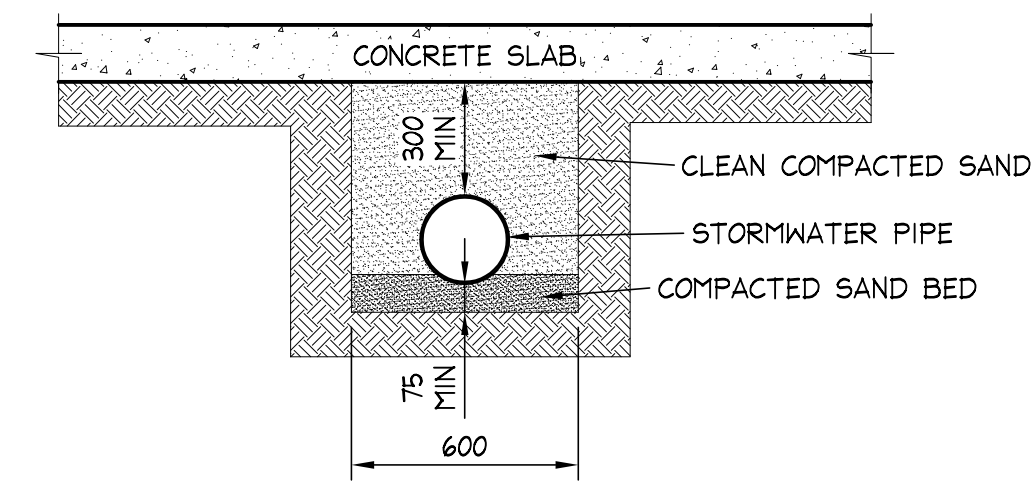


STORMWATER NOTES:

- 1 - ALL PIPES TO BE 100mm ϕ SEWER GRADE uPVC UNLESS NOTED OTHERWISE.
- 2 - ALL PIPES TO BE uPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
- 3 - ALL PIPES TO BE LAID 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 AS PER AS3500.
BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
- 5 - DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
- 6 - PROVIDE CLEANING EYES AT ALL DOWNPIPES.
- 7 - ALL PITS TO BE PRECAST, PREFORMED OR HDPE, IN ACCORDANCE WITH LOCAL COUNCIL SPECIFICATIONS.
- 8 - ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
- 9 - ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
- 10 - PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
- 11 - ALL LEVELS SHOWN ARE TO AHD
- 12 - ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
- 13 - ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
- 14 - ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

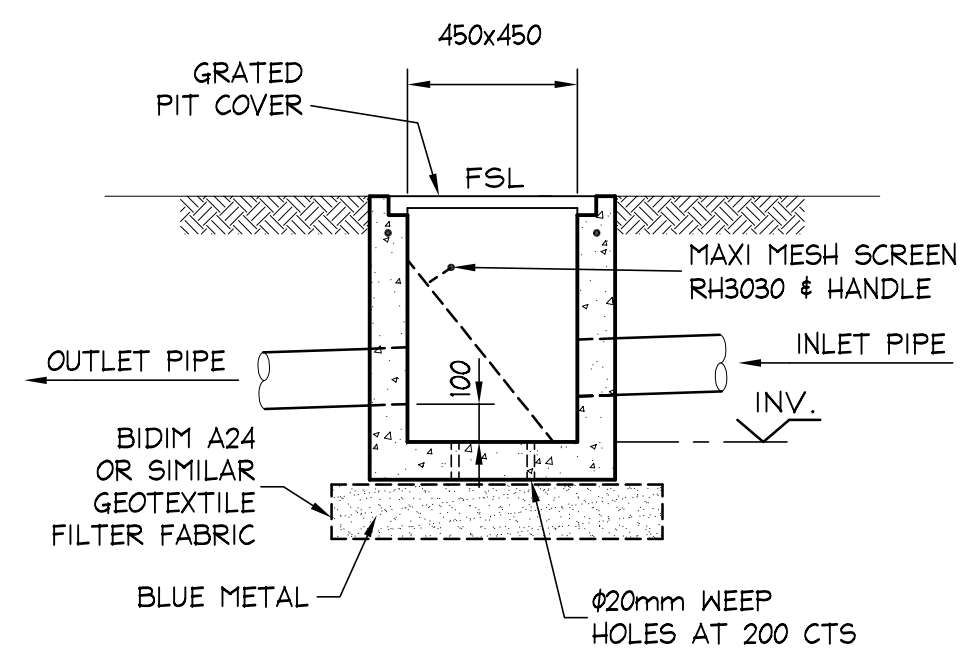
ONSITE DETENTION CALCULATIONS ACCORDING TO PITTWATER 21 DCP	
TOTAL SITE AREA	= 917.2 m ²
PROPOSED IMPERVIOUS AREA	= 418.0 m ² (45.6 %)
PRE DEVELOPED IMPERVIOUS AREA FROM "PITTWATER 21 DCP"	= 348.0 m ² (38.0 %)
REQUIRED RAINWATER TANK	= NIL 1 - FOR BASIX
REQUIRED OSD TANK	= 4500 l
PSD	= 2 l/s
ORIFICE	= 32 mm ϕ
DESIGN OF STORMWATER MANAGEMENT SYSTEM COMPLIES WITH B5.5 & B5.7 OF PITTWATER 21 DCP. REFER SIGNATURE BELOW.	



TYPICAL TRENCHING DETAIL

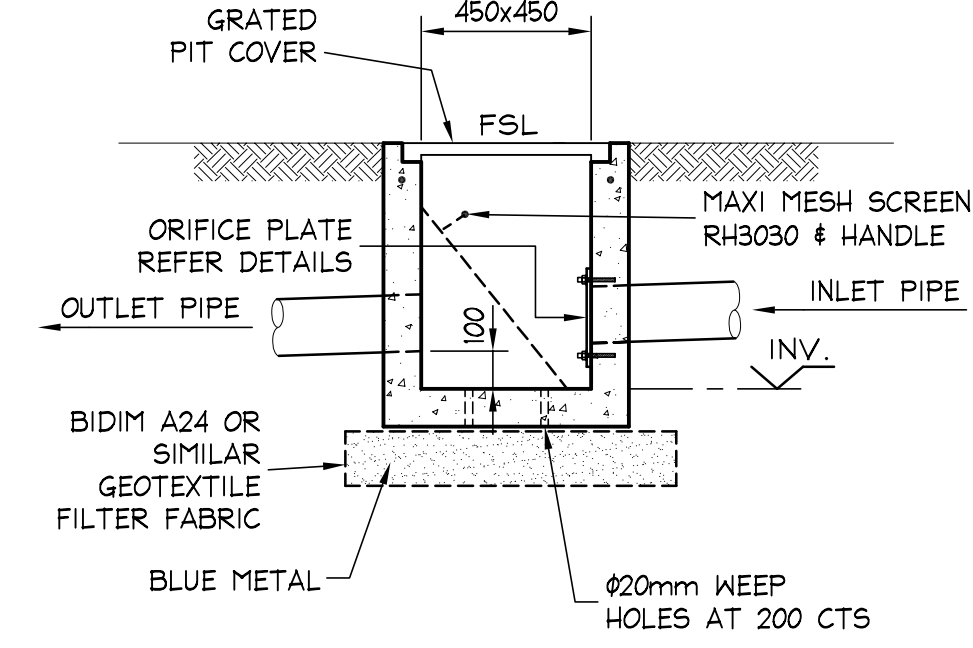
SCALE = 1 : 20

Gutter Calculations - 100 yr ARI Storm Northern Beaches (Pittwater) Council 15 Hudson Parade, Avalon to AS 3500 - 2015							
Box Gutters	Horizontal Area A _h	Slope Factor from Table 3.4.3.2	Area A _c	Gutter Slope steeper than 1 in 200	¹⁰⁰ I _s from DRAINS mm/hr	From Figure I1 gutter size reqd mm	Downpipe From Fig 11 & 14 size reqd mm
DP1	118 m ²	1.01	119.2 m ²	200	267	300x150	150dia
DP2	71 m ²	1.01	71.7 m ²	200	267	300x150	150dia
Box Gutter - use minimum size 300wide x 200high - grade at 1 in 200 Rainhead to detail							



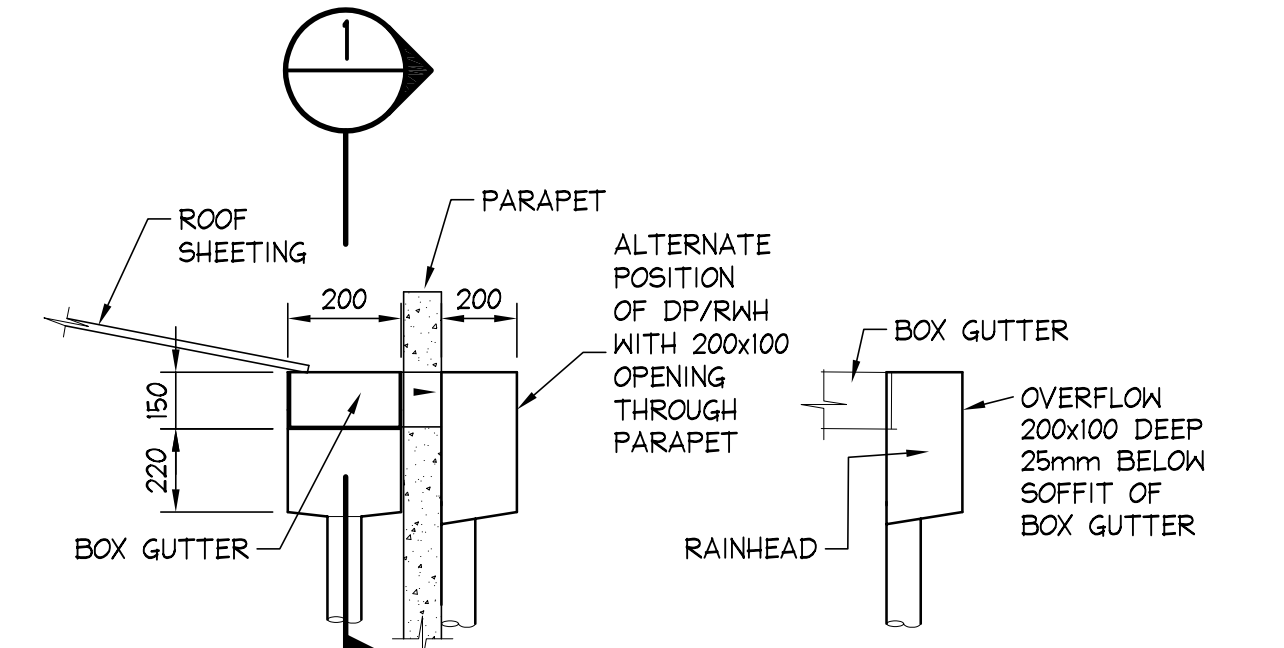
450x450 PIT DETAIL
PRECAST OR HDPE PIT REFER STORMWATER NOTES

SCALE = 1 : 20



450x450 OSD CONTROL PIT DETAIL
PRECAST OR HDPE PIT REFER STORMWATER NOTES

SCALE = 1 : 20



TYPICAL RAIN HEAD DETAIL
CROSS SECTION RWH

SCALE = 1 : 20

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



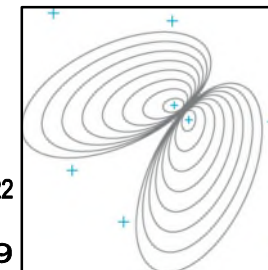
DOCUMENT CERTIFICATION

Date : JULY 2020
Bruce Lewis
(Principal : Peninsula Consulting Engineers)
BE(Civil), CPEng, MIEAust., NPER
Institute of Engineers Membership No. 879131

1-09-2020	B	MODIFY TEXT
28-07-2020	A	FOR COUNCIL SUBMISSION
23-07-2020	P5	DRAFT
Date:	Rev:	Amendment:

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Project:
**PROPOSED WORKS
at: 15 HUDSON PARADE
AVALON BEACH
for: MS RAE & MR GATES**

Drawing Title:

CONCEPT STORMWATER MANAGEMENT PLAN & DETAILS

Job No:

20-0516

Drawing No:

H01

Rev:

B