

## ONSITE DETENTION SYSTEM SUMMARY NOTES

TOTAL SITE AREA	613.7 m <sup>2</sup>			
DESIGN METHOD USED	DRAINS			
PRE DEVELOPMENT IMPERVIOUS AREA	0 m <sup>2</sup>	('STATE OF NATURE')		
POST DEVELOPMENT IMPERVIOUS AREA	267 m <sup>2</sup>			
PRE DEVELOPMENT SITE DISCHARGE				
5 YR	16 1/s			
20 YR	27 /s			
100 YR	38 /s			
POST DEVELOPMENT SITE DISCHARGE	CONTROLLE	D UN-CONTROLLED		
5 YR	7 1/s	9 1/5		
20 YR	10 /s	14 /s		
100 YR	12 1/s	19 1/5		
PORTION OF SITE THROUGH OSD	48 %			
ORIFICE SIZE	71 mm ¢			
TYPE OF CONTROL	BELOW DE	CK TANKS		
OSD CALCULATED	8.0 m <sup>3</sup>			
OSD REQUIRED BY PITTWATER COUNCIL DCP21	9.0 m <sup>3</sup>			
DIMENSION OF OSD PROVIDED	$2/3.39 \text{ m}^2 \text{ x}$	1.33 m DEPTH		
	3			
VOLUME OF OSD	9.0 m <sup>3</sup>			

## STORMWATER NOTES:

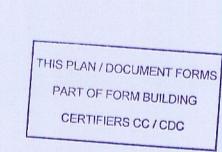
- 1 ALL PIPES TO BE 100mm & UNLESS NOTED OTHERWISE.
- 2 ALL PIPES TO BE UPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
- 3 ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
- 4 ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS. ( NO COMPACTION REQUIRED BELOW LANDSCAPING ) COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM. BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN, TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
- 5 ALL DOWN PIPES TO BE 100mm & UNLESS NOTED OTHERWISE.
- 6 DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
- 7 PROVIDE CLEANING EYES AT ALL DOWNPIPES.
- 8 ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH I NIZ TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 1000 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH NIZ AT 300 EACH WAY UNLESS NOTED OTHERWISE.
- 9 ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
- 10 ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
- 11 PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
- 12 ALL LEVELS SHOWN ARE TO AHD
- 13 ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
- 14 ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO UPVC.
- 15 ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

## RAINWATER RE-USE TANKS:

- I. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A MINIMUM 3000 1 CAPACITY RAINWATER TANK FOR THE FOLLOWING USES:
- a) TO WATER GARDEN AREAS b) CONNECT TO W.C. c) CONNECT TO WASHING MACHINE.
- 2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
- COOMBES P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKEL, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS"
- 4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE
- WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au
- 5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES.

- 1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
- 2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: SOI.

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27.9.10	) A	16sue FOR DA	Rick G. Wray  BE(Civil), CPEng, MIEAust., NPER. (Director Northern Beaches Consulting Engineers)	Suite 207, 30 FISHER ROAD DEE WHY N.S.W. 2099 Ph: (02) 9984 7000 Fax: (02) 9984 7444	Client:	STORMWATER NOTES	Job No: 100736	Drawing No:	Rev:
Date:	Rev:	Amendment:	Q e-ma	e-mail: nb@nbconsulting.com.au web page: www.nbconsulting.com.au	BEN EGGLETON	SIORMWATER HOTES	100700	1003	/-+