85-91 THOMAS STREET, PARRAMATTA PROPOSED RESIDENTIAL APARTMENTS

LEGEND PROPOSED STORMWATER Ø100 PVC WRAPPED IN 20mm ABLEFLEX STORMWATER DRAINAGE PIPE CAST IN SLAB Ø65 PVC WRAPPED IN 20mm ABLEFLEX STORMWATER DRAINAGE PIPE CAST IN SLAB Ø50mm PVC WRAPPED IN 20mm ABLEFLEX CAST IN SLAB PROPOSED STORMWATER PIPE TO Ø100mm SUBSOIL DRAINAGE TO BE WRAPPED IN **GEOTEXTILE BIDIMA34** Ø300 CLEANING EYE **RAINWATER TANK** DOWNPIPE Ø100 VERTICAL DROP Ø100 PLANTER GRATE Ø150 FLOOR GRATE Ø150 FLOOR GRATE 200x200 (ALLOW MINIMUM 1.0% FALL TO FG) FLOOR GRATE 300x300 (ALLOW MINIMUM 1.0% FALL TO FW) RAINWATER OUTLET Ø260 SPS (ALLOW MINIMUM 1.0% FALL TO RWO) SUSPENDED PLANTER BOX RAINWATER OUTLET **DESIGN SURFACE LEVEL EXISTING SURFACE LEVEL** INVERT LEVEL AC CONDENSER TUNDISH TO MANUFACTURER'S DETAILS Ø50mm EMERGENCY OVERFLOW EXISTING STORMWATER **EXISTING WATER MAIN** EXS EXISTING SEWER MAIN —— ExT——— EXISTING TELSTRA EXISTING ELECTRICAL **EXISTING GAS** ——— EXISTING OPTIC FIBER

STORMWATER CONCEPT PLANS



LOCALITY PLAN

	DRAWING INDEX							
	Drawing No.	DESCRIPTION						
	000	COVER SHEET PLAN						
	101	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2						
	102	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 2 OF 2						
}	102.1	STORMWATER CONCEPT PLAN MEZZANINE LEVEL						
	103	STORMWATER CONCERT PLAN GROUND LEVEL						
	104	NOT USED						
	105	OSD CALCULATION AND DETAILS SHEET						
	106	CATCHMENT PLAN AND MUSIC RESULTS						
	107	RAINGARDEN DETAILS & WATER BALANCE CALCULATIONS SHEET						
	108	SEDIMENT & EROSION CONTROL PLAN & DETAILS						
	109	MISCELLANEOUS DETAILS SHEET						

GENERAL NOTES

- 1. ALL LINES ARE TO BE Ø90 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
- 4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450
- 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
- 17. ALL PIPES IN BALCONIES TO BE Ø50mm HDPE OR PVC WRAPPED IN 20mm ABLEFLEX CAST IN SLAB AT MIN 1.0% SLOPE. CONTRACTOR TO PROVIDE A BREAK / OPEN VOID IN RAIL / BALLUSTRADE 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.

NOT FOR CONSTRUCTION

PTI Architecture Level 2, 68 Sophia Street ISSUE FOR DEVELOPMENT APPLICATION 15/05/2023 | DBF | EH | OC Surry Hills NSW 2010 ISSUE FOR DEVELOPMENT APPLICATION 31/03/2023 | MGH | EH | OC ABN 90 050 071 022 16/03/2023 | DBF | EH | ISSUE FOR DEVELOPMENT APPLICATION Date Designed Engineer Checked W: www.ptiarchitecture.com.au Issue Description : +61 2 9283 0860

Parramatta City Council Century 888

& S ENGINEERING SERVICES E:info@esqconsult.com.au

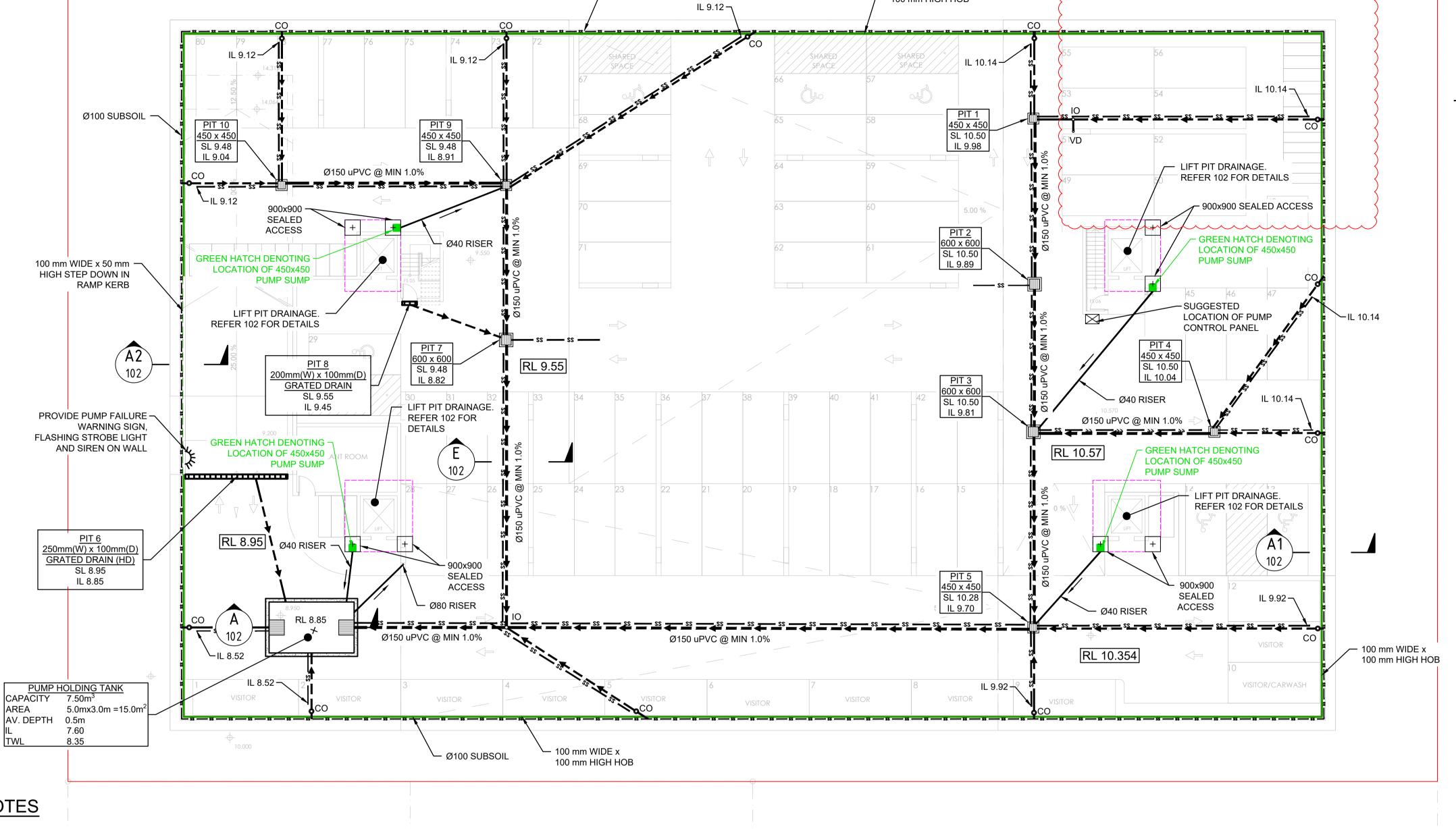
CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506

Shop 1, 143-147 Parramatta Road, Concord, NSW P:(02) 8397 6500

85-91 THOMAS STREET, PARRAMATTA PROPOSED RESIDENTIAL APARTMENTS STORMWATER CONCEPT PLAN DEVELOPMENT APPLICATION

COVER SHEET PLAN

000 N.T.S. 200994



STANDARD PUMP OUT DESIGN NOTES

(HEAVY DUTY)

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 PARRAMATA RIVER CATCHMENT TRUST OSD HANDBOOK.

NOTE ALLOW FOR 600x600 ACCESS TO CLEANING OPENINGS (CO) BETWEEN WET WALLS AND ROOMS WALLS. FOR FIRE COMPARTMENTS, ACCESS HATCH TO COMPLY WITH FIRE

CONSULTANT'S REQUIREMENTS

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

NOTE PROVIDE 100mm DEEP LAYER OF 10mm BLUE METAL AGGREGATE UNDER THE SLAB ON GROUND IN BETWEEN FOOTINGS. REFER DETAIL ON DRAWING 102

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**

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 VISIBLI LOCATION WHERE VEHICLES ENTER THE BASEMENT

"WARNING" = RED BORDER AND OTHER LETTERING = BLACK



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"



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

NOT FOR CONSTRUCTION

						Architect
						PTI Architecture
						Level 2, 68 Sophia Street,
В	ISSUE FOR DEVELOPMENT APPLICATION	15/05/2023	DBF	EH	ОС	Surry Hills NSW 2010
Α	ISSUE FOR DEVELOPMENT APPLICATION	16/03/2023	DBF	EH	OC	ABN 90 050 071 022
Issue	Description	Date	Designed	Engineer	Checked	W: www.ptiarchitecture.com.au

Parramatta City Council SCALE 1:150 @ A1 Century 888 Pty Ltd

& S

BASEMENT

SCALE 1:150

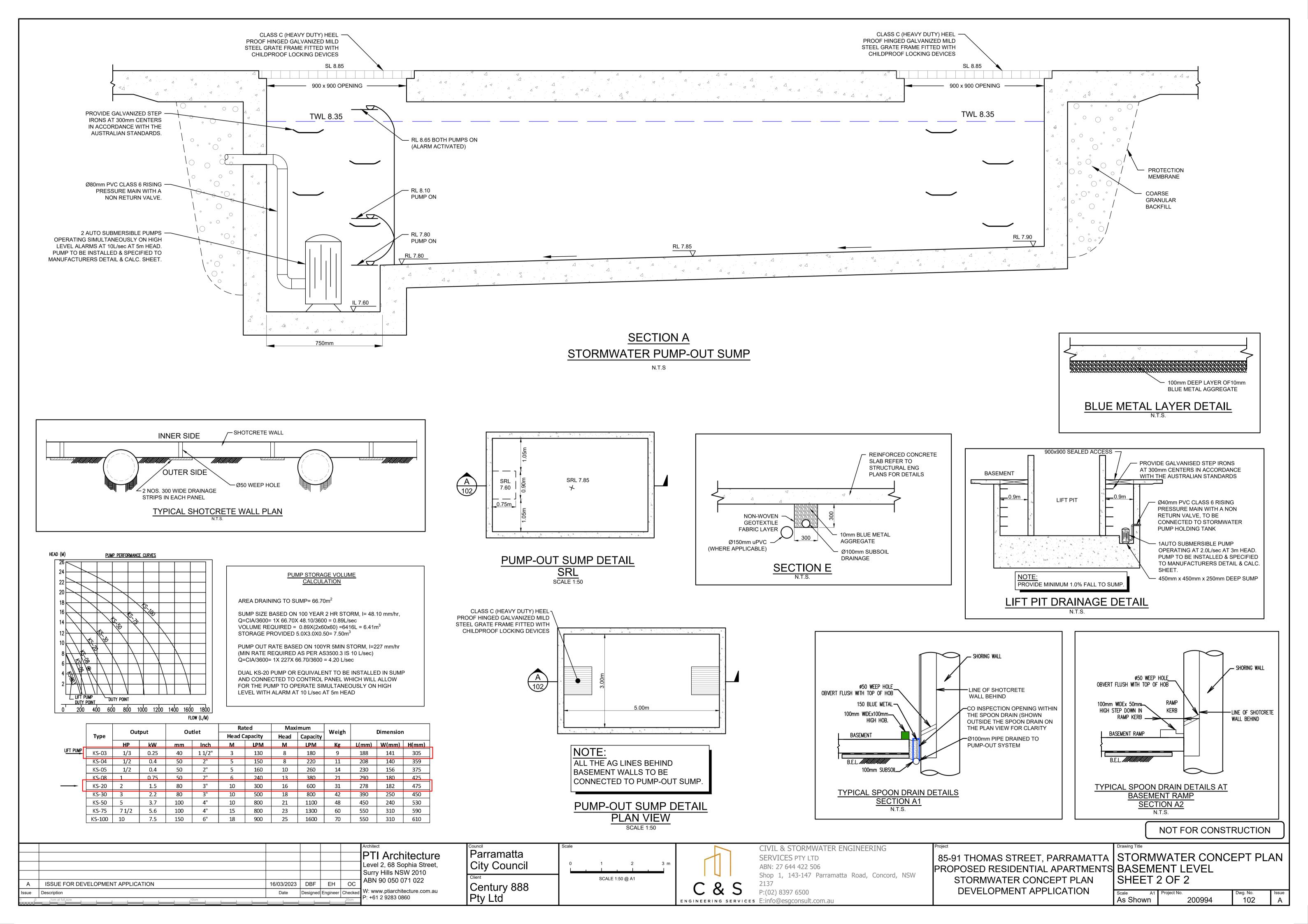
CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506 Shop 1, 143-147 Parramatta Road, Concord, NSW

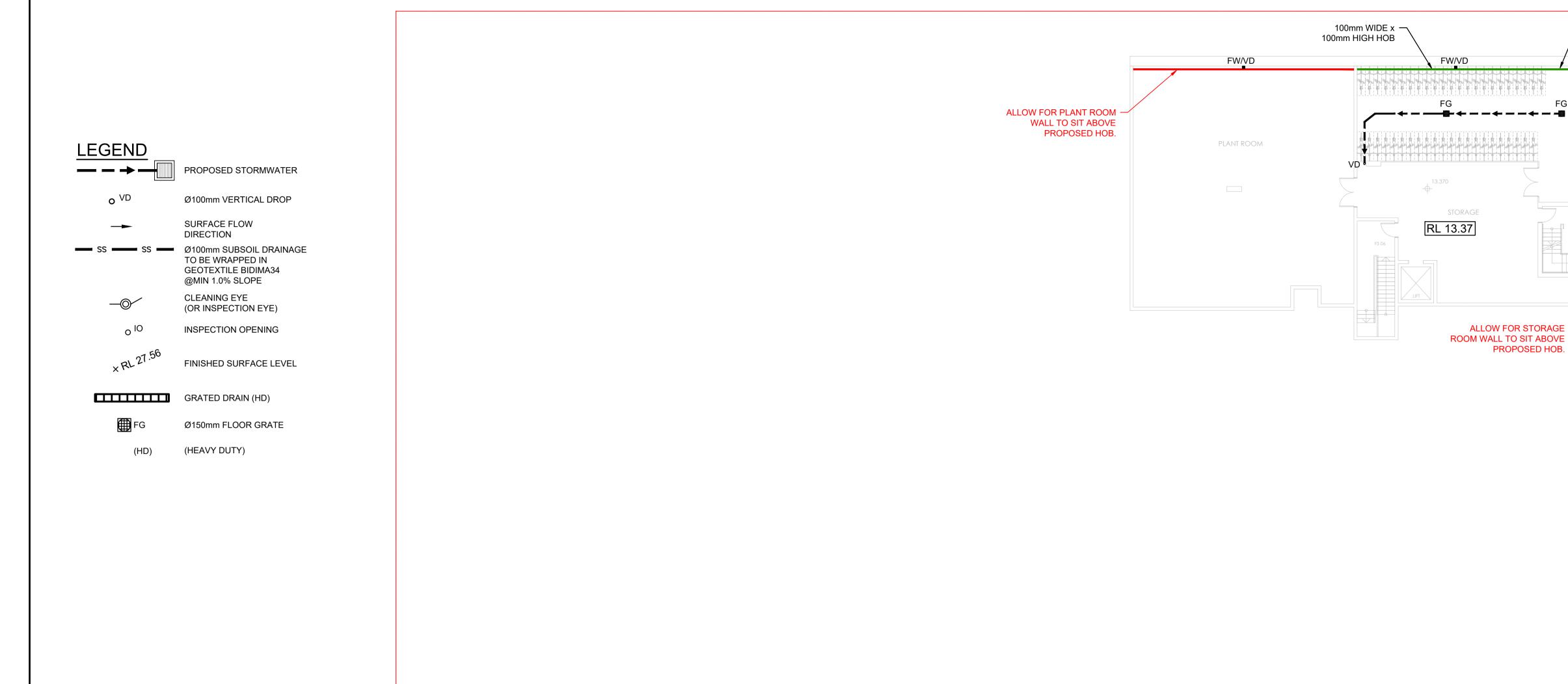
2137 P:(02) 8397 6500 ENGINEERING SERVICES E:info@esaconsult.com.au

85-91 THOMAS STREET, PARRAMATTA PROPOSED RESIDENTIAL APARTMENTS BASEMENT LEVEL STORMWATER CONCEPT PLAN DEVELOPMENT APPLICATION

STORMWATER CONCEPT PLAN SHEET 1 OF 2

101 1:150 200994





NOTE

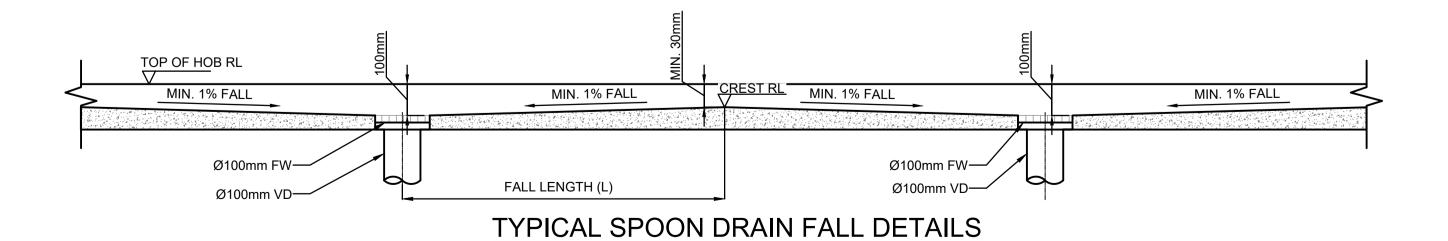
ALLOW FOR 600x600 ACCESS TO FLOOR WASTES TRAPPED BETWEEN WET WALLS AND ROOMS WALLS. FOR FIRE COMPARTMENTS, ACCESS HATCH TO COMPLY WITH FIRE CONSULTANT'S REQUIREMENTS.

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

NOTE:

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

MEZZNINE LEVEL



N.T.S.

PIPES NOTE:

— 150 mm WIDE

SPOON DRAIN

FW/VD

FW/VD

FW/VD

100mm HIGH HOB

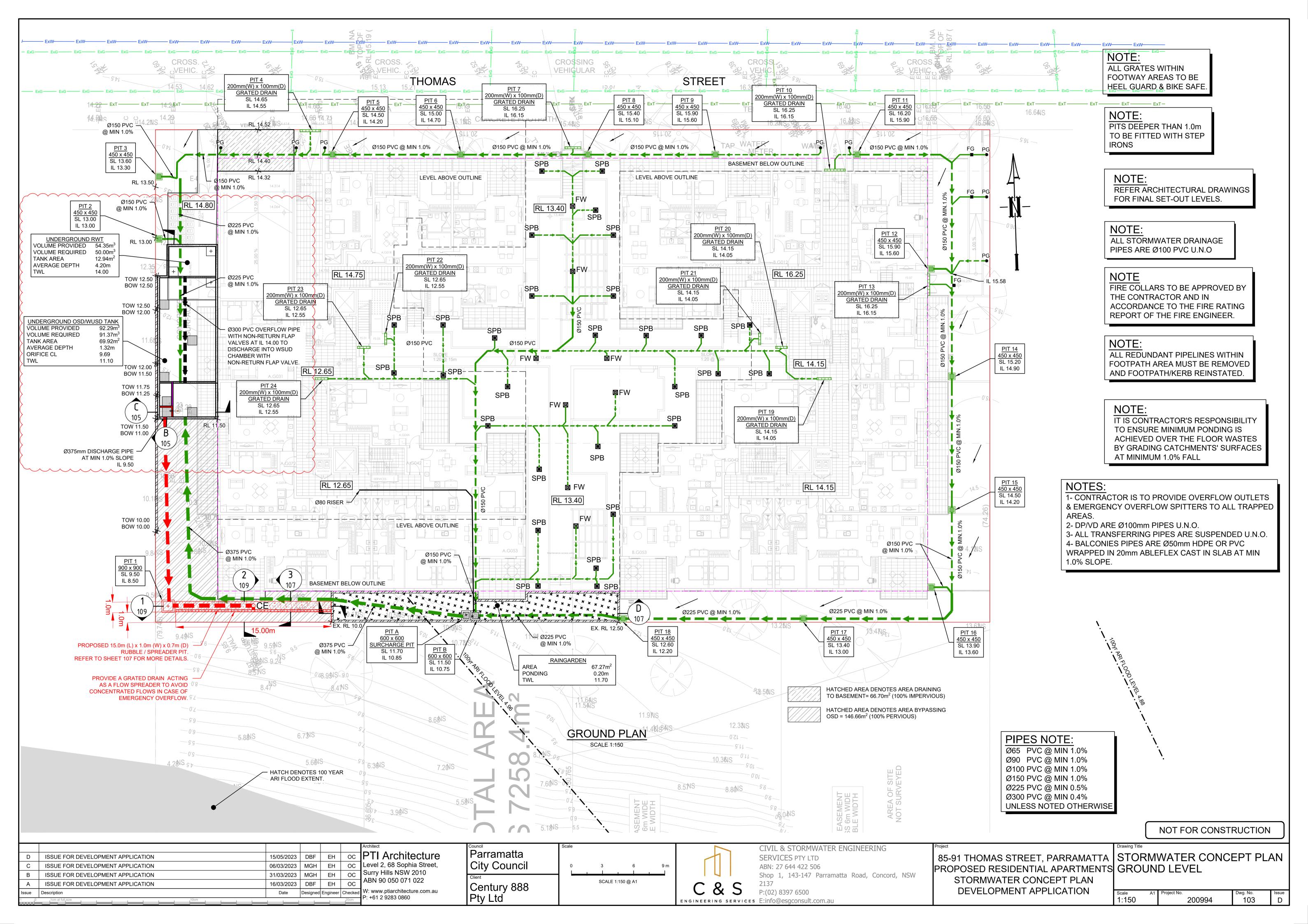
- 150 mm WIDE SPOON DRAIN

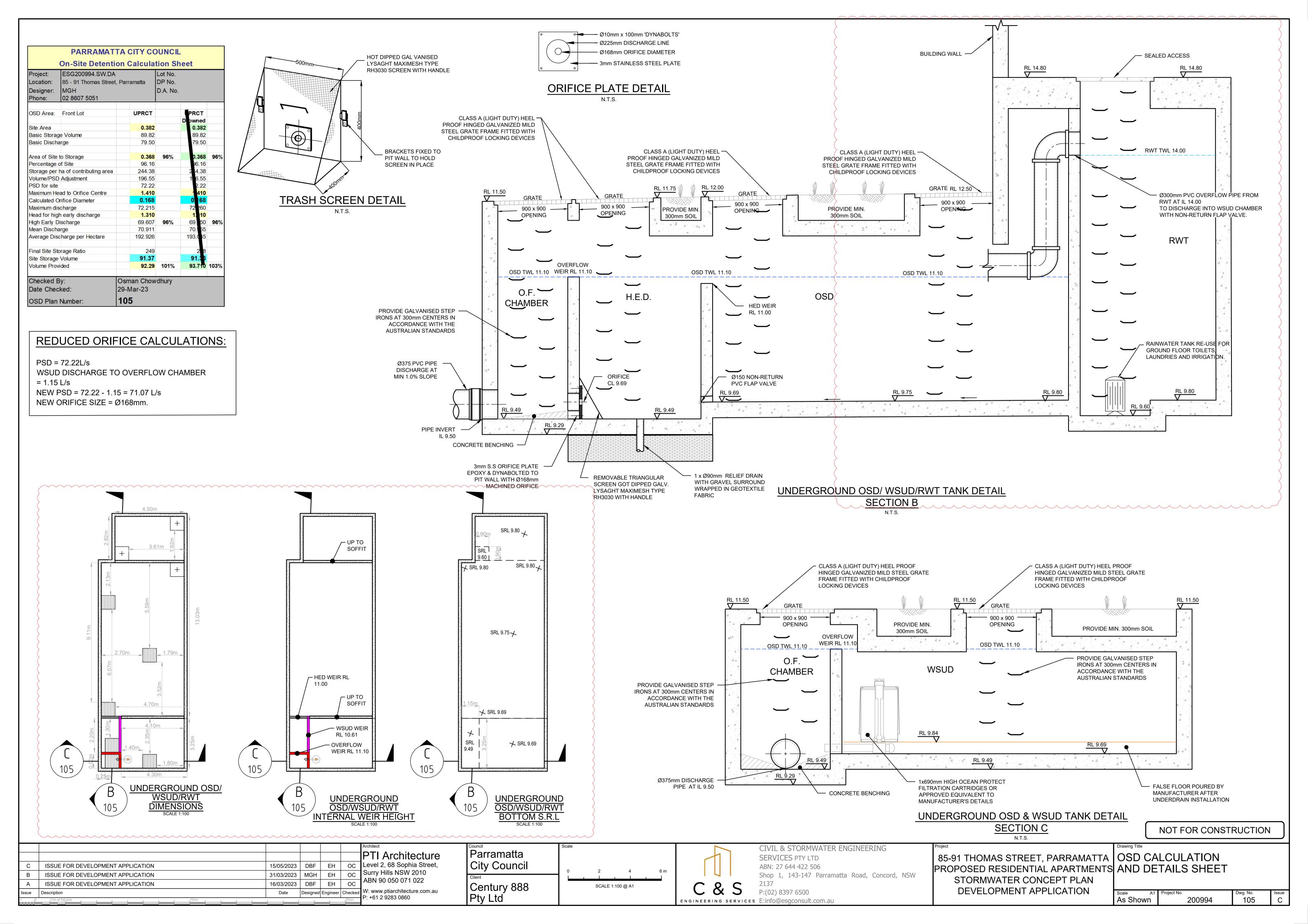
> Ø65 PVC @ MIN 1.0% Ø90 PVC @ MIN 1.0% Ø100 PVC @ MIN 1.0% Ø150 PVC @ MIN 1.0%

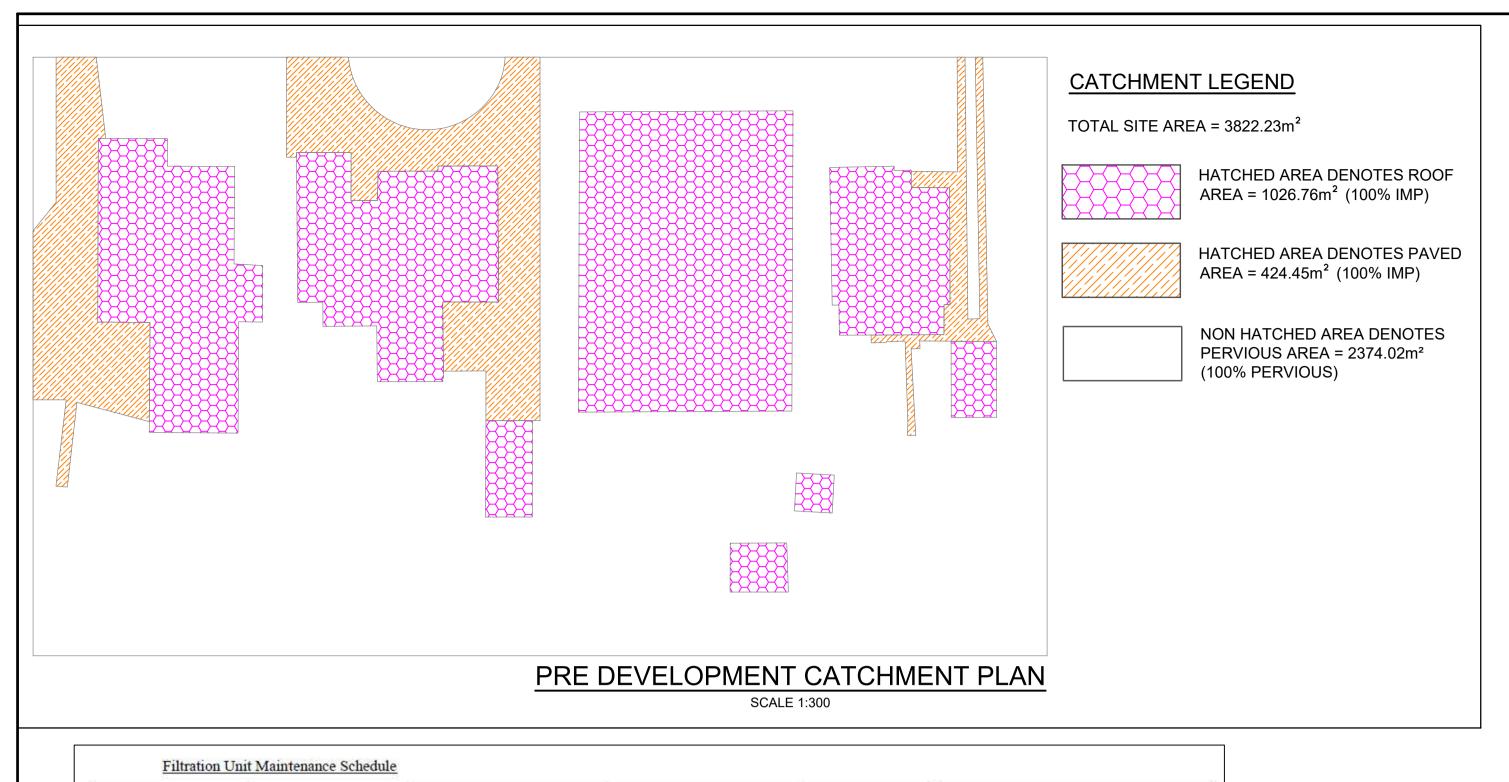
Ø225 PVC @ MIN 0.5% Ø300 PVC @ MIN 0.4% UNLESS NOTED OTHERWISE

NOT FOR CONSTRUCTION

CIVIL & STORMWATER ENGINEERING PTI Architecture Parramatta STORMWATER LAYOUT PLAN SERVICES PTY LTD 85-91 THOMAS STREET, PARRAMATTA Level 2, 68 Sophia Street, Surry Hills NSW 2010 City Council ABN: 27 644 422 506 PROPOSED RESIDENTIAL APARTMENTS MEZZANINE LEVEL Shop 1, 143-147 Parramatta Road, Concord, NSW STORMWATER CONCEPT PLAN ABN 90 050 071 022 SCALE 1:150 @ A1 & S ISSUE FOR DEVELOPMENT APPLICATION Century 888 DEVELOPMENT APPLICATION Issue Description Date Designed Engineer Checked W: www.ptiarchitecture.com.au P: +61 2 9283 0860 P:(02) 8397 6500 Scale 1:150 Dwg. No. 102.1 Pty Ltd 200994 ENGINEERING SERVICES E:info@esgconsult.com.au







Expected Facility Performance

After Maintaining

Permanent removal from storm

. New media is able to effectively

treat stormwater.

Outflow is not restricted.

When Maintenance Activity

Is Required

Floatable objects or other trash is

present in the filter. Remove to avoid

hindrance of filtration and eliminate unsightly debris and trash.

I. Media has been contaminated by

high levels of pollutants, such as after a

Drainage system is obstructed by debris or sediment.

Facility Component

Requiring Maintenance

StormFilter® Cartridges and

Containment Structure

Drainage System Piping

GENERAL NOTES

AT INLET AND OUTLET LOCATIONS.

Maintenance

Activity

Trash and Debris Removal

Cartridge Replacement and

Sediment Removal

Flushing With Water

1. INLET AND OUTLET PIPING SHALL BE SPECIFIED BY SITE CIVIL ENGINEER (SEE PLANS) AND PROVIDED BY

PLEASE CONTACT STORMWATER360 FOR OPTIONS. 3. THE FILTER CARTRIDGE(S) ARE SIPHON-ACTUATED AND

CONSTRUCTED IN ACCORDANCE WITH AS3600.

CLEARANCE FOR MAINTENANCE ACCESS.

CONTACT STORMWATER360 FOR DESIGN OPTIONS.

6. STRUCTURE AND ACCESS COVERS DESIGNED TO MEET

7. THE STRUCTURE THICKNESSES SHOWN ARE FOR

SHALL BE SPECIFIED BY SITE CIVIL ENGINEER.

9.. STORMFILTER BY STORMWATER360:

Water Use

Indoor Uses

Toilets + Washing Machine

Toilets + Washing Machine + Hot

Toilets

Water

All uses

All uses

Outdoor Uses

SYDNEY (AU) PHONE: (02) 9525 5833, BRISBANE (AU) PHONE: (07) 3272 1872.

CONTRACTOR. STORMFILTER IS PROVIDED WITH OPENINGS

PRODUCT, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

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

4. FOR SHALLOW, LOW DROP OR SPECIAL DESIGN CONSTRAINTS,

AS OUTLINED IN THE O&M GUIDELINES. PROVIDE MINIMUM

AUSTROADS T44 LOAD RATING WITH 0-2m FILL MAXIMUM.

REPRESENTATIONAL PURPOSES AND VARY REGIONALLY. 8. ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION

PLANS OR IN DATA TABLE BELOW. PRECAST STRUCTURE TO BE

5. ALL WATER QUALITY PRODUCTS REQUIRE PERIODIC MAINTENANCE

PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND

Table 6-2 Typical Water Demands for Multi-residential

Dwellings (derived from data provided by Sydney Water, 2015)

(litres/day/dwelling)

Number of occupants

54

202

88

157 315

101

Multi-residential dwellings

2.35

63

124

238

370

88

2. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CIVIL ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE INSPECTION/MINOR

MAINTENANCE

(TIMES/YEAR)

2 (and after major

MAJOR MAINTENANCE (TIMES/YEAR)

1 (except in case of a spill)

STORMFILTER CARTRIDGE

FILTRATION UNIT

FALSE FLOOR

← PRECAST PIT

TOILET RE-USE | TOILET RE-USE

(L/DAY)

324

486

27

200

(L/DAY/DWELLING)

81

27

100

TOTAL RE-USE FOR TOILETS = 1.037KL/DAY

TOTAL RE-USE FOR IRRIGATION = 1028m²x 0.4m³/YR/m² = $411.2\text{m}^3/\text{YR} = 1.126\text{m}^3/\text{DAY}$

RWT RE-USE CALCULATIONS

TOTAL WATER USAGE = 2.163m3/DAY

CATCHMENT LEGEND TOTAL SITE AREA = 3822.23m² SITE AREA DRAINING TO OSD = 3675.57m² ROOF AREA TO RWT/WSUD/ OSD $= 1917.69 \text{m}^2 (100\% \text{ IMPERVIOUS})$ PAVED AREA TO WSUD / OSD =164.92m² (100% IMPERVIOUS) (BYPASSING RAINGARDEN) PERVIOUS AREA TO WSUD/ OSD = 162.76m² (BYPASSING RAINGARDEN) AREA BYPASSING RAINGARDEN TO WSUD/OSD = 97.69m² (26.35% IMPERVIOUS) LANDSCAPE AREA TO RAINGARDEN / $OSD = 379.77 \text{m}^2 (100\% \text{ PERVIOUS})$ $^{\prime}$ ∇ ∇ ∇ ∇ PAVED AREA TO RAINGARDEN / OSD $= 923.33 \text{m}^2$ DRIVEWAY AREA TO RAINGARDEN / OSD $= 29.41 \text{m}^2 (100\% \text{ IMPERVIOUS})$ AREA BYPASSING RAINGARDEN/OSD = 146.66m² (100% PERVIOUS)

POST DEVELOPMENT CATCHMENT PLAN

By Pass - 146.66m2 (100% Perv.) [Mixed] Landscape area to raingarden- 379.77m2 [Mixed] SF Chamber (13.34m2) Bioretention -92.01m2 1 x 690 PSorb StormFilter Treatment Train Effectiveness - 85/60/45 Paved area WSUD/OSD-164.92m² Paved are to Raingarden- 923.33m2 (100% Imp.) [Mixed] Residual Load % Reduction Sources Flow (ML/yr) 2.51 34.8 1.63 Total Suspended Solids (kg/yr) 214 25.3 88.2 Total Phosphorus (kg/yr) 0.519 0.161 Total Nitrogen (kg/yr) 5.42 64.6 1.92 Gross Pollutants (kg/yr) 61.1 100 阜

MUSIC RESULTS

^^^^^^

NOT FOR CONSTRUCTION

						Architect
						PTI Architecture
O	ISSUE FOR DEVELOPMENT APPLICATION	15/05/2023	DBF	EH		Level 2, 68 Sophia Street,
В	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2023	MGH	EH		Surry Hills NSW 2010
Α	ISSUE FOR DEVELOPMENT APPLICATION	16/03/2023	DBF	EH	OC	ABN 90 050 071 022
Issue	Description	Date	Designed	Engineer	Checked	W: www.ptiarchitecture.com.au P: +61 2 9283 0860

304

472

405

629

STORMFILTER CARTRIDGE

DETAIL

NUMBER

GF LEVEL

DWELLING (3 OCCUPANT)

DWELLING (2 OCCUPANT)

DWELLING (1 OCCUPANT)

COMMON TOILETS

Parramatta City Council	Scale 0 4 8	
Century 888 Pty Ltd	SCALE 1:200 @ A1	

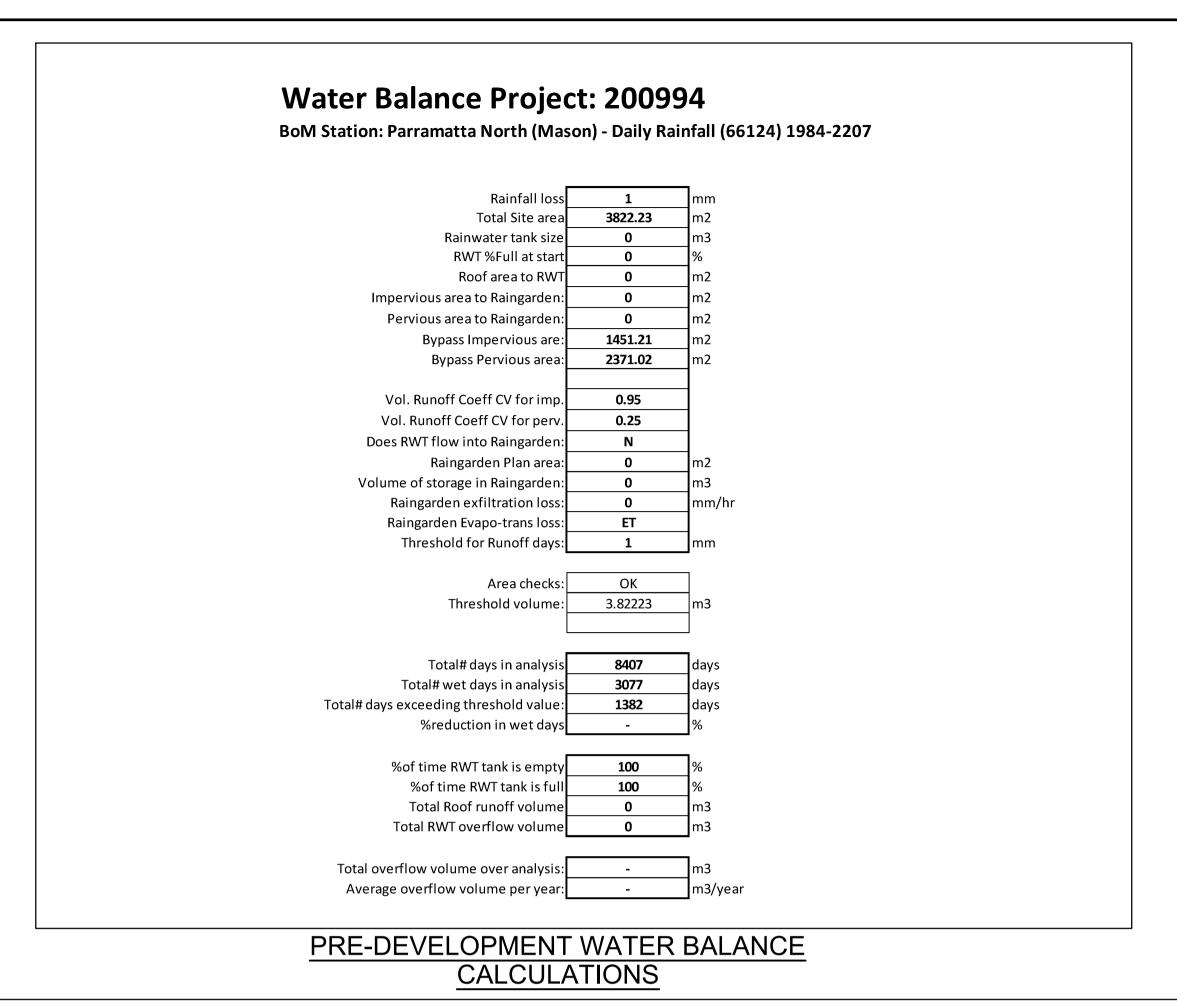
		CIVIL & DI OIN IVI/ (I LIX
		SERVICES PTY LTD
3 12 m		ABN: 27 644 422 506
	7	Shop 1, 143-147 Parrama
\1	\sim 0 C	2137
	C & S	P:(02) 8397 6500
	ENGINEERING SERVICES	E:info@esgconsult.com.au

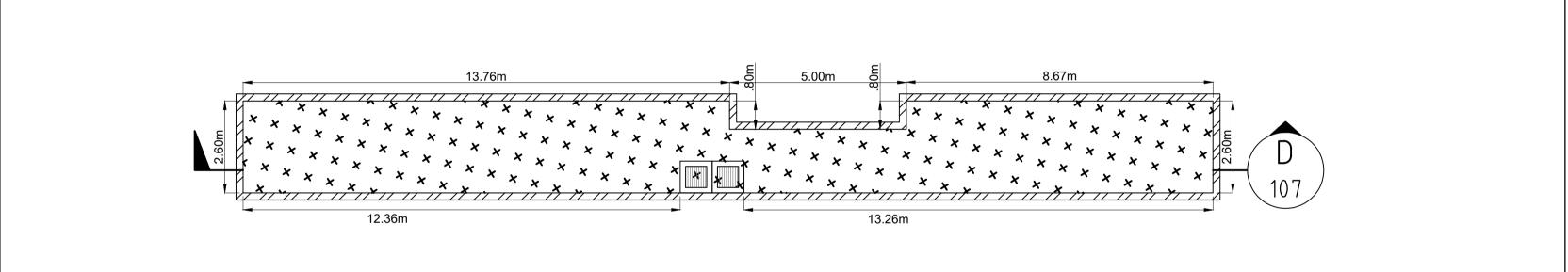
CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506 Shop 1, 143-147 Parramatta Road, Concord, NSW 2137 P:(02) 8397 6500

85-91 THOMAS STREET, PARRAMATTA PROPOSED RESIDENTIAL APARTMENTS AND MUSIC RESULTS STORMWATER CONCEPT PLAN DEVELOPMENT APPLICATION

CATCHMENT PLAN

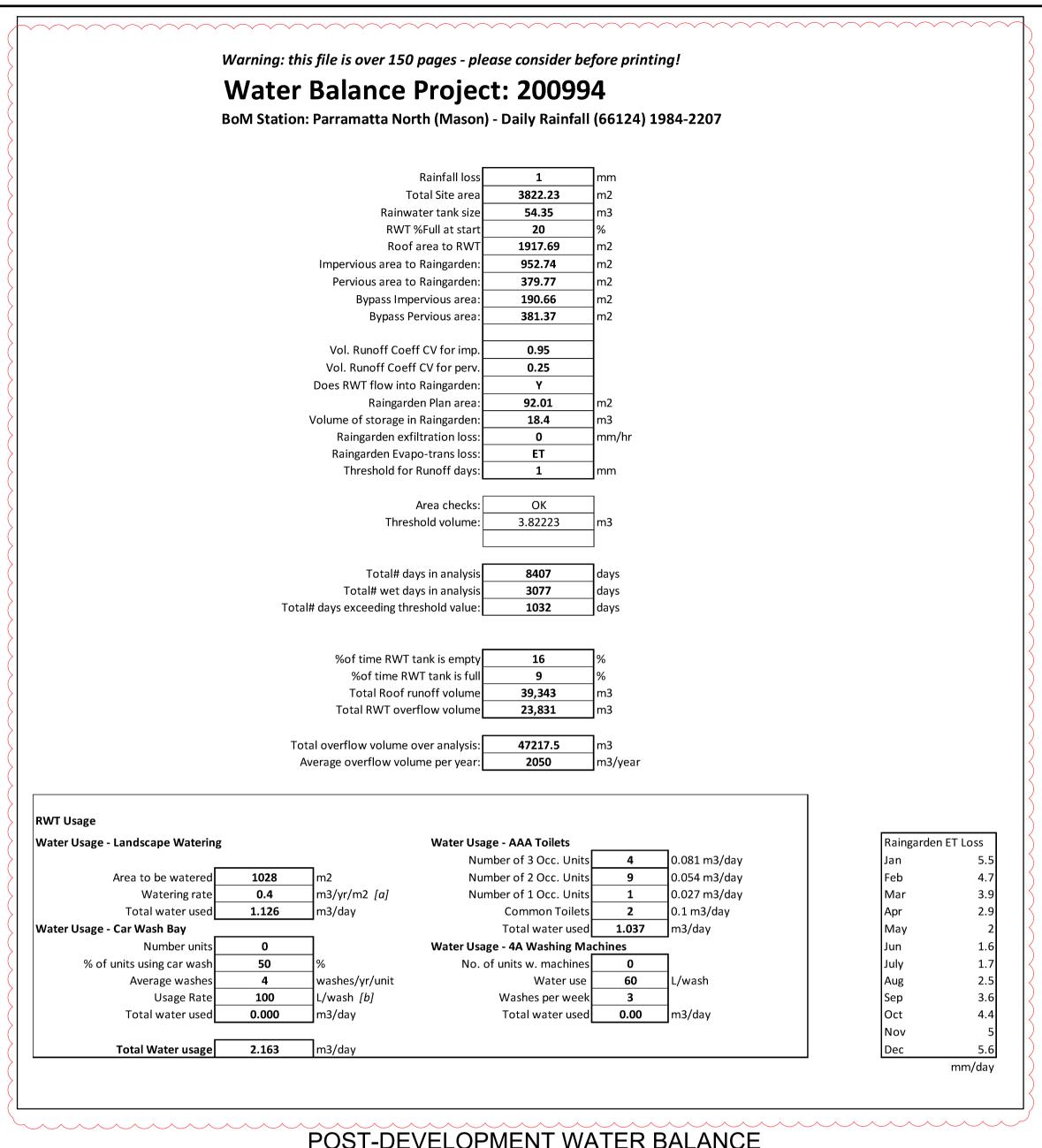
106 As Shown 200994



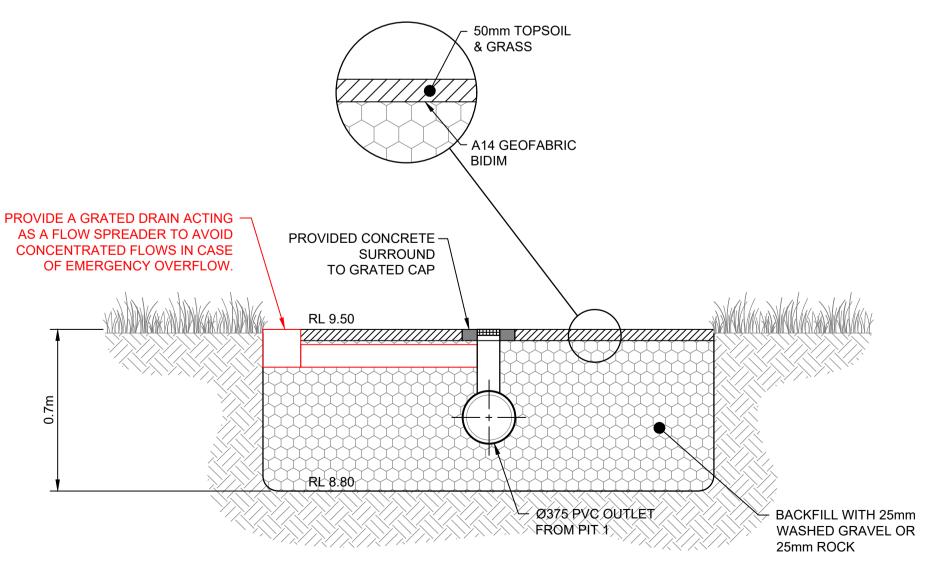


RAINGARDEN DIMENSIONS

NOTE: ALL RAINGARDEN GRATES TO BE CLASS A LIGHT DUTY HINGED GALVANISED MILD STEEL GRATE AND FRAME & TO BE FITTED WITH CHILD PROOF LOCK DEVICE. MIN. TOW 12.00 MIN. TOW 12.00 RAINGARDEN TWL 11.70 RAINGARDEN TWL 11.70 GRATED RL 11.50 MEDIA (DEPTH 400mm) **TRANSITION** LAYER Ø375 PVC (DEPTH **OUTLET PIPE** -MIN 100mm DIA 100mm) UNDERDRAIN CONNECTION TO CONNECT TO PIT A └ Ø225 PVC 2 x Ø90mm RELIEF DRAIN MIN 100mm DIA UNDERDRAIN -100 THICK (MINIMUM) DRAINAGE INLET PIPE CONNECTION TO CONNECT WITH GRAVEL SURROUND LAYER WRAPPED IN PERMEABLE - Ø150 PVC TO PIT A WRAPPED IN GEOTEXTILE GEOTEXTILE LINER 100 THICK (MINIMUM) DRAINAGE **INLET PIPE FABRIC** LAYER WRAPPED IN PERMEABLE GEOTEXTILE LINER RAINGARDEN DETAIL SECTION D



POST-DEVELOPMENT WATER BALANCE **CALCULATIONS**



RUBBLE / SPREADER PIT SECTION 3

N.T.S.

NOT FOR CONSTRUCTION

CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506

85-91 THOMAS STREET, PARRAMATTA PROPOSED RESIDENTIAL APARTMENTS & WATER BALANCE STORMWATER CONCEPT PLAN

RAINGARDEN DETAILS CALCULATIONS SHEET

200994 107 As Shown

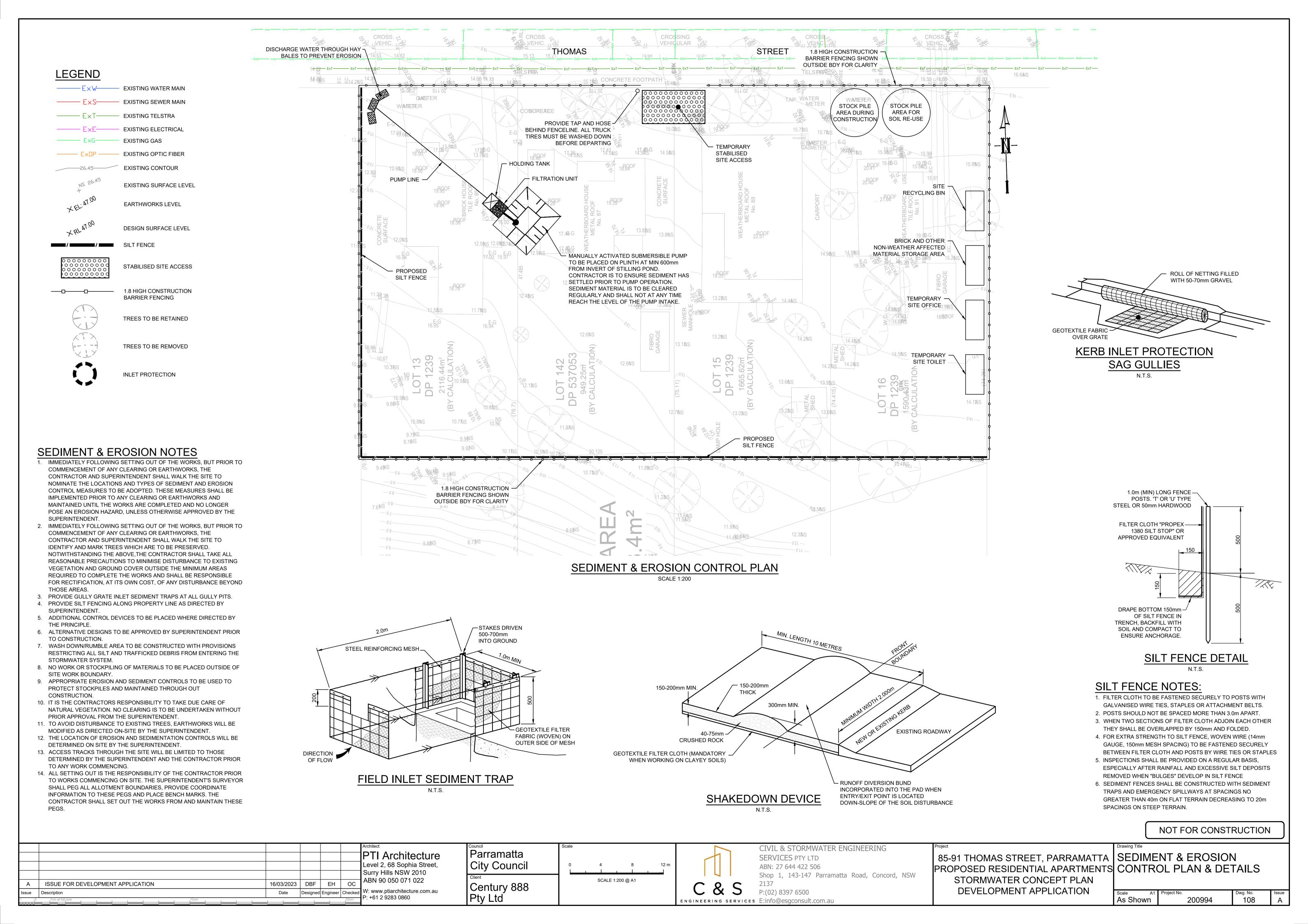
						Architect
						PTI Architecture
)	ISSUE FOR DEVELOPMENT APPLICATION	15/05/2023	DBF	EH		Level 2, 68 Sophia Street,
3	ISSUE FOR DEVELOPMENT APPLICATION	31/03/2023	MGH	EH		Surry Hills NSW 2010
4	ISSUE FOR DEVELOPMENT APPLICATION	16/03/2023	DBF	EH	OC	ABN 90 050 071 022
ıe	Description	Date	Designed	Engineer	Checked	W: www.ptiarchitecture.com.au

Parramatta City Council SCALE 1:50 @ A1 Century 888 Pty Ltd

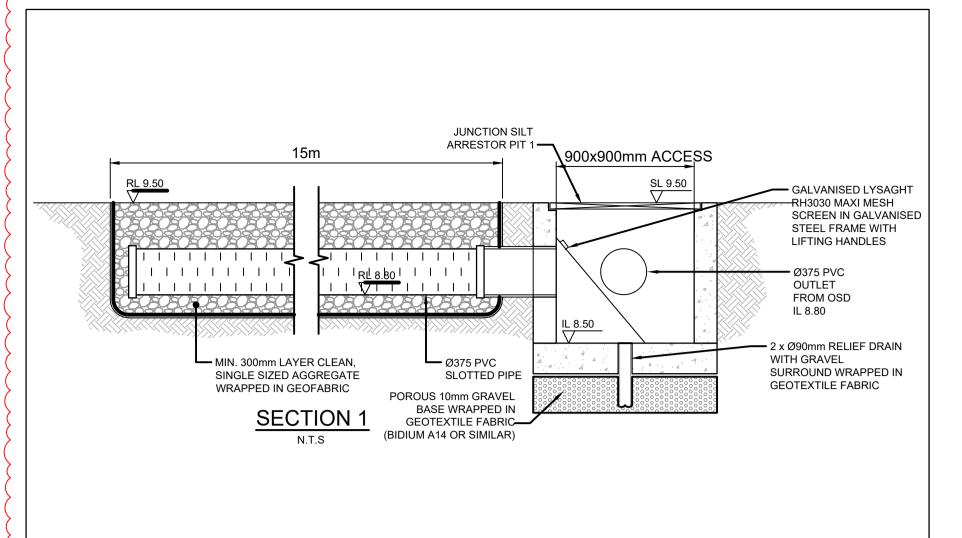
& S

Shop 1, 143-147 Parramatta Road, Concord, NSW P:(02) 8397 6500 ENGINEERING SERVICES E:info@esqconsult.com.au

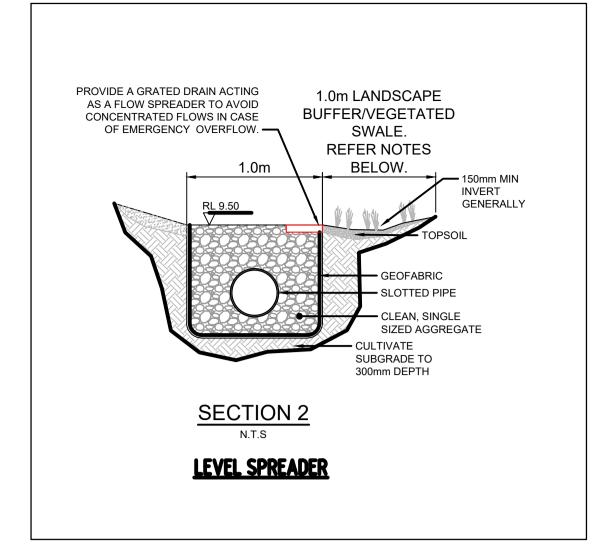
DEVELOPMENT APPLICATION

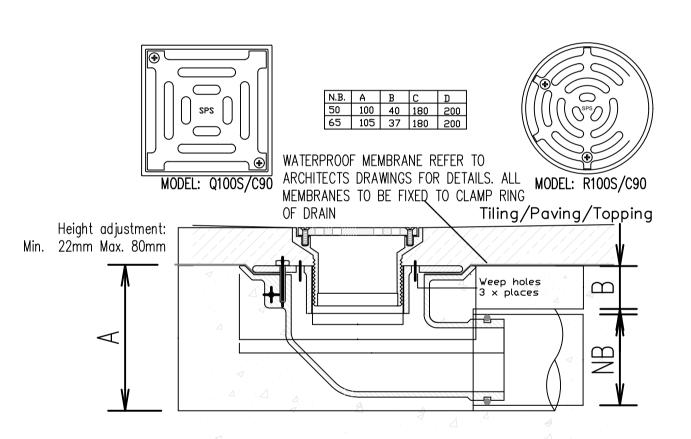


		ACE200994	
Maintenance Action	Frequency	Responsibility	Procedure
General	Trequency	responsibility	Tibecane
Inspect roof drainage system of building and remove any debris/sludge	Six Monthly	Strata/Maintenance Contractor	Remove any leaves or debris and sludge from gutters of building and flush downpipes 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 returnine.
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.



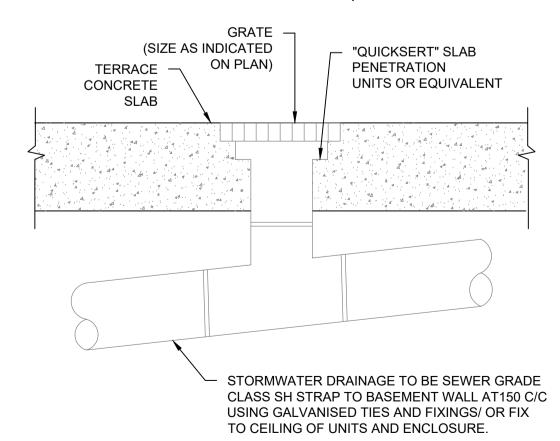
^^^^^





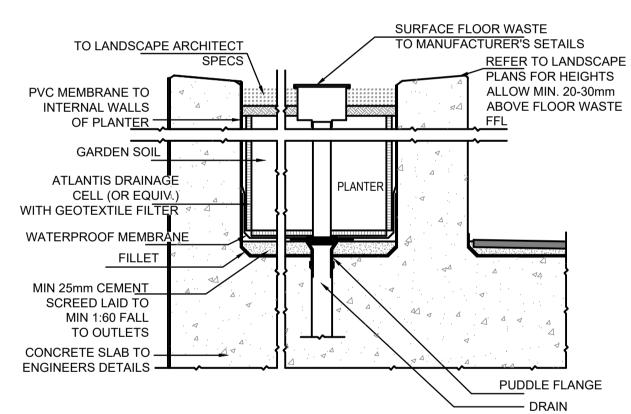
Spigot pushes into 65mm PVC or copper with o-ring connection, or connects to 50mm PVC/HDPE with no-hub coupling.

TYPICAL CAST IN FLOOR WASTE/RAINWATER OUTLET

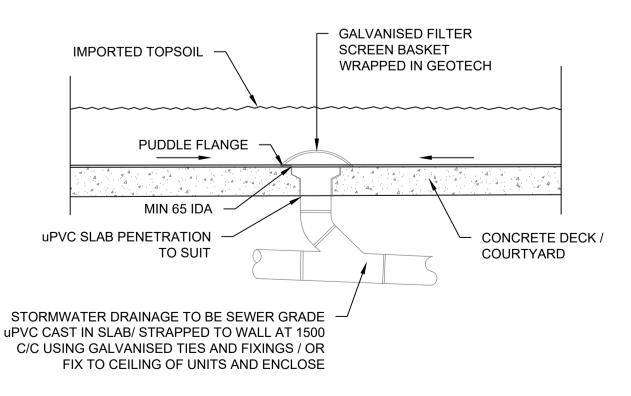




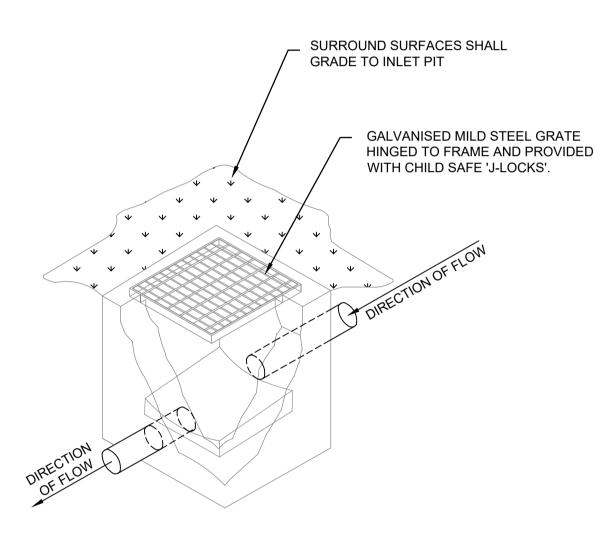
N.T.S.



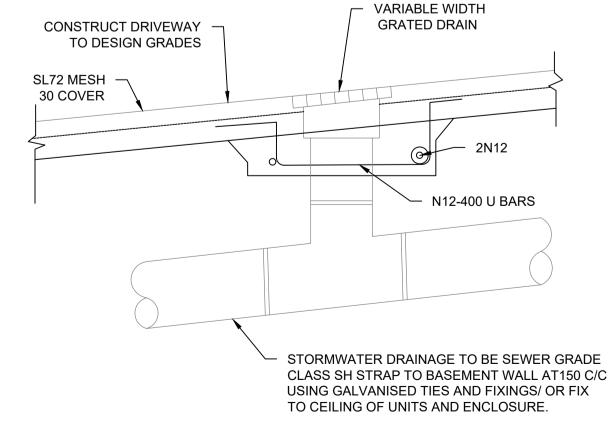
TYPICAL SUSPENDED PLANTER **BOX FLOOR WASTE DETAIL**



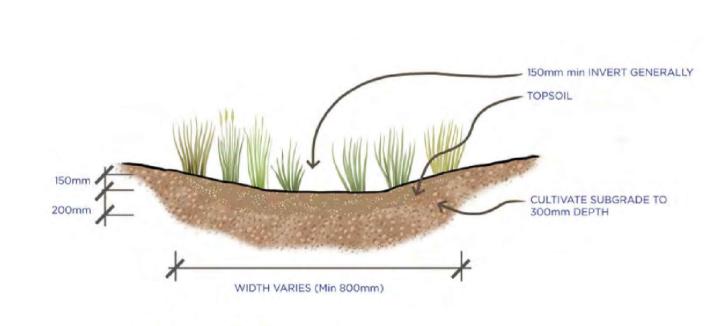
PLANTER GRATE DETAIL



TYPICAL GRATED **INLET PIT DETAIL**



GRATED DRAIN DETAIL



VEGETATED SWALE

CONSTRUCTION NOTES:

- 1- BUILD WITH GRADIENTS BETWEEN 1 PERCENT AND 5 PERCENT.
- 2- AVOID REMOVING TREES AND SHRUBS IF POSSIBLE WORK AROUND THEM.
- 3- ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
- 4- BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPED.
- 5- ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
- 6- COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

LEVEL SPREADER & LANDSCAPE **BUFFER DETAILS**

NOT FOR CONSTRUCTION

PTI Architecture Level 2, 68 Sophia Street, Surry Hills NSW 2010 ISSUE FOR DEVELOPMENT APPLICATION 31/03/2023 | MGH | EH | OC ABN 90 050 071 022 16/03/2023 DBF EH OC ISSUE FOR DEVELOPMENT APPLICATION W: www.ptiarchitecture.com.au Issue Description Designed Engineer Checked P: +61 2 9283 0860

Parramatta City Council Century 888 Pty Ltd

& ENGINEERING SERVICES E:info@esqconsult.com.au

CIVIL & STORMWATER ENGINEERING SERVICES PTY LTD ABN: 27 644 422 506

Shop 1, 143-147 Parramatta Road, Concord, NSW P:(02) 8397 6500

85-91 THOMAS STREET, PARRAMATTA PROPOSED RESIDENTIAL APARTMENTS DETAILS SHEET STORMWATER CONCEPT PLAN **DEVELOPMENT APPLICATION**

MISCELLANEOUS

Scale N.T.S. 109 200994