7-11 POCKLEY AVENUE, ROSEVILLE
PROPOSED RESIDENTIAL FLAT BUILDING

STORMWATER CONCEPT PLANS

LOCALITY PLAN
N.T.S.

DRAWING INDEX	
Drawing No.	DESCRIPTION
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NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
A	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2025	EAB	SBF

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Scale

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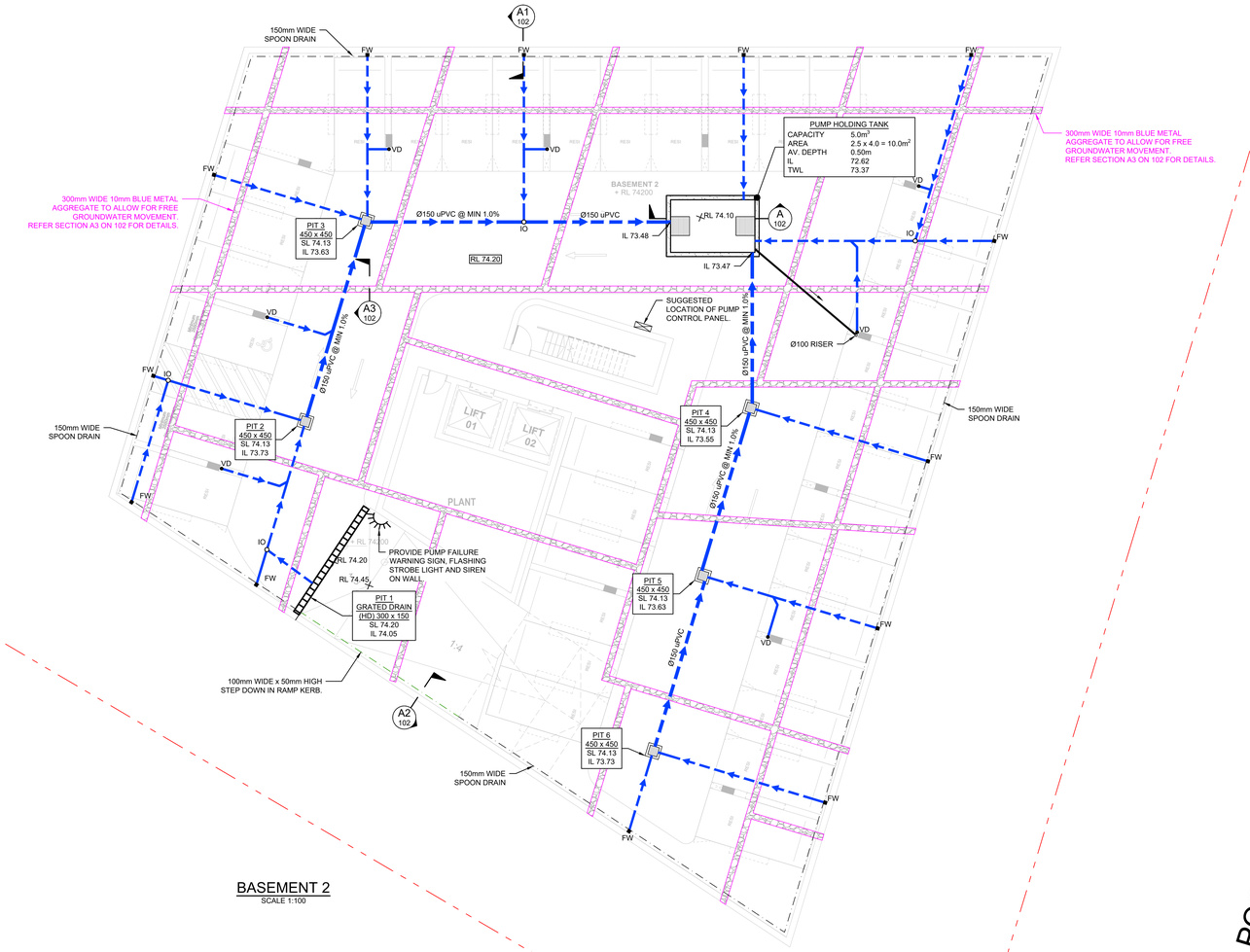
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
COVER SHEET PLAN

Scale	A0	Project No.	Dwg. No.	Issue
N.T.S.		25035	000	A

LEGEND

- PROPOSED STORMWATER
- STORMWATER DRAINAGE PIPE CAST IN SLAB
- VD — Ø100mm VERTICAL DROP
- SURFACE FLOW DIRECTION
- IO — INSPECTION OPENING
- RL 29.65 — FINISHED SURFACE LEVEL
- GRATED DRAIN
- (HD) — HEAVY DUTY
- FG — Ø150mm FLOOR GRATE
- FW — Ø100mm FLOOR WASTE



BASEMENT 2
SCALE 1:100

NOTE:

AS PER KU-RING-GAI DEVELOPMENT CONTROL PLAN, SECTION 24C.3 CONDITION 8: FOR DEVELOPMENT TYPES 4 AND ABOVE, BASEMENTS ARE TO BE FULLY TANKED.

PIPES NOTE:

Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE

NOTE:

ALL STORMWATER DRAINAGE PIPES ARE Ø100 uPVC U.N.O.

NOTE:

ALL LINEAR GRATED DRAINS TO BE MIN. 100mm DEEP.

NOTE:

ALLOW BENCHING WITHIN SPOON DRAIN TO ACHIEVE MIN 1.0% FALL TO FLOOR WASTES.

NOTE:

REFER ARCHITECTURAL DRAWINGS FOR FINAL SET-OUT LEVELS.

STANDARD PUMP OUT DESIGN NOTES

THE PUMP OUT SYSTEM SHALL BE DESIGN TO BE OPERATED IN THE FOLLOWING MANNER:

1 - THE PUMP SHALL BE PROGRAMMED TO WORK ALTERNATELY TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
2 - A FLOAT SHALL BE PROVIDED TO ENSURE OF THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS AT THE MINIMUM WATER LEVEL. THE SAME FLOAT SHALL BE SET TO TURN ONE OF THE PUMPS ON UPON THE WATER LEVEL IN THE TANK RISING TO APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL. THE PUMP SHALL OPERATE UNTIL THE TANK IS DRAINED TO THE MINIMUM WATER LEVEL.
3 - A SECOND FLOAT SHALL BE PROVIDE AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHALL START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
4 - AN ALARM SYSTEM SHALL BE PROVIDE WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.
5 - A CONFINED SPACE DANGER SIGN SHALL BE PROVIDED AT ALL ACCESS POINT TO THE PUMP-OUT STORAGE TANK IN ACCORDANCE WITH THE UPPER PARRAMATTA RIVER CATCHMENT TRUST OSD HANDBOOK.

DANGER

WHEN EXCAVATING WITHIN ANY SITE, FOOTPATH AND ROADWAY, ALL SERVICES SHALL BE LOCATED PRIOR TO COMMENCEMENT OF THE EXCAVATION WORKS.

CONTACT "DIAL BEFORE YOU DIG" ON PHONE No. 1100 OR GO TO THE WEB SITE "www.1100.com.au"

WARNING

PUMP OUT SYSTEM FAILURE IN BASEMENT WHEN LIGHT IS FLASHING AND SIREN SOUNDING

BASEMENT PUMP OUT FAILURE WARNING SIGN

SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE LOCATION WHERE VEHICLES ENTER THE BASEMENT

COLOURS:
"WARNING" = RED
BORDER AND OTHER LETTERING = BLACK

DANGER

CONFINED SPACE
NO ENTRY WITHOUT CONFINED SPACE TRAINING

CONFINED SPACE DANGER SIGN

A) A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANK/S CONFINED SPACE.

B) MINIMUM DIMENSIONS OF THE SIGN - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS) -250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)

C) THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE

D) SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN

COLOURS:
"DANGER" & BACKGROUND = WHITE
ELLIPTICAL AREA = RED
RECTANGLE CONTAINING ELLIPSE = BLACK
BORDER AND OTHER LETTERING = BLACK

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Scale: SCALE 1:100 @ A0 (0, 2, 4, 6 m)

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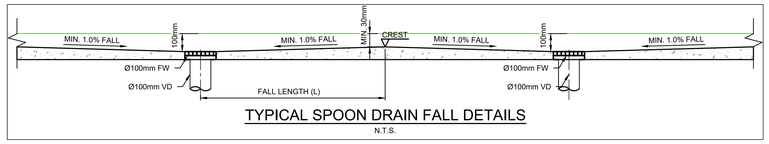
PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

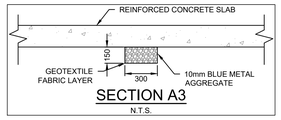
Drawing Title: STORMWATER CONCEPT PLAN
BASEMENT 2
SHEET 1 OF 2

Scale	AO	Project No.	Dwg. No.	Issue
1:100		25035	101	A



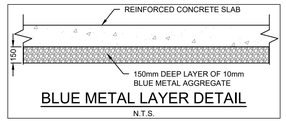
TYPICAL SPOON DRAIN FALL DETAILS

N.T.S.



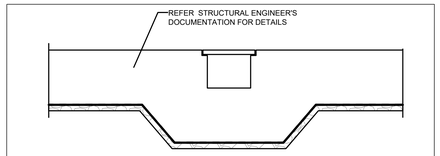
SECTION A3

N.T.S.



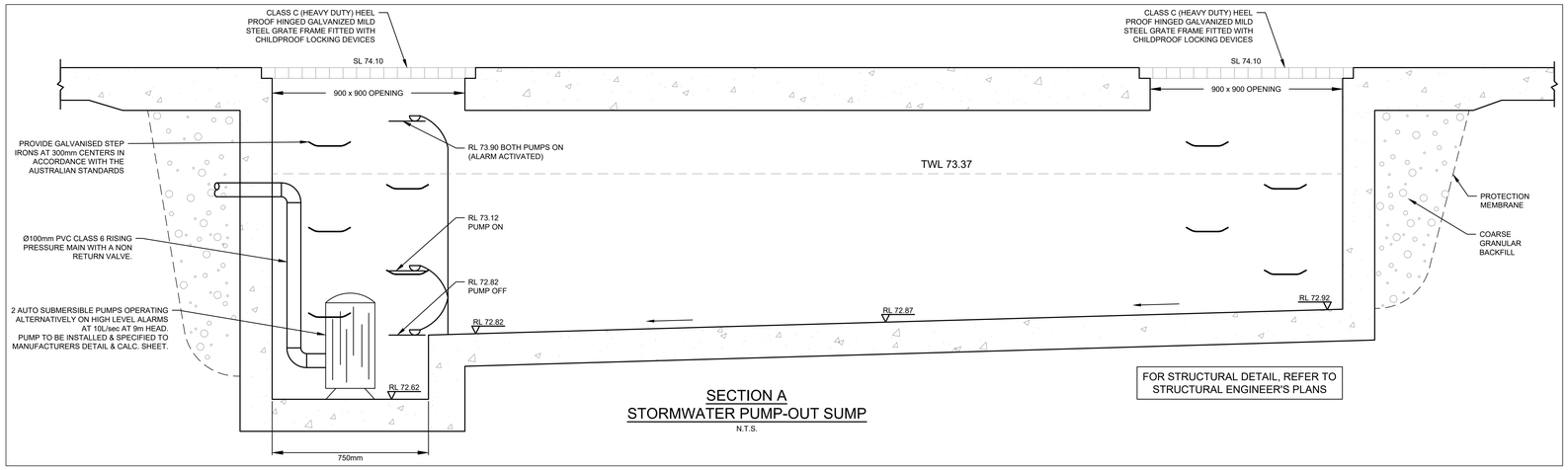
BLUE METAL LAYER DETAIL

N.T.S.



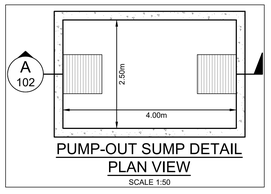
TYPICAL SLAB THICKENNING DETAIL UNDER SW PIT

N.T.S.



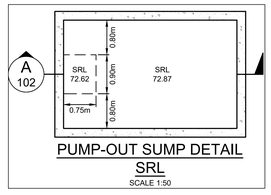
SECTION A
STORMWATER PUMP-OUT SUMP

N.T.S.



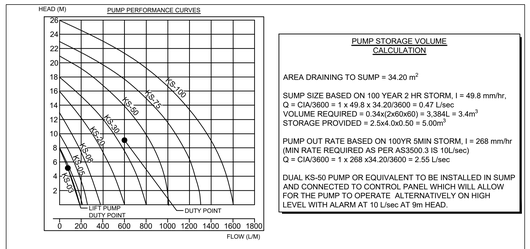
PUMP-OUT SUMP DETAIL
PLAN VIEW

SCALE 1:50



PUMP-OUT SUMP DETAIL
SRL

SCALE 1:50



PUMP STORAGE VOLUME CALCULATION

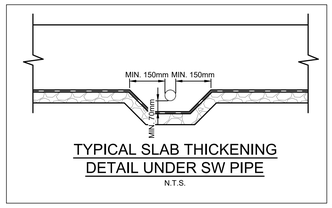
AREA DRAINING TO SUMP = 34.20 m^2

SUMP SIZE BASED ON 100 YEAR,2 HR STORM, I = 49.8 mm/hr,
Q = CiA/3600 = 1 x 49.8 x 34.20/3600 = 0.47 L/sec
VOLUME REQUIRED = 0.34x(2x60x60) = 3,384L = 3.4m^3
STORAGE PROVIDED = 2.5x4.0x0.50 = 5.00m^3

PUMP OUT RATE BASED ON 100YR 5MIN STORM, I = 268 mm/hr
(MIN RATE REQUIRED AS PER AS3500.3 IS 10L/sec)
Q = CiA/3600 = 1 x 268 x34.20/3600 = 2.55 L/sec

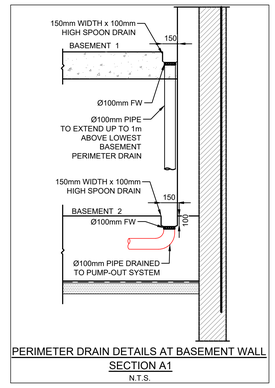
DUAL KS-50 PUMP OR EQUIVALENT TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL WHICH WILL ALLOW FOR THE PUMP TO OPERATE ALTERNATIVELY ON HIGH LEVEL WITH ALARM AT 10 L/sec AT 9m HEAD.

Type	Output		Outlet		Rated Head Capacity		Maximum Head	Maximum Capacity	Weigh	Dimension		
	HP	kW	mm	Inch	M	LPM	M	LPM	Kg	L(mm)	W(mm)	H(mm)
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188	141	305
KS-04	1/2	0.4	50	2"	5	150	8	220	11	208	140	359
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230	156	375
KS-08	1	0.75	50	2"	6	240	13	380	21	290	180	425
KS-20	2	1.5	80	3"	10	300	16	600	31	278	182	475
KS-30	3	2.2	80	3"	10	500	18	800	42	390	250	450
KS-50	5	3.7	100	4"	10	800	21	1100	48	450	240	530
KS-75	7 1/2	5.6	100	4"	15	800	23	1300	60	550	310	590
KS-100	10	7.5	150	6"	18	900	25	1600	70	550	310	610



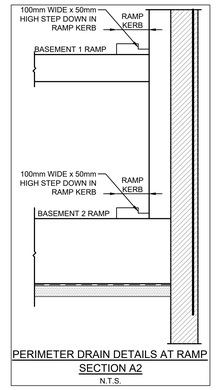
TYPICAL SLAB THICKENING DETAIL UNDER SW PIPE

N.T.S.



PERIMETER DRAIN DETAILS AT BASEMENT WALL
SECTION A1

N.T.S.



PERIMETER DRAIN DETAILS AT RAMP
SECTION A2

N.T.S.

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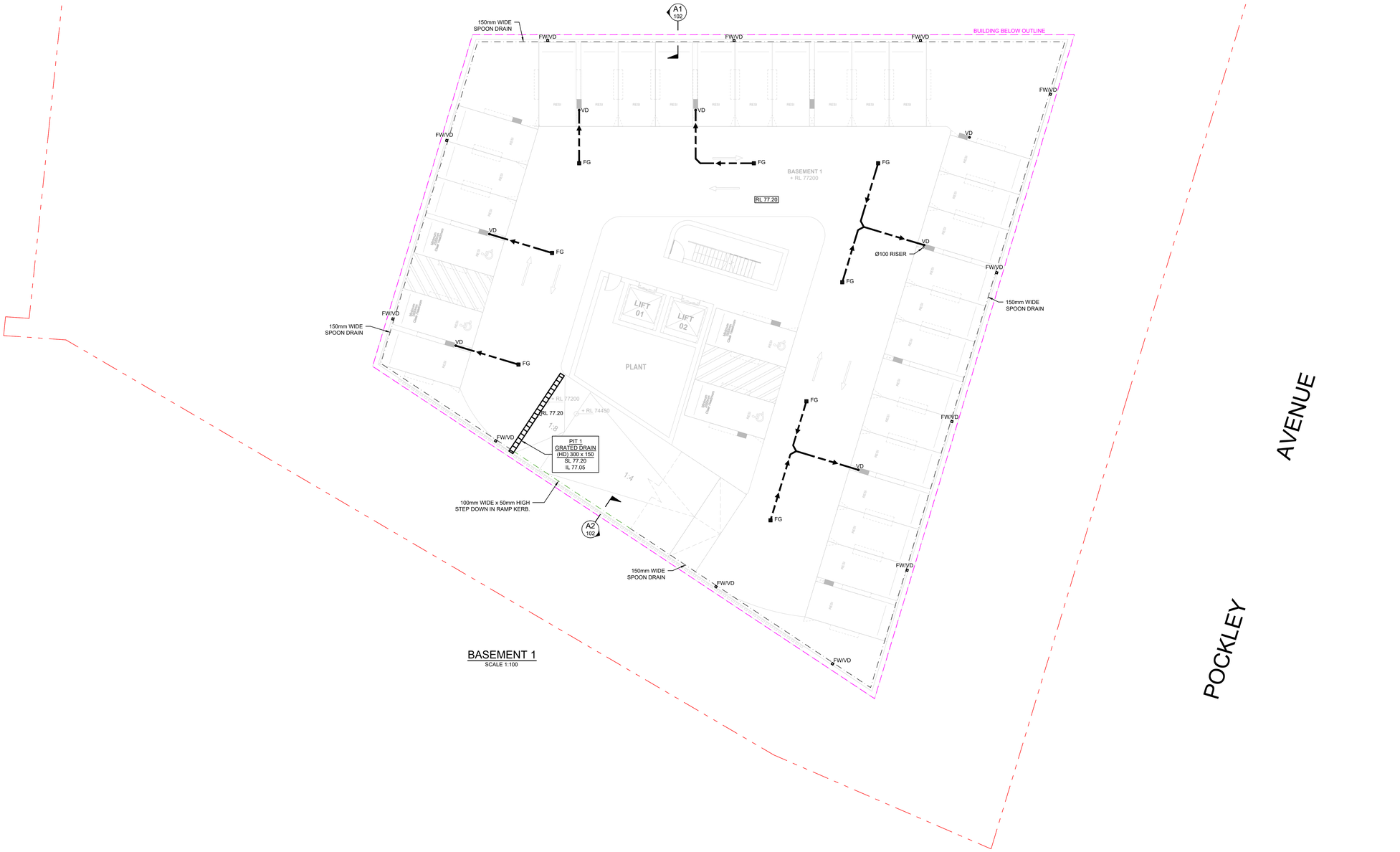
Drawing Title
STORMWATER CONCEPT PLAN
BASEMENT 2
SHEET 2 OF 2

Scale	A2	Project No	Dwg. No	Issue
As Shown		25035	102	A

LEGEND

PROPOSED STORMWATER	
VD	Ø100mm VERTICAL DROP
	SURFACE FLOW DIRECTION
IO	INSPECTION OPENING
RL 29.65	FINISHED SURFACE LEVEL
	GRATED DRAIN
(HD)	HEAVY DUTY
FG	Ø150mm FLOOR GRATE
FW	Ø100mm FLOOR WASTE



BASEMENT 1
SCALE 1:100

PIPES NOTE:

Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE

NOTE:

ALL STORMWATER DRAINAGE PIPES ARE Ø100 uPVC U.N.O.

NOTE:

ALL LINEAR GRATED DRAINS TO BE MIN. 100mm DEEP.

NOTE:

ALLOW BENCHING WITHIN SPOON DRAIN TO ACHIEVE MIN 1.0% FALL TO FLOOR WASTES.

NOTE:

REFER ARCHITECTURAL DRAWINGS FOR FINAL SET-OUT LEVELS.

NOT FOR CONSTRUCTION

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Drawing Title
STORMWATER CONCEPT PLAN
BASEMENT 1

Scale	AO	Project No.	Dwg. No.	Issue
1:100		25035	103	A

PIPES NOTE:
Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE

NOTE:
ALL STORMWATER DRAINAGE PIPES ARE Ø100 PVC AT MIN 1.0% SLOPE U.N.O.

NOTE:
1. CONTRACTOR IS TO PROVIDE OVERFLOW OUTLETS & EMERGENCY OVERFLOW SPITTERS TO ALL TRAPPED AREAS.
2. DP/VD ARE Ø100 PIPES U.N.O.
3. ALL TRANSFERRING PIPES ARE SUSPENDED U.N.O.
4. BALCONIES PIPES ARE Ø50mm HDPE OR PVC CAST IN SLAB AT MIN 1.0% SLOPE.

NOTE:
IT IS CONTRACTOR'S RESPONSIBILITY TO ENSURE MINIMUM PONDING IS ACHIEVED OVER THE FLOOR WASTES BY GRADING CATCHMENTS' SURFACES AT MINIMUM 1.0% FALL.

NOTE:
ALL REDUNDANT PIPELINES WITHIN FOOTPATH AREA MUST BE REMOVED AND FOOTPATH/KERB REINSTATED.

NOTE:
ALL GRATES WITHIN FOOTWAY AREAS TO BE HEEL GUARD & BIKE SAFE.

NOTE:
PITS DEEPER THAN 1.0m TO BE FITTED WITH STEP IRONS.

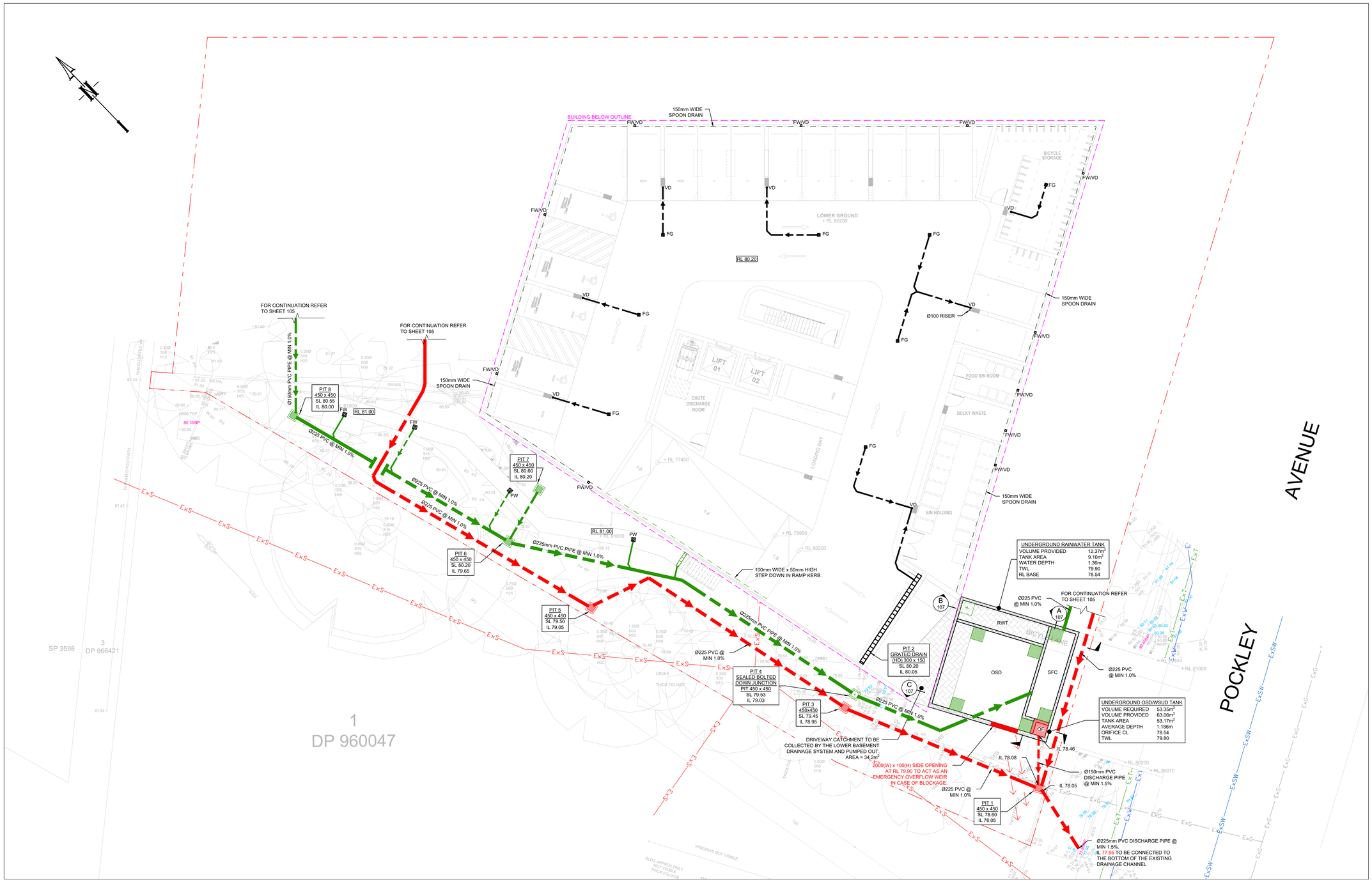
NOTE:
ALL UPPER LEVELS DRAINAGE SYSTEM TO BE CONNECTED TO WSUD, SUBJECT TO DETAILED DESIGN STAGE.

NOTE:
REFER ARCHITECTURAL DRAWINGS FOR FINAL SET-OUT LEVELS.

NOTE:
ALL LINEAR GRATED DRAINS TO BE MIN. 100mm DEEP.

LEGEND
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED STORMWATER DRAINING TO OSD
- PROPOSED STORMWATER BYPASSING OSD
- Ø100 HDPE OR PVC STORMWATER DRAINAGE PIPE CAST IN SLAB
- 65 — Ø65 HDPE OR PVC STORMWATER DRAINAGE PIPE CAST IN SLAB
- 50 — Ø50 HDPE OR PVC STORMWATER DRAINAGE PIPE CAST IN SLAB
- RWT — PROPOSED STORMWATER PIPE TO RAINWATER TANK
- SS — Ø100 SUBSOIL DRAINAGE TO BE WRAPPED IN GEOTEXTILE BIDIMA34
- RISER PIPE
- DP — DOWNPIPE Ø100
- VD — VERTICAL DROP Ø100
- D — VERTICAL DROP FROM SLAB
- PG — PLANTER GRATE Ø150
- FG — FLOOR GRATE Ø150
- FG — FLOOR GRATE 200x200 (ALLOW MINIMUM 1.0% FALL TO FG)
- FW — FLOOR GRATE 300x300 (ALLOW MINIMUM 1.0% FALL TO FW)
- RWO — RAINWATER OUTLET Ø260 SPS (ALLOW MINIMUM 1.0% FALL TO RWO)
- SPB — SUSPENDED PLANTER BOX RAINWATER OUTLET
- TD — AC CONDENSER TUNDISH TO MANUFACTURER'S DETAILS
- IL 31.00 — INVERT LEVEL
- RL 29.65 — DESIGN SURFACE LEVEL
- EXISTING SURFACE LEVEL
- ExSW — EXISTING STORMWATER DRAINAGE
- ExW — EXISTING WATER MAIN
- ExS — EXISTING SEWER MAIN
- ExT — EXISTING TELESTRA
- ExE — EXISTING ELECTRICAL
- ExEU — EXISTING ELECTRICAL UNDERGROUND
- ExEO — EXISTING OVERHEAD ELECTRICAL
- ExG — EXISTING GAS
- HD — EXISTING HOUSE DRAINAGE
- ExOP — EXISTING OPTIC FIBER

GENERAL NOTES
1. ALL LINES ARE TO BE Ø100 uPVC 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWERGRADE & SEALED.
2. EXISTING SERVICES LOCATIONS SHOWN INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
3. ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.
4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.
5. PITS LESS THAN 600mm DEEP MAY BE BRICK, PRECAST OR CONCRETE.
6. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
7. ALL EXTERNAL SLABS TO BE WATERPROOFED.
8. ALL GRATES TO HAVE CHILD PROOF LOCKS.
9. ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
10. ALL DPs TO HAVE LEAF GUARDS.
11. ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
12. ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
13. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
14. ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.
15. REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING.
16. CARE TO BE TAKEN AROUND EXISTING SEWER. STRUCTURAL ADVICE IS REQUIRED FOR SEWER PROTECTION AGAINST ADDITIONAL LOADING FROM NEW PITS, PIPES, RETAINING WALLS AND OSD BASIN WATER LEVELS.
17. ALL PIPES IN BALCONIES TO BE Ø65 uPVC CAST IN CONCRETE SLAB. CONTRACTOR TO PROVIDE A BREAK / OPEN VOID IN RAIL / BALUSTRADE FOR STORMWATER EMERGENCY OVERFLOW. ALL ENCLOSED AREAS/PLANTER BOXES TO BE FITTED WITH FLOOR WASTES & DRAINED TO OSD DOWNPIPES TO BE CHECKED BY ARCHITECT & PLUMBER PRIOR TO CONSTRUCTION.
18. THE OSD BASIN / TANK IS TO BE BUILT TO THE CORRECT LEVELS & SIZE AS PER THIS DESIGN. ANY VARIATIONS ARE TO BE DONE UNDER CONSULTATION FROM OUR OFFICE ONLY. ANY AMENDMENTS WITHOUT OUR APPROVAL WOULD RESULT IN ADDITIONAL FEES FOR REDESIGN AT OC STAGE OR IF A SOLUTION CANNOT BE FOUND, RECONSTRUCTION IS REQUIRED UNDER THE CONTRACTOR'S EXPENSES



LOWER GROUND FLOOR PLAN
SCALE 1:100

NOTE:
ALL NON-TRAFFICABLE AREAS DRAINAGE SYSTEM IN UPPER LEVELS IS SUBJECT TO DETAILED DESIGN STAGE & TO BE CONNECTED TO THE UNDERGROUND RAINWATER TANK.

ALL TRAFFICABLE AREAS DRAINAGE SYSTEM IN UPPER LEVELS IS SUBJECT TO DETAILED DESIGN STAGE & TO BE CONNECTED TO THE UNDERGROUND WSUD TANK.

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
A	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2025	EAB	SBF

Certification By Dr. Michel Chaaya B.E., M.E. (Res), Ph.D., F.I.E. Aust., CPEng., Civil & Structural Engineer

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Client
Primo Real Estate

Scale
0 2 4 6 m
SCALE 1:100 @ A0

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Company: Telford Consulting Pty Ltd

Project
7-11 POCKLEY AVENUE, ROSEVILLE
PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
STORMWATER CONCEPT PLAN
LOWER GROUND LEVEL

Scale	A0	Project No.	Dwg. No.	Issue
1:100		25035	104	A

PIPES NOTE:
Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE

NOTE:
ALL STORMWATER DRAINAGE PIPES ARE Ø100 PVC AT MIN 1.0% SLOPE U.N.O.

NOTE:
1. CONTRACTOR IS TO PROVIDE OVERFLOW OUTLETS & EMERGENCY OVERFLOW SPITTERS TO ALL TRAPPED AREAS.
2. DP/VD ARE Ø100 PIPES U.N.O.
3. ALL TRANSFERRING PIPES ARE SUSPENDED U.N.O.
4. BALCONIES PIPES ARE Ø50mm HDPE OR PVC CAST IN SLAB AT MIN 1.0% SLOPE.

NOTE:
IT IS CONTRACTOR'S RESPONSIBILITY TO ENSURE MINIMUM PONDING IS ACHIEVED OVER THE FLOOR WASTES BY GRADING CATCHMENTS' SURFACES AT MINIMUM 1.0% FALL.

NOTE:
ALL REDUNDANT PIPELINES WITHIN FOOTPATH AREA MUST BE REMOVED AND FOOTPATH/KERB REINSTATED.

NOTE:
ALL GRATES WITHIN FOOTWAY AREAS TO BE HEEL GUARD & BIKE SAFE.

NOTE:
PITS DEEPER THAN 1.0m TO BE FITTED WITH STEP IRONS.

NOTE:
ALL UPPER LEVELS DRAINAGE SYSTEM TO BE CONNECTED TO WSUD, SUBJECT TO DETAILED DESIGN STAGE.

NOTE:
REFER ARCHITECTURAL DRAWINGS FOR FINAL SET-OUT LEVELS.

NOTE:
ALL LINEAR GRATED DRAINS TO BE MIN. 100mm DEEP.

LEGEND
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED STORMWATER DRAINING TO OSD
- PROPOSED STORMWATER BYPASSING OSD
- Ø100 HDPE OR PVC STORMWATER DRAINAGE PIPE CAST IN SLAB
- 65 Ø65 HDPE OR PVC STORMWATER DRAINAGE PIPE CAST IN SLAB
- 50 Ø50 HDPE OR PVC STORMWATER DRAINAGE PIPE CAST IN SLAB
- RWT PROPOSED STORMWATER PIPE TO RAINWATER TANK
- SS Ø100 SUBSOIL DRAINAGE TO BE WRAPPED IN GEOTEXTILE BIDIMA34
- RISER PIPE
- DP DOWNPIPE Ø100
- VD VERTICAL DROP Ø100
- D VERTICAL DROP FROM SLAB
- PG PLANTER GRATE Ø150
- FG FLOOR GRATE Ø150
- FG FLOOR GRATE 200x200 (ALLOW MINIMUM 1.0% FALL TO FG)
- FW FLOOR GRATE 300x300 (ALLOW MINIMUM 1.0% FALL TO FW)
- RWO RAINWATER OUTLET Ø260 SPS (ALLOW MINIMUM 1.0% FALL TO RWO)
- SPB SUSPENDED PLANTER BOX RAINWATER OUTLET
- TD AC CONDENSER TUNDISH TO MANUFACTURER'S DETAILS
- IL 31.00 INVERT LEVEL
- RL 29.65 DESIGN SURFACE LEVEL
- RL 28.31 EXISTING SURFACE LEVEL
- ExSW EXISTING STORMWATER DRAINAGE
- ExW EXISTING WATER MAIN
- ExS EXISTING SEWER MAIN
- ExT EXISTING TELESTRA
- ExE EXISTING ELECTRICAL
- ExEU EXISTING ELECTRICAL UNDERGROUND
- ExEO EXISTING OVERHEAD ELECTRICAL
- ExG EXISTING GAS
- HD EXISTING HOUSE DRAINAGE
- ExOP EXISTING OPTIC FIBER

GENERAL NOTES
1. ALL LINES ARE TO BE Ø100 uPVC 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWERGRADE & SEALED.
2. EXISTING SERVICES LOCATIONS SHOWN INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
3. ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.
4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.
5. PITS LESS THAN 600mm DEEP MAY BE BRICK, PRECAST OR CONCRETE.
6. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
7. ALL EXTERNAL SLABS TO BE WATERPROOFED.
8. ALL GRATES TO HAVE CHILD PROOF LOCKS.
9. ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
10. ALL DPs TO HAVE LEAF GUARDS.
11. ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
12. ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
13. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
14. ALL WORK SHALL BE IN ACCORDANCE WITH B.C.A. AND A.S.3500.3.
15. REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING.
16. CARE TO BE TAKEN AROUND EXISTING SEWER. STRUCTURAL ADVICE IS REQUIRED FOR SEWER PROTECTION AGAINST ADDITIONAL LOADING FROM NEW PITS, PIPES, RETAINING WALLS AND OSD BASIN WATER LEVELS.
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UPPER GROUND FLOOR PLAN
SCALE 1:100

NOT FOR CONSTRUCTION

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STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
STORMWATER CONCEPT PLAN
UPPER GROUND LEVEL

Scale	A0	Project No.	Dwg. No.	Issue
1:100		25035	105	A

LEGEND

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- RISER PIPE
- DP — DOWNPIPE Ø100
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- D — VERTICAL DROP FROM SLAB
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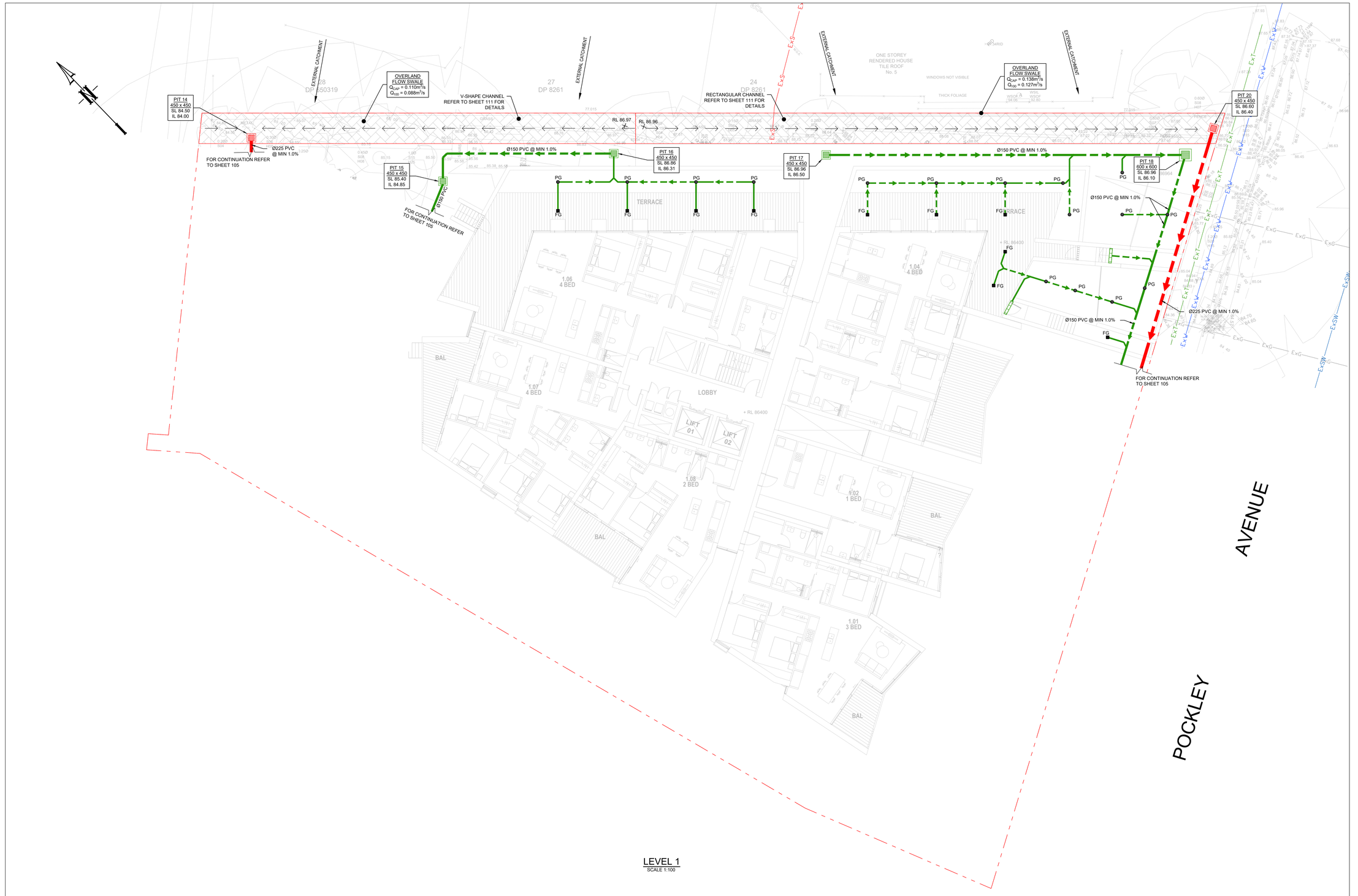

LEVEL 1
SCALE 1:100

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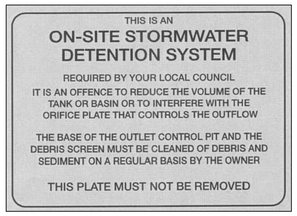
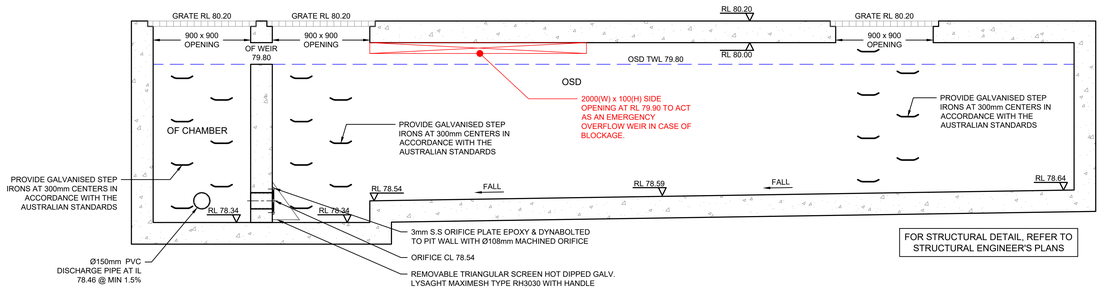
PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

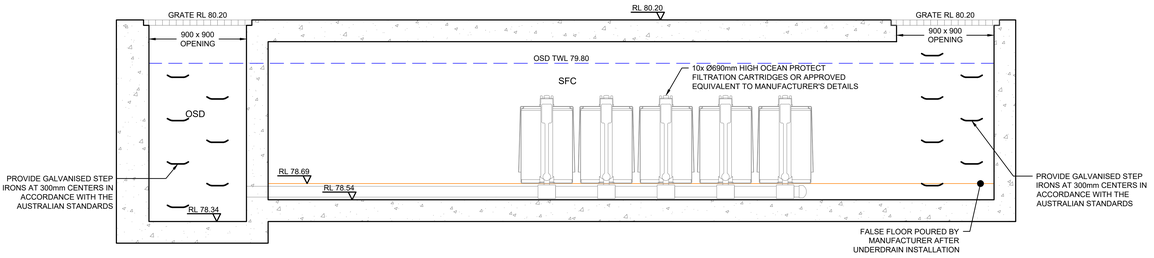
Drawing Title
STORMWATER CONCEPT PLAN
LEVEL 01

Scale	A0	Project No.	Dwg. No.	Issue
1:100		25035	106	A

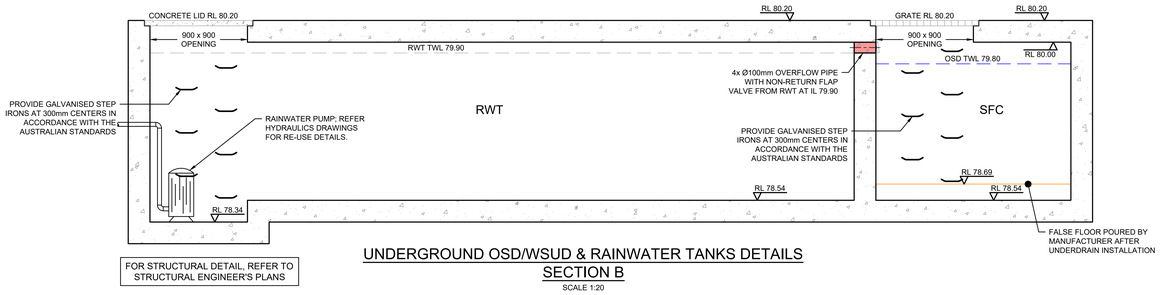




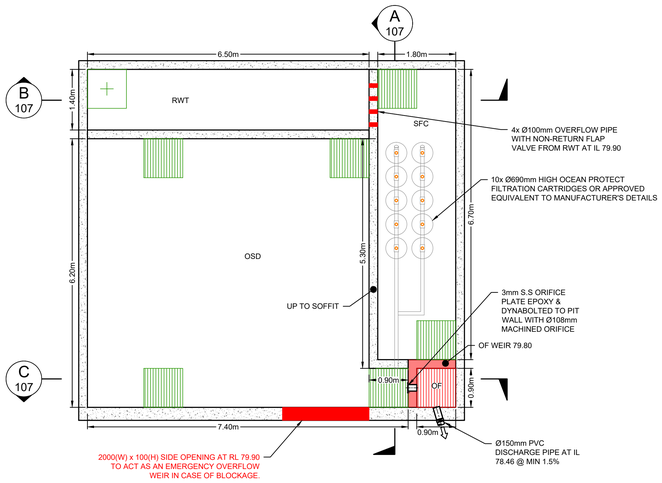
UNDERGROUND OSD/WSUD & RAINWATER TANKS DETAILS
SECTION C
SCALE 1:20



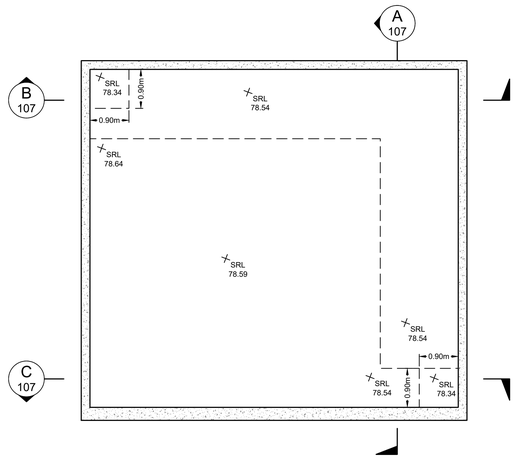
UNDERGROUND OSD/WSUD & RAINWATER TANKS DETAILS
SECTION A
SCALE 1:20



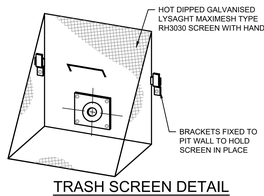
UNDERGROUND OSD/WSUD & RAINWATER TANKS DETAILS
SECTION B
SCALE 1:20



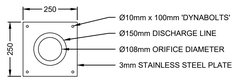
UNDERGROUND OSD/WSUD/RWT INTERNAL WALLS DIMENSIONS & WEIR HEIGHT
SCALE 1:50



UNDERGROUND OSD/WSUD/RWT BOTTOM S.R.L.
SCALE 1:50



TRASH SCREEN DETAIL
N.T.S



ORIFICE PLATE DETAIL
SCALE 1:10

Project	**PROPOSED RESIDENTIAL FLAT BUILDING**			
Address	**7-11 POCKLEY AVENUE, ROSEVILLE**			
Job No.	**25035**			
Designer	**EAB**			
Catchment Detail				
Catchment Area Code	**BG1**	Catchment Discharge Rate	**0.0147**	l/sec/m^2
		Catchment Storage Rate	**0.0287**	m^3/m^2
Site Details				
Site Area			**3098.0**	m^2
60% of Site Area			**1859**	m^2
Area not Draining to the Detention System			**438**	m^2
Total Impervious Area (roofs, driveway, paving etc)			**1556**	m^2
Impervious area bypassing detention system			**0**	m^2
Permitted Site Discharge	Flow 1		**27.32**	l/sec
Adjustment for uncontrolled impervious flow			**0.00**	(<0.25)
Adjusted flow	Flow 2		**0.00**	l/sec
Final Permitted Site Discharge			**27.32**	l/sec
Site Storage Requirement			**53.35**	m^3
Landscaped surface OSD basin?			no	
Adjustment factor for Landscaped surface basin:			1.00	
Adjustment for Landscaped surface basin			**53.35**	m^3
Surface Area			**53.17**	m^2
Average depth of water			**1.19**	m
Provided Volume of Storage= Surface Area X Average depth of water			**63.06**	m^3
			Volume > than Required	
Max Head to Orifice Centre			**1.26**	m
Orifice Diameter			**108**	mm

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SCALE 1:10 @ A0
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STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

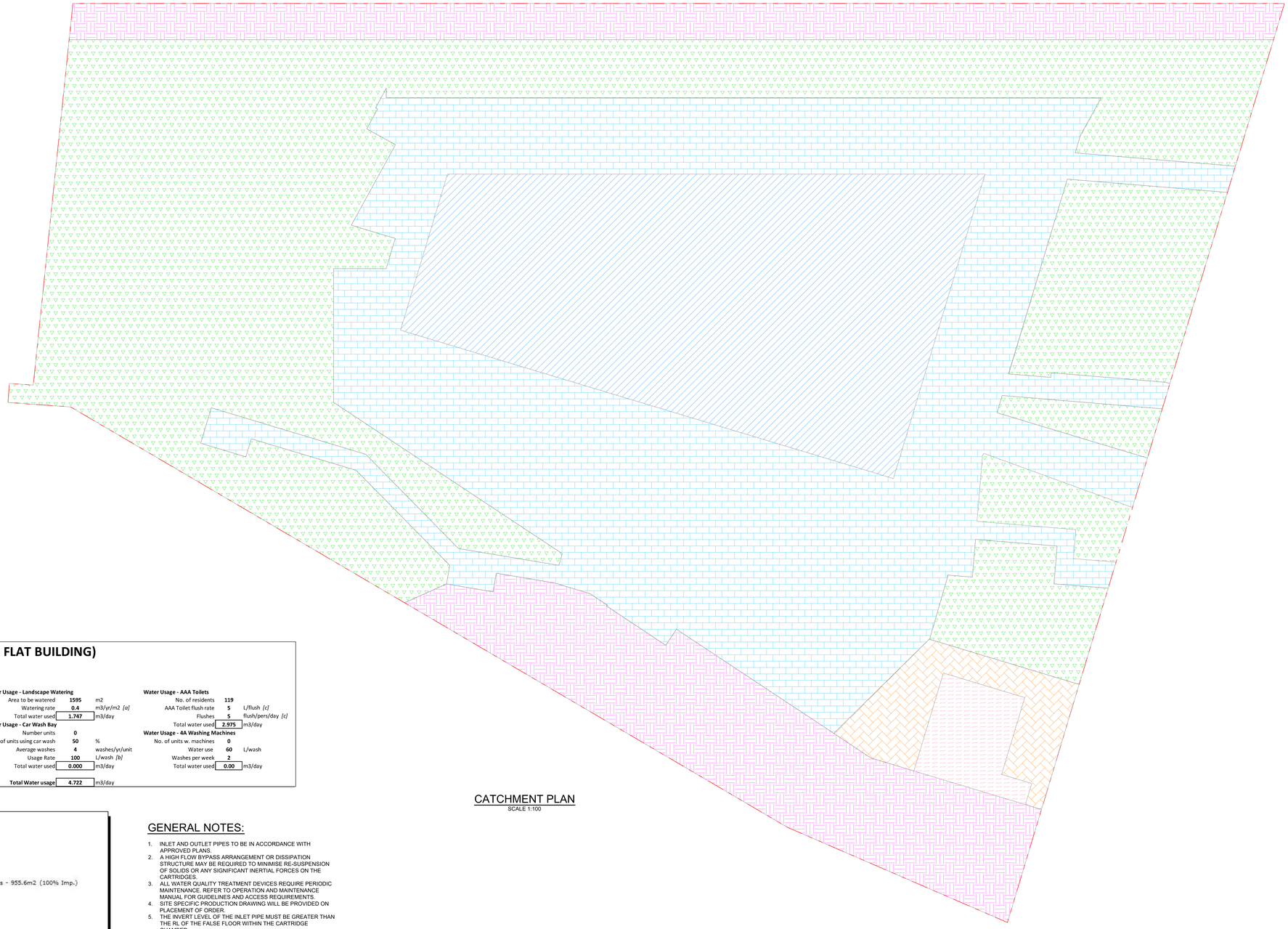
Drawing Title
ON-SITE DETENTION DETAILS AND CALCULATIONS

Scale	Project No.	Dwg. No.	Issue
As Shown @ A0	25035	107	A

CATCHMENT LEGEND

- ROOF AREA TO RWT THEN TO SFC = 500.0m²
- IMPERVIOUS AREA TO SFC = 955.6m²
- PERVIOUS AREA TO SFC = 1104.1m²
- DRIVEWAY TO SFC = 62.2m²
- PERVIOUS AREA BYPASSING SFC = 438.2m²
- DRIVEWAY BYPASSING SFC = 37.90m²

TOTAL SITE AREA = 3098 m²
TOTAL AREA TO SFC = 2,621.9 m² (84.63% OF TOTAL SITE AREA)
TOTAL BYPASS AREA = 476.1m² (100% PERVIOUS)

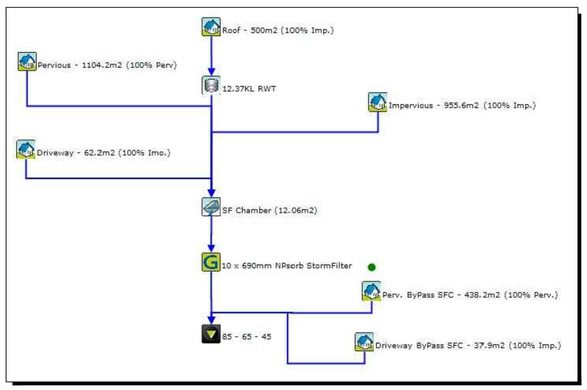


CATCHMENT PLAN
SCALE 1:100

25035 - 7-11 Pockley Avenue, Roseville (RESIDENTIAL FLAT BUILDING)

BoM Station: Pockley Avenue, Roseville - Daily Rainfall (66158) 1990 - 2016

Assumptions	Rainfall loss	**1**	mm	**Water Usage - Landscape Watering**				**Water Usage - AAA Toilets**		
* *Wet day = greater than 0mm of daily rain*	Roof area	**500**	m2	Area to be watered	**1595**	m2		No. of residents	**119**	
* *Total water usage is calculated in m3/day and subtracted on each day*	Rainwater tank size	**12.37**	m3	Watering rate	**0.4**	m3/yr/m2 *[a]*		AAA Toilet flush rate	**5**	L/flush *[c]*
* *Target is 50% reduction in runoff days*	%Full at start	**0**	%	Total water used	**1.747**	m3/day		Flushes	**5**	flush/pers/day *[c]*
* *Assume that if rainwater tank does not overflow on a wet day,*				**Water Usage - Car Wash Bay**				Total water used	**2.975**	m3/day
this is no longer a 'runoff day'. OF = Overflow Day	Total# days	**9611**	days	Number units	**0**			**Water Usage - 4A Washing Machines**		
* *%Reduction in wet days = (wet days - OF days) / wet days*	Total# wet days	**3875**	days	% of units using car wash	**50**	%		No. of units w. machines	**0**	
	Total# OF days	**353**	days	Average washes	**4**	washes/yr/unit		Water use	**60**	L/wash
References	%reduction in wet days	**90.9**	%	Usage Rate	**100**	L/wash *[b]*		Washes per week	**2**	
(a) Blacktown Council WSUD guidelines				Total water used	**0.000**	m3/day		Total water used	**0.00**	m3/day
(b) AW / Sydney Water	%of time tank is empty	**83**	%							
(c) Melbourne Household Water Use calculator	%of time tank is full	**4**	%	**Total Water usage**	**4.722**	m3/day				



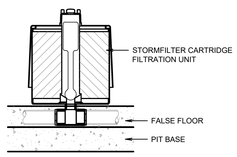
MUSIC MODEL
N.T.S.

GENERAL NOTES:

1. INLET AND OUTLET PIPES TO BE IN ACCORDANCE WITH APPROVED PLANS.
2. A HIGH FLOW BYPASS ARRANGEMENT OR DISSIPATION STRUCTURE MAY BE REQUIRED TO MINIMISE RE-SUSPENSION OF SOLIDS OR ANY SIGNIFICANT INERTIAL FORCES ON THE CARTRIDGES.
3. ALL WATER QUALITY TREATMENT DEVICES REQUIRE PERIODIC MAINTENANCE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR GUIDELINES AND ACCESS REQUIREMENTS.
4. SITE SPECIFIC PRODUCTION DRAWING WILL BE PROVIDED ON PLACEMENT OF ORDER.
5. THE INVERT LEVEL OF THE INLET PIPE MUST BE GREATER THAN THE RL OF THE FALSE FLOOR WITHIN THE CARTRIDGE CHAMBER.
6. CONCRETE STRUCTURE AND ACCESS COVERS DESIGNED AND PROVIDED BY OTHERS. ACCESS COVERS TO BE A MINIMUM 900 x 900 ABOVE CARTRIDGES. OH&S REGARDING ACCESS COVERS AND TANK ACCESS TO BE ASSESSED BY OTHERS ON SITE.
7. THE STRUCTURE THICKNESSES SHOWN ARE FOR REPRESENTATIONAL PURPOSES.
8. DRAWINGS NOT TO SCALE.

	Sources	Residual Load	% Reduction
Flow (ML/yr)	2.046	1.72	15.93
Total Suspended Solids (kg/yr)	292.2	43.32	85.18
Total Phosphorus (kg/yr)	0.6612	0.1348	79.62
Total Nitrogen (kg/yr)	5.286	2.241	57.61
Gross Pollutants (kg/yr)	41.02	0.9994	97.56

MUSIC RESULTS
N.T.S.



STORMFILTER CARTRIDGE DETAIL
N.T.S.

Facility Component Requiring Maintenance	Maintenance Activity	When Maintenance Activity Is Required	Expected Facility Performance After Maintaining	INSPECTION/MINOR MAINTENANCE (TIMES/YEAR)	MAJOR MAINTENANCE (TIMES/YEAR)
StormFilter® Cartridges and Containment Structure	Trash and Debris Removal	Floatable objects or other trash is present in the filter. Remove to avoid hindrance of filtration and eliminate unsightly debris and trash.	Permanent removal from storm system.	2 (and after major storms)	1 (except in case of a spill)
	Cartridge Replacement and Sediment Removal	1. Media has been contaminated by high levels of pollutants, such as after a spill.	1. New media is able to effectively treat stormwater.	-	-
Drainage System Piping	Flushing With Water	Drainage system is obstructed by debris or sediment.	Outflow is not restricted.	-	-

FILTRATION UNIT MAINTENANCE SCHEDULE

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
A	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2025	EAB	SBF

Certification By Dr. Michel Chaaya
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0 2 4 6 m
SCALE 1:100 @ A0

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Project
7-11 POCKLEY AVENUE, ROSEVILLE
PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
CATCHMENT PLAN AND MUSIC RESULTS

Scale	AO	Project No.	Dwg. No.	Issue
As Shown		25035	108	A

LEGEND

- EXISTING STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER MAIN
- EXISTING SEWER MAIN
- EXISTING TELESTRA
- EXISTING ELECTRICAL
- EXISTING ELECTRICAL UNDERGROUND
- EXISTING OVERHEAD ELECTRICAL
- EXISTING GAS
- EXISTING HOUSE DRAINAGE
- EXISTING OPTIC FIBER
- PROPOSED SEWER PIPE (RE-ALIGNED)
- TREE PROTECTION ZONE (TPZ)
- STRUCTURAL ROOT ZONE (SRZ)
- EXISTING CONTOUR
- EXISTING SURFACE LEVEL
- EARTHWORKS LEVELS
- DESIGN SURFACE LEVELS
- SILT FENCE
- STABILISED SITE ACCESS
- 1.8 HIGH CONSTRUCTION BARRIER FENCING
- TREES TO BE RETAINED
- TREES TO BE REMOVED
- 1.8 HIGH CONSTRUCTION BARRIER FENCING

28 DP 650319 | 27 DP 8261 | 24 DP 8261 | 23 DP 652725 1011.6 m² | 22 DP 8261 976.7 m² | 3 DP 966421 | SP 3598 | 1 DP 960352 1111.2 m² | 1 DP 960047

1.8 HIGH CONSTRUCTION BARRIER FENCING SHOWN OUTSIDE BDY FOR CLARITY

SEDIMENTATION BASIN

MANUALLY ACTIVATED SUBMERSIBLE PUMP TO BE PLACED ON PLINTH AT MIN 600mm FROM INVERT OF STILLING POND. CONTRACTOR IS TO ENSURE SEDIMENT HAS SETTLED PRIOR TO PUMP OPERATION. SEDIMENT MATERIAL IS TO BE CLEARED REGULARLY AND SHALL NOT AT ANY TIME REACH THE LEVEL OF THE PUMP INTAKE.

DISCHARGE WATER THROUGH HAY BALES TO PREVENT EROSION.

PUMP LINE

SITE RECYCLING BIN

BRICK AND OTHER NON-WEATHER AFFECTED MATERIAL STORAGE AREA

TEMPORARY SITE OFFICE

TEMPORARY SITE TOILET

STOCK PILE AREA DURING CONSTRUCTION

STOCK PILE AREA FOR SOIL RE-USE

1.8 HIGH CONSTRUCTION BARRIER FENCING SHOWN OUTSIDE BDY FOR CLARITY

PROPOSED SILT FENCE

PROVIDE TAP AND HOSE BEHIND FENCELINE. ALL TRUCK TIRES MUST BE WASHED DOWN BEFORE DEPARTING

TEMPORARY STABILISED SITE ACCESS

DISCHARGE WATER THROUGH HAY BALES TO PREVENT EROSION.

POCKLEY AVENUE

SEDIMENT & EROSION CONTROL PLAN

SCALE 1:100

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
A	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2025	EAB	SBF

Certification By Dr. Michel Chaaya B.E., M.E. (Res), Ph.D., F.I.E. Aust., CPEng., Civil & Structural Engineer

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0 2 4 6 m
SCALE 1:100 @ A0

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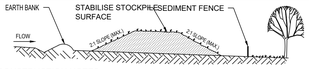
Project
7-11 POCKLEY AVENUE, ROSEVILLE
PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
SEDIMENT AND EROSION CONTROL PLAN & DETAILS
SHEET 1 OF 2

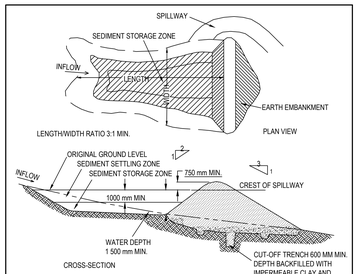
Scale	Project No.	Dwg. No.	Issue
1:100 A0	25035	109	A



CONSTRUCTION NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. ALL STOCKPILES ARE TO BE LOCATED AND PLACED IN ACCORDANCE WITH THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN.
5. WHERE STOCKPILES ARE TEMPORARY (<14 DAYS) NO STABILISATION IS REQUIRED. REVIEW THE ADEQUACY OF SEDIMENT CONTROLS IF RAINFALL IS PREDICTED.
6. WHERE STOCKPILES ARE TEMPORARY (<14 DAYS) THE FOLLOWING ADDITIONAL CONTROLS ARE REQUIRED:
   -MAXIMUM BATTER SLOPE REDUCED TO 1:4
   -CONSTRUCT A CONTOUR DRAIN ON THE LOW SIDE OF THE STOCKPILE, AND DISCHARGING THROUGH A STRAW BALE OR 200mm HIGH GRAVEL DAM
   -ESTABLISH GRASS COVER TO SURFACE OF STOCKPILE WITHIN 14 DAYS, USING HYDROMULCH WITH A 75:25 MIX OF SEASONAL AND PERMANENT GRASS SEEDS, AND A STRAW MULCH THICKNESS OF NO LESS THAN 5mm.
7. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2 METRES DOWNSLOPE.

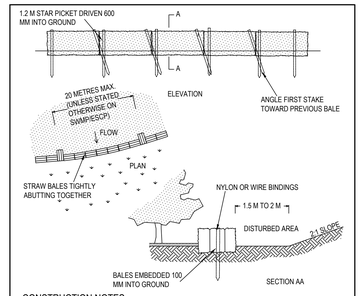
STOCKPILES — SD 4-1



CONSTRUCTION NOTES:

1. REMOVE ALL VEGETATION AND TOPSOIL FROM UNDER THE DAM WALL AND FROM WITHIN THE STORAGE AREA.
2. CONSTRUCT A CUT-OFF TRENCH 500 MM DEEP AND 1,200 MM WIDE ALONG THE CENTRELINE OF THE EMBANKMENT EXTENDING TO A POINT ON THE GULLY WALL LEVEL WITH THE RISER CREST.
3. MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 95 PER CENT STANDARD PROCTOR DENSITY.
4. SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK, LARGE STONE OR FOREIGN MATERIAL.
5. PREPARE THE SITE UNDER THE EMBANKMENT BY RIPPING TO AT LEAST 100 MM TO HELP BOND COMPACTED FILL TO THE EXISTING SUBSTRATE.
6. SPREAD THE FILL IN 100 MM TO 150 MM LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT FOLLOWING THE SWMP.
7. CONSTRUCT THE EMERGENCY SPILLWAY. 8. REHABILITATE THE STRUCTURE FOLLOWING THE SWMP.

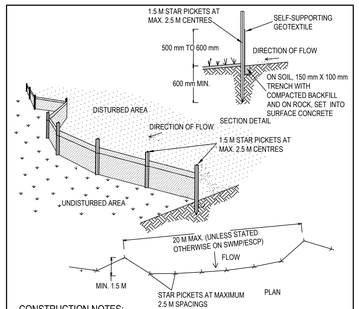
EARTH BASIN - WET
(APPLIES TO 'TYPE D' AND 'TYPE F' SOILS ONLY) — SD 6-4



CONSTRUCTION NOTES:

1. CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
3. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
4. EMBED EACH BALE IN THE GROUND 75 mm TO 100 mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE.DRIVE THEM 600 mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METRES DOWNSLOPE FROM THE TOE.
6. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

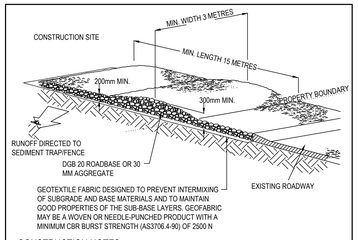
STRAW BALE FILTER — SD 6-7



CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE — SD 6-8



CONSTRUCTION NOTES:

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3m WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE

STABILISED SITE ACCESS — SD 6-14

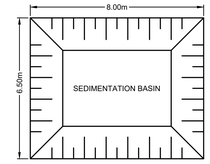
BASIN DEWATERING NOTES:

ALL SEDIMENT BASINS ON-SITE ARE TO BE CONTINUOUSLY MONITORED AND MAINTAINED BEFORE AND AFTER RAIN EVENTS. DEWATERING IS TO BE ACHIEVED BY:

- AFTER A RAIN EVENT, ALLOW UP TO 24 HOURS FOR ALL SURFACE FLOWS AND GROUND WATER TO CONTINUE SEEPING INTO THE BASIN;
- PLACE INDUSTRY STANDARD FLOCCULANT FOR A PERIOD OF 24-48 HOURS. MORE TIME MAY BE REQUIRED DEPENDING ON GROUND SEEPAGE FROM UPSTREAM CATCHMENT;
- WATER QUALITY TESTING BY AN ACCREDITED ENVIRONMENTAL ENGINEER AND LABORATORY FOR TOTAL SUSPENDED SOLIDS (TSS) IS TO OCCUR;
- ONCE CLEARANCE BY AN ENVIRONMENTAL ENGINEER HAS BEEN SOUGHT, PUMP WATER IN NEARBY DRAINAGE SYSTEM

GENERAL:

- WHERE POSSIBLE SEED ALL TOPSOIL AREAS TO STABILISE LOTS.
- CONSIDERATION SHOULD BE GIVEN TO LAYING A STRIP OF TURF AT THE BASE OF THE RETAINING WALLS ALONG HIAWATHA ROAD.
- STABILISATION OF KERBSIDE WOULD OCCUR VIA TURF STRIP AND FOOTPATH CONSTRUCTION AS SOON AS PRACTICAL.



SEDIMENT BASIN DIMENSIONS
SCALE 1:100

SEDIMENT BASIN CALCULATION:

THE MINIMUM VOLUME OF THE UPPER SETTING ZONE IS DEFINED BY EQUATION:

$V_S = 10 \cdot R_{Y\%\text{-}5\text{-day}} \cdot C_V \cdot A$

WHERE: V_S = VOLUME OF THE SETTING ZONE (m^3)
$R_{Y\%\text{-}5\text{-day}}$ = Y%, 5-DAY RAINFALL DEPTH (mm)
C_V = VOLUMETRIC RUNOFF COEFFICIENT
A = EFFECTIVE CATCHMENT SURFACE AREA TO BE CONNECTED TO THE BASIN (ha)
$R_{Y\%\text{-}5\text{-day}} = K_t \cdot I_{(1yr,120hr)} + K_2$

WHERE: K = CONSTANT = 17
K_2 = CONSTANT = 11.2
$I_{(1yr,120hr)}$ = AVERAGE RAINFALL INTENSITY FOR A 1 IN 1 YEAR ARI, 120 HR STORM (mm/hr) = 1.3

THEN: $R_{Y\%\text{-}5\text{-day}} = 17 \times 1.3 + 11.2 = 33.3$

SEDIMENT BASIN:
$R_{Y\%\text{-}5\text{-day}}$ = 33.3
C_V = 0.5
A = 3.098 m^2 = 0.3098 ha

THEN V_S = 10 x 33.3 x 0.5 x 0.3098= 51.58 m^3

SEDIMENT & EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE COMMENCEMENT OF ANY WORKS BEING CARRIED OUT. ALL SOIL AND EROSION MEASURES SHALL BE MAINTAINED AND KEPT IN PLACE FOR THE FULL DURATION OF THE WORKS AND SHALL ONLY BE REMOVED AT FINAL STABILISATION OF THE WORKS. WHERE IT IS NECESSARY TO UNDERTAKE STRIPPING IN ORDER TO CONSTRUCT A SEDIMENT CONTROL DEVICE ONLY SUFFICIENT GROUND SHALL BE STRIPPED TO ALLOW CONSTRUCTION.
2. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED & MAINTAINED AS INDICATED ON THESE DRAWINGS. LOCATION AND EXTENT OF SOIL & WATER MANAGEMENT DEVICES IS DIAGRAMMATIC ONLY AND THE ACTUAL REQUIREMENTS SHALL BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT.
3. CONFORMITY WITH THIS PLAN SHALL IN NO WAY REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST WATER DAMAGE DURING THE COURSE OF THE CONTRACT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ANY NECESSARY CONTROL IS IN PLACE EVEN THOUGH SUCH CONTROL MAY NOT BE SHOWN ON THE PLAN.
4. THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS & ALL EMPLOYEES OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION & POLLUTION TO DOWNSTREAM AREAS
5. IN ADDITION TO SEDIMENT BASINS, THE CONTRACTOR SHALL REGULARLY MAINTAIN SEDIMENT AND EROSION CONTROL STRUCTURES & DESILT SUCH STRUCTURES PRIOR TO THE REDUCTION IN CAPACITY OF 30% DUE TO ACCUMULATED SEDIMENT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE IN A MANNER APPROVED BY THE ENGINEER.
6. THE CONTRACTOR SHALL TEMPORARILY REHABILITATE WITHIN TEN (10) DAYS ANY DISTURBED AREAS PROVIDING A MINIMUM 60% COVER. FINAL REHABILITATION IS TO BE PROVIDED WITHIN A FURTHER 60 DAYS WITH A MINIMUM 70% COVER.
7. THE CONTRACTOR SHALL PROVIDE WATERING OF THE VEGETATED BATTERS FOR MAINTENANCE PERIOD. PLANT, MACHINERY AND VEHICLES SHALL NOT BE DRIVEN OVER GRASSED AREAS UNLESS ON AN APPROVED HAULAGE ROUTE.
8. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS QUICKLY AS POSSIBLE TO MINIMISE RISK OF EROSION.
9. SITE ACCESS SHALL BE RESTRICTED TO THE NOMINATED POINTS. THE CONTRACTOR SHALL PROVIDE STABILISED SITE ACCESS.
10. DUST AND SITE DISTURBANCE MUST BE KEPT TO A MINIMUM. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS MUST BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO REDUCE WIND EROSION. ERECT BARRIER FENCING TO MINIMISE LAND DISTURBANCE BY PREVENTING VEHICULAR AND PEDESTRIAN ACCESS TO AREAS BEING REHABILATATED AND LANDS THAT DO NOT NEED TO BE DISTURBED BY THIS PROJECT.
11. STOCKPILE TOPSOILS, SUBSOILS AND OTHER MATERIALS SEPARATELY.
12. TOPSOIL SHALL BE STORED IN LOW MOUNDS NO MORE THAN 2 METRES HIGH AND RE-USED WITHIN TWO MONTHS TO MAINTAIN ACTIVE POPULATIONS OF BENEFICIAL SOIL MICROBES & SEED.
13. PLACE ALL STOCKPILES AT LEAST FIVE METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS, ESPECIALLY EARTH BANKS AND ROADS. IF NECESSARY, EARTH BANKS OR DRAINS WILL BE CONSTRUCTED TO DIVERT LOCALISED RUN-ON.
14. TURN TOPSOIL STOCKPILES OVER TO AERATE THEM AT MONTHLY INTERVALS. ENSURE VEGETATION IS NOT INCORPORATED INTO THE SOIL.
15. AVOID REVERSING THE SOIL PROFILE MATERIALS DURING FILL OPERATIONS - REPLACE DISTURBED SOILS IN THEIR ORIGINAL ORDER.
16. ON COMPLETION OF MAJOR EARTHWORKS AND BEFORE ADDING TOPSOIL, LEAVE DISTURBED LANDS WITH A LOOSE SURFACE. ALTERNATELY, DISTURBED AREAS PREVIOUSLY COMPACTED BY CONSTRUCTION WORKS WILL BE RIPPED TO MORE THAN 200mm ALONG THE CONTOUR BEFORE APPLYING TOPSOIL
17. PROVIDING MATERIALS ARE AVAILABLE, SPREAD TOPSOIL TO A MINIMUM DEPTH OF 75mm IN REVEGETATION AREAS ON SLOPES OF 4(H):1(V) OR LESS AND TO A DEPTH OF 40 TO 60mm IN REVEGETATION AREAS STEEPER THAN 4:1.
18. LEAVE TOPSOIL IN A SCARIFIED OR ROUGH CONDITION ONCE REPLACED TO HELP MOISTURE INFILTRATION AND REDUCE SOIL EROSION.
19. ENSURE SOIL IS THOROUGHLY SOAKED TO A DEPTH OF 75mm (RAIN OR IRRIGATION) IMMEDIATELY BEFORE PLANTING.
20. HANDLE TOPSOIL ONLY WHEN IT IS MOIST (NOT WET OR DRY) TO AVOID DECLINE OF SOIL STRUCTURE
21. THE CONTRACTOR SHALL MAINTAIN A LOG BOOK DETAILING:
    - RECORDS OF ALL RAINFALL
    - CONDITION OF SOIL AND WATER MANAGEMENT STRUCTURES
    - ANY APPLICATION OF FLOCCULATING AGENTS TO SEDIMENT BASIN
    - VOLUMES OF ALL WATER DISCHARGED FROM SEDIMENT BASINS
    - ANY ADDITIONAL REMEDIAL WORKS REQUIRED.
22. THE LOG BOOK SHALL BE MAINTAINED ON A WEEKLY BASIS AND BE MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. THE ORIGINAL LOG BOOK SHALL BE ISSUED TO THE PROJECT MANAGER AT THE COMPLETION OF WORKS
23. ALL ROAD EMBANKMENTS TO BE STABILISED AS PER LANDSCAPE ARCHITECTS DETAILS.
24. A SELF AUDITING PROGRAM SHOULD BE ESTABLISHED BASED ON A CHECK SHEET DEVELOPED FOR THE SITE. A SITE INSPECTION USING THE CHECK SHEET SHOULD BE MADE BY THE SITE MANAGER AT LEAST WEEKLY, IMMEDIATELY BEFORE SITE CLOSURE AND IMMEDIATELY FOLLOWING RAINFALL EVENTS THAT CAUSE RUNOFF.
25. UNDERTAKE THE SELF AUDIT BY:
    - WALKING AROUND THE SITE SYSTEMATICALLY (E.G. CLOCKWISE)
    - RECORDING THE CONDITION OF EVERY BMP EMPLOYED
    - RECORDING MAINTENANCE REQUIREMENTS (IF ANY) FOR EACH BMP
    - RECORDING THE SITE WHERE SEDIMENT IS DISPOSED
    - FORWARDING A SIGNED DUPLICATE OF THE COMPLETED CHECK SHEET TO THE PROJECT MANAGER/DEVELOPER/SITE OPERATOR FOR THEIR INFORMATION
26. IN PARTICULAR, INSPECT:
    - LOCATIONS WHERE VEHICLES ENTER AND LEAVE THE SITE
    - ALL INSTALLED EROSION AND SEDIMENT CONTROL MEASURES, ENSURING THEY ARE OPERATING CORRECTLY
    - AREAS THAT MIGHT SHOW WHETHER SEDIMENT OR OTHER POLLUTANTS ARE LEAVING THE SITE OR HAVE POTENTIAL TO DO SO
    - ALL DISCHARGE POINTS, TO ASSESS WHETHER THE EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO THE RECEIVING WATERS
27. A SITE INSPECTION USING THE CHECK SHEET WILL BE MADE BY THE SITE MANAGER AT LEAST WEEKLY, IMMEDIATELY BEFORE SITE CLOSURE, AND IMMEDIATELY FOLLOWING RAINFALL EVENTS GREATER THAN 5mm IN 24 HOURS.

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
A	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2025	EAB	SBF

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Client
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Scale
0 2 4 6 m
SCALE 1:100 @ A0

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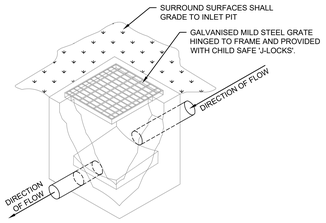
Project
7-11 POCKLEY AVENUE, ROSEVILLE
PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

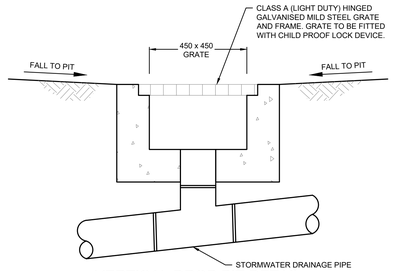
Drawing Title
SEDIMENT AND EROSION CONTROL PLAN & DETAILS
SHEET 2 OF 2

Scale	A0	Project No.	Dwg. No.	Issue
As Shown		25035	110	A



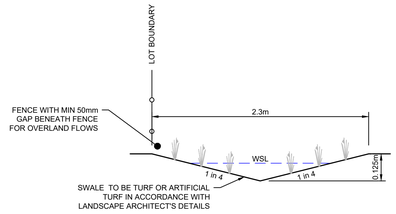
TYPICAL GRATED INLET PIT DETAIL

N.T.S.



VERTICAL DROP PIT DETAIL

N.T.S.



TYPICAL SWALE DRAIN DETAIL

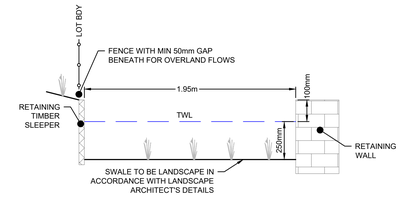
N.T.S.

V-SHAPE SWALE CHANNEL CAPACITY CALCULATIONS

UPSTREAM CATCHMENT CALCULATIONS:

EXTERNAL CATCHMENT AREA = 1,476 m^2

Q_{100} = CIA/3600 = (0.805x268x1,476)/3600 = 0.088m^3/s



TYPICAL SWALE DRAIN DETAIL

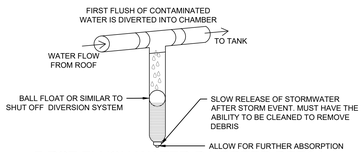
N.T.S.

RECTANGULAR SWALE CHANNEL CAPACITY CALCULATIONS

UPSTREAM CATCHMENT CALCULATIONS:

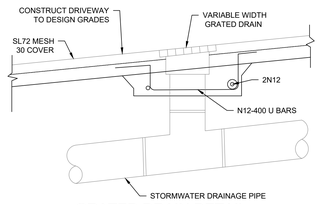
EXTERNAL CATCHMENT AREA = 2,120 m^2

Q_{100} = CIA/3600 = (0.805x268x2,120)/3600 = 0.127m^3/s



FIRST FLUSH WATER DIVERTER DETAIL

N.T.S.



GRATED DRAIN DETAIL

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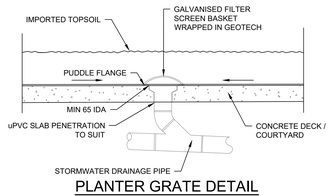
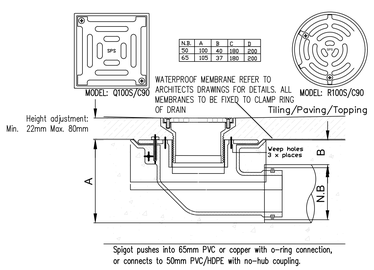


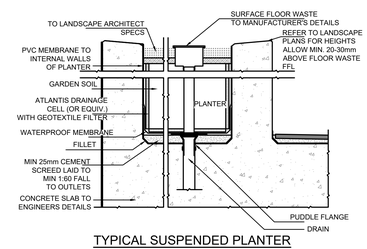
PLANTER GRATE DETAIL

N.T.S.



TYPICAL CAST IN FLOOR WASTE/RAINWATER OUTLET

NOTE:
DETAIL TO BE CONFIRMED BY WATERPROOFING CONSULTANT/ARCHITECT.



TYPICAL SUSPENDED PLANTER BOX FLOOR WASTE DETAIL

N.T.S.

Stormwater Drainage System Maintenance Schedule

Maintenance Action	Frequency	Responsibility	Procedure
General			
Inspect roof drainage system of building and remove any debris/sludge	Six Monthly	Strata/Maintenance Contractor	Remove any leaves or debris and sludge from gutters of building and flush downpipes of building to remove any blockages. Pits downstream of downpipes to be cleaned of flushed debris.
Inspect pits and trench drains on site and remove debris/litter/sludge	Monthly or following Rain Period	Strata/Maintenance Contractor	Remove grate. Remove any debris/litter/sludge from within pits.
Inspect site for litter and floatable debris and remove	Fortnightly	Strata/Maintenance Contractor	Remove litter from site and sweep all driveway and pathways in order to remove leaves or sediments that may enter into the drainage system.
Basement Pump out			
Inspect and clean flap valve,	Six Monthly	Strata/Maintenance Contractor	Remove grate and check flap valve and pipe for blockages and clean. Check hinges for rust and test operation by moving flap to full extent.
Check hinge operation.	Annually	Strata/Maintenance Contractor	Inspect hinge and check its operation.
Check attachment of flap valve to wall pit.	Annually	Strata/Maintenance Contractor	Remove grate and ensure valve fixings are secure.
Check flap valve seal.	Six Monthly	Strata/Maintenance Contractor	Remove grate and fill pit with water, ensure flap seals against side of pit with minimal leakage.
Inspect walls for cracking or spalling.	Annually	Strata/Maintenance Contractor	Remove grate to inspect internal walls, remove vegetation to inspect external wall, repair as required.
Inspect sump and clean.	Six Monthly	Strata/Maintenance Contractor	Remove grate and clean sediment/sludge from sump.
Inspect grate for damage or blockage.	Six Monthly	Strata/Maintenance Contractor	Check both sides of grate for corrosion (particularly welds and corners); also check for damage and blockages.
Inspect outlet pipe and remove blockages	Six Monthly	Strata/Maintenance Contractor	Remove grate and flush outlet pipe to ensure it drains freely. Check for debris on upstream side of return line.
Outlets			
Inspect & remove any blockage of orifices	Six monthly	Strata/Maintenance Contractor	Remove grate & screen to inspect orifice. See plan for location of outlets
Check attachment of orifice plates to wall of chamber and/or pit (gaps less than 5 mm)	Annually	Strata/Maintenance Contractor	Remove grate and screen. Ensure plates are mounted securely, tighten fixings if required. Seal gaps as required.
Check orifice diameters are correct and retain sharp edges	Five yearly	Strata/Maintenance Contractor	Compare diameter to design (see Work-as-Executed) and ensure edge is not pitted or damaged.
Inspect screen and clean	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screens if required to clean them.
Check attachment of screens to wall of chamber or pit	Annually	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Ensure screen fixings are secure. Repair as required.
Check screen(s) for corrosion	Annually	Strata/Maintenance Contractor	Remove grate(s) and examine screen(s) for rust or corrosion, especially at corners or welds.
Inspect walls (internal and external, if appropriate) for cracks or spalling	Annually	Strata/Maintenance Contractor	Remove grate(s) to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect outlet sumps & remove any sediment/sludge	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Remove sediment/sludge build-up and check orifices are clear.
Inspect grate(s) for damage or blockage	Six monthly	Strata/Maintenance Contractor	Check both sides of a grate for corrosion, (especially corners and welds) damage or blockage.
Inspect outlet pipe & remove any blockage	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Ventilate underground storage if present. Check orifices and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge/debris on upstream side of return line.
Check step irons for corrosion	Annually	Strata/Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage
Check fixing of step irons is secure	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and ensure fixings are secure prior to placing weight on step iron.
Storage			
Inspect storage & remove any sediment/sludge in pit	Six monthly	Strata/Maintenance Contractor	Remove grate(s) and screen(s). Remove sediment/sludge build-up.
Inspect internal walls of storage (and external, if appropriate) for cracks or spalling	Annually	Strata/Maintenance Contractor	Remove grate(s) to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect & remove any debris/litter/mulch etc blocking grates	Six monthly	Strata/Maintenance Contractor	Remove blockages from grate(s) and check if storage is blocked.
Inspect areas draining to the storage(s) & remove debris/mulch/litter etc likely to block screens/grates	Six monthly	Strata/Maintenance Contractor	Remove debris and floatable material likely to be carried to grates.
Compare storage volume to volume approved. (Rectify if loss > 5%)	Annually	Strata/Maintenance Contractor	Compare actual storage available with Work-as Executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Inspect storages for subsidence near pits	Annually	Strata/Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

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PROPOSED RESIDENTIAL FLAT BUILDING
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title
MISCELLANEOUS DETAILS SHEET

Scale	AC	Project No.	Dwg. No.	Issue
N.T.S.		25035	111	A