

SITE PLAN (1:100)
 Existing levels - 4.07
 Design levels - 4.55

STORMWATER DRAINAGE NOTES.
 Stormwater drainage pipes have been sized to cater for a 1 in 20 year event.

Pipes shall be UPVC Stormwater Drainage Pipes to AS 1254 or Sewer Drainage Pipes Class 'SH' to AS 1260.

Pipes serving individual downpipes only may be 90mm diameter. Pipes 90mm to 150mm diameter to be laid at 1.0% minimum grade. Pipes 225mm dia. to 300 dia. to be laid at 0.5% minimum grade.

All driveway pits shall be pre-cast concrete (BCP or equivalent), fitted with removable galvanised mild steel grates. Plastic pits may be used in courtyards only. Base of pit to be 200mm below outlet pipe in silt trap pit, with 20mm dia holes in base to prevent ponding during dry weather. Grated cover to be easily removable for cleaning out collected silt.

Pipes beneath driveway areas to be encased in concrete (100mm minimum all around pipes TYPICAL) where cover to top of pipes is less than 50mm.

Stormwater pit sizes to be as follows:
 Up to 600 deep - 450 x 450
 600 to 900 deep - 600 x 600
 900 to 1200 deep - 600 x 900
 Over 1200 deep - 900 x 900 with Galvanised step irons.

NUTRIENT CONTROL
 The stormwater drainage system has been designed to ensure that the first flush of stormwater runoff from all impervious areas for each rainfall event will flow into the Modular Tanks to remove pollutants. Stormwater will then overflow to the Council drainage system.

MAINTENANCE OF MODULAR TANK SYSTEMS
 The Junction Pit and Courtyard Pits will require regular maintenance to remove silt and sediment which will collect in the base of the pits. The frequency of cleaning required will be in the order of every 2 months. Collected silt may be disposed to gardens or compost bins. To ensure long service life of the modular tanks organic material such as grass clippings and leaf litter must be prevented from entering the modular tank. A maximesh screen should be fitted to the tank inlet and leaves and other material removed frequently.

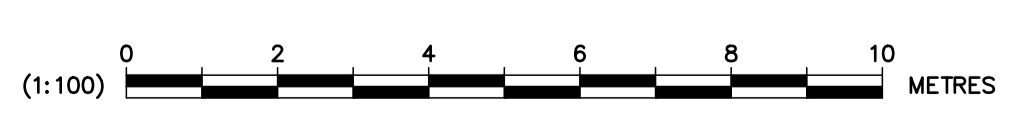
BEFORE YOU DIG AUSTRALIA
 It is compulsory to BYDA of the time and place of work at least thirty days before the work starts. (www.1100.com.au)
 Existing watermain, telecom, Gas & electricity services have not been located. Contractor to confirm locations and depths of all services prior to any excavation by contacting Before You Dig Australia. Under the Regulations, Before You Dig Australia must be notified for -:
 * Almost all work on private property, including work approved by a Council.
 * Work by a public authority.
 * Work on underground utility services.

SAFETY IN DESIGN
 INSTALLATION OF NUTRIENT TRENCHES REQUIRES EXCAVATION IN EXCESS OF 1.0m DEEP IN SAND. SHORING OR BENCHING OF EXCAVATION WILL BE REQUIRED. SERVICES AND PEDESTRIANS IN FOOTWAY WILL REQUIRE PROTECTION. EXCAVATION SHOULD BE CARRIED OUT IN ACCORDANCE WITH SAFE WORK AUSTRALIA EXCAVATION CODE OF PRACTICE.

NOTE
 Provide openings in brick courtyard fence at base or if colorbond fence is used leave 150mm gap at base to allow for overland flow. (TYPICAL)

NOTE
 Courtyard pits to be 450 x 450 with 150 dia. PVC. outlet pipe. (Off line)

COURTYARD PIT LOCATIONS
 COURTYARD PITS LOCATIONS ARE INDICATIVE ONLY. PITS SHOULD BE LOCATED TO SUIT LANDSCAPING REQUIREMENTS. IT HAS BEEN ASSUMED THAT COURTYARDS HAVE PERVIOUS FINISHES UNLESS SHOWN OTHERWISE ON PLAN. IF PAVED FINISHES ARE REQUIRED ADDITIONAL DRAINAGE PITS WILL BE REQUIRED TO ENSURE MINIMUM 1.0% FALL TO PITS OCCURS. FINISHED GRADE LEVELS OF COURTYARD PITS ARE TO BE AS SHOWN ON PLAN. NCC REQUIREMENTS FOR DRAINAGE AND FREEBOARD SHOULD BE COMPLIED WITH.



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ORIGINAL SIZE: 1:100 ISSUE: DATE: DETAILS OF AMENDMENT:	HALCROW & ASSOCIATES CONSULTING STRUCTURAL ENGINEERS <small>A.C.N. 003 805 374</small>		DESIGN: A.H. DATE: 17.11.23 SCALE: AS SHOWN APPROVED: <i>Angela Halcrow</i>	DRAWN: B.N. CHECKED: <i>A.H.</i>	CLIENT: Lina Guo PROJECT: Proposed Multi Unit Development SITE: Lot 28 (No.135) Paton Street, WOY WOY	DRAWING NUMBER: 23.10.005 No. IN SET: AMENDMENT:
	<small>108 Avoca Drive, Kinchester, N.S.W. 2251. P.O. Box 6349 Kinchester, 2251</small>		Phone: (02) 4369-0977 Email: design@halcrow.com.au	<small>DESIGN: MIE/AS/1 CP/ENG</small>	TITLE: CONCEPT STORMWATER PLAN	DA1 of 3
	DESIGNER'S SIGNATURE: _____ DATE: _____					
	CLIENT'S SIGNATURE: _____ DATE: _____					