
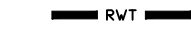
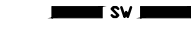







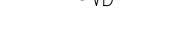



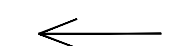



STORMWATER DRAWINGS

FOR

16-24 THALLON ST & 27-29 JENKINS RD, CARLINGFORD

SYMBOLS

RL	PIT SURFACE LEVEL
IL	INVERT LEVEL
TK	TOP OF KERB
	STORMWATER DRAINAGE PIPE
	DOWNPIPE TO RAINWATER TANK
	OVERFLOW PIPE FROM RAINWATER TANK
	#100 SUBSOIL PIPE
	FLOOR WASTE 150X150
	FLOOR WASTE 150ø
	RAINWATER OUTLET 300ø
	DOWN PIPE
	CLEAN OUT
	INSPECTION OPENING
	VERTICAL DROP
	VERTICAL RISER
	CONCRETE COVER JUNCTION PIT
	GRATED INLET PIT
	WIDE GRATED DRAIN
	OVERLAND FLOW PATH

NOTES

- ALL LINES ARE TO BE MIN. 100ø UPVC @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS. ALL DESIGN LEVELS SHOWN ON PLAN SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
- ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
- ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3.2:1998 AND COUNCIL SPECIFICATIONS.
- LOCATION OF DOWNPIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY TO BE DETERMINED BY BUILDER & IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
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- ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION.
- ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
- ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES
- PROVIDE EMERGENCY OVERFLOW TO ALL PLANTER BOX AND BALCONIES.
- ALL PITS WITH DEPTH MORE THAN 1M MUST HAVE IRON STEPS.
- PROVIDE STORMWATER GRATE 200Wx200D AT THE BASE OF ALL MECHANICAL SHAFTS AND UNCOVERED STAIRS OR OPENINGS.
- ENSURE ALL DRAINAGE WORKS ARE AWAY FROM TREE ROOTS

LEGEND

REFER TO AS 3500 PART 3 TABLE 7.2
P1 : 100ø UPVC PIPE AT 1.0% MIN. GRADE
P2 : 150ø UPVC PIPE AT 1.0% MIN. GRADE
P3 : 225ø UPVC PIPE AT 0.5% MIN. GRADE
P4 : 300ø UPVC PIPE AT 0.4% MIN. GRADE
P5 : 375ø UPVC PIPE AT 0.4% MIN. GRADE



AS 3500.3- TABLE 8.2
SIZE OF MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS

DEPTH OF INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR WIDTH	LENGTH	CIRCULAR DIAMETER
≤600	450	450	600
>600 ≤900	600	600	900
>900 ≤1200	600	900	1000
>1200	900	900	1000

DRAWING SCHEDULE

DRAWING No.	DRAWING TITLE
D00	COVER SHEET, LEGEND & DRAWING SCHEDULE
D01	BASEMENT 3 STORMWATER DRAINAGE PLAN
D02	BASEMENT 2 STORMWATER DRAINAGE PLAN
D03	BASEMENT 2 STORMWATER DRAINAGE PLAN
D04	LOWER GROUND FLOOR STORMWATER DRAINAGE PLAN
D05	GROUND FLOOR STORMWATER DRAINAGE PLAN
D06	SITE STORMWATER DRAINAGE DETAILS 1
D07	SITE STORMWATER DRAINAGE DETAILS 2
D08	SITE STORMWATER DRAINAGE DETAILS 3
D09	MUSIC AREA BREAKUP
D10	EROSION AND SEDIMENT CONTROL PLAN
D11	EROSION AND SEDIMENT CONTROL DETAILS

A1 0 1 2 3 4 5 6 7 8 9 10											

POST OFFICE STREET

JENKINS ROAD

THALLON STREET

LEGEND

REFER TO AS 3500 PART 3 TABLE 7.2
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SYMBOLS

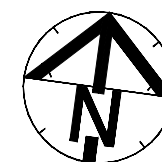
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IL	INVERT LEVEL
TK	TOP OF KERB
SW	STORMWATER DRAINAGE PIPE
RWT	DOWNPIPE TO RAINWATER TANK
SW	OVERFLOW PIPE FROM RAINWATER TANK
AS	Ø100 SUBSOIL PIPE
FW	FLOOR WASTE 150X150
FW	FLOOR WASTE 150Ø
RWO	RAINWATER OUTLET 300Ø
DP	DOWN PIPE
CO	CLEAN OUT
IO	INSPECTION OPENING
VD	VERTICAL DROP
VR	VERTICAL RISER
CCJ	CONCRETE COVER JUNCTION PIT
GIP	GRATED INLET PIT
WGD	WIDE GRATED DRAIN
TPZ	TREE PROTECTION ZONE

A1 1 2 3 4 5 6 7 8 9 10

C	FOR S.96 APPROVAL	O.C.	X.T.	16.06.17
B	FOR S.96 APPROVAL	O.C.	X.T.	19.04.17
A	FOR S.96 APPROVAL	O.C.	M.L.	14.09.16

No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE
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ARCHITECT



AUSTRALIAN CONSULTING ENGINEERS.
PTY LTD - A.C.N. 084 059 941
SHOP 2-141 CONCORD RD NORTH STRATHFIELD NSW 2137
PH: (02) 9763 1500 FX: (02) 9763 1515
EMAIL: info@aceeng.com.au

PROJECT

RESIDENTIAL FLATS AT 16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD

SHEET SUBJECT

LOWER GROUND FLOOR STORMWATER DRAINAGE PLAN

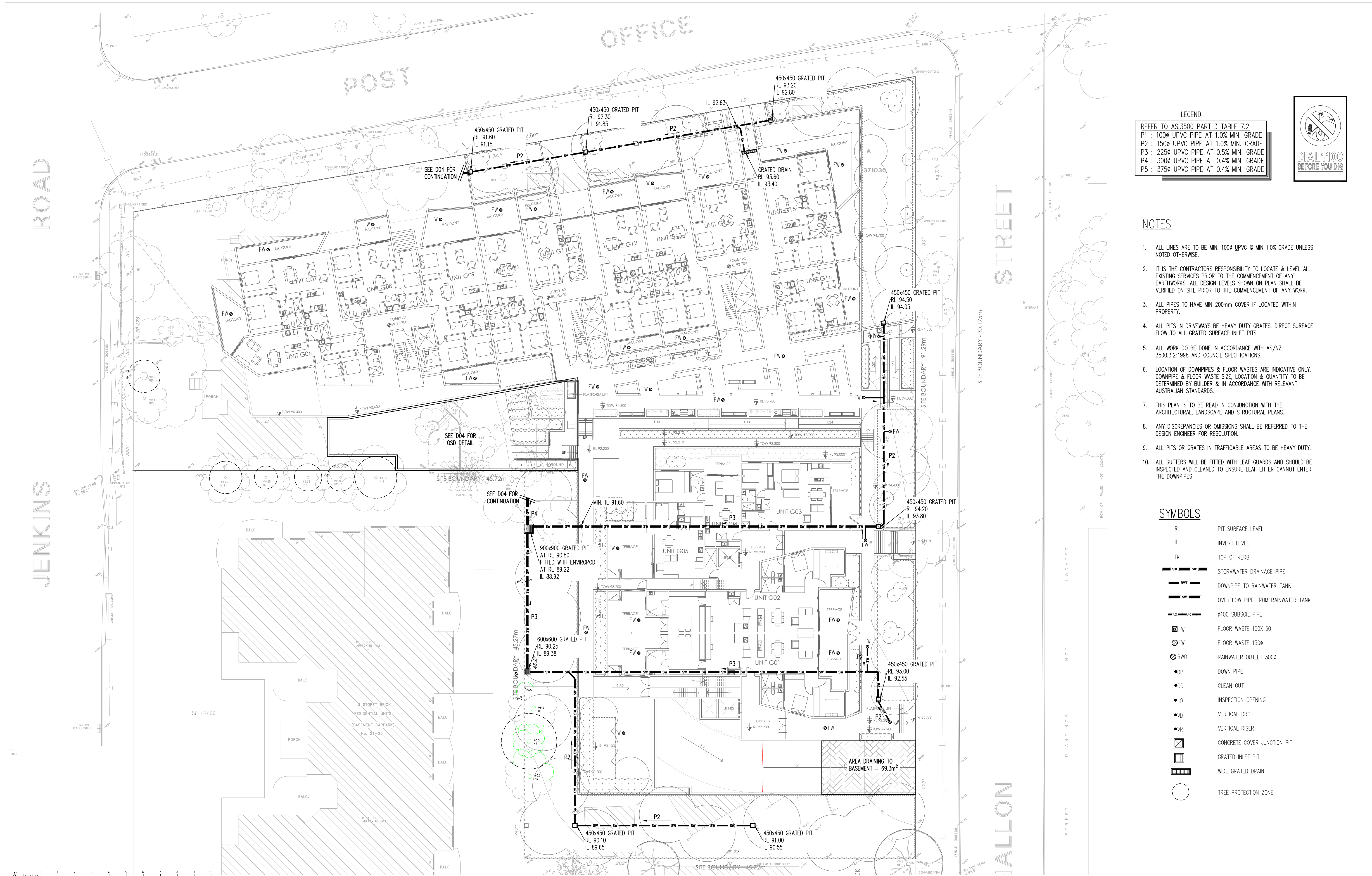
ARCH. REF:

PROJECT 16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD

DATE	SEP 2016	DRAWN	M.L.	DESIGNED	M.L.	CHECKED	O.C.
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SCALE @ A1	1:200	JOB No	160963
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AUTHORISED	Dr. Anthony Hasham	DWG No	D04	REV	C
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LEGEND

REFER TO AS 3500 PART 3 TABLE 7.2

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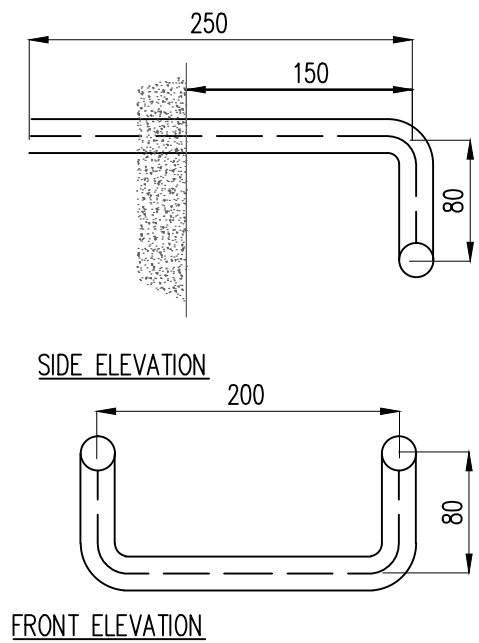
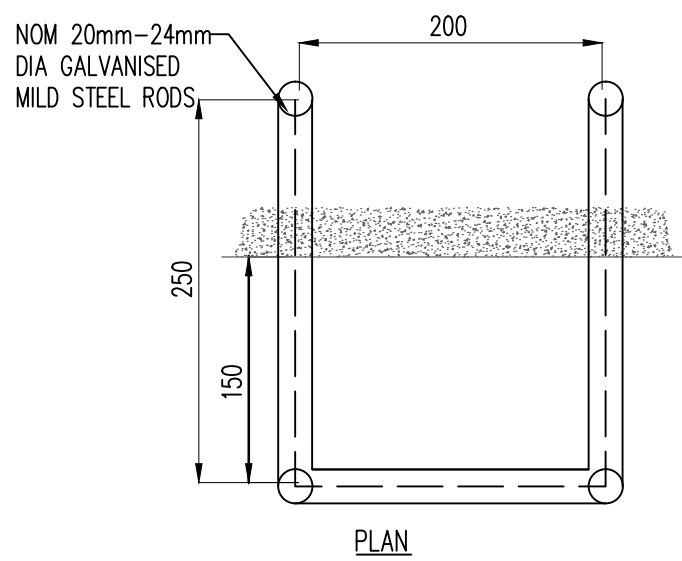
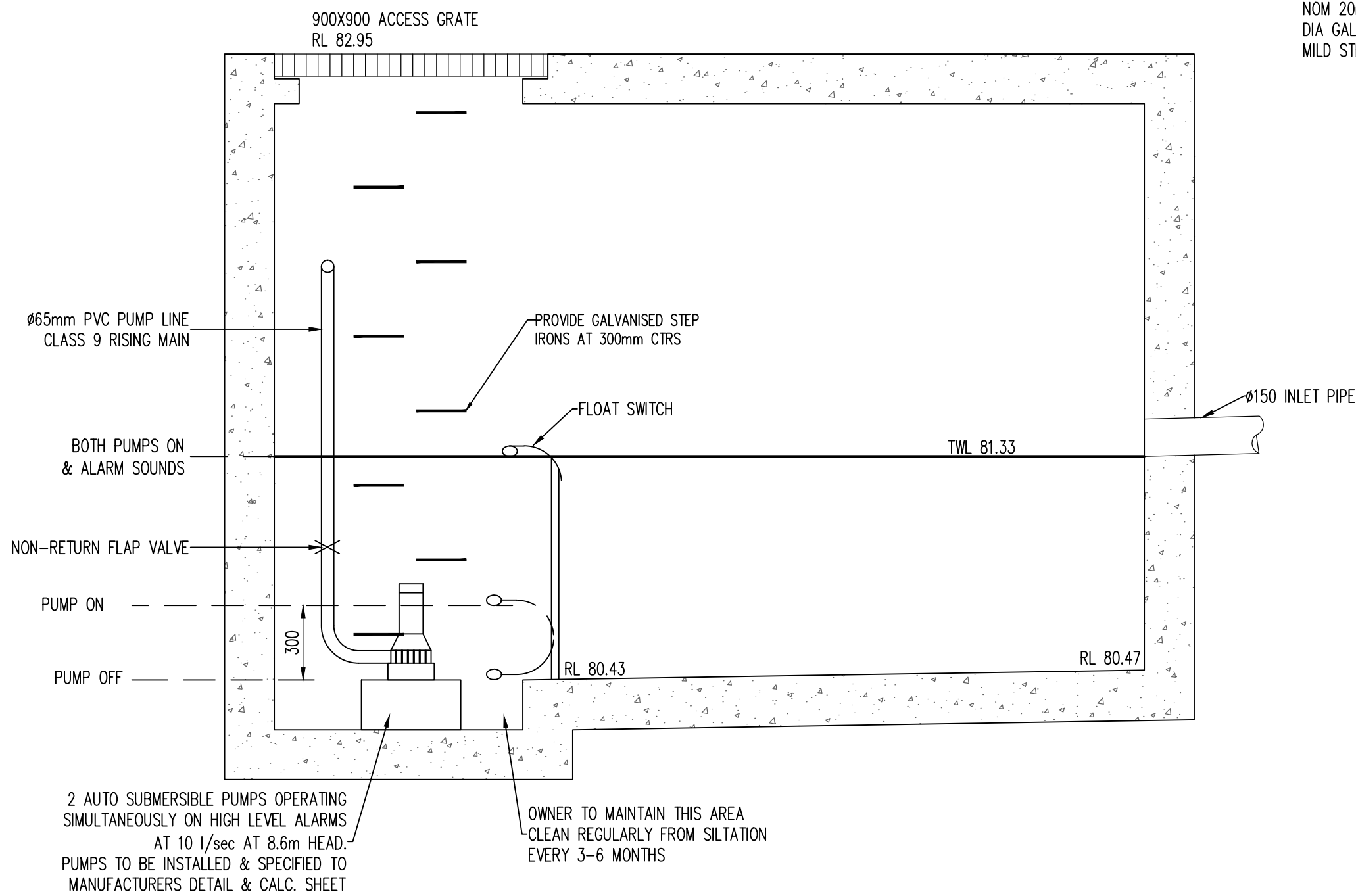


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SYMBOLS

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IL	INVERT LEVEL
TK	TOP OF KERB
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RWT	DOWNPIPE TO RAINWATER TANK
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CCJ	CONCRETE COVER JUNCTION PIT
GIP	GRATED INLET PIT
WDG	WIDE GRATED DRAIN
TPZ	TREE PROTECTION ZONE

A1				PROJECT				SHEET SUBJECT				PROJECT			
D FOR S.96 APPROVAL				RESIDENTIAL FLATS AT 16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD				GROUND FLOOR STORMWATER DRAINAGE PLAN				16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD			
C FOR S.96 APPROVAL				DATE				DATE				DATE			
B FOR S.96 APPROVAL				O.C.				M.L.				M.L.			
A FOR S.96 APPROVAL				X.T.				1:200				1:200			
No				AMENDMENT				ARCH. REF:				AUTHORISED			
No				AMENDMENT				Dr. Anthony Hasham				D05			
No				AMENDMENT				REV				D			
No				AMENDMENT				REV				D			



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

COLOURS :
WARNING - RED
BORDER AND OTHER - BLACK

NOTES:

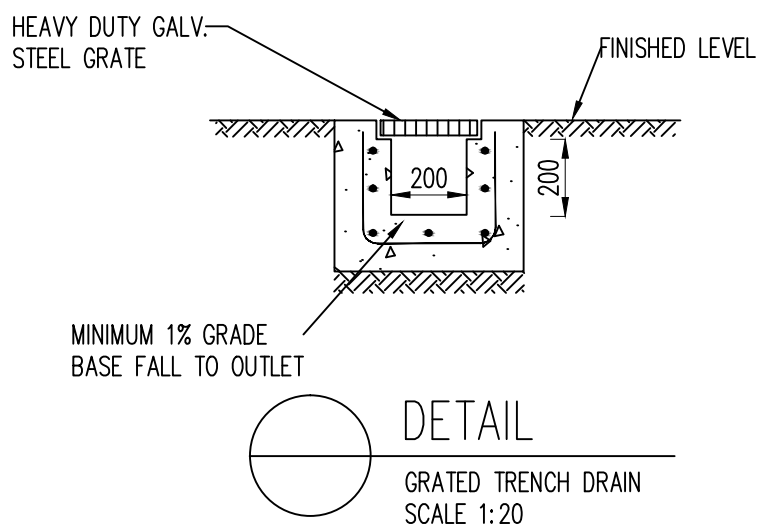
SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE LOCATION WHERE VEHICLES ENTER THE BASEMENT.

A SUITABLE ALARM SYSTEM POSITIONED AT ENTRANCE OF BASEMENT CARPARK TO PROVIDE A FLOOD WARNING IN CASE OF PUMP FAILURE (TO COUNCILS SPEC).

DANGER
CONFINED SPACE
NO ENTRY WITHOUT
CONFINED SPACE
TRAINING

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

MATERIALS:
POLYPROPYLENE



A
D01 TYPICAL SECTION THROUGH PUMP PIT
SCALE 1:20

PUMP SPECIFICATIONS STANDARD PUMP-OUT NOTES

- THE PUMP-OUT SYSTEM IS DESIGNED TO WORK IN THE FOLLOWING MANNER -
- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE EQUAL OPERATION LOAD & PUMP LIFE.
 - A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT 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.
 - A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE & DRAIN THE TANK TO THE LEVEL OF THE LOW LEVEL FLOAT.
 - A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING & ACTIVATE THE ALARM.
 - AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT & 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.

Type	Output		Outlet		Rated Head Capacity		Maximum Head Capacity		Weigh	Dimension			
	HP	kW	mm	Inch	M	LPM	M	LPM		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	

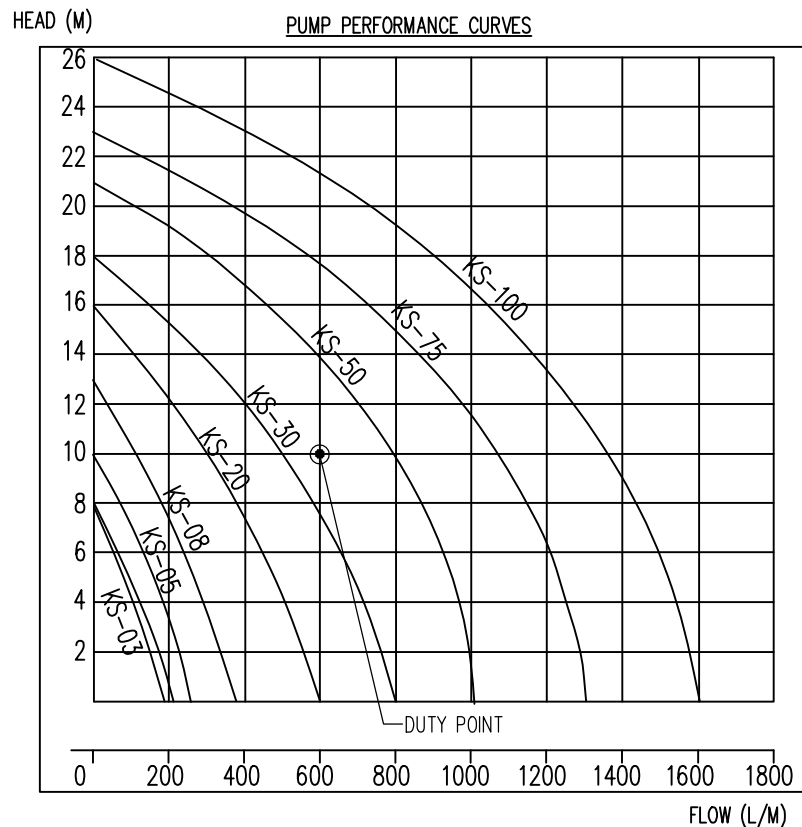
PUMP WELL DETAILS

AREA DRAINING TO SUMP= 69.3m²

SUMP SIZE BASED ON 100 YEAR 2 HR STORM, I= 50.4 mm/hr,
Q=CIA/3600= 1x50.4x52.3/3600 = 0.970 L/sec
VOLUME REQUIRED = 0.970x(2x60x60) =6985.4 L = 6.99m³
STORAGE PROVIDED 3.5x2.5x0.9= 7.7m³

PUMP OUT RATE BASED ON 100YR 6MIN STORM, I=218 mm/hr
Q=CIA/3600= 1x218x69.3/3600 = 4.20 L/sec
(MIN RATE REQUIRED AS PER AS3500.3 IS 10 L/sec)

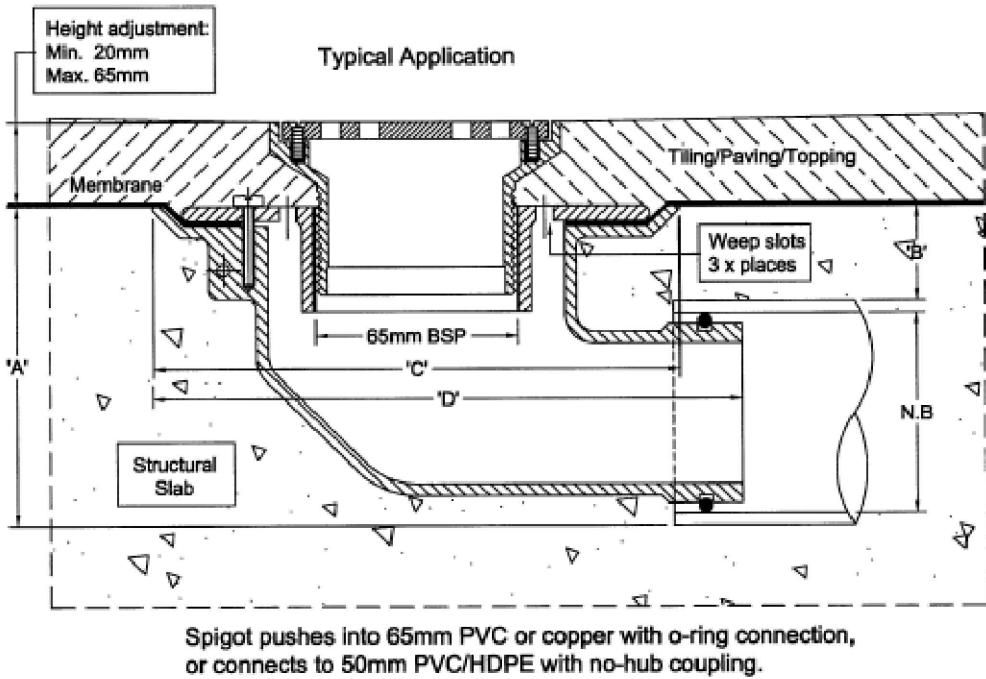
DUAL KS-50 PUMP OR EQUIVALENT TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL WHICH WILL ALLOW FOR THE PUMPS TO OPERATE ALTERNATIVELY ON HIGH LEVEL ALARMS AT 10 L/sec (PER PUMP) AT 10m HEAD.



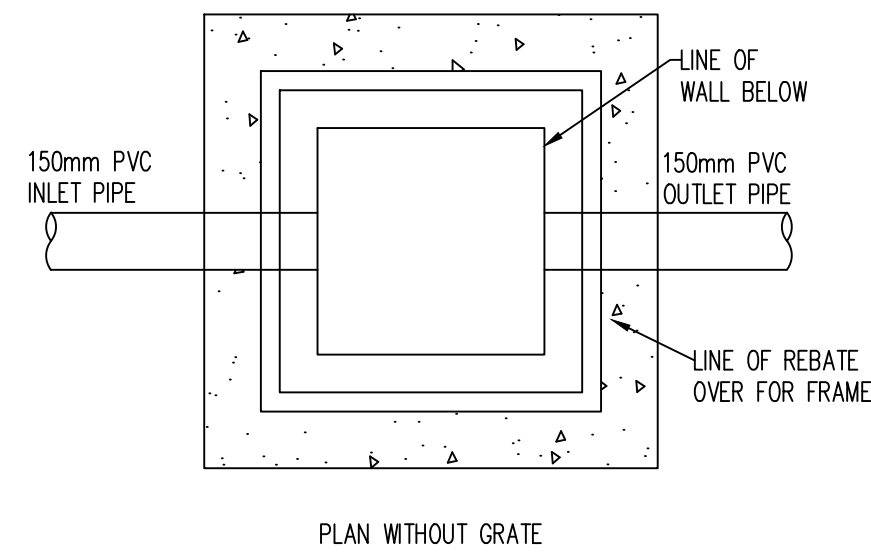
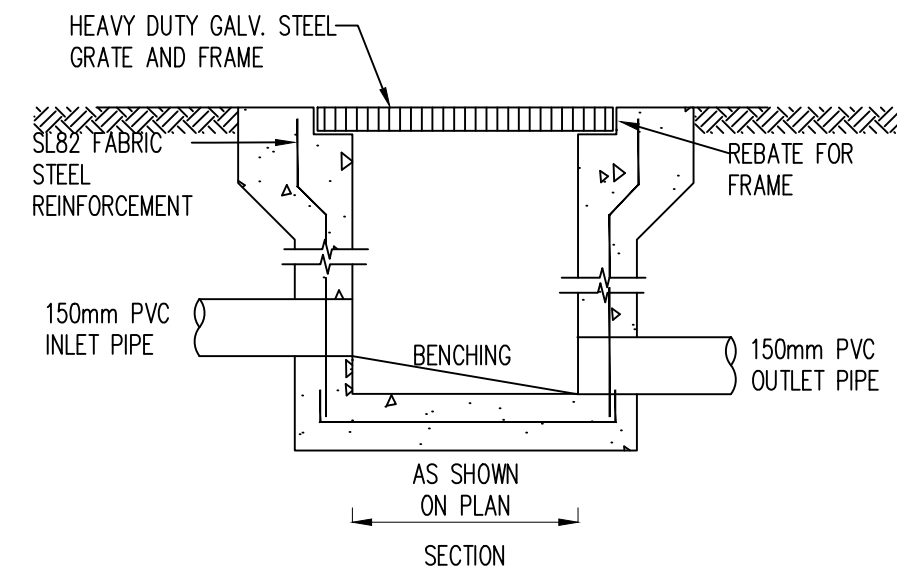
SPS 100mm Round Vari-Level Side Outlet Drain 65/50mm outlet

Specification code:
R100B/C90 (brass grate, ABS lower body)
R100M/C90 (nickel bronze grate, ABS lower body)
R100S4/C90 (polished 304 stainless steel, ABS lower body)
R100S/C90 (satin 316 stainless steel grate, ABS lower body)

- Round grate available in nickel bronze, 304 & 316 stainless steel. Bronze non-stock option.
- ABS 90° Body and Reversible Membrane Clamp Collar with female 65mm BSP thread.





N.B.	A	B	C	D
50	100	40	180	200
85	105	37	180	200

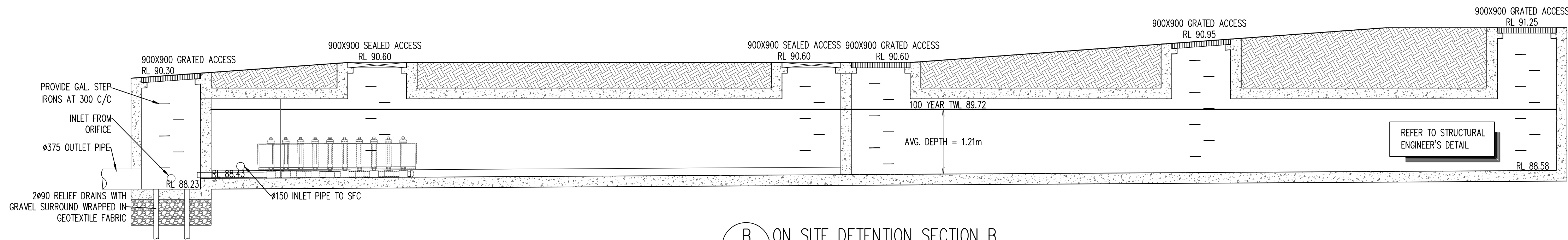


DETAIL
STORMWATER PIT
SCALE NTS

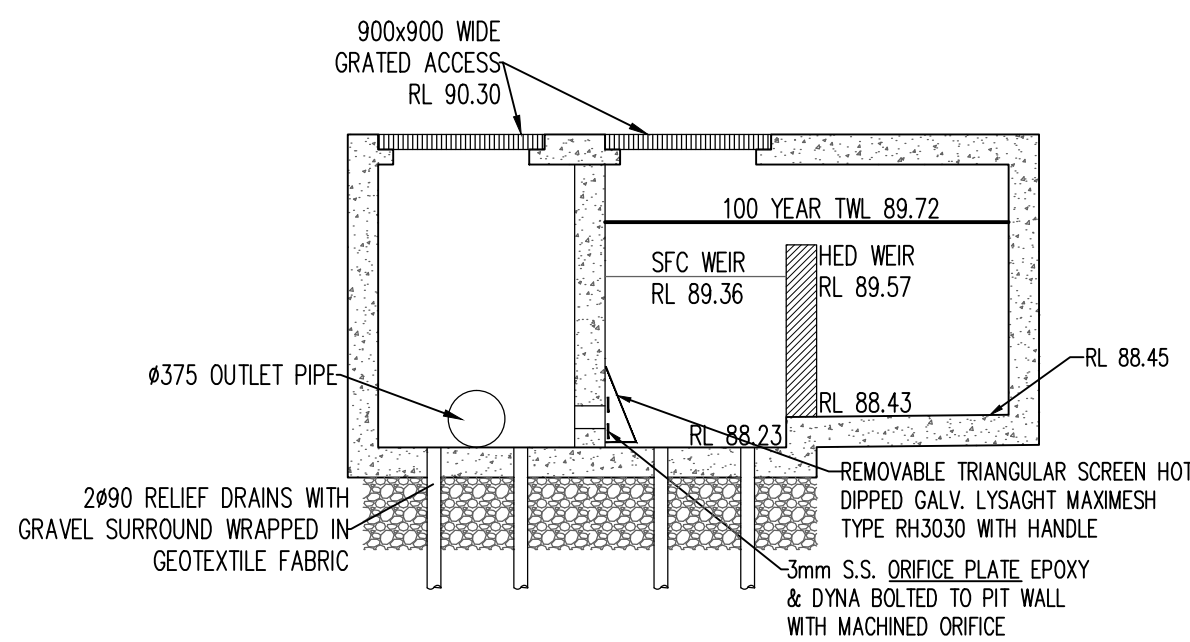


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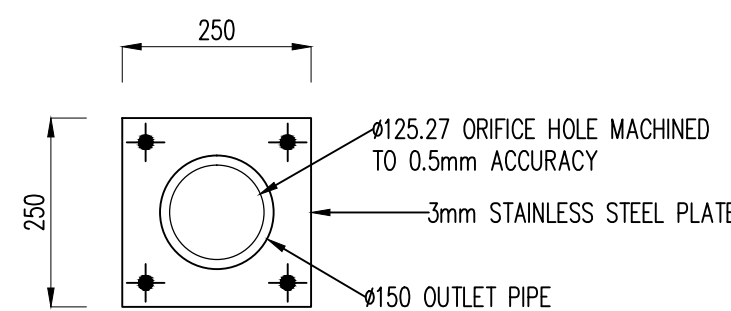
												ARCHITECT												PROJECT												SHEET SUBJECT																							
												 australian consulting architects Pty Ltd - A.C.N. 084 059 941 Shop 2-4/1 Concord Rd North Strathfield NSW 2157 Ph: (02) 9763 1500 Fax: (02) 9763 1505 Email: info@acaeng.com.au												 AUSTRALIAN CONSULTING ENGINEERS. PTY LTD - A.C.N. 084 059 941 SHOP 2-4/1 CONCORD RD NORTH STRATHFIELD NSW 2157 PH: (02) 9763 1500 FX: (02) 9763 1505 EMAIL: info@acaeng.com.au												RESIDENTIAL FLATS AT 16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD												SITE STORMWATER DRAINAGE DETAILS 1											
B FOR S.96 APPROVAL												O.C. X.T. 19.04.17																								DATE SEP 2016 DRAWN M.L. DESIGNED M.L. CHECKED O.C.																							
A FOR S.96 APPROVAL												O.C. M.L. 14.09.16																								SCALE @ A1 AS SHOWN JOB No 160963																							
No AMENDMENT												No AMENDMENT												ENG DRAFT DATE No AMENDMENT												ENG DRAFT DATE No AMENDMENT												AUTHORISED Dr. Anthony Hasham											
																																				DWC No D06												REV B											



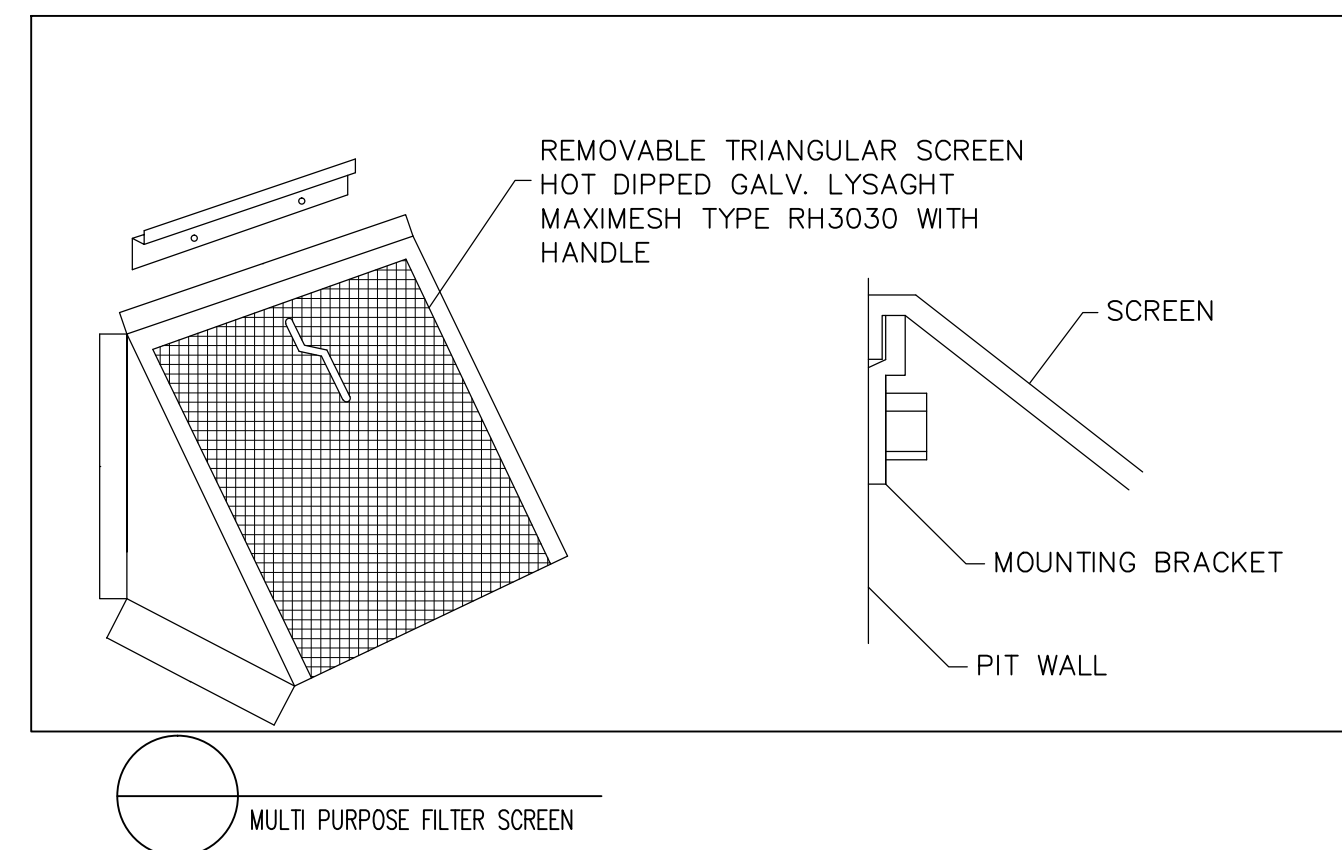
B
D04 ON SITE DETENTION SECTION B
N.T.S.



C
D04 ON SITE DETENTION SECTION C
SCALE 1:50

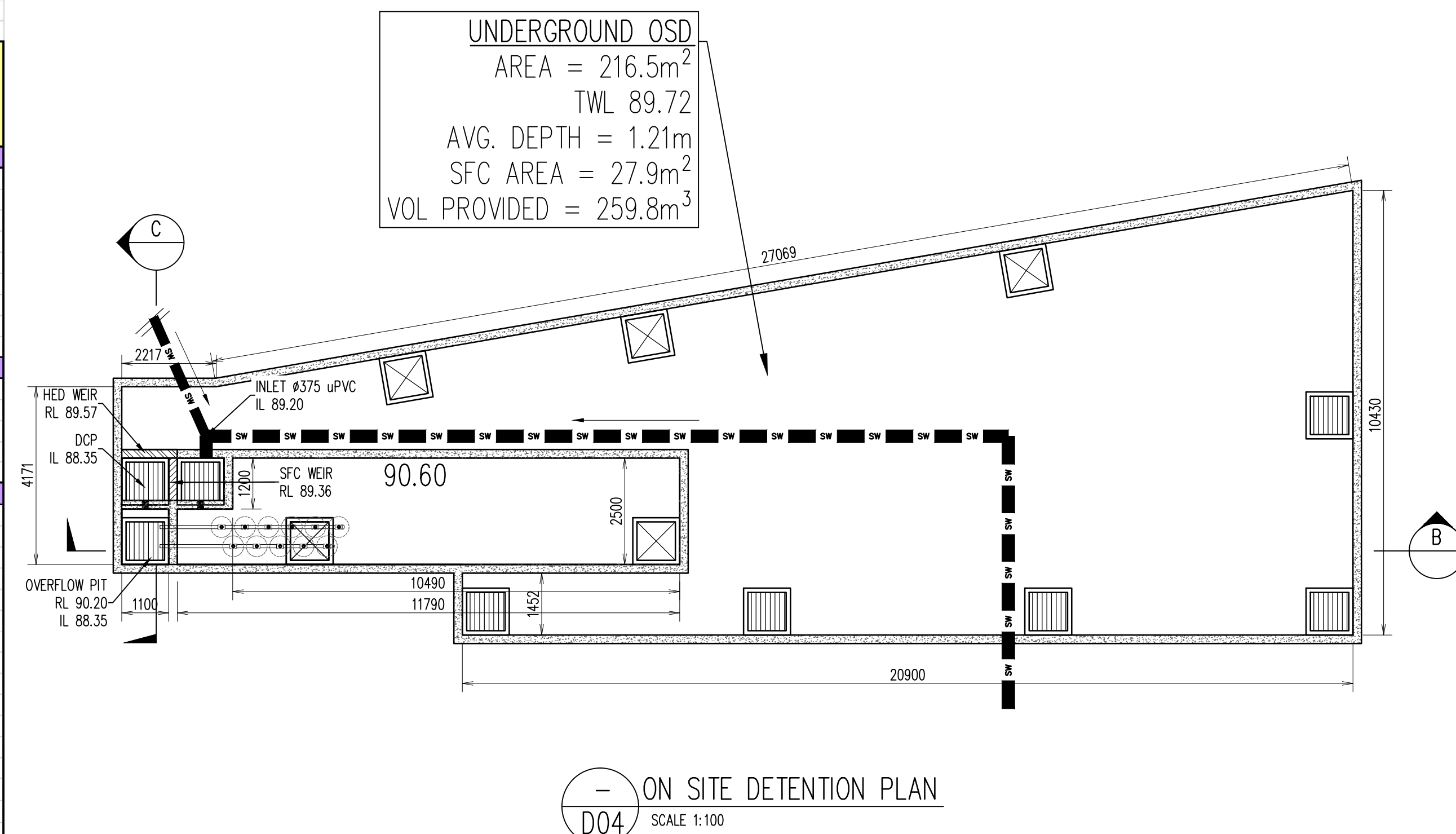


OSD ORIFICE PLATE ELEVATION
SCALE 1:10



On-Site Detention Calculation Sheet for Upper Parramatta River Catchment



Project:	PROPOSED RESIDENTIAL FLATS				
Site Address	16-24 THALLON ST & 27-29 JENKINS RD, CARLINGFORD, NSW				
Job No:	160963				
Designer:	OC				
Telephone:	9762 1500				
Site Data					
OSD Area:	Upper Parramatta River Catchment				
L.G.A	Parramatta City Council				
Site Area	0.55745	ha	5,575	m ²	[A]
Total Roof Area	0.22973	ha	2,297	m ²	
Area of Site draining to OSD Storage	0.51396	ha	5,140	m ²	
Residual Site Area (Lot Area - Roof Area)	0.328	ha			
Area Bypassing Storage	0.04349	ha			
Area Bypassing / Residual Site Area	13.3%				
Basic OSD Parameters					
Basic SSR Vols	480	m ³ /ha	As per email received from Parramatta Council		
Basic SRDs	80	L/s/ha			
	0.08	m ³ /s/ha			
OSD Calculations					
	Extended Detention				
Basic SSR Volume		246,7008	m ³	[B]	
OSD Discharges - [WSUD discharge]		37,206	L/s	[C]	
Area Drained to Storage (Ha) at least 85%	0.51396	ha	[D]		
Percentage Area Drained to Storage [D]/[A]		92%	[E]		
Storage per ha. of Contributing Area [B]/[D]		480	m ³ /ha	[F]	
Enter Volume/PSD		78.43	[G]		[F] x 74.66xPSD ^{0.731}
[Adjustment chart (Fig. 5.1) using [F], and read new PSD in L/s/ha]					
Determine PSD (L/s) = [G] X [D]		40.31	L/s	[H]	
RL of Top Water Level of Storage		89.72	m		
RL of Orifice Centre-line		88.43	m		
Number of Orifices		1			
Design Head to Orifice Centre		1.29	m	[K]	
Calculated Orifice Diameter		125.27	mm	[J]	
Maximum Discharge (m ³) =		40.31	L/s	[L]	
Head for High Early Discharge		1.14	m	[M]	
High Early Discharge [L] x ([M]/[K]) ^{0.5}		37.89	L/s	[N]	
Approximate Mean Discharge		39.10	L/s	[P]	
Average Discharge/ha = [P]/[D]		76.1	L/s/ha	[Q]	
Enter Volume/PSD		490.8	m ³ /ha	[R]	
[Adjustment Chart (Fig. 5.1) using [F], and read new PSD in L/s/ha]					
Determine Final SSR = [R]x[D]		252.25	m ³	[S]	



D04 ON SITE DETENTION PLAN
SCALE 1:100

MAINTENANCE ACTION	FREQUENCY	RESPONSIBILITY	PROCEDURE
Outlets			
Inspect & remove any blockage of orifices	Six monthly	Owner	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	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	Maintenance Contractor	Compare diameter to design (see Work-as-Executed) and ensure edge is not pitted or damaged.
Inspect screen and clean	Six monthly	Owner	Remove grate(s) and screens if required to clean them.
Check attachment of screens to wall of chamber or pit	Annually	Maintenance Contractor	Remove grate(s) and screen(s). Ensure screen fixings are secure. Repair as required.
Check screen(s) for corrosion	Annually	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	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	Owner	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	Owner	Check both sides of a grate for corrosion, (especially corners and welds) damage or blockage.
Inspect outlet pipe & remove any blockage	Six monthly	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	Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage.
Check fixing of step irons is secure	Six monthly	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	Owner	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	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	Owner	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	Owner	Remove debris and floatable material likely to be carried to grates.
Compare storage volume to volume approved. (Rectify if loss > 5%)	Annually	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	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

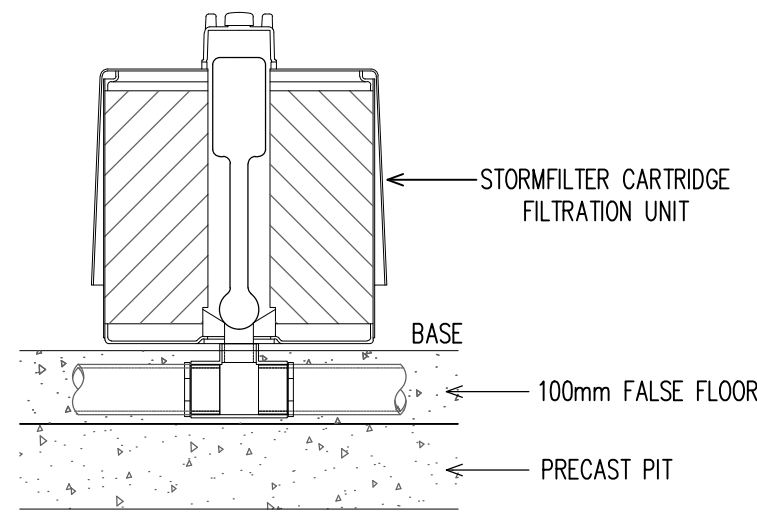
SAMPLE OSD MAINTENANCE SCHEDULE UPRCT HANDBOOK, 2005

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GENERAL NOTES

1. INLET AND OUTLET PIPING SHALL BE SPECIFIED BY SITE CIVIL ENGINEER (SEE PLANS) AND PROVIDED BY CONTRACTOR. STORMFILTER IS PROVIDED WITH OPENINGS AT INLET AND OUTLET LOCATIONS.
2. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CIVIL ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE PRODUCT, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED. PLEASE CONTACT STORMWATER360 FOR OPTIONS.
3. THE FILTER CARTRIDGE(S) ARE SIPHON-ACTUATED AND SELF-CLEANING. THE STANDARD DETAIL DRAWING SHOWS THE MAXIMUM NUMBER OF CARTRIDGES. THE ACTUAL NUMBER SHALL BE SPECIFIED BY THE SITE CIVIL ENGINEER ON SITE PLANS OR IN DATA TABLE BELOW. CONCRETE STRUCTURE TO BE PROVIDED BY OTHERS.
4. SEE STORMFILTER DESIGN TABLE FOR REQUIRED HYDRAULIC DROP. FOR SHALLOW, LOW DROP OR SPECIAL DESIGN CONSTRAINTS, CONTACT STORMWATER360 FOR DESIGN OPTIONS.
5. ALL WATER QUALITY PRODUCTS REQUIRE PERIODIC MAINTENANCE AS OUTLINED IN THE O&M GUIDELINES. PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS.
6. STRUCTURE AND ACCESS COVERS DESIGNED BY OTHERS. ACCESS COVERS TO BE A MINIMUM 900X900 ABOVE CARTRIDGES.
7. THE STRUCTURE THICKNESSES SHOWN ARE FOR REPRESENTATIONAL PURPOSES AND VARY REGIONALLY.
8. ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY SITE CIVIL ENGINEER.
9. CARTRIDGE HEIGHT AND ASSOCIATED DESIGN PARAMETERS PER STORMFILTER DESIGN TABLE.
10. STORMFILTER BY STORMWATER360: SYDNEY (AU) PHONE: 1300 354 722 www.stormwater360.com.au

CARTRIDGE HEIGHT	690	
SYSTEM HYDRAULIC DROP (H - REQ'D. MIN.)	930	
TREATMENT BY MEDIA SURFACE AREA L/S/m2	1.4	0.7
CARTRIDGE FLOW RATE (L/s)	1.42	0.71



STORMFILTER CARTRIDGE DETAIL

TYPE A ENVIROPODS

A-TYPE UNIT CONFIGURATIONS

UNIT TYPE	STRUT TYPE	TOP TYPE	CAGE TYPE 2-PART (HEIGHT mm)	RING TYPE	BAG TYPE (HEIGHT mm)
A1	A	A	A1(600)	A	A1(600)
A3	A	A	A3(350)	A	A3(300)
A5	A	A	N/A	A	A5(170)

NOTE: UNIT TYPES A5 ARE INSTALLED WITHOUT ANY CAGES. USE ONLY STRUT, TOP, BAG & RING.

A-TYPE ALUMINIUM STRUT

Diagram illustrating the A-Type Aluminium Strut. It shows a rectangular frame with angled hooks on the sides and a mesh (19) attached to the bottom. The hooks are labeled "HOOKS" and the mesh is labeled "MESH (19)".

A1(600MM) TO A3 (300MM) CAGES – PLAN

Diagram showing the plan view of A1(600MM) to A3 (300MM) cages. It shows two rectangular cages with dimensions 350-600mm. Two hooks are shown at the bottom of the cages, labeled "2 HOOKS TO ATTACH BOTTOM OF CAGES".

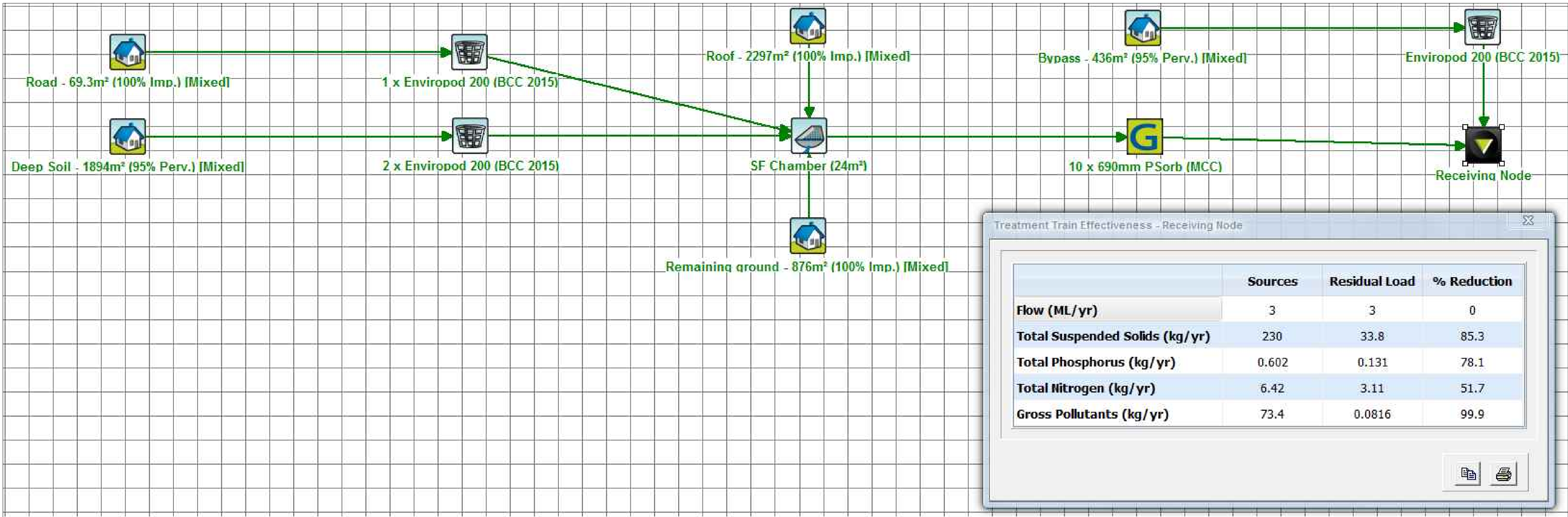
A1(600MM) TO A3 (350MM) CAGES – SECTION

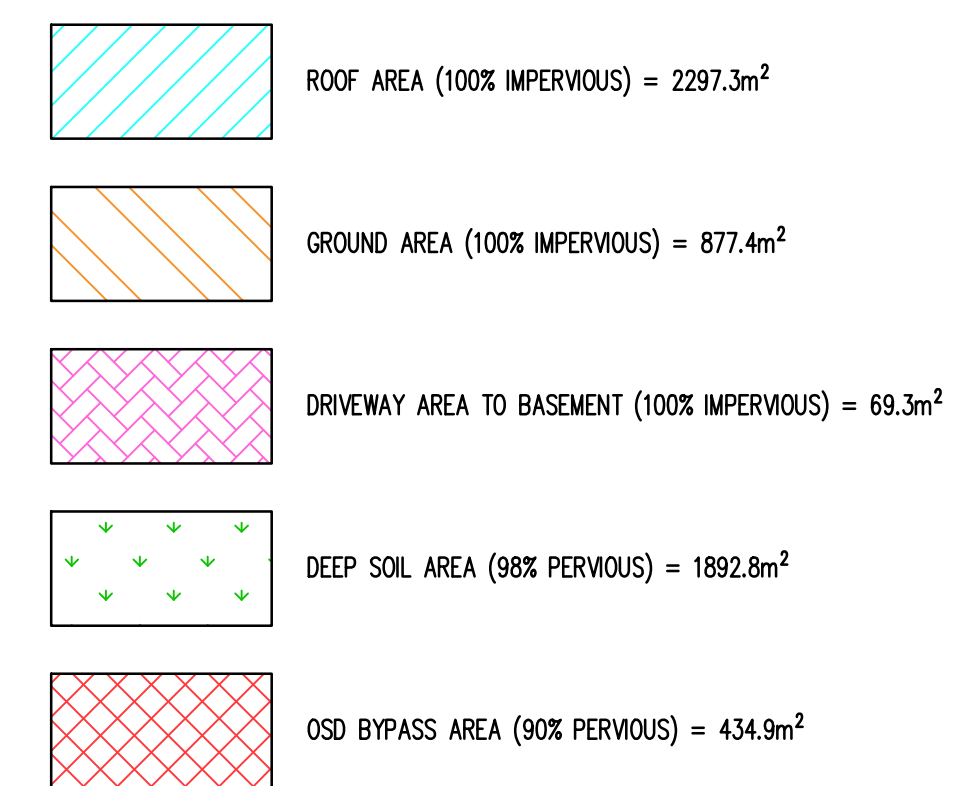
Diagram showing the section view of A1(600MM) to A3 (350MM) cages. It shows a rectangular cage with dimensions 170-580mm, 620, and 350. The cage is made of mesh and has hooks at the top.

A1(600MM) TO A5 (100MM nom.) BAGS

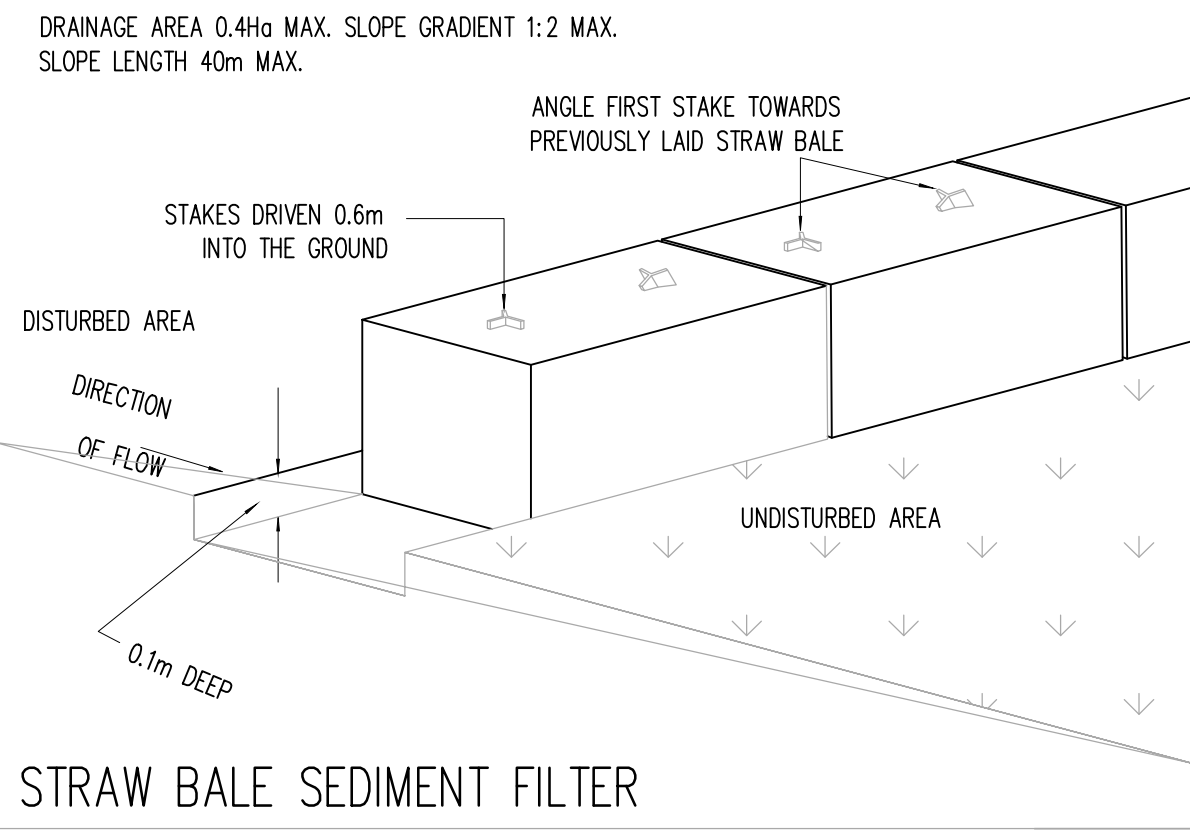
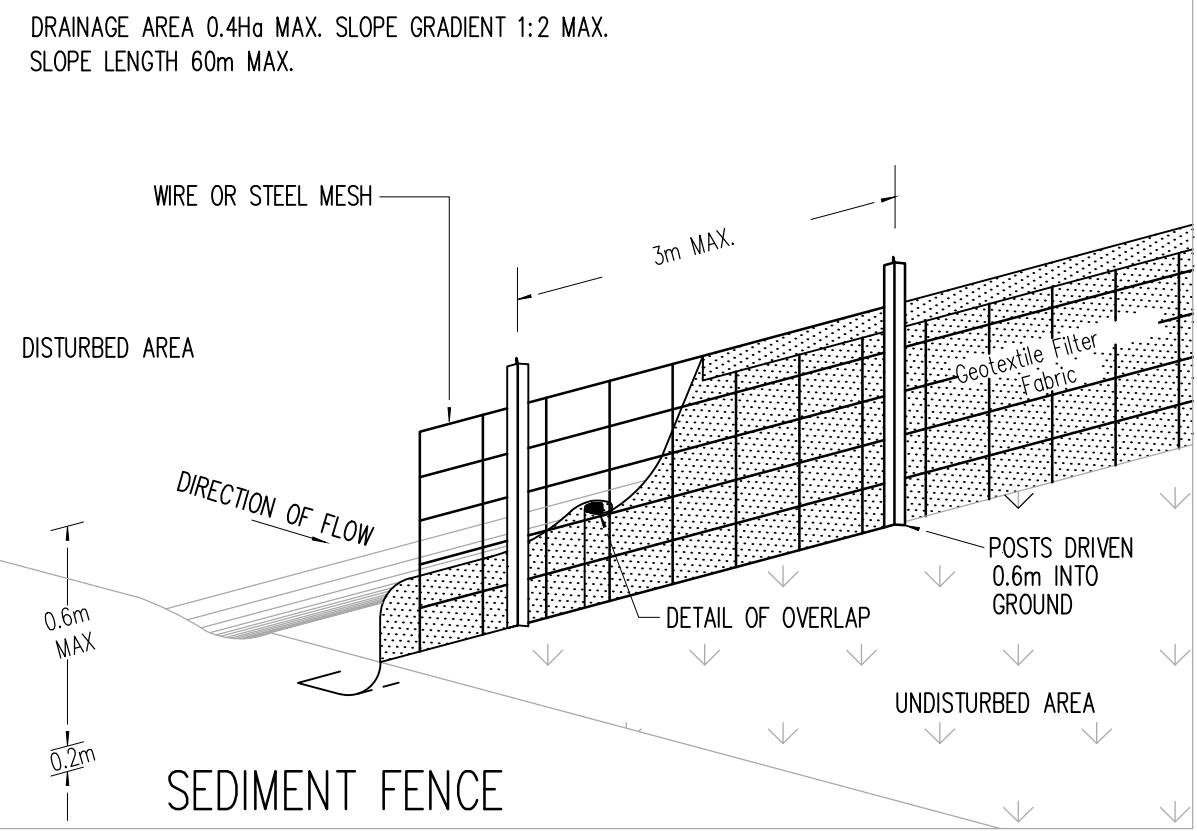
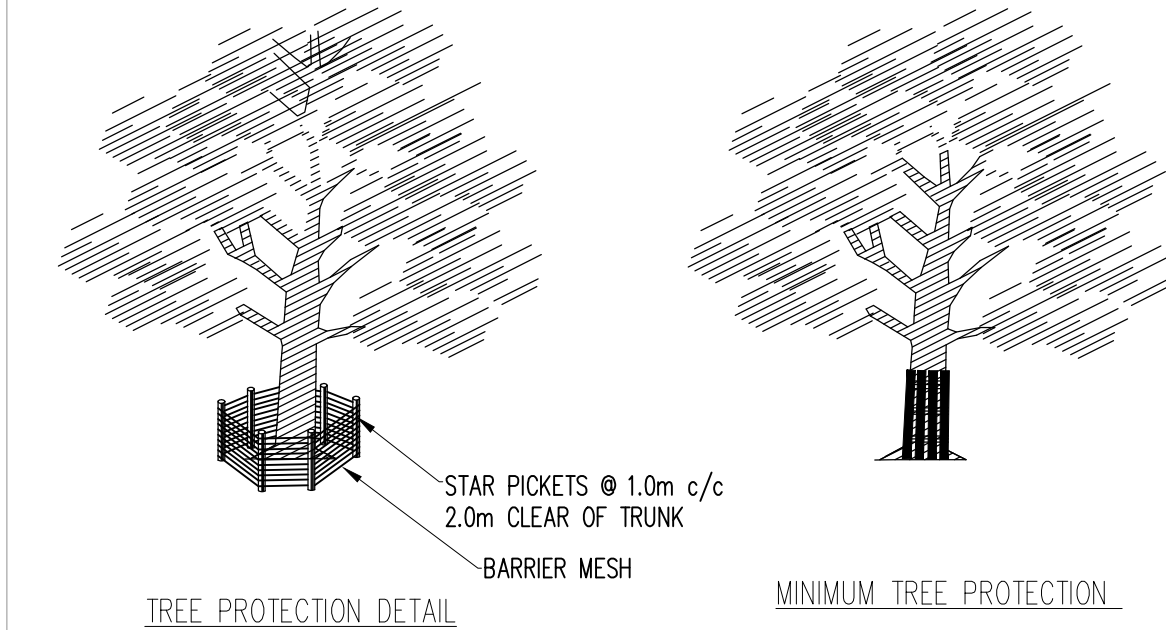
Diagram showing the A-Type Top. It shows a square frame with dimensions 970 and 950. The frame is made of 3mm THICK BLACK PLASTIC. The top is labeled "A-TYPE TOP".

Diagram showing the A-Type Ring. It shows a square frame with dimensions 630 and 385. The frame is made of 7 STAINLESS STEEL BAR. The ring is labeled "A-TYPE RING".

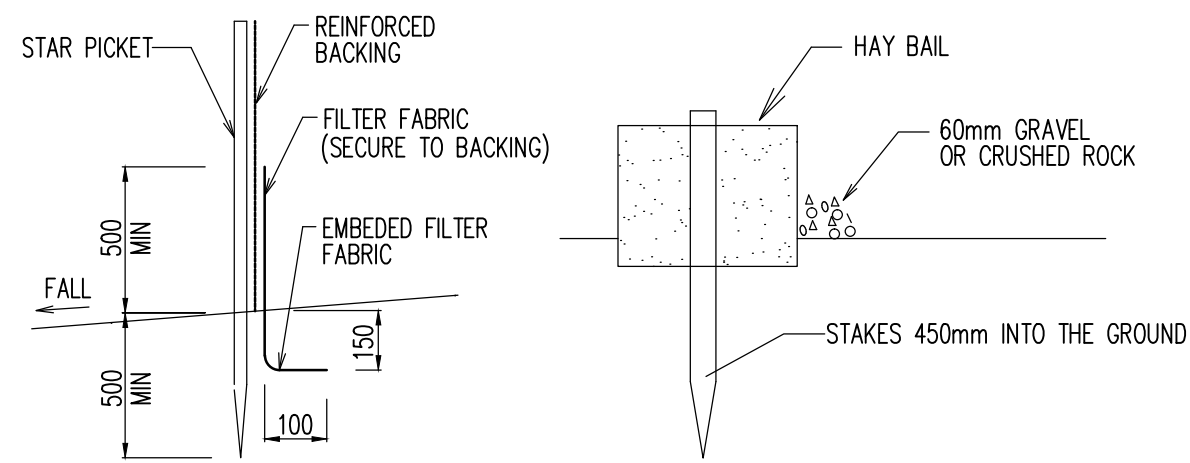
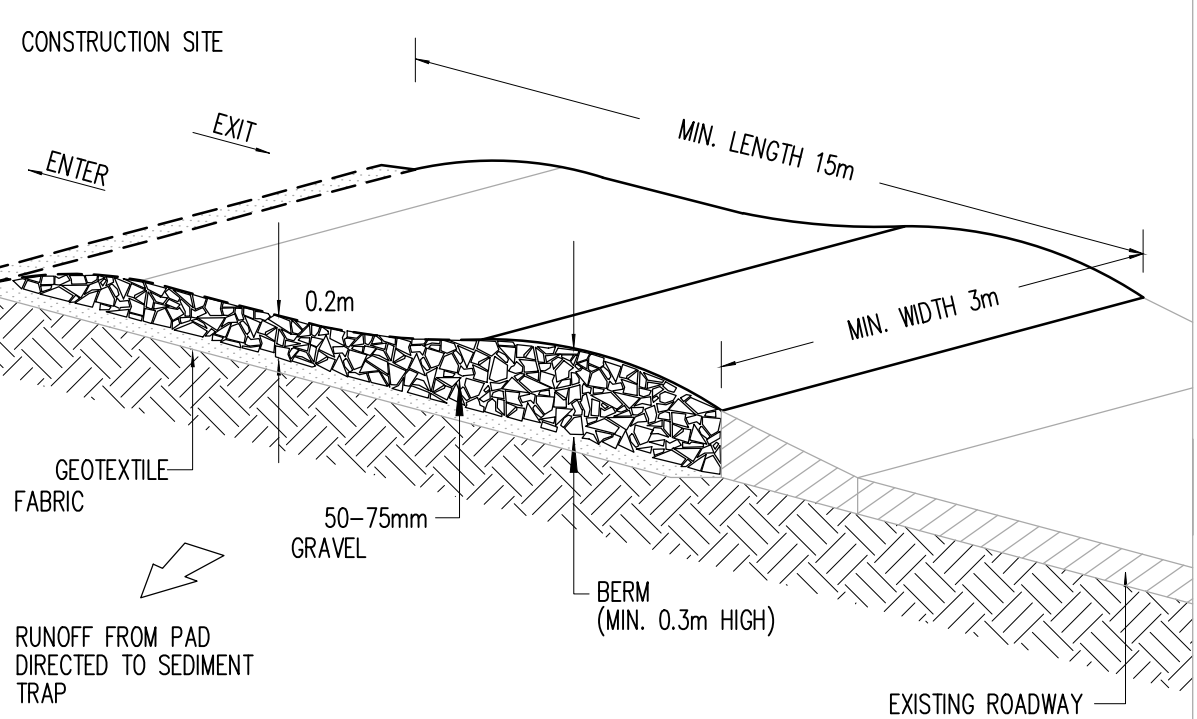
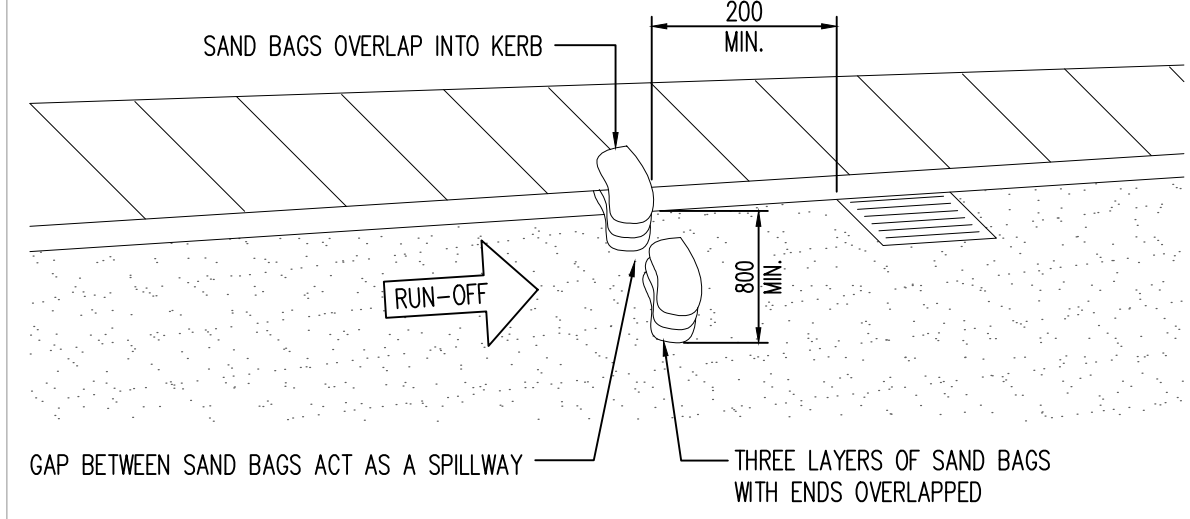
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<div style="display: flex; justify-content: space-between; width: 100%;"> A1 1 2 3 4 5 6 7 8 9 10 </div>															<div style="display: flex; justify-content: space-between; width: 100%;"> <div style="width: 30%;"> <p>ARCHITECT</p> <div style="display: flex; align-items: center;"> <div style="margin-left: 5px;"> <p>australian consulting architects</p> <p>10/100/101 - 10/100/102/103/104/105/106/107/108/109/110/111/112/113/114/115/116/117/118/119/120/121/122/123/124/125/126/127/128/129/130/131/132/133/134/135/136/137/138/139/140/141/142/143/144/145/146/147/148/149/150/151/152/153/154/155/156/157/158/159/160/161/162/163/164/165/166/167/168/169/170/171/172/173/174/175/176/177/178/179/180/181/182/183/184/185/186/187/188/189/190/191/192/193/194/195/196/197/198/199/200/201/202/203/204/205/206/207/208/209/210/211/212/213/214/215/216/217/218/219/220/221/222/223/224/225/226/227/228/229/230/231/232/233/234/235/236/237/238/239/240/241/242/243/244/245/246/247/248/249/250/251/252/253/254/255/256/257/258/259/260/261/262/263/264/265/266/267/268/269/270/271/272/273/274/275/276/277/278/279/280/281/282/283/284/285/286/287/288/289/290/291/292/293/294/295/296/297/298/299/300/301/302/303/304/305/306/307/308/309/310/311/312/313/314/315/316/317/318/319/320/321/322/323/324/325/326/327/328/329/330/331/332/333/334/335/336/337/338/339/340/341/342/343/344/345/346/347/348/349/350/351/352/353/354/355/356/357/358/359/360/361/362/363/364/365/366/367/368/369/370/371/372/373/374/375/376/377/378/379/380/381/382/383/384/385/386/387/388/389/390/391/392/393/394/395/396/397/398/399/400/401/402/403/404/405/406/407/408/409/410/411/412/413/414/415/416/417/418/419/420/421/422/423/424/425/426/427/428/429/430/431/432/433/434/435/436/437/438/439/440/441/442/443/444/445/446/447/448/449/450/451/452/453/454/455/456/457/458/459/460/461/462/463/464/465/466/467/468/469/470/471/472/473/474/475/476/477/478/479/480/481/482/483/484/485/486/487/488/489/490/491/492/493/494/495/496/497/498/499/500/501/502/503/504/505/506/507/508/509/510/511/512/513/514/515/516/517/518/519/520/521/522/523/524/525/526/527/528/529/530/531/532/533/534/535/536/537/538/539/540/541/542/543/544/545/546/547/548/549/550/551/552/553/554/555/556/557/558/559/560/561/562/563/564/565/566/567/568/569/570/571/572/573/574/575/576/577/578/579/580/581/582/583/584/585/586/587/588/589/590/591/592/593/594/595/596/597/598/599/600/601/602/603/604/605/606/607/608/609/610/611/612/613/614/615/616/617/618/619/620/621/622/623/624/625/626/627/628/629/630/631/632/633/634/635/636/637/638/639/640/641/642/643/644/645/646/647/648/649/650/651/652/653/654/655/656/657/658/659/660/661/662/663/664/665/666/667/668/669/670/671/672/673/674/675/676/677/678/679/680/681/682/683/684/685/686/687/688/689/690/691/692/693/694/695/696/697/698/699/700/701/702/703/704/705/706/707/708/709/710/711/712/713/714/715/716/717/718/719/720/721/722/723/724/725/726/727/728/729/730/731/732/733/734/735/736/737/738/739/740/741/742/743/744/745/746/747/748/749/750/751/752/753/754/755/756/757/758/759/760/761/762/763/764/765/766/767/768/769/770/771/772/773/774/775/776/777/778/779/780/781/782/783/784/785/786/787/788/789/790/791/792/793/794/795/796/797/798/799/800/801/802/803/804/805/806/807/808/809/810/811/812/813/814/815/816/817/818/819/820/821/822/823/824/825/826/827/828/829/830/831/832/833/834/835/836/837/838/839/840/841/842/843/844/845/846/847/848/849/850/851/852/853/854/855/856/857/858/859/860/861/862/863/864/865/866/867/868/869/870/871/872/873/874/875/876/877/878/879/880/881/882/883/884/885/886/887/888/889/890/891/892/893/894/895/896/897/898/899/900/901/902/903/904/905/906/907/908/909/910/911/912/913/914/915/916/917/918/919/920/921/922/923/924/925/926/927/928/929/930/931/932/933/934/935/936/937/938/939/940/941/942/943/944/945/946/947/948/949/950/951/952/953/954/955/956/957/958/959/960/961/962/963/964/965/966/967/968/969/970/971/972/973/974/975/976/977/978/979/980/981/982/983/984/985/986/987/988/989/990/991/992/993/994/995/996/997/998/999/1000</p> </div> </div> </div> <div style="width: 30%;"> <p>AUSTRALIAN CONSULTING ENGINEERS.</p> <p>PTY LTD - A.C.N. 084 059 941</p> <p>SHOP 2/41 CONCORD RD NORTH STRATHFIELD NSW 2137</p> <p>PH: (02) 9763 1500 FX: (02) 9763 1515</p> <p>EMAIL: info@aceeng.com.au</p> </div> <div style="width: 20%; text-align: center;"> </div> </div> <div style="width: 40%;"> <p>PROJECT</p> <p>RESIDENTIAL FLATS AT 16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD</p> </div>															<div style="display: flex; justify-content: space-between; width: 100%;"> <div style="width: 30%;"> <p>SHEET SUBJECT</p> <p>M</p></div></div>														
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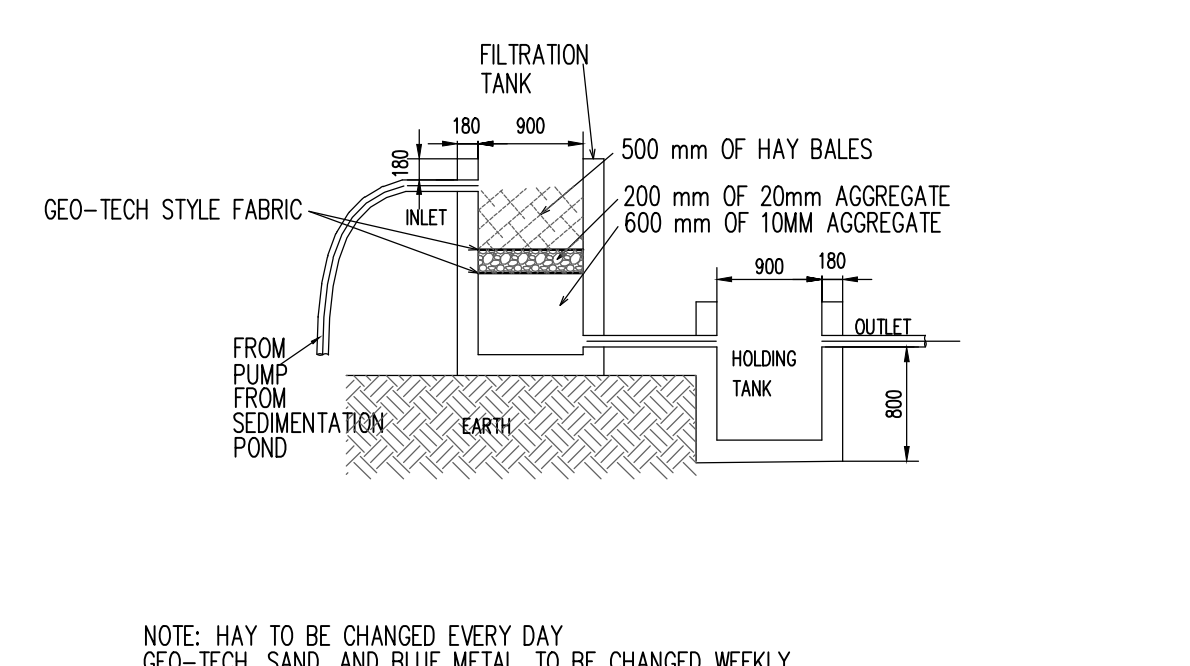
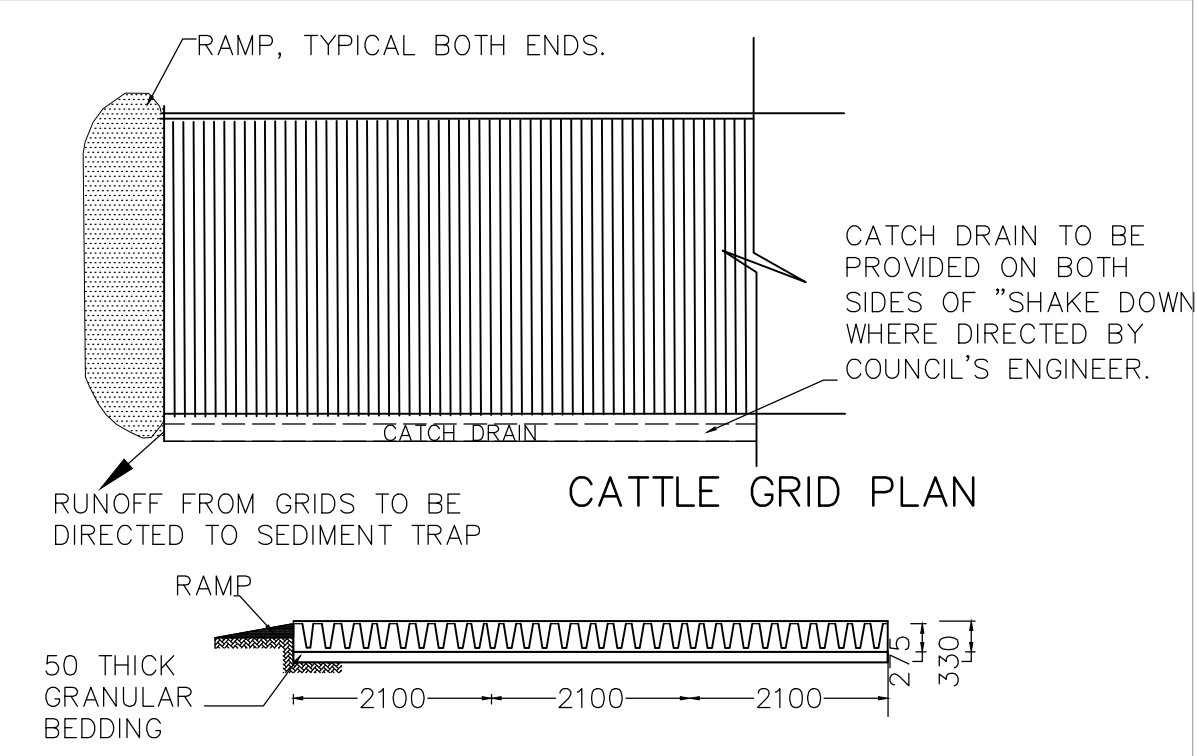
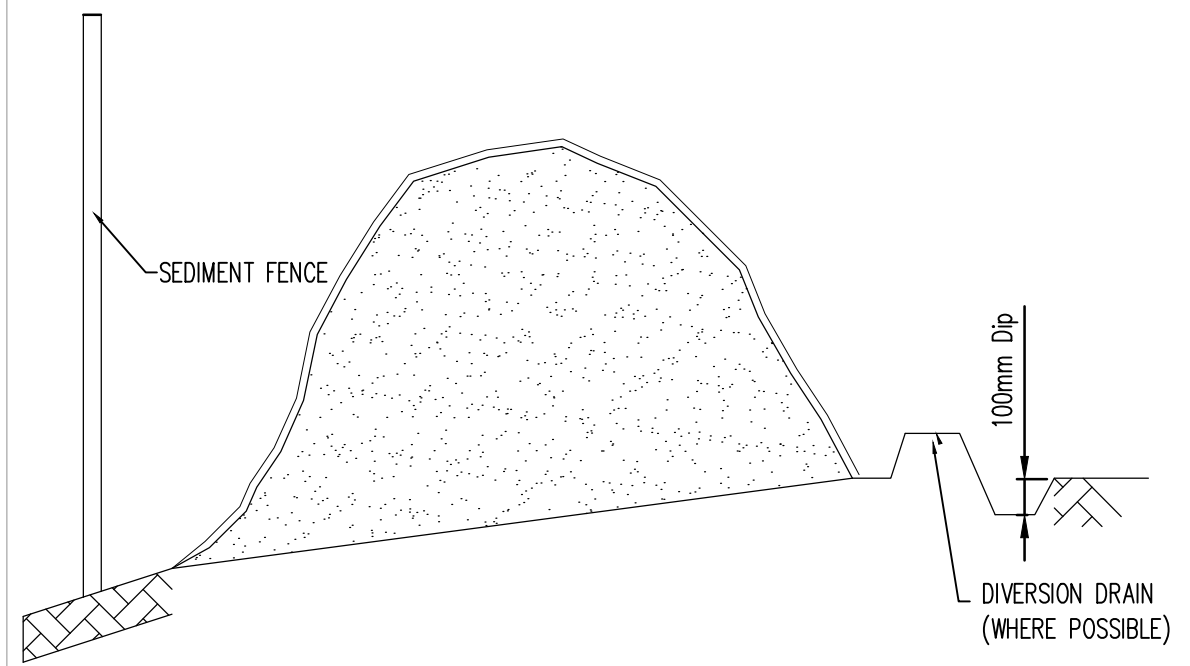
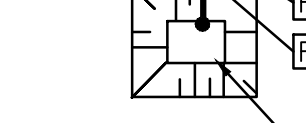
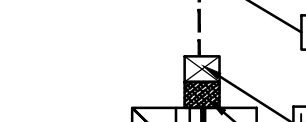
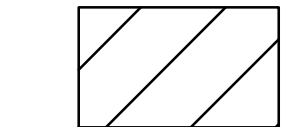
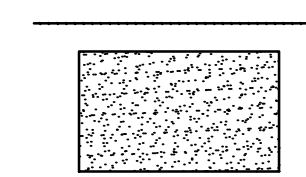
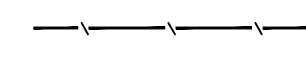


- NOTES THIS DRAWING



1. ALL EROSION & SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH 'MANAGING URBAN STORMWATER, 4TH EDITION' BY LANDCOM.
 2. ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION AND REMOVED REGULARLY DURING CONSTRUCTION
 3. ALL TREES ARE TO BE PRESERVED UNLESS INDICATED OTHERWISE ON THE ARCHITECT'S OR LANDSCAPE ARCHITECT'S DRAWINGS. EXISTING GRASS COVER SHALL BE MAINTAINED EXCEPT IN AREAS CLEARED FOR BUILDINGS, PAVEMENTS ETC- CONTRACTOR TO MINIMISE DISTURBED AREAS.
 4. INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PITS LIKELY TO COLLECT SILT LADEN WATER
 5. NOT WITHSTANDING DETAILS SHOWN, IT IS THE CONTRACTORS' SOLE RESPONSIBILITY TO ENSURE THAT ALL SITE ACTIVITIES COMPLY WITH THE REQUIREMENTS OF THE CLEAN WATERS ACT.
 6. ALL DISTURBED AREAS AND STOCKPILES TO BE STABILISED WITHIN 14 DAYS. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
 7. TOPSOIL TO BE STRIPPED, STOCKPILED AND RE-SPREAD ON COMPLETION OF EARTHWORKS. NONE TO BE REMOVED.
 8. NO DISTURBANCE OF SITE PERMITTED OTHER THAN IMMEDIATE AREA OF THE WORKS.
 9. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
- NON-COMPLIANCE MAY RESULT IN A \$1500 FINE

- NON-COMPLIANCE MAY RESULT IN A \$1500 FINE



- NOTE: HAY TO BE CHANGED EVERY DAY
GEO-TECH, SAND, AND BLUE METAL, TO BE CHANGED WEEKLY

- TYPICAL DETAIL OF FILTRATION UNIT

A1 0 1 2 3 4 5 6 7 8 9 10

[illegible]

ARCHITECT



**A U S T R A L I A N
C O N S U L T I N G
E N G I N E E R S .**

PTY LTD - A.C.N. 084 059 941
SHOP 2-4/1 CONCORD RD NORTH STRATHFIELD NSW 2137
PH: (02) 9763 1500 FX: (02) 9763 1515
EMAIL: info@aceeng.com.au

PROJECT

RESIDENTIAL FLATS AT 16-24
THALLON STREET AND 27-29
JENKINS ROAD, CARLINGFORD

	SHEET SUBJECT
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EROSION AND SEDIMENT CONTROL DETAILS

ARCH. REF:

PROJECT	16-24 THALLON STREET AND 27-29 JENKINS ROAD, CARLINGFORD
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DATE SEP 2016	DRAWN M.L.	DESIGNED M.L.	CHECKED O.C.
SCALE @ A1 NTS		JOB No 160963	

AUTHORISED	DWG No	REV
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Dr. Anthony Hasham	D11	A
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