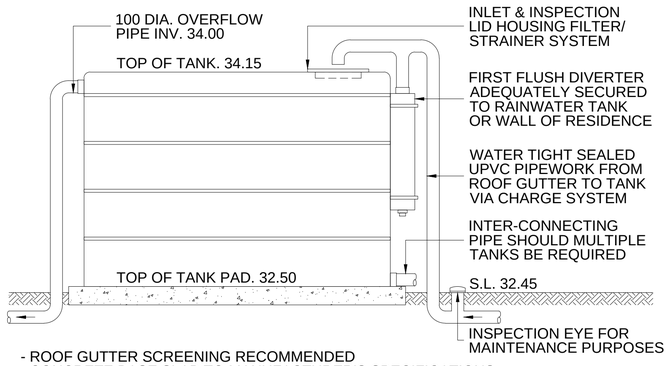
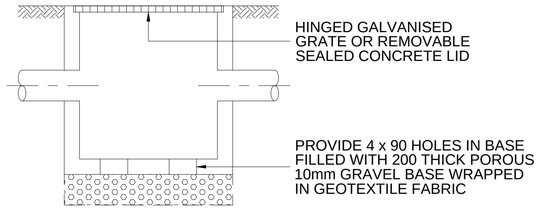


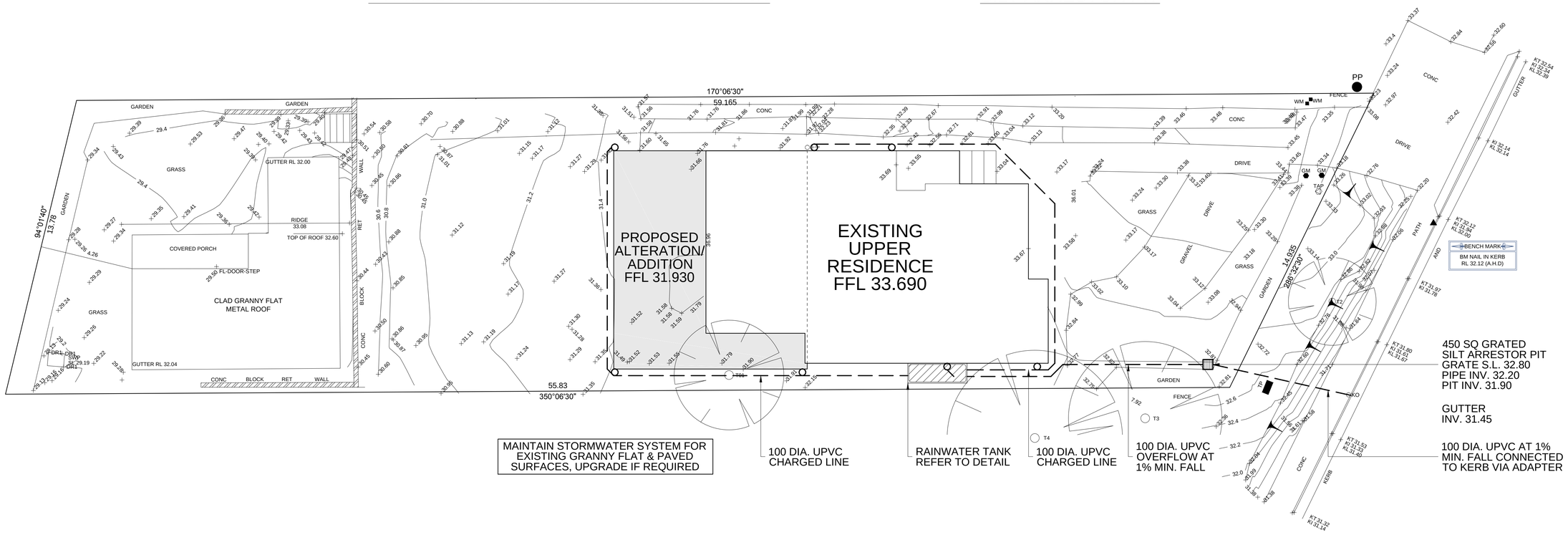
- ROOF GUTTER SCREENING RECOMMENDED
- CONCRETE BASE SLAB TO MANUFACTURER'S SPECIFICATIONS
- VOLUME IS EXCLUSIVE OF AIRSPACE ABOVE OVERFLOW PIPE INVERT
- U.N.O TANK SIZE & CONNECTED SERVICES BE IN ACCORDANCE WITH BASIX REPORT

TYPICAL ABOVE GROUND RAINWATER TANK

CALCULATIONS	
SITE AREA	= 769.0m²
PRE - DEV. IMPERVIOUS	= 321.0m²
POST - DEV. IMPERVIOUS	= 318.0m²
INCREASE IN IMPERVIOUS AREA < 50.0m²	



SILT ARRESTOR PIT



SYMBOLS & NOTATIONS

GENERAL: UNLESS NOTED OTHERWISE

- THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER WORKING DRAWINGS, SPECIFICATIONS AND ANY OTHER WRITTEN INSTRUCTIONS ISSUED DURING CONSTRUCTION. ALL DISCREPANCIES AND VARIATIONS SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- DURING CONSTRUCTION THE STRUCTURE AND ANY ADJACENT STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWING. ALL LEVELS AND SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS.
- THE CONTRACTOR IS RESPONSIBLE TO ESTABLISH THE LOCATION SIZE AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL STORMWATER PIPES TO BE 100 DIA UPVC AT 1% MINIMUM FALL.
- ALL LOCALISED SURFACE RUN OFF IS TO BE DIRECTED TOWARDS SUMPS AND GRATED PITS BY SITE RE-GRADE.
- ALL PITS OTHER THAN SILT ARRESTOR AND CONTROL PITS ARE TO BE ADEQUATELY BENCHED TO ENSURE SELF CLEANING.
- ALL GRATED BOX DRAINS, GRATES AND SOLID COVERS ARE TO BE CONSTRUCTED OF THE APPROPRIATE CLASS AND MATERIALS IN ACCORDANCE WITH AUSTRALIAN STANDARDS AND COUNCILS SPECIFICATIONS.
- ALL PIPES, JOINTS, VALVES, SUB-SOIL DRAINS ETC. SHALL CONFORM AND BE PLACED BACK FILLED TO THE RELEVANT AUSTRALIAN STANDARDS.
- ALL BALCONIES AND ROOFS ARE TO INCORPORATE A SAFETY OVERFLOW.
- SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS AND EMBANKMENTS, AND CONNECTED TO THE STORM WATER DRAINAGE SYSTEM.
- THE NUMBER AND LOCATION OF DOWNPIPES ARE INDICATIVE ONLY AND ARE TO BE LOCATED BY THE BUILDER IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS.
- RELOCATING YARD PITS TO SUIT FINAL LANDSCAPING IS PERMITTED. ADDING OR DELETING PITS SHALL BE SUBJECT TO DESIGN ENGINEERS APPROVAL.
- PROVIDE STEP IRONS TO TANKS AND PITS GREATER THAN 1000 DEEP, PERMANENTLY FIXED BY DRILLING AND EPOXY GROUTING. SPACED VERTICALLY AT 300CTS WITH ALTERNATE RUNGS OFFSET 200mm.
- GRATES AND FRAMES TO TANKS AND PITS GREATER THAN 900mm SHALL BE ADEQUATELY HINGED AND CHILDPROOFED.
- ANY DETENTION SYSTEM SHALL IF REQUIRED BY COUNCIL HAVE A PERMANENT MARKER PLATE FIXED IN A PROMINENT POSITION TO COUNCIL REQUIREMENTS.
- NOT WITHSTANDING THE EXTENT OF THE DRAINAGE SHOWN ON THIS DRAWING, ADDITIONAL WORK OR MEASURES MAY BE REQUIRED SHOULD UNDISCLOSED FEATURES OR ALTERED SITE CONDITIONS WARRANT IT.
- ADEQUATE EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED ON THE INSIDE OF SITE FENCING PRIOR TO SITE WORKS AND ADEQUATELY CLEANED AND MAINTAINED FOR THE DURATION OF WORKS.
- ALL DISTURBED AREAS ARE TO BE STABILISED UPON THE COMPLETION OF BUILDING WORKS. AREAS OUTSIDE THE SUBJECT PROPERTY MUST BE RESTORED TO ITS ORIGINAL CONDITION, TO COUNCILS SATISFACTION.
- BARE SURFACES SHALL BE KEPT MOIST TO REDUCE DUST LEVELS IF REQUIRED.
- KEEP FOOTPATH RESERVE FREE OF CONSTRUCTION MATERIAL AND WASTE BINS.
- ALL PROPOSED STRUCTURES SUCH AS RETAINING WALLS, DETENTION, ABSORPTION, AND RAINWATER TANKS BUILT ADJACENT TO OR OVER EASEMENTS & SEWERS ARE TO BE CONSTRUCTED TO RELEVANT AUTHORITY REQUIREMENTS.
- NO SEWER VENTS, GULLY PITS OR SIMILAR ARE TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS.
- ANY FENCES THAT MAY DIVERT OVERLAND FLOWS IS TO BE RAISED 100mm.
- ALL SITE SAFETY MEASURES AND WORK METHOD STATEMENTS PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNTIL SUPERVISOR/BUILDER HAS IDENTIFIED AND APPROPRIATELY ACTED ON ANY POTENTIAL HAZARDS.
- CONFINED SPACES SIGNAGE IS TO BE INSTALLED IN ACCESSIBLE UNDERGROUND TANKS TO WORK COVER SPECIFICATIONS.
- DRIVEWAY CROSSING IS INDICATIVE ONLY AND SHALL BE CONSTRUCTED TO COUNCIL SPECIFICATIONS.

RAINWATER TANK: IF REQUIRED

- RAINWATER TANKS ARE TO BE SIZED AND CONNECTED TO SERVICES SPECIFIED IN THE BASIX REPORT AND INSTALLED IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS.
- ALL PIPE WORK IS TO BE UNDERTAKEN BY LICENSED PLUMBER. A FIRST FLUSH DEVICE MUST FITTED WHERE APPROPRIATE.
- THE TANK SHOULD BE PRE-FABRICATED, STRUCTURALLY SOUND AND DESIGNED FOR HYDROSTATIC AND BUOYANCY FORCES WHERE APPROPRIATE.
- ANY INLET MUST BE SCREENED TO PREVENT ENTRY OF FOREIGN MATTER AND MOSQUITO BREEDING. TANKS AND ASSOCIATED STRUCTURES ARE TO BE CHILDPROOFED.
- RAINWATER TANKS AND FITTINGS INSTALLED OVER OR IMMEDIATELY ADJACENT TO A WATER MAIN, SEWER MAIN OR EASEMENT, MUST CONFORM TO THE RELEVANT AUTHORITY REQUIREMENTS
- THE CLIENT IS RESPONSIBLE FOR THE MAINTENANCE OF THE RAINWATER TANK, ASSOCIATED DEVICES AND THE WATER SUPPLY AREA SUCH AS ROOF GUTTERS, IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- THE RAINWATER TANK, PIPELINES, TANK OUTLETS, VALVE ETC SHALL BE CLEARLY, PERMANENTLY AND APPROPRIATELY MARKED AND LABELLED.
- ANY APPROPRIATE BACK FLOW PREVENTION MEASURES ARE TO BE INSTALLED AND MAINTAINED TO PREVENT CONTAMINATION OF WATER SUPPLY.
- ANY PUMP AND ELECTRICAL CONNECTION ARE TO BE INSTALLED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND SATISFY STATUTORY NOISE LEVELS.
- ENSURE ADEQUATE SEPARATION TO PARALLEL POTABLE WATER SUPPLY LINES.
- ONLY COLLECT RAINWATER FROM ROOFS AND ASSOCIATED SURFACES CONSTRUCTED FROM NON ASBESTOS AND OTHER APPROPRIATE MATERIALS.
- WHERE STORM WATER LINES ARE CHARGED INTO THE RAINWATER TANK PROVIDE CLEANING EYES TO BASE OF DOWN PIPES AND ENSURE DOWNPIPES ARE WATERTIGHT SEALED TO GUTTER LEVEL.
- RAINWATER TANK LOCATION IS INDICATIVE ONLY AND MAY BE SUBJECT TO RELOCATION DEPENDANT ON PREVAILING SITE CONDITIONS.
- WHERE PIPES ARE EXPOSED TO DIRECT SUNLIGHT THEY ARE TO BE ADEQUATELY PROTECTED FROM UV RADIATION.

— —	STORMWATER LINES	S.L.	FINISHED SURFACE LEVEL
O	DOWNPIPE LOCATION	—S—	APPROX. SEWER LOCATION
INV.	INVERT LEVEL (PIPE / PIT)		200 WIDE x 100 DEEP HOT DIP GALV. GRATED BOX DRAIN

A	ORIGINAL ISSUE	T.N	11/06/21

B.E,MIEAust,CPEng

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HYDRAULIC DETAIL PLAN

CLIENT:	MR & MRS CHESTER
ADDRESS:	LOT Y (NO. 32) BEACONSFIELD STREET, NEWPORT
COUNCIL:	NORTHERN BEACHES
SCALE:	A1 - 1:100, A3 - 1:200
SHEET NO:	1
JOB NO:	94168PC

Appendix 16 – On-site Detention Checklist

This checklist is to be used to determine the on-site stormwater disposal requirement for developments and must be completed and included with the submission of any development application for these works. Please read this form carefully for its notes, guidelines, definition and relevant policies.

For assistance and support, please contact Council's Development Engineering and Certification team on 1300 434 434.

Part 1 Location of the Property			
House Humber	32	Legal Property Description	
Street	BEACONSFIELD STREET	Lot Y	
Suburb	NEWPORT	Section	
Postcode		DP	

Part 2 Site Details			
Northern Beaches Stormwater Regions (refer to Map 2 of Northern Beaches Council's Water Management for Development policy)	1	Total Site Area	769
Pre-Development Impervious Area	321	Post-Development Impervious Area	318
Is the site of the development located within an established Flood Prone Land as referred to Council's Local Environmental Plans? If yes, On-site stormwater Detention system (OSD) is not required and please proceed to part 5 of this checklist If no, please proceed to part 3 of this checklist.			Yes ☐ No ☑

Part 3: Northern Beaches Stormwater Regions (refer to Map 2 of Northern Beaches Council's Water Management for Development policy)
If the site of the development located within Region 1, please proceed to the part 4.1 of this checklist
If the site of the development located within Region 2, please proceed to the part 4.2 of this checklist
If the site of the development located within Region 3, please proceed to the part 4.3 of this checklist
If the site of the development located within Region 4, please refer to Council's Warriewood Valley Water Management Specification.

northern beaches council

Part 4 Determination of OSD Requirements

Part 4.1 Northern Beaches Stormwater Region 1	
Is the additional impervious area of the development more than 50 m^2 on a cumulative basis since February 1996?	Yes ☐ No ☑
If yes, OSD is required and please refer to section 9.3.1 of Council's Water Management for Development Policy If no, OSD is not required and please proceed to the part 5 of this checklist	

Part 4.2 Northern Beaches Stormwater Region 2	
Part 4.2.1 Description of Work	
Residential flat building, commercial, industrial, multiple occupancy development and subdivisions resulting in the creation of three lots or more, will require OSD in all case. Please provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. Any single residential building development, please proceed to part 4.2.2 of this checklist.	
Part 4.2.2 Exemption	
Is the site area less than 450m^2?	Yes ☐ No ☐
Does the site of the development drain directly to the ocean without the need to pass through a drainage control structure such as pipe, bridge, culvert, kerb and gutter or natural drainage system?	Yes ☐ No ☐
Is it an alternation and addition development to the existing dwellings?	Yes ☐ No ☐
If yes to any of the above questions, OSD is not required. If no to all the above questions, proceed to part 4.2.3	
Part 4.2.3 Determination of OSD Requirements	
Calculation	a) Site area m^2 x 0.40 (40%) = ... m^2 b) Post- development impervious area = ... m^2
	OSD will not be required when (a) is greater than (b) Is OSD required for this development (tick one only) Yes ☐ No ☐ If yes, provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. If no, OSD is not required and please proceed to part 5 of this checklist.

Part 5 Disposal of Stormwater
Does the site fall naturally towards the street? Yes ☐ No ☑ If yes, provide a design in accordance with section 5.1 of Council's Water Management for Development Policy. If no, provide a design in accordance with section 5.5 of Council's Water Management for Development Policy.

Definitions	
Designed to help you fill out this application	**Site area:** This refers to the area of the land bounded by its existing or proposed boundaries. **Impervious area:** This refers to driveways, parking spaces, pathways, paved areas, hardstand areas, roofed areas, garages and outbuildings. **Pre Development Impervious area**: This refers all impervious areas of the site before the development. **Post Development Impervious areas**: This refers all the impervious areas within the site after the development is completed.