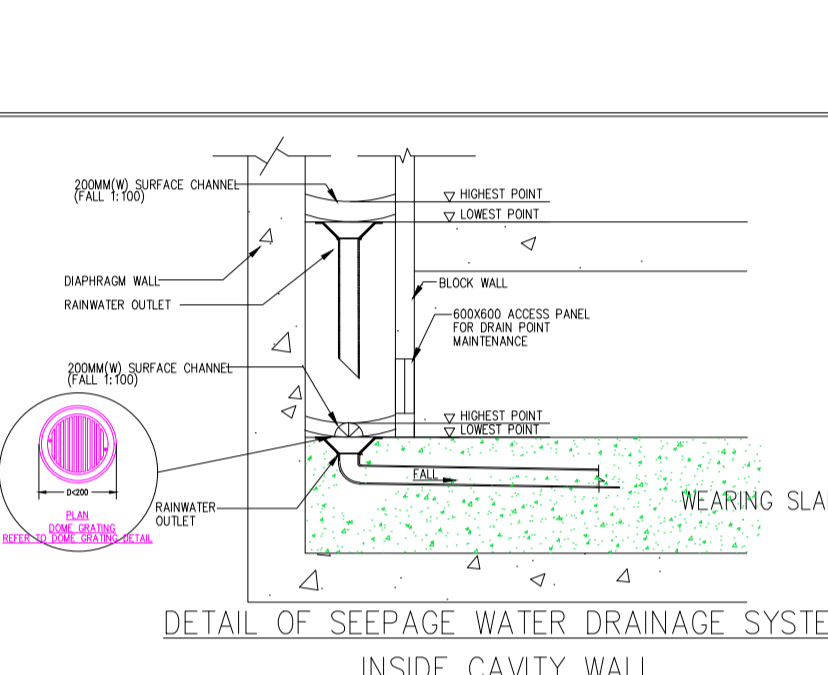
SCHEDULE FOR TRAPPED GULLY

DISCHARGE PIPE SIZE (mm)	RAINWATER / WASTE WATER DISPOSAL SYSTEM	COVER
#100	200 x 200	150x150
#150	300 x 300	200x200
#200 & #250	400 x 400	250x250
#300	500 x 500	300x300
#400	600 x 600	400x400
#500	700 x 700	500x500

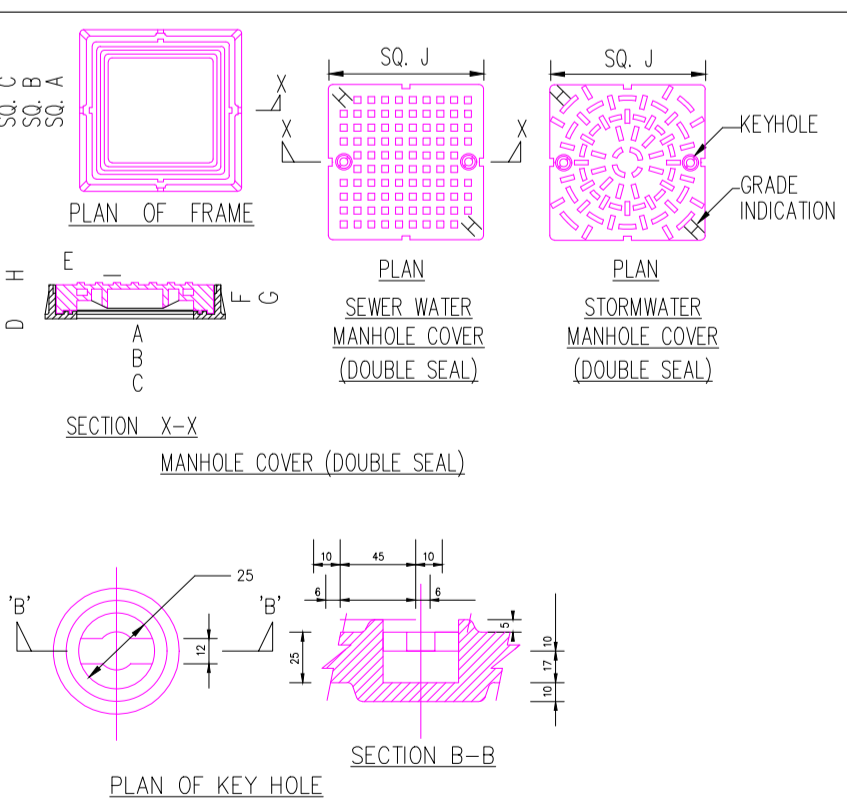
SUSPENDED TYPE OPEN TRAPPED GULLY (O.T.G.)



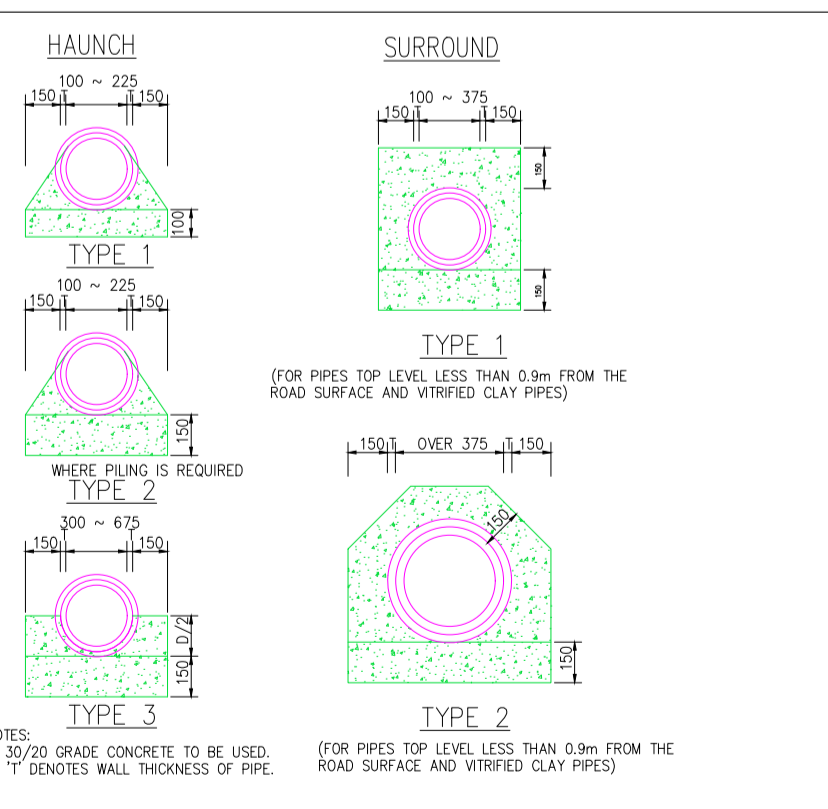
TYPICAL MANHOLE DETAIL (TYPE C1)



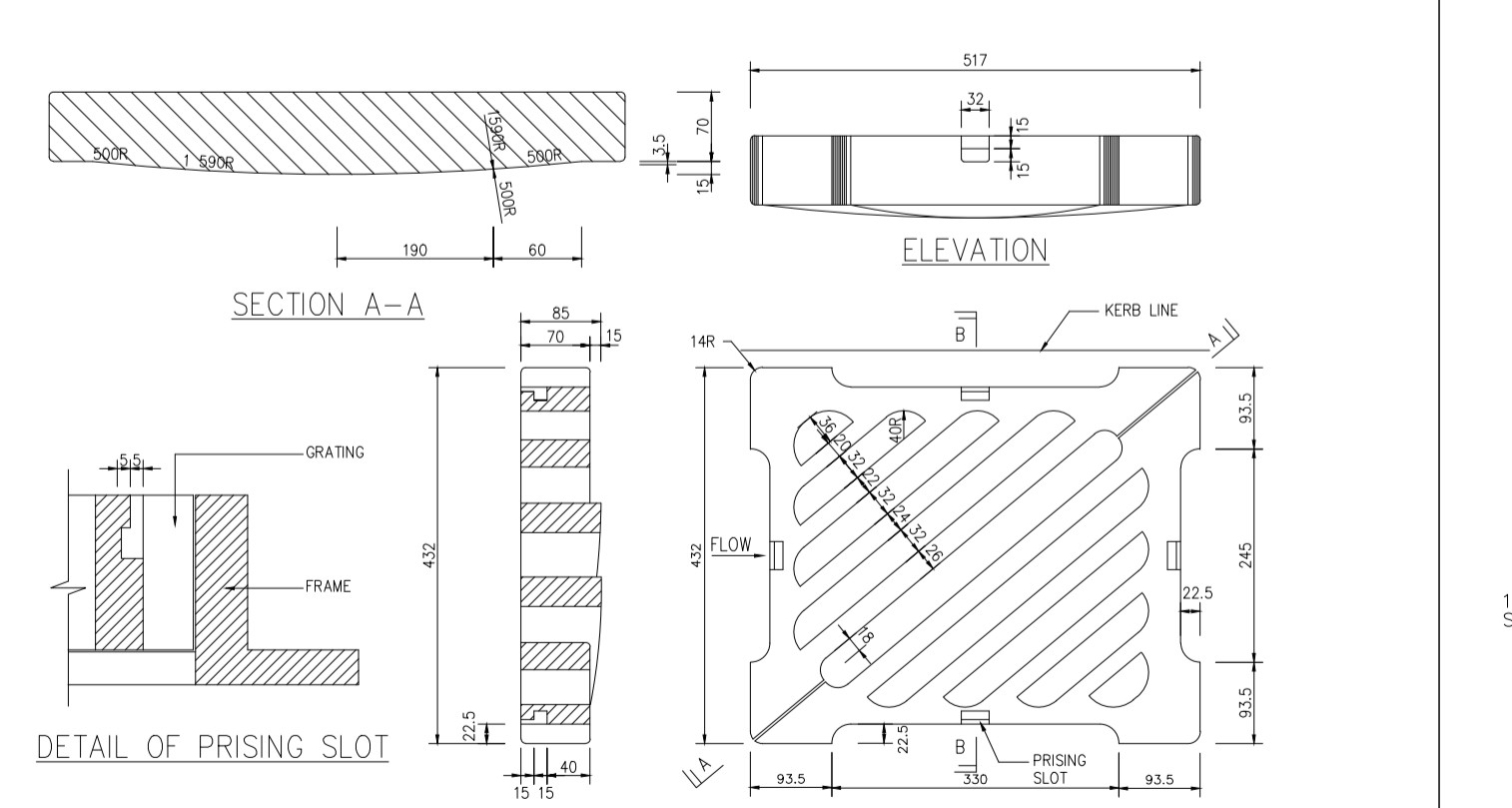
DETAIL OF SEEPAGE WATER DRAINAGE SYSTEM INSIDE CAVITY WALL



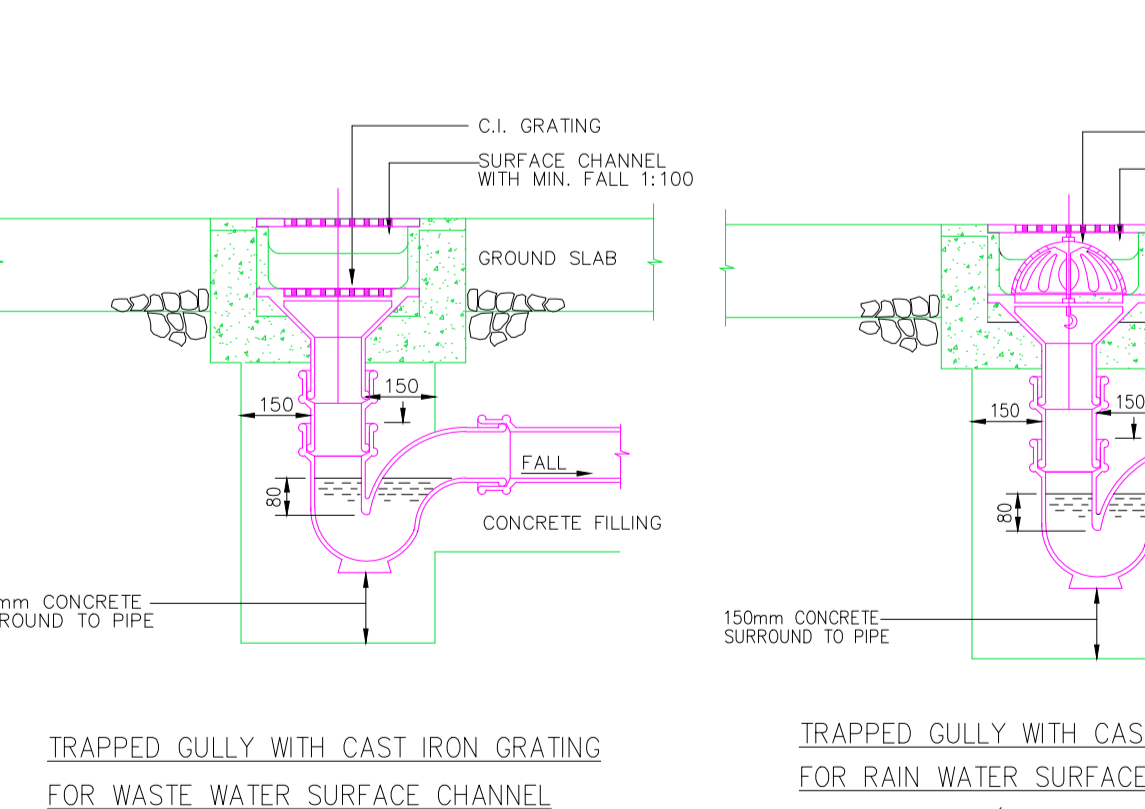
DETAIL OF MANHOLE COVER AND FRAME



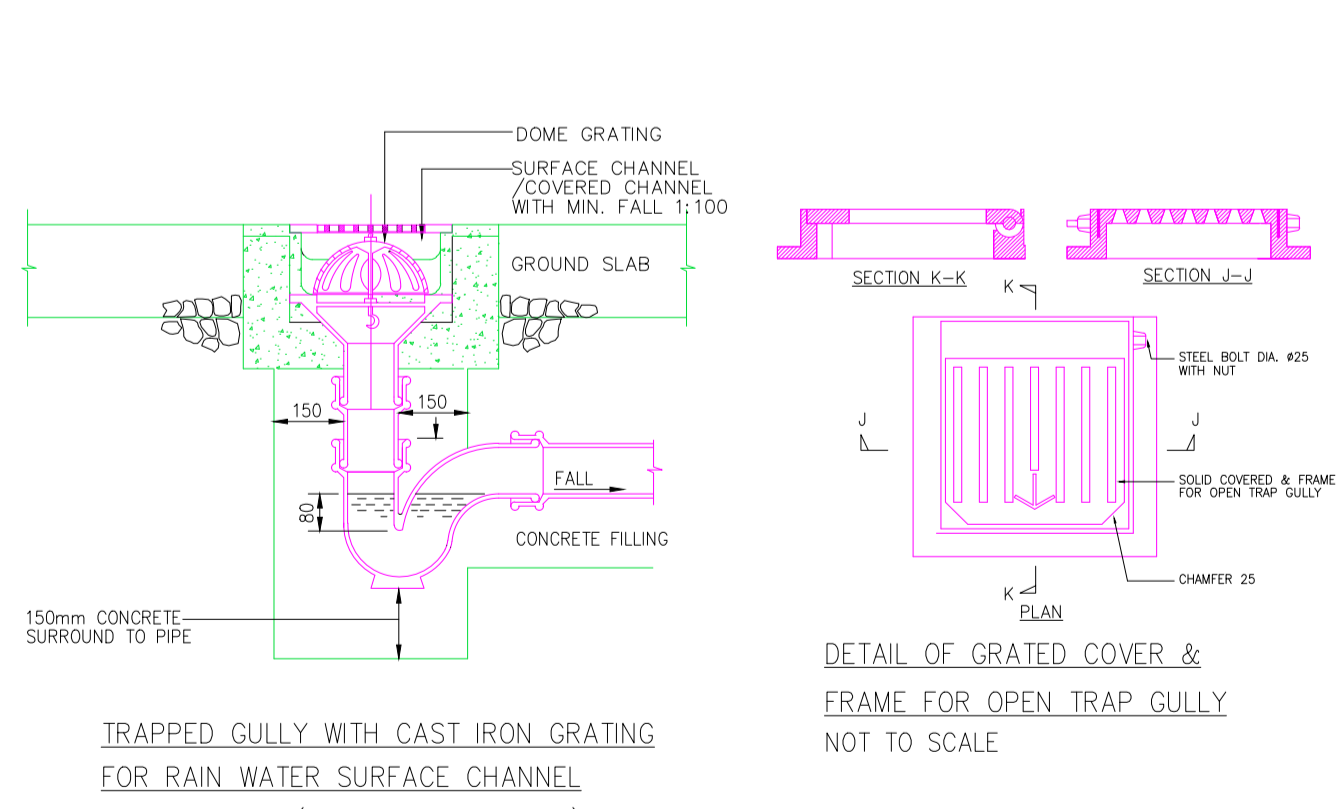
HAUNCH AND SURROUND DETAILS



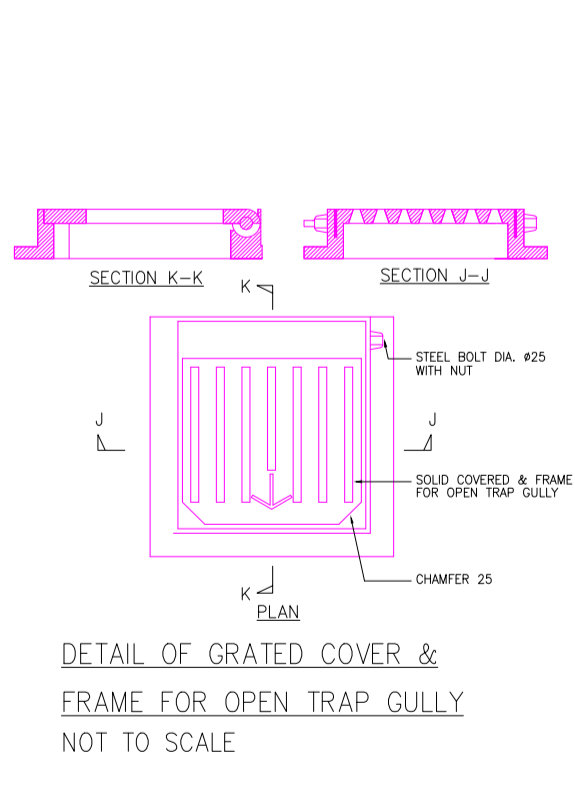
DETAIL OF GRATING FOR ROAD GULLY



TRAPPED GULLY WITH CAST IRON GRATING FOR WASTE WATER SURFACE CHANNEL



TRAPPED GULLY WITH CAST IRON GRATING FOR RAIN WATER SURFACE CHANNEL



DETAIL OF GRATED COVER & FRAME FOR OPEN TRAP GULLY

BD REF : 4/9414/23  
FSD REF : FP 8/31908  
BM REF :

2025-01 1ST BD SUBMISSION

DO NOT SCALE DRAWING. FIGURED DIMENSIONS ARE TO BE FOLLOWED. COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.

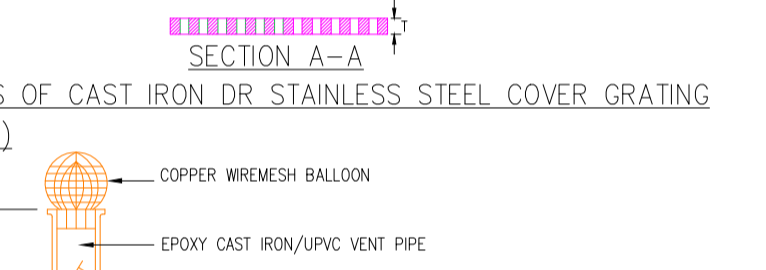
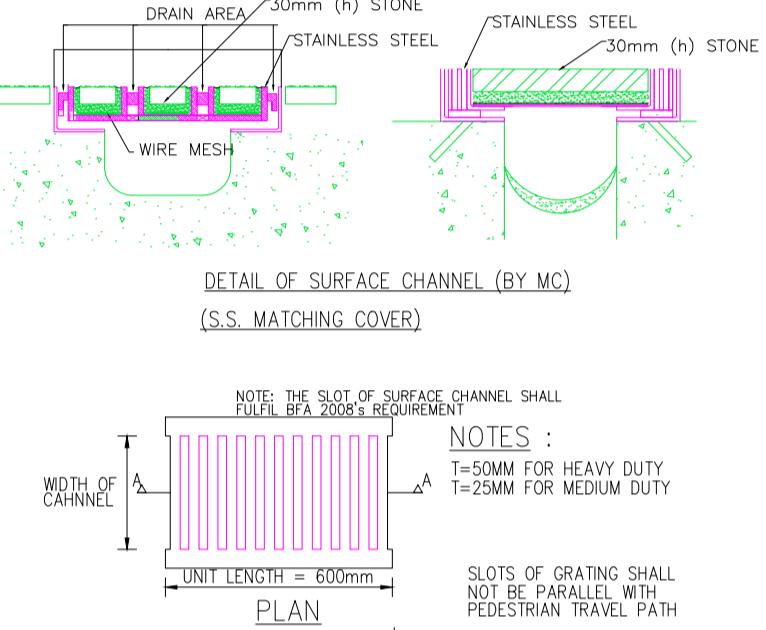
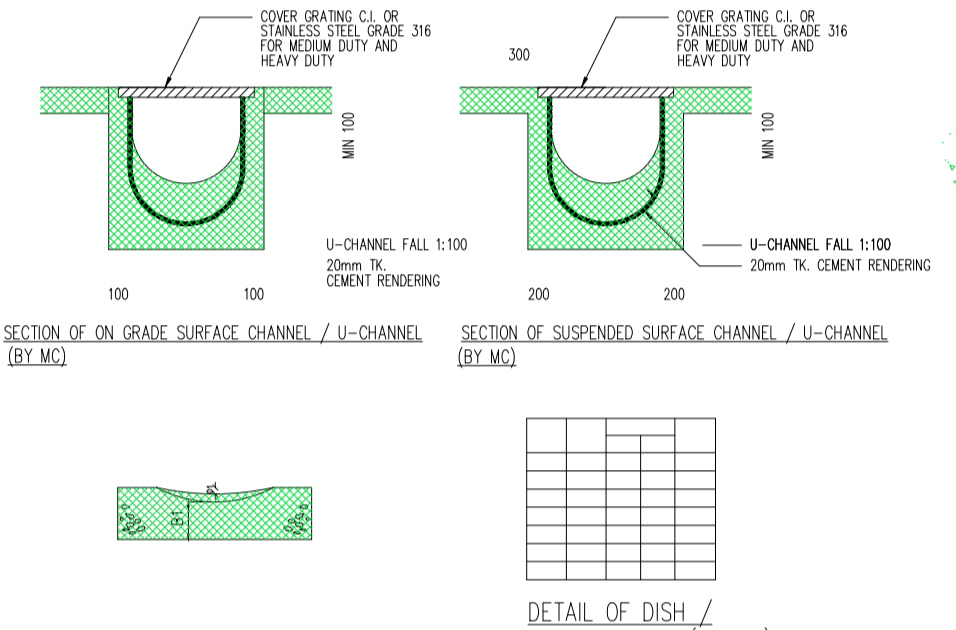
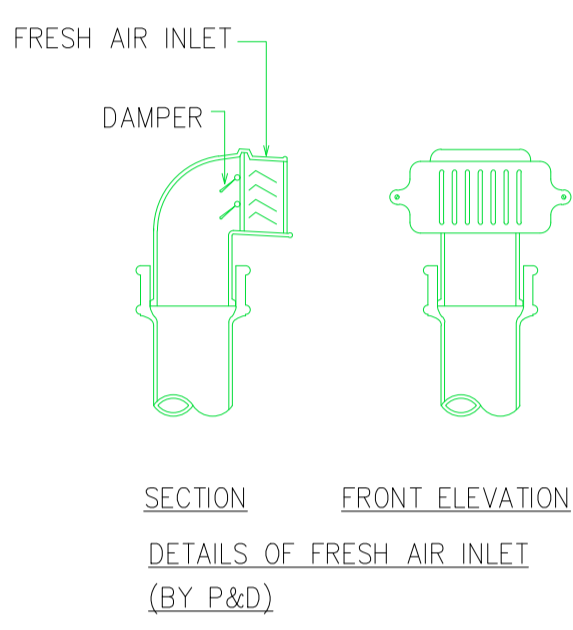
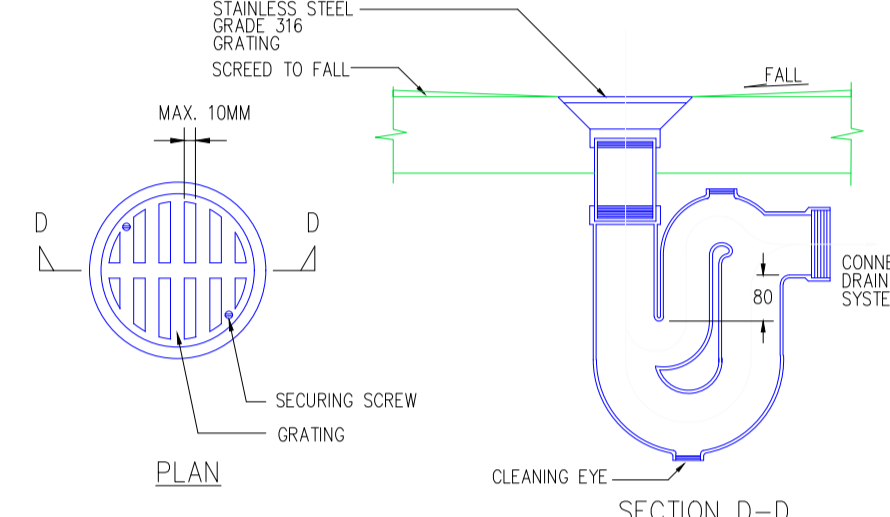
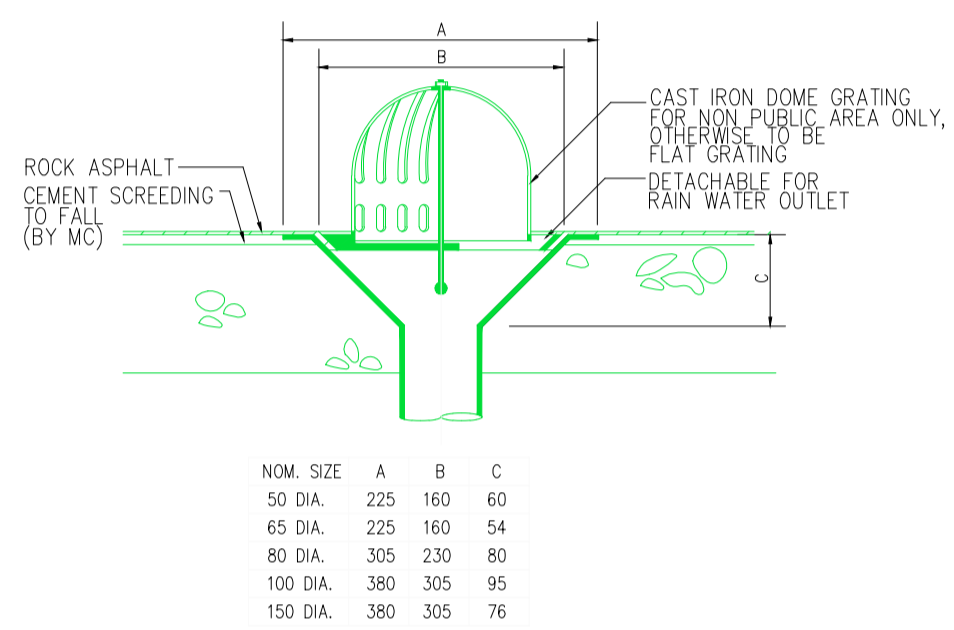
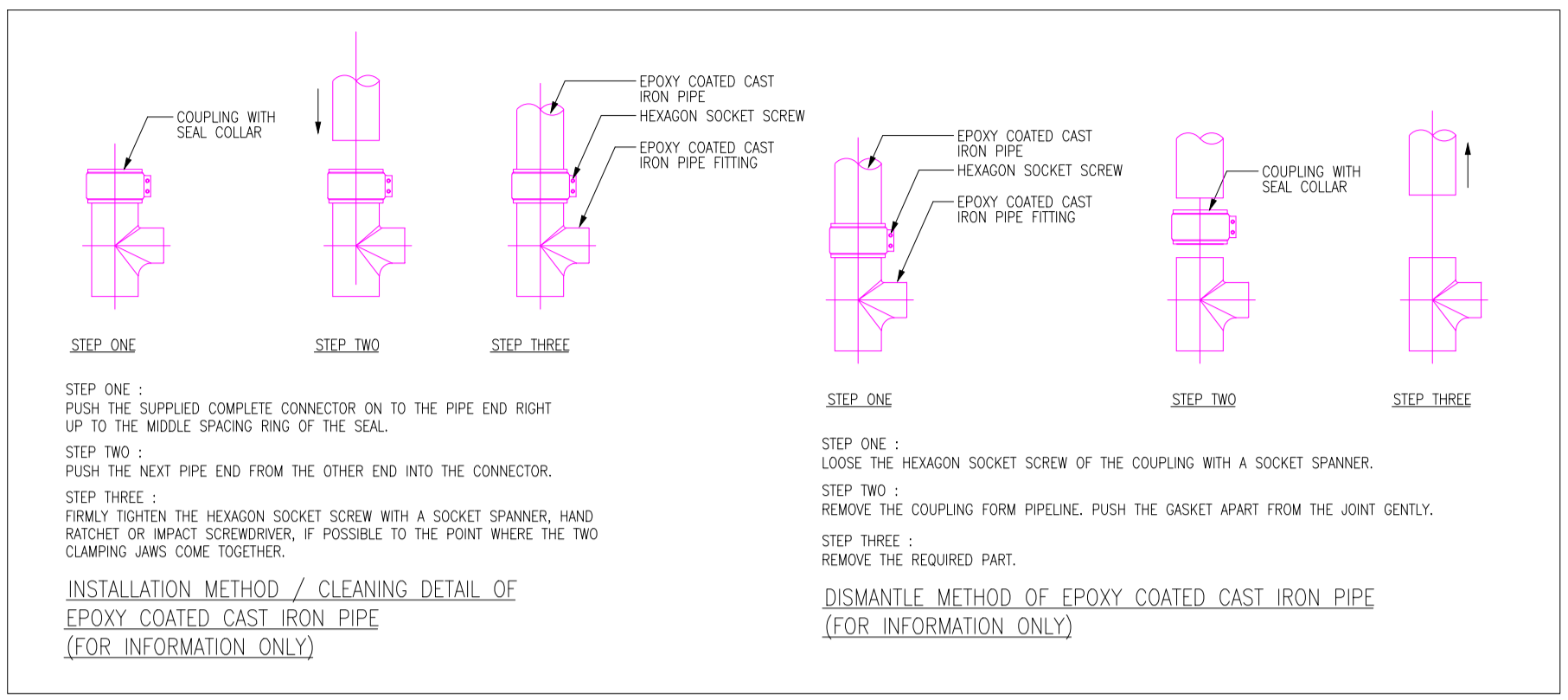
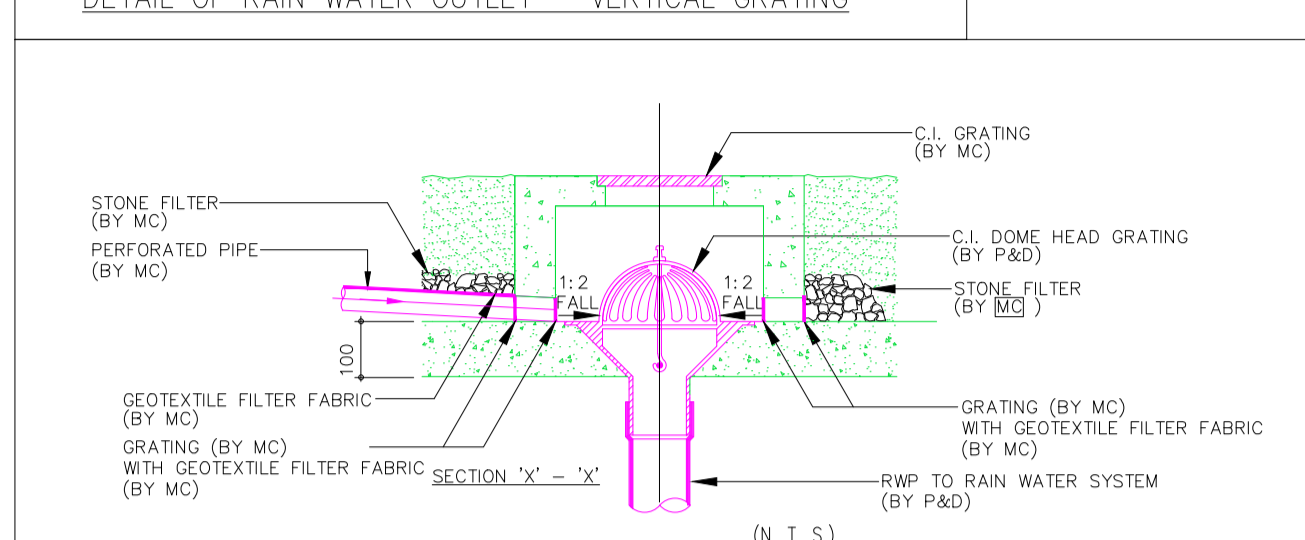
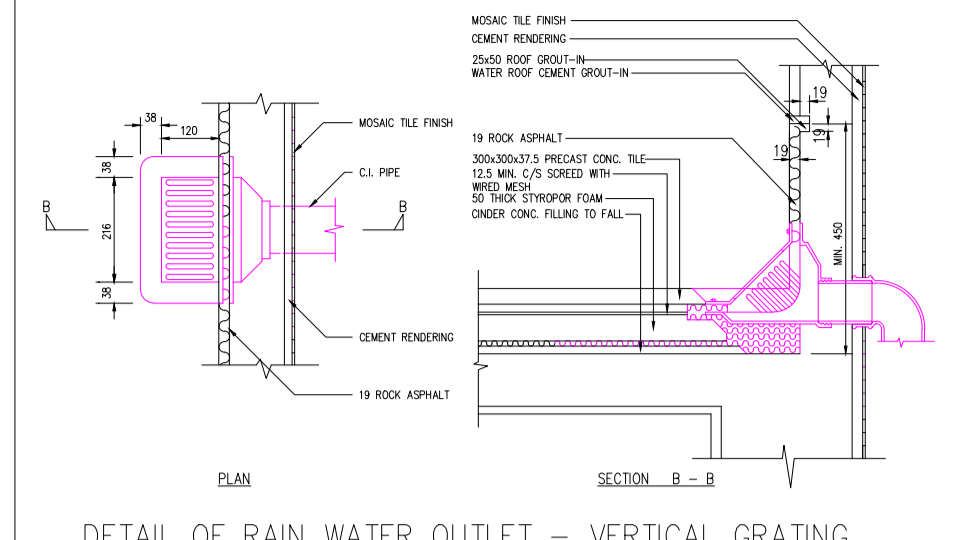
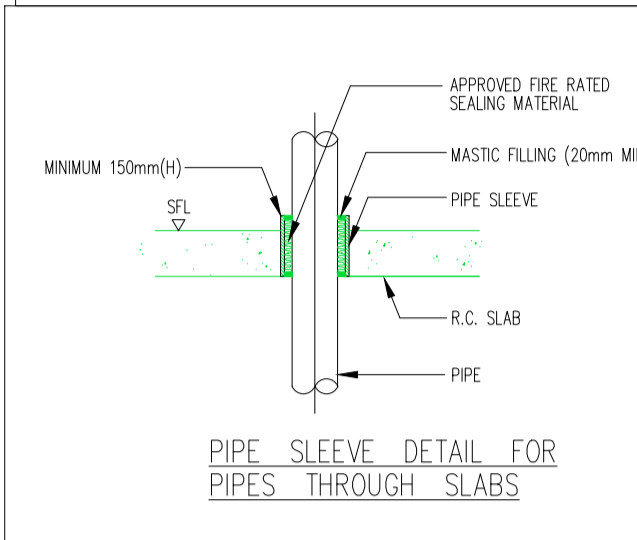
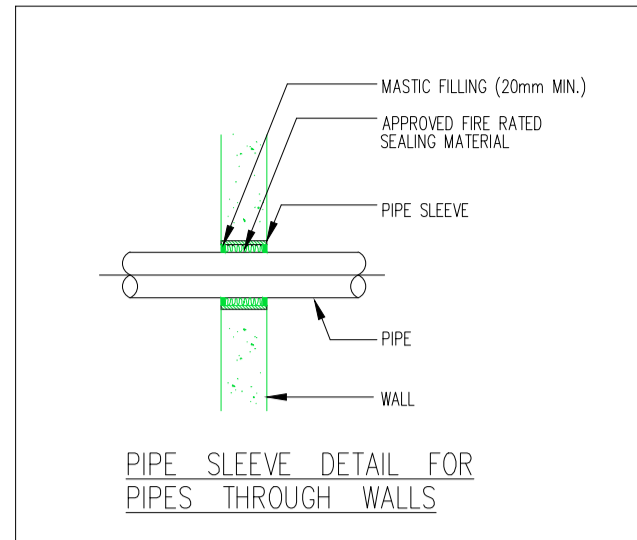
PROJECT PROPOSED RESIDENTIAL DEVELOPMENT AT KA SHUE ROAD LOT 1109RP IN D.D.253 SAI KUNG, NEW TERRITORIES

DRAWING TITLE DRAINAGE INSTALLATION DETAIL I

DRAWING NO.	REV. NO.	PROJECT NO.
DR-301	0	2502591A
DESIGNED	CHECKED	SCALE
TCS	TCS	NTS
DRAWN	APPROVED	DATE
JLTS	TTL	JAN, 2025

C Y S Associates (H K) Ltd. Architects & Urban Designers.

B.D. SUBMISSION 07 JAN 2025



NOTE:  
 1. INSTALLATION DETAIL OF RAINWATER OUTLET'S SHALL BE SUBMITTED FOR THE APPROVAL OF THE EMPLOYER'S REPRESENTATIVE/ARCHITECT  
 2. RAINWATER OUTLET SHALL BE:  
 - SUPPLY BY P&D  
 - CAST IN TO POSITION BY MC FOR UNCONCEALED AREA  
 - SET INTO POSITION BY P&D FOR CONCEALED AREA

DETAIL OF RESEALING TYPE FLOOR DRAIN WITH 80mm WATER SEAL FOR ABOVE GROUND (BY P&D)

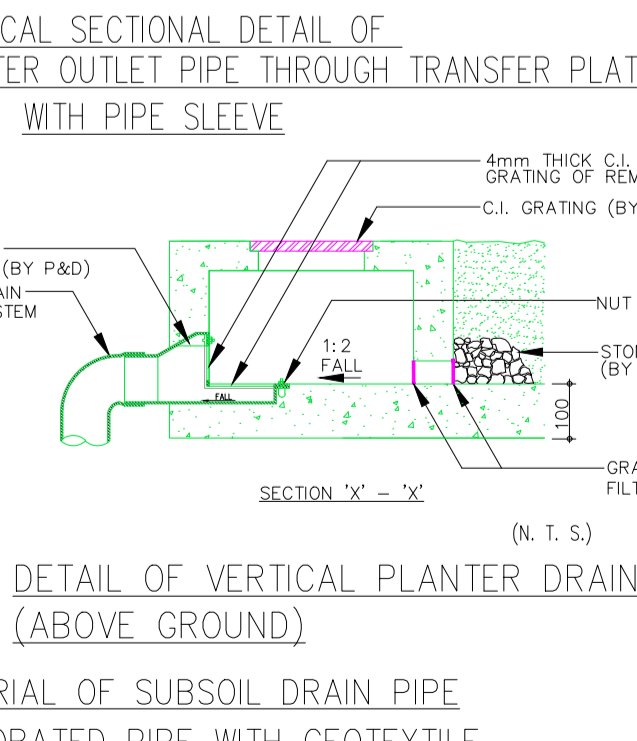
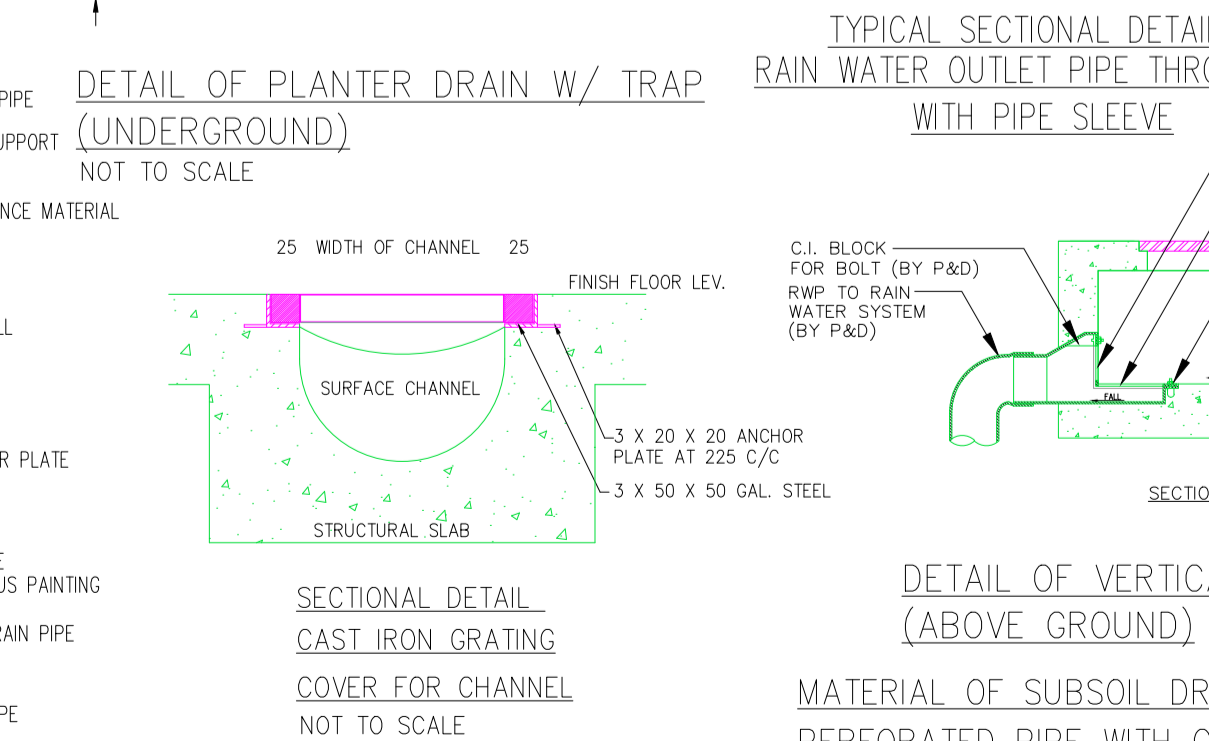
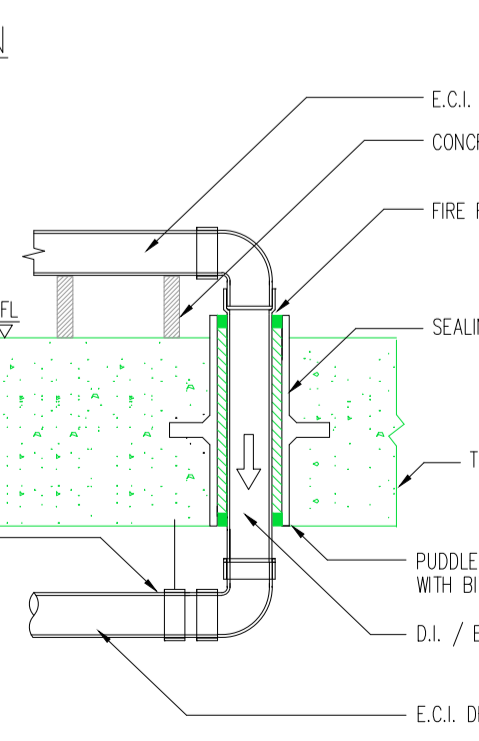
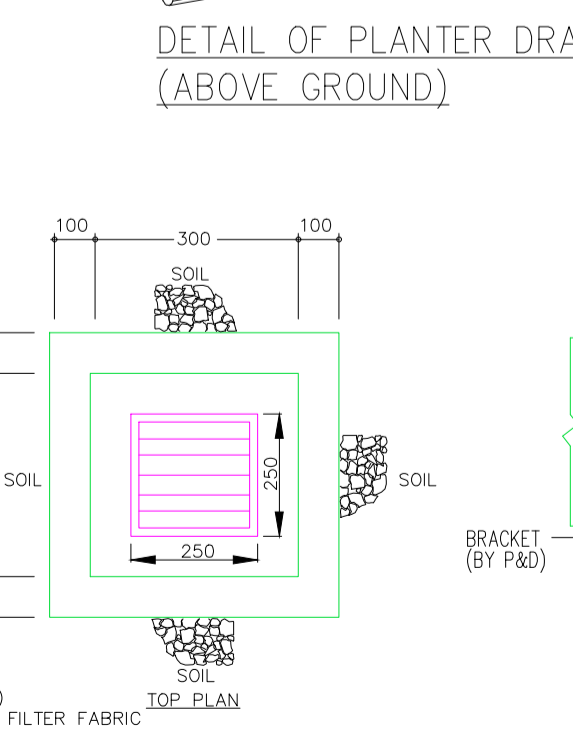
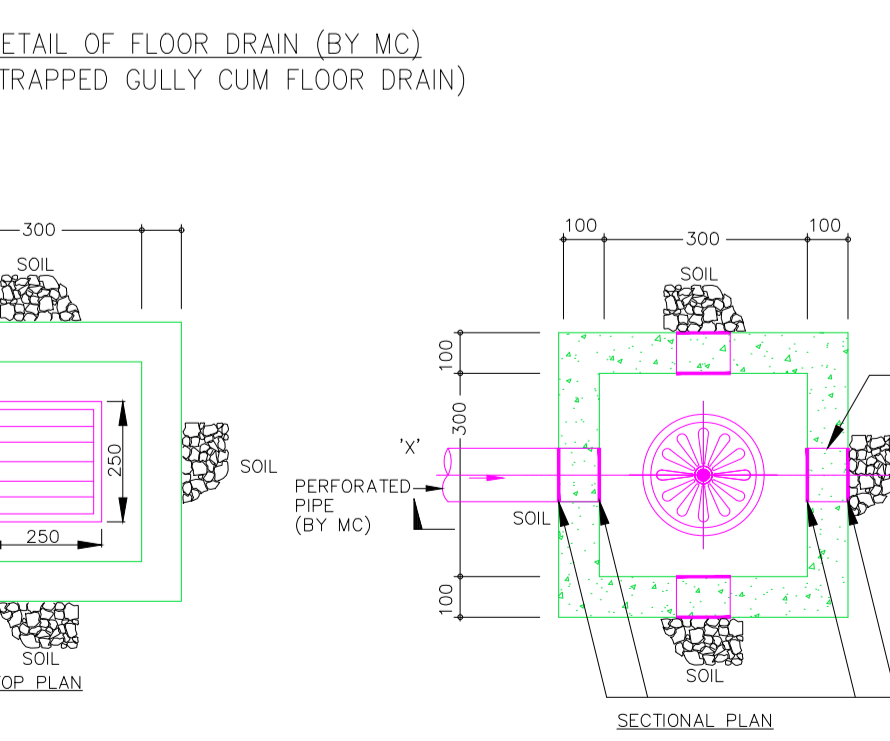
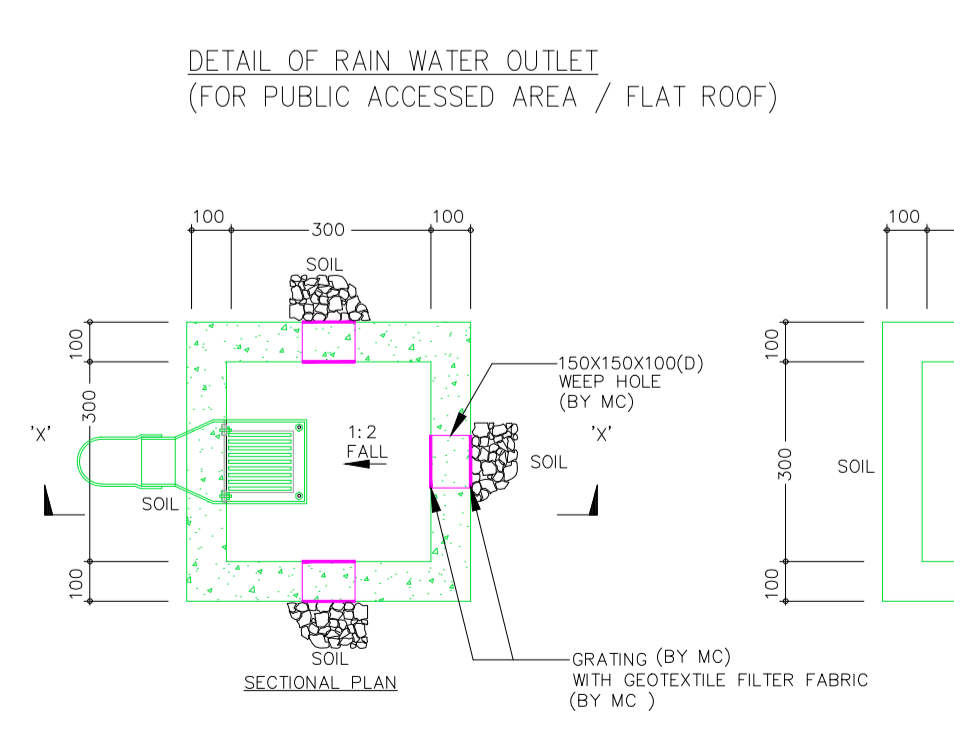
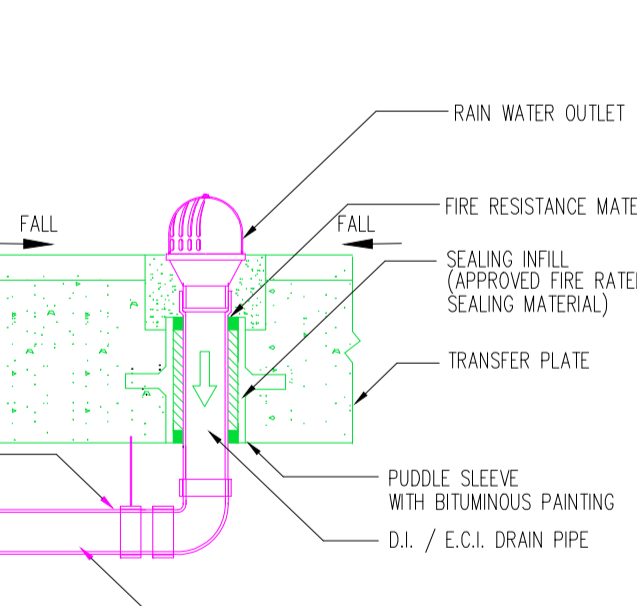
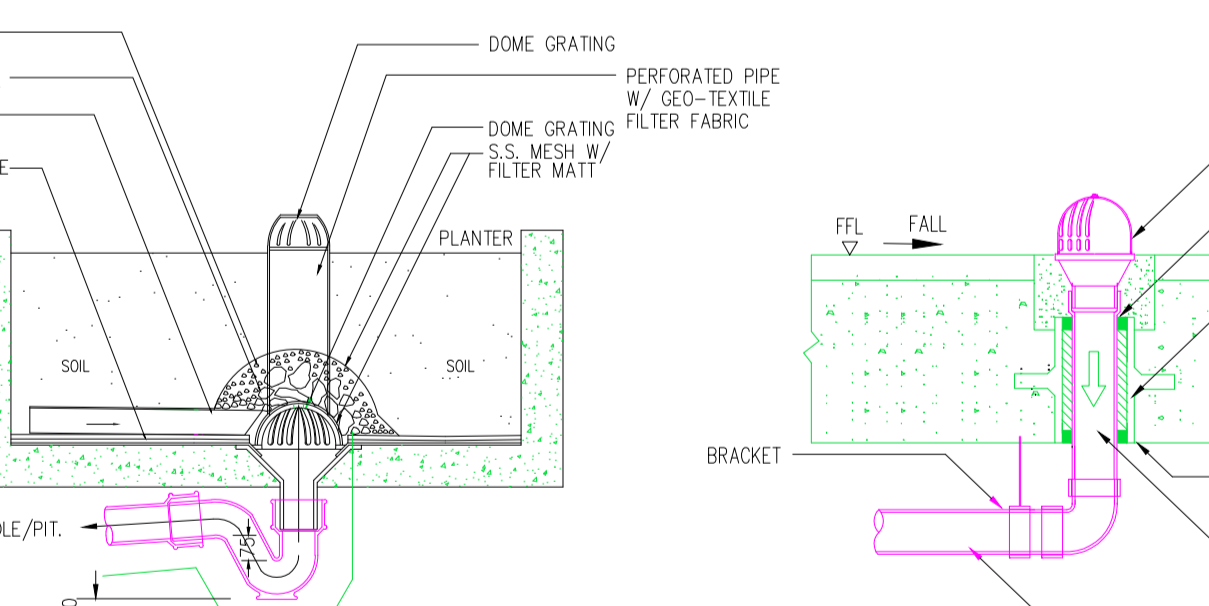
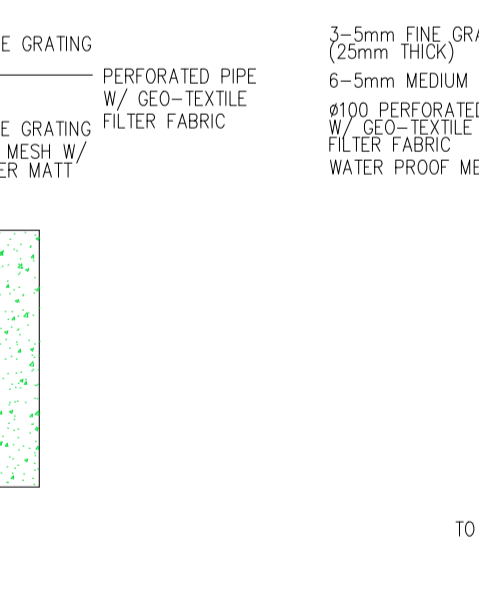
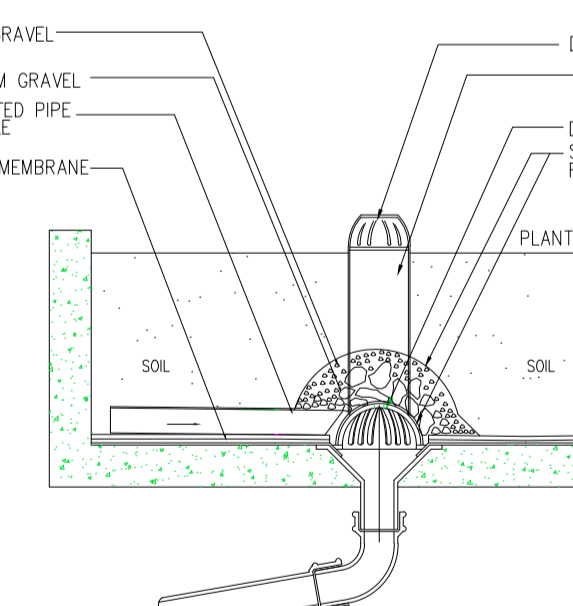
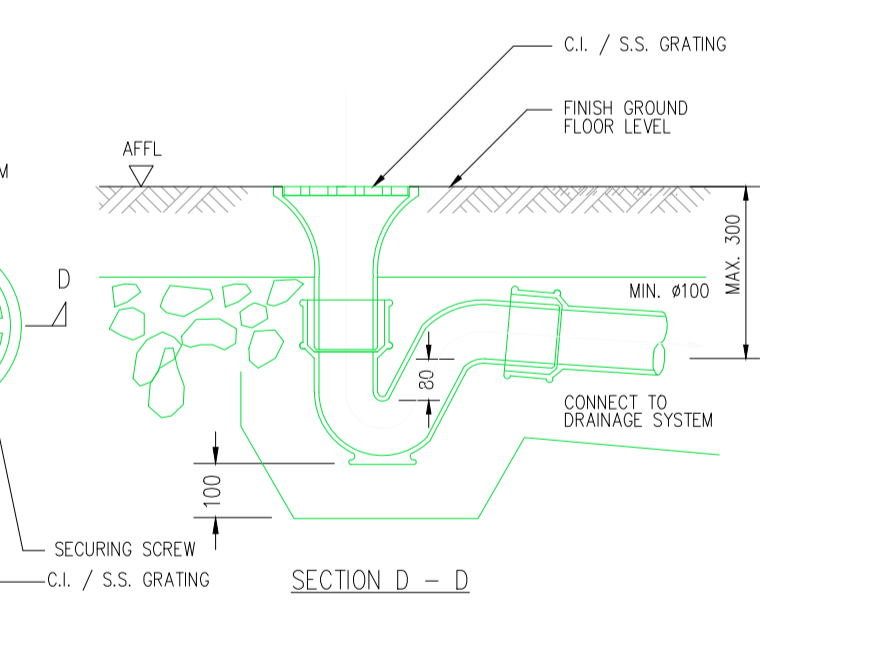
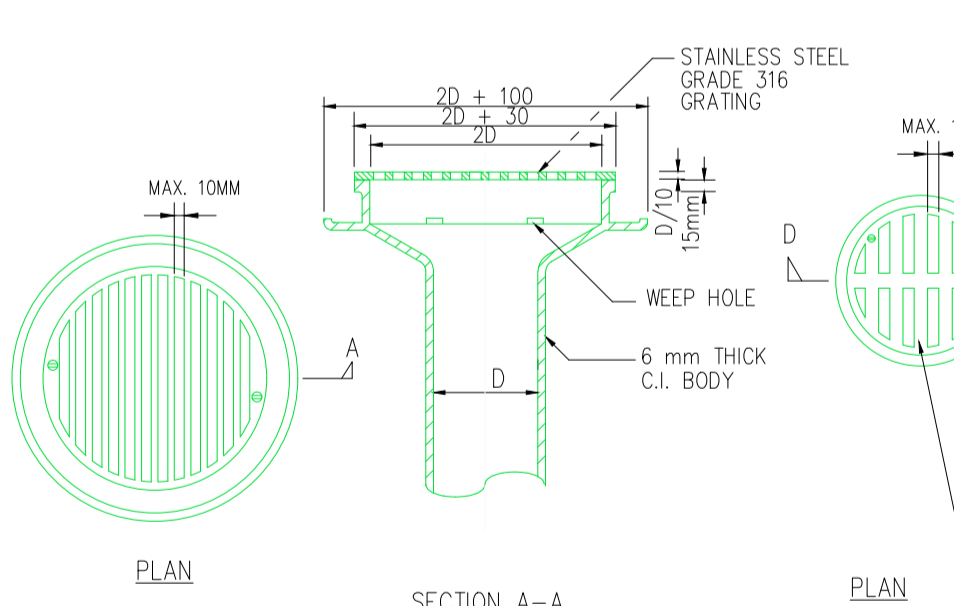
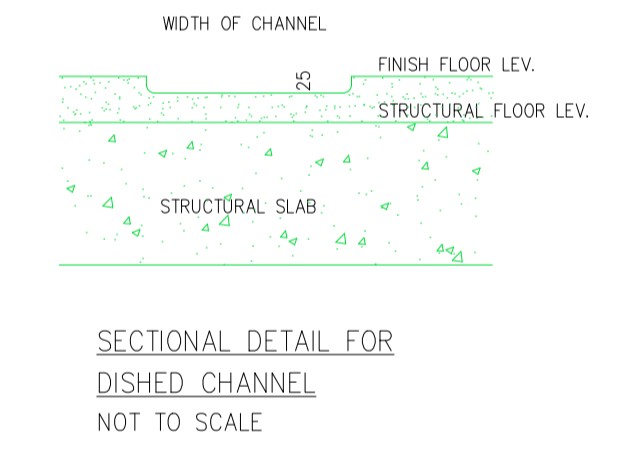
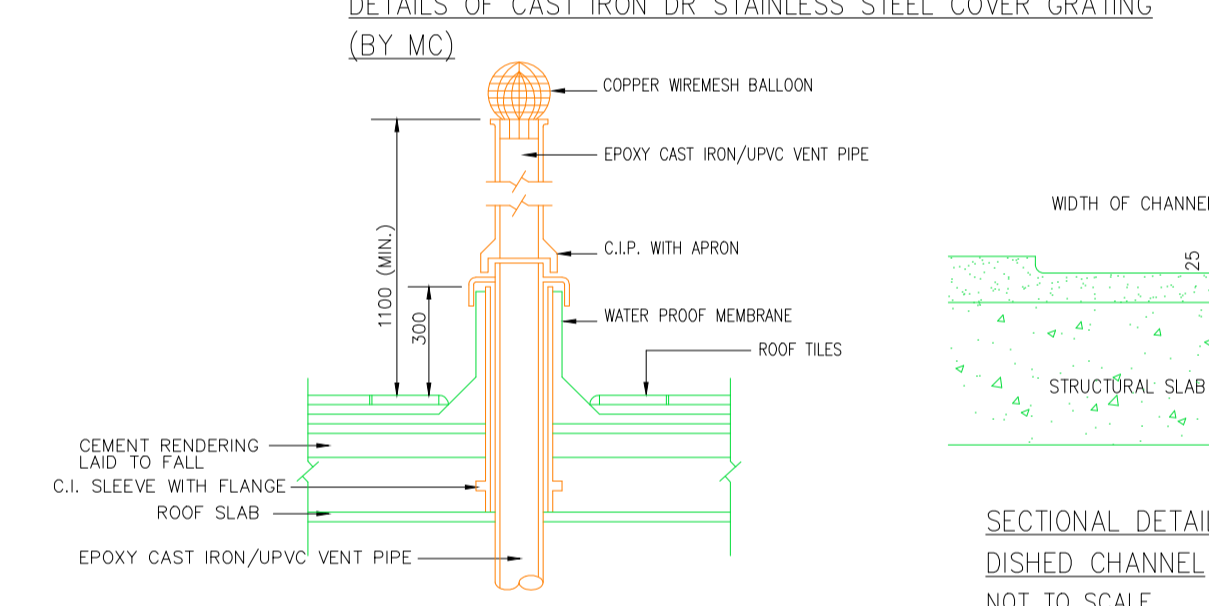
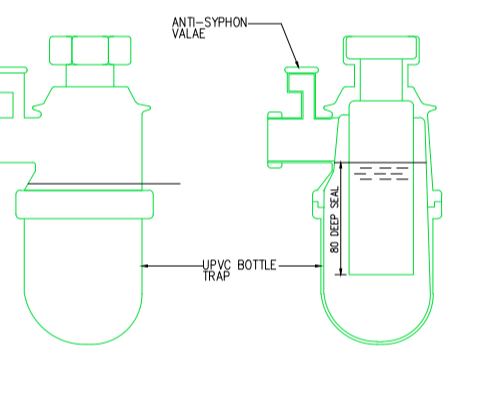
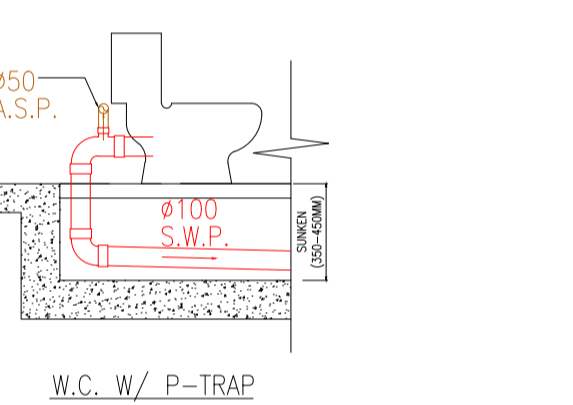
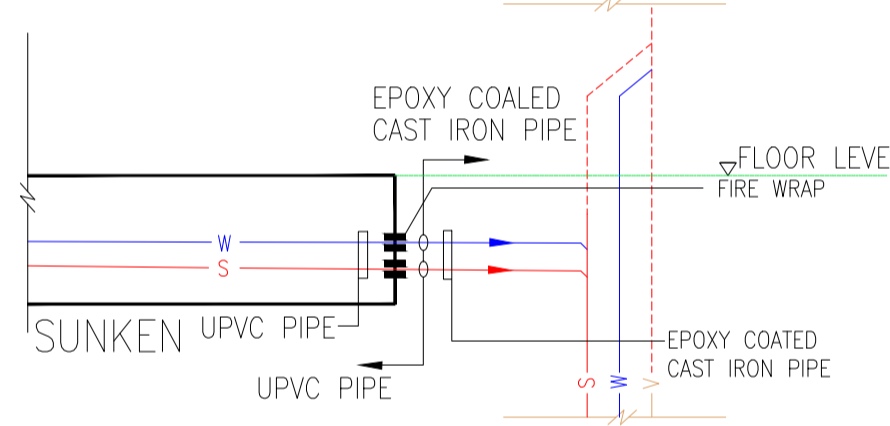
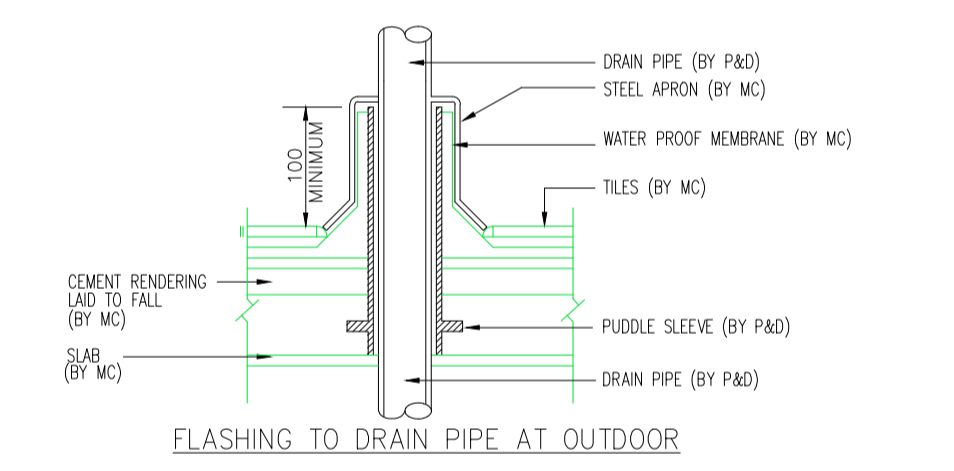
DETAILS OF FRESH AIR INLET (BY P&D)

SECTION OF ON GRADE SURFACE CHANNEL / U-CHANNEL (BY MC)

SECTION OF SUSPENDED SURFACE CHANNEL / U-CHANNEL (BY MC)

DETAIL OF SURFACE CHANNEL (BY MC)

DETAILS OF CAST IRON DR. STAINLESS STEEL COVER GRATING (BY MC)



BD REF : 4/9414/23  
 FSD REF : FP 8/31908  
 BIM REF :

2025-01 1ST BD SUBMISSION

DO NOT SCALE DRAWING. FIGURED DIMENSIONS ARE TO BE FOLLOWED. COPYRIGHT OF THIS DRAWING IS RESERVED BY ARCHITECT.

PROJECT  
 PROPOSED RESIDENTIAL DEVELOPMENT AT KA SHUE ROAD LOT 1109RP IN D.D.253 SAI KUNG, NEW TERRITORIES

DRAWING TITLE  
 DRAINAGE INSTALLATION DETAIL II

DRAWING NO.	REV. NO.	PROJECT NO.
DR-302	0	2502591A
DESIGNED TCS	CHECKED TCS	SCALE NTS
DRAWN JLTS	APPROVED TTL	DATE JAN, 2025

C Y S Associates (H K) Ltd. Architects & Urban Designers.

B.D. SUBMISSION  
 07 JAN 2025