

ALTERATIONS & ADDITIONS

at: 28 BASSETT STREET, MONA VALE

for: BRETT & KAMMI BEUZEVILLE

Architect: SITE SPECIFIC DESIGNS

Prepared By:



A.C.N. 076 121 616 A.B.N. 24 076 121 616

Sydney: Ph: (02) 9984 7000

Suite 207, 30 Fisher Road Dee Why N.S.W. 2099

Gold Coast: Ph: (07) 5631 4744

Suite 1, 30B Griffith Street, Coolangatta QLD 4225

E : nb@nbconsulting.com.au W : www.nbconsulting.com.au

The copyright of these drawings remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers

DRAWING SCHEDULE:

- D01 A STORMWATER DRAINAGE GENERAL NOTES
- D02 A SITE STORMWATER DRAINAGE PLAN
- D03 A GARAGE FLOOR STORMWATER DRAINAGE PLAN
- D04 A GROUND FLOOR STORMWATER DRAINAGE PLAN
- D05 A ROOF STORMWATER DRAINAGE PLAN
- D10 A STORMWATER DRAINAGE DETAILS SHEET 1
- D11 A STORMWATER DRAINAGE DETAILS SHEET 2

ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR
CONSTRUCTION

IF IN DOUBT ASK

2502082

REV. A - 01.04.2025

NB Consulting Engineers

STRUCTURAL • CIVIL • STORMWATER • REMEDIAL

D9. IF ANY VALLEY GUTTER SHOWN ON THIS PLAN IS BELOW A 12.5-DEGREE ROOF PITCH WITH A CATCHMENT AREA ABOVE 20m², A CUSTOM VALLEY GUTTER, OR BOX GUTTER WILL BE REQUIRED. IF THE ROOF PITCH REQUIREMENT CANNOT BE ACHIEVED, THE PROJECT ENGINEER MUST BE NOTIFIED FOR DESIGN DETAILS AND THE GUTTER SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH AS3500.3 PRIOR TO CONSTRUCTION.

D9. ADEQUATE FLASHING WILL BE REQUIRED TO DIVERT FLOWS AROUND SKYLIGHTS. FLASHING WORKS TO BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON AND BE INSTALLED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND NCC REQUIREMENTS.

D10. ALL EAVES GUTTERS MUST BE MINIMUM 150 HALF ROUND GUTTERS (WITH A CROSS-SECTIONAL AREA OF 9200mm²) OR AN APPROVED EQUIVALENT, UNO. ALL EAVES GUTTER FALLS MUST BE DIRECTED TO THE NOMINATED DOWNPIPES AS SHOWN ON THE STORMWATER MANAGEMENT PLAN. THE PROJECT STORMWATER ENGINEER MUST BE NOTIFIED IF ANY CHANGES ARE PROPOSED OR THE ABOVE CANNOT BE ACHIEVED PRIOR TO CONSTRUCTION.

D11. ALL EAVES GUTTERS AND ASSOCIATED DOWNPIPES MUST BE INSTALLED IN ACCORDANCE WITH TABLE 3.5.2, AS3500.3 (2021), UNLESS NOTED OTHERWISE.

D12. NOTIFY THE PROJECT ENGINEER IF THE MINIMUM HEAD PRESSURE HEIGHT (AS SHOWN ON THIS PLAN) BETWEEN THE INVERT OF THE GUTTER AND INVERT OF THE CHARGED SYSTEM OUTLET CANNOT BE ACHIEVED.

PITS:

E1. ALL STORMWATER PITS MUST BE INSTALLED IN ACCORDANCE WITH AS3500.3.

E2. ALL CONCRETE PITS TO BE DESIGNED BY STRUCTURAL ENGINEER.

E3. MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS TO BE IN ACCORDANCE WITH TABLE 7.5.2.1, AS3500.3 (2021).

E4. ALL PITS GREATER THAN 1200mm DEEP SHALL HAVE STEP IRONS INSTALLED. STEP IRON INSTALLATION MUST BE IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS.

E5. THE BOUNDARY OR SILT ARRESTOR PIT MUST INCORPORATE A SUMP OF MINIMUM 200mm DEPTH BELOW THE INVERT OF THE OUTLET PIPE AND A MAXI-MESH SCREEN AS PER LOCAL COUNCIL AND THE AUSTRALIAN STANDARD REQUIREMENTS. HOWEVER, UNLESS SPECIFICALLY REQUIRED BY COUNCILS POLICY OR IF THE SITE CONSISTS OF A CLAY OR ROCK SUBGRADE, ALL OTHER DRAINAGE PITS WILL NOT REQUIRE A SUMP.

E6. ALL STORMWATER PITS TO BE LOCATED AT LOW POINTS TO PREVENT PONDED WATER.

E7. FOR STORMWATER PITS LOCATED BELOW THE WATER TABLE, CUT INTO ROCK OR IN POORLY DRAINED SOILS, THE PIT SUMP MAY BE FILLED WITH MORTAR AND SCREEDED TOWARDS THE OUTLET AT MINIMUM 1% FALL, SUBJECT TO THE ENGINEERS APPROVAL.

E8. A STAINLESS STEEL OR GALVANISED MESH SCREEN (MAXI-MESH RH3030 OR APPROVED EQUIVALENT) MUST BE INSTALLED OVER OUTLETS WITHIN ALL SURFACE PITS AND ORIFICE PLATES, UNO. THE TRASH SCREEN AREA MUST BE A MINIMUM OF 50 TIMES THE ORIFICE AREA FOR ALL ORIFICES BELOW 150mm DIAMETER. IF ABOVE 150mm, TRASH SCREEN AREA MAY BE REDUCED TO 20 TIMES THE ORIFICE AREA. ALL TRASH SCREENS MUST REMAIN A DISTANCE OF 15 TIMES THE ORIFICE AREA AWAY FROM THE OUTLET STRUCTURE, OR 200mm, WHICHEVER IS GREATER.

E9. 20mm WEEP HOLES TO BE INSTALLED AT 200mm CENTRES AT THE BASE OF ALL SURFACE PITS UNLESS FOUND ON A ROCK FOUNDATION.

SUBSOIL DRAINAGE:

F1. ALL SUBSOIL DRAINAGE TO BE INSTALLED AS REQUIRED IN ACCORDANCE WITH AS3500.3 (SPECIFICALLY SECTION 6, 7 AND APPENDIX L) AND THE NCC.

F2. INSTALLATION OF SUBSOIL DRAINAGE LINES IS GENERALLY REQUIRED WHERE SUBSURFACE WATER MOVEMENT COULD DAMAGE BUILDINGS OR CAUSE LOSS OF AMENITY THROUGH THE BUILD-UP OF EXCESSIVE MOISTURE OR LATERAL WATER PRESSURE. THIS INCLUDES ALONG WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER, ON THE UPHILL SIDE OF CUT AND FILL SITES, ADJACENT TO DEEP FOOTINGS, BEHIND RETAINING WALLS AND ADJACENT TO BASEMENT WALLS. SUBSOIL DRAINAGE IS GENERALLY ALSO REQUIRED IN SHALLOW LANDSCAPED AREAS OVER ROCK OR POORLY DRAINED SOILS TO PREVENT OVERLY SATURATED LANDSCAPED AREAS.

F3. THE INSTALLATION OF SUBSOIL DRAINAGE MAY REQUIRE TRENCHING THROUGH ROCK.

F4. ALL SUBSOIL LINES ARE TO BE 100mm uPVC SLOTTED PIPE (UNSOCKETED), LAID AT (MIN.) 0.5% FALL UNO.

F5. THE SUBSOIL LINE IS TO BE SURROUNDED BY SELECT FILTER MATERIAL, GENERALLY 10-20mm DIAMETER AGGREGATE.

F6. THE TRENCH SHALL BE SIZED TO PROVIDE A MINIMUM 50mm BEDDING AND 100mm COVER ALL AROUND THE SUBSOIL LINE, GENERALLY MINIMUM 300mm WIDE x 300mm DEEP. THE TRENCH IS TO BE WRAPPED ALL-ROUND IN NON-NOVEN, GEOTEXTILE FABRIC OF STRENGTH CLASS A, WITH SUFFICIENT OVERLAP (LESSER OF TRENCH WIDTH OR 500mm).

F7. WHERE THE IN-SITU SOILS HAVE A GRAIN SIZE SMALLER THAN THE GEOTEXTILE FABRIC, COURSE WASHED-SAND SHOULD BE USED AS A FILTER TO PREVENT BLOCKAGE OF THE GEOFABRIC.

F8. THE BACKFILL LAYER OVER THE TRENCH SHALL BE NO-FINES COURSE WASHED-SAND. WHERE LANDSCAPED AREAS ARE PROPOSED OVER THE TRENCH, THE TOP 300mm OF BACKFILL MAY BE MIXED WITH UP TO 20% ORGANIC MATTER.

F9. ALL SUBSOIL LINES ARE TO DISCHARGE INTO A GRATED PIT, AT A LEVEL MINIMUM 50mm ABOVE THE PIT OUTLET UNO. THE PROJECT BUILDER IS TO IMPLEMENT APPROPRIATE MEASURES TO PREVENT SUBSOIL LINE BLOCKAGE OR INFESTATION OF VERMIN.

F10. THE HIGH-END OF THE SUBSOIL LINE IS TO BE TURNED UP AT 45° AND TERMINATE AT GROUND LEVEL WITH AN INSPECTION CAP TO ENABLE FUTURE FLUSH OUT AND MAINTENANCE.

F11. 100mm Ø x 3000mm LONG TAIL OUT SUBSOIL LINE TO BE PROVIDED ON THE UPSTREAM SIDE OF ALL LARGE PITS OR IN AREAS WITH HIGH SEEPAGE FLOWS. SUBSOIL LINE TO BE COVERED WITH GEOTEXTILE FILTER SOCK FOR THE FULL LENGTH AND END COVERED. BACKFILL MUST BE IN NO-FINES COARSE WASHED-SAND.

**ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR**

ON-SITE DETENTION NOTES:

NORTHERN BEACHES COUNCIL - REGION 1
ON-SITE DETENTION SYSTEM CALCULATION SHEET

ALL WORKS IN ACCORDANCE WITH COUNCIL'S WATER MANAGEMENT FOR DEVELOPMENT POLICY.

REGION

TOTAL SITE AREA	791.4 m ²	
PRE DEVELOPMENT IMPERVIOUS AREA	285.3 m ²	(36.0% OF SITE)
POST DEVELOPMENT IMPERVIOUS AREA	489.6 m ²	(61.8% OF SITE)
INCREASE	204.3 m ²	

SITE DISCHARGES DIRECTLY INTO A FLOOD ZONE, THEREFORE OSD IS NOT REQUIRED AS PER SECTION 9.2 OF THE WATER MANAGEMENT FOR DEVELOPMENT POLICY.

OSD VOLUME REQUIRED NIL m³ (NIL m³ PROVIDED)

RAINWATER 'BASIX' REQUIRED	1.783 m ³	(2.0 m ³ PROVIDED)
'BASIX' REQUIRED ROOF AREA TO RAINWATER TANKS	104 m ²	(194 m ² PROVIDED)

METHOD OF DISCHARGE STREET VIA LAYBACK KERB ADAPTOR

- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED



STORMWATER INSPECTION SCHEDULE	
INSPECTION ITEMS	STAGE OF CONSTRUCTION
IN-GROUND PIPEWORK	PRIOR TO BACKFILL
IN-GROUND INFILTRATION/DISPERSION TRENCHES	PRIOR TO BACKFILL
IN-GROUND PREFABRICATED TANKS	PRIOR TO CONCRETE POUR/BACKFILL
PIPEWORK CAST-IN SLABS	PRIOR TO CONCRETE POUR
BOX GUTTERS	POST INSTALLATION WITH SAFE ROOF ACCESS MADE AVAILABLE
ABOVE GROUND PIPEWORK + FINISHED SURFACE LEVELS	FINAL CERTIFICATION

[illegible]

Scale check - 100mm when printed to scale

A1

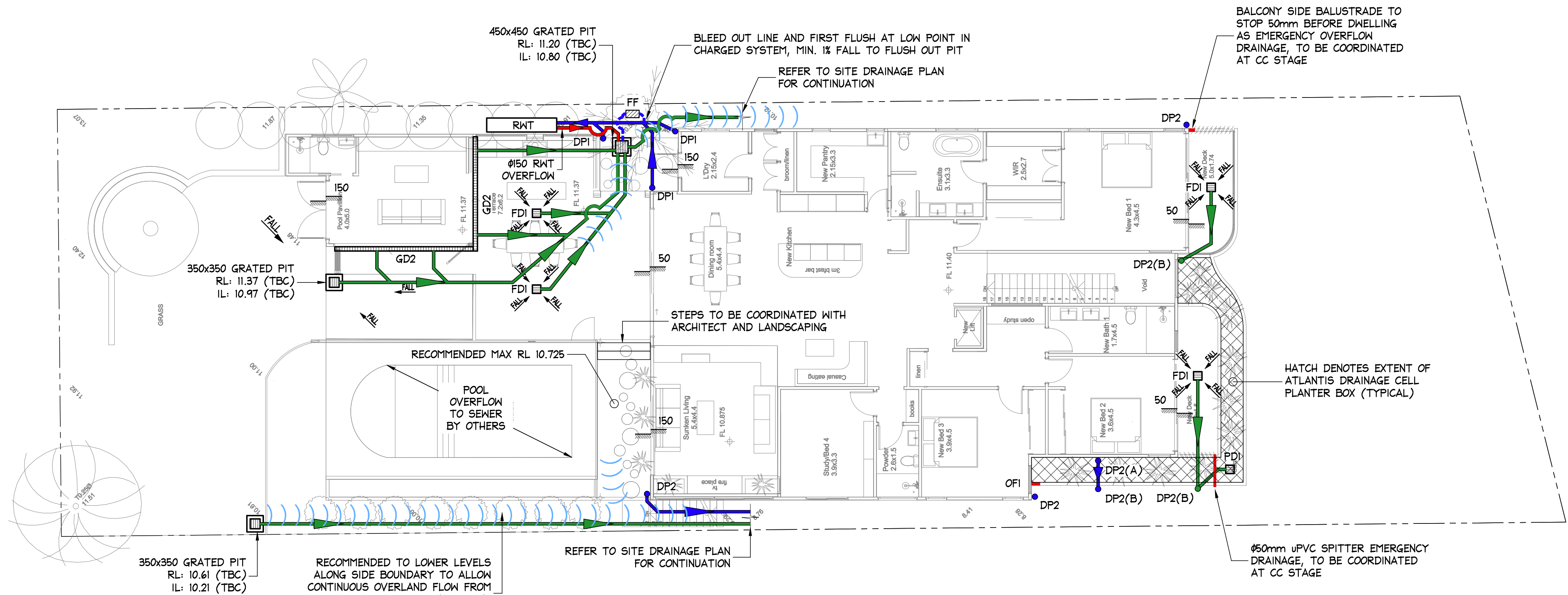
NB Consulting Engineers

1. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION IF THE ISSUE DATE PRECEDES THE ISSUE DATE ON THE ARCHITECTURAL DRAWINGS.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BY THE BUILDER BEFORE COMMENCING WITH ASSOCIATED WORK.
4. FOR GENERAL NOTES REFER TO DRAWING NUMBER: DOI.

[illegible]

NOTES:

1. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION IF THE ISSUE DATE PRECEDES THE ISSUE DATE ON THE ARCHITECTURAL DRAWINGS.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BY THE BUILDER BEFORE COMMENCING WITH ASSOCIATED WORK.
4. FOR GENERAL NOTES REFER TO DRAWING NUMBER: D01.



LEGEND

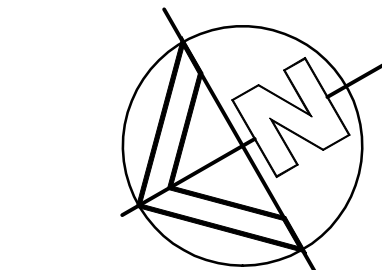
- DPI 100mm ϕ DOWNPIPE TO DISCHARGE TO RWT
- DP2 100mm ϕ DOWNPIPE TO DISCHARGE TO BOUNDARY PIT
- NEW SURFACE DRAINAGE STORMWATER PIPE
- NEW OVERFLOW STORMWATER PIPE
- NEW ROOF DRAINAGE STORMWATER PIPE
- STORMWATER PIPE FLOW DIRECTION
- STORMWATER PIT
- FDI FLOOR DRAIN (DETAIL TO BE COORDINATED AT CC STAGE)
- PDI PLANTER DRAIN (DETAIL TO BE COORDINATED AT CC STAGE)
- GD2 - STORMTECH 100mm THRESHOLD GRATED DRAIN
- RWT RAINWATER TANKS TO COLLECT ALL DPI DOWNPIPES, REFER TO DETAILS
- OVERLAND FLOW PATH
- MIN 50mm STEP OR THRESHOLD DRAINAGE (TO BE COORDINATED AT CC STAGE)
- FF BELOW GROUND FIRST FLUSH, REFER TO DETAILS
- OFI 200mm (W) x 50mm (D) OVERFLOW IN PLANTER WALL

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

GROUND FLOOR STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR
CONSTRUCTION



MINIMISE YOUR RISK AND CONTACT
www.byda.com.au BEFORE YOU DIG.

IF IN DOUBT ASK

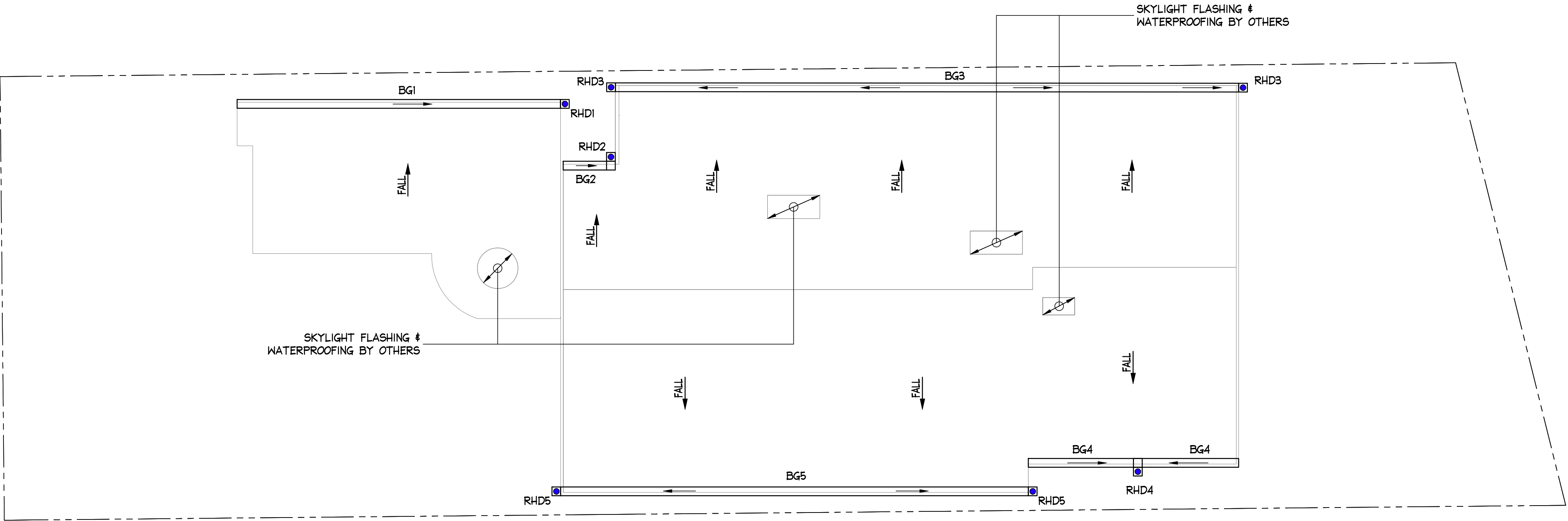
NB Consulting Engineers

Scale check - 100mm when printed to scale

																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

NOTES:

1. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION IF THE ISSUE DATE PRECEDES THE ISSUE DATE ON THE ARCHITECTURAL DRAWINGS.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BY THE BUILDER BEFORE COMMENCING WITH ASSOCIATED WORK.
4. FOR GENERAL NOTES REFER TO DRAWING NUMBER: D01.



LEGEND

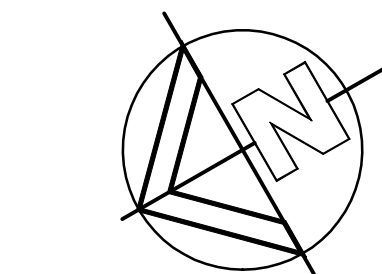
- BG1-5 BOX GUTTER, REFER TO DETAILS
- RHD1-5 RAINHEAD, REFER TO DETAILS

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

ROOF STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR
CONSTRUCTION



MINIMISE YOUR RISK AND CONTACT
www.byda.com.au BEFORE YOU DIG.

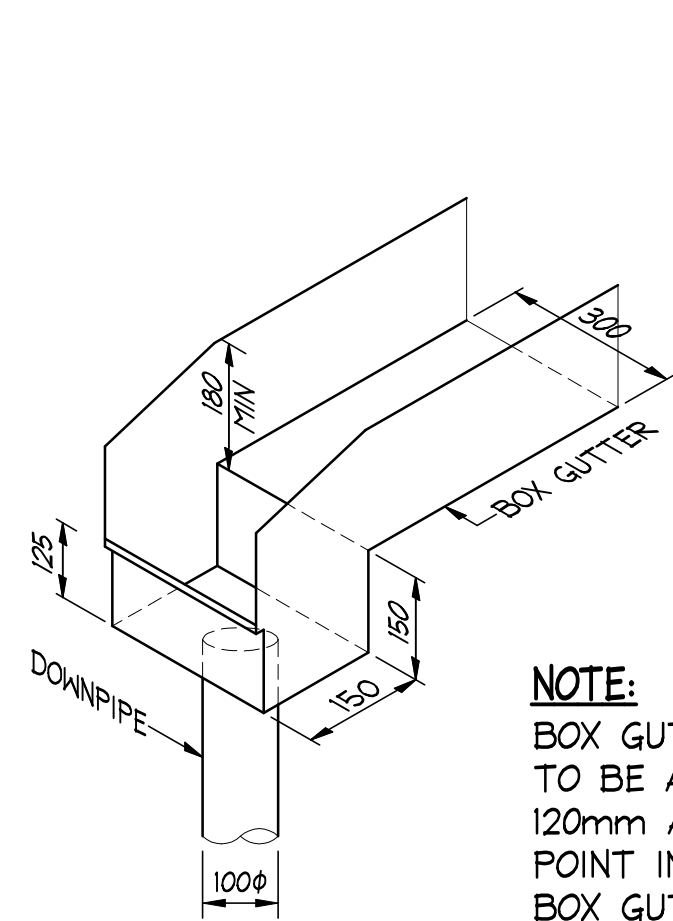
IF IN DOUBT ASK

NB Consulting Engineers

Scale check - 100mm when printed to scale

A1

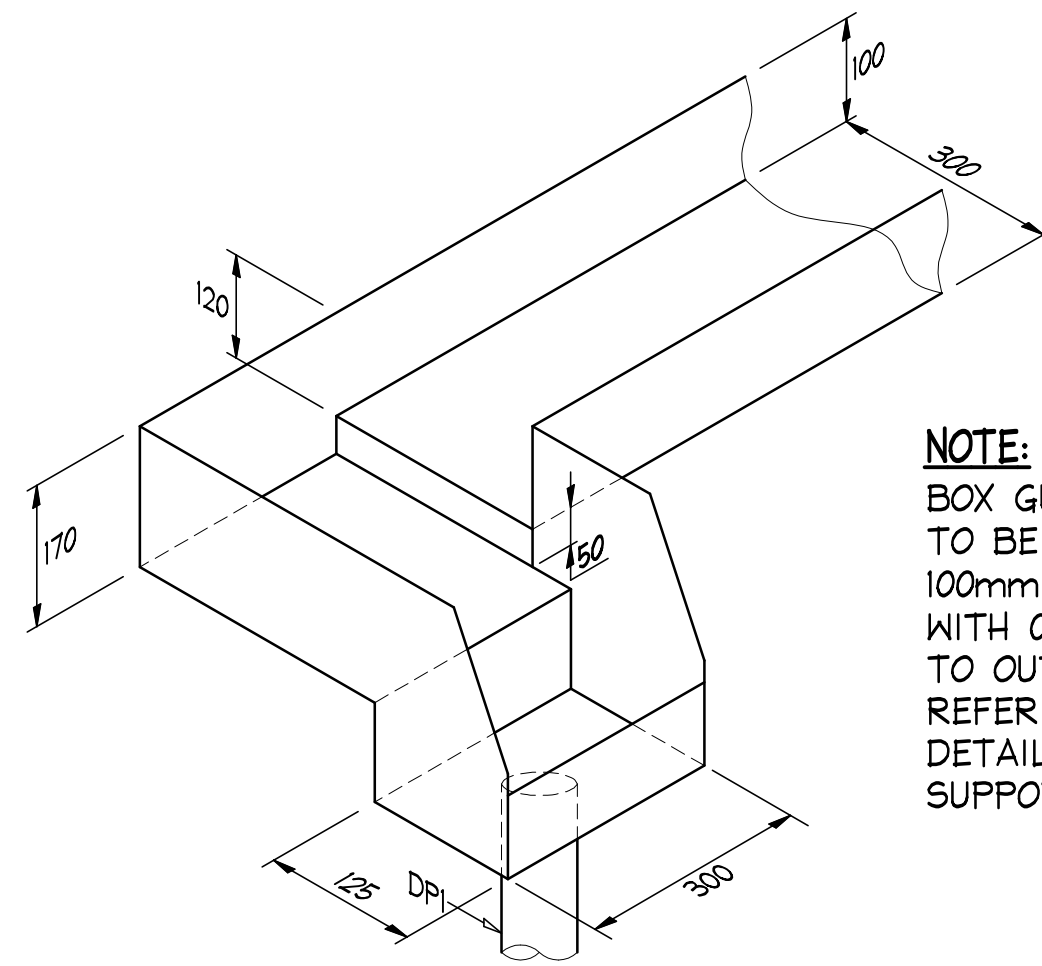
DOCUMENT CERTIFICATION				NB Consulting Engineers STRUCTURAL • CIVIL • STORMWATER • REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Sydney: Ph: (02) 9984 7000 Unit 11, 1 Vuoko Place, Warriewood NSW 2102 Gold Coast: Ph: (07) 5631 4744 Suite 1, 30B Griffith Street, Coolangatta QLD 4225 E : nb@nbconsulting.com.au W : www.nbconsulting.com.au	Architect: SITE SPECIFIC DESIGNS Client: BRETT & KAMMI BEUZEVILLE	Project: ALTERATIONS & ADDITIONS 28 BASSETT STREET, MONA VALE Drawing Title: ROOF STORMWATER DRAINAGE PLAN	Design: WF	Drawn: LS
01.04.2025	A	ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION	LS	CJ				
Date:	Issue:	Description:	By:	Review:	The copyright of this drawing remains with NB Consulting Engineers			
2502082		D04	A					



NOTE:
BOX GUTTER DEPTH
TO BE A MINIMUM OF
120mm AT HIGHEST
POINT IN INVERT OF
BOX GUTTER WITH
0.5 % MINIMUM FALL
TO RAINHEAD.

BOX GUTTER BG1 AND RAINHEAD RHD1 DETAIL

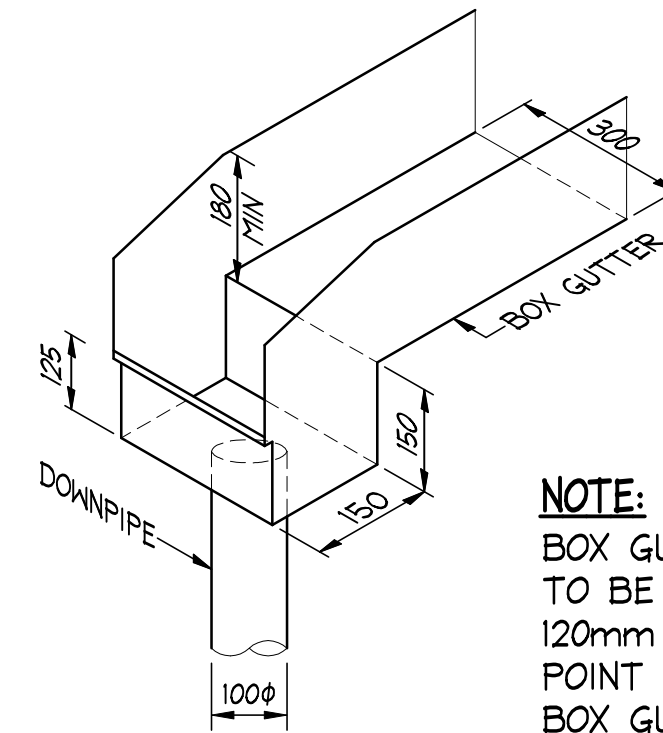
SCALE = NTS



NOTE:
BOX GUTTER DEPTH
TO BE A MINIMUM OF
100mm AT HIGH POINT
WITH 0.5 % MINIMUM FALL
TO OUTLET.
REFER TO STRUCTURAL
DETAILS FOR BOX GUTTER
SUPPORT.

BOX GUTTER BG2 AND SUMP RHD2 DETAIL

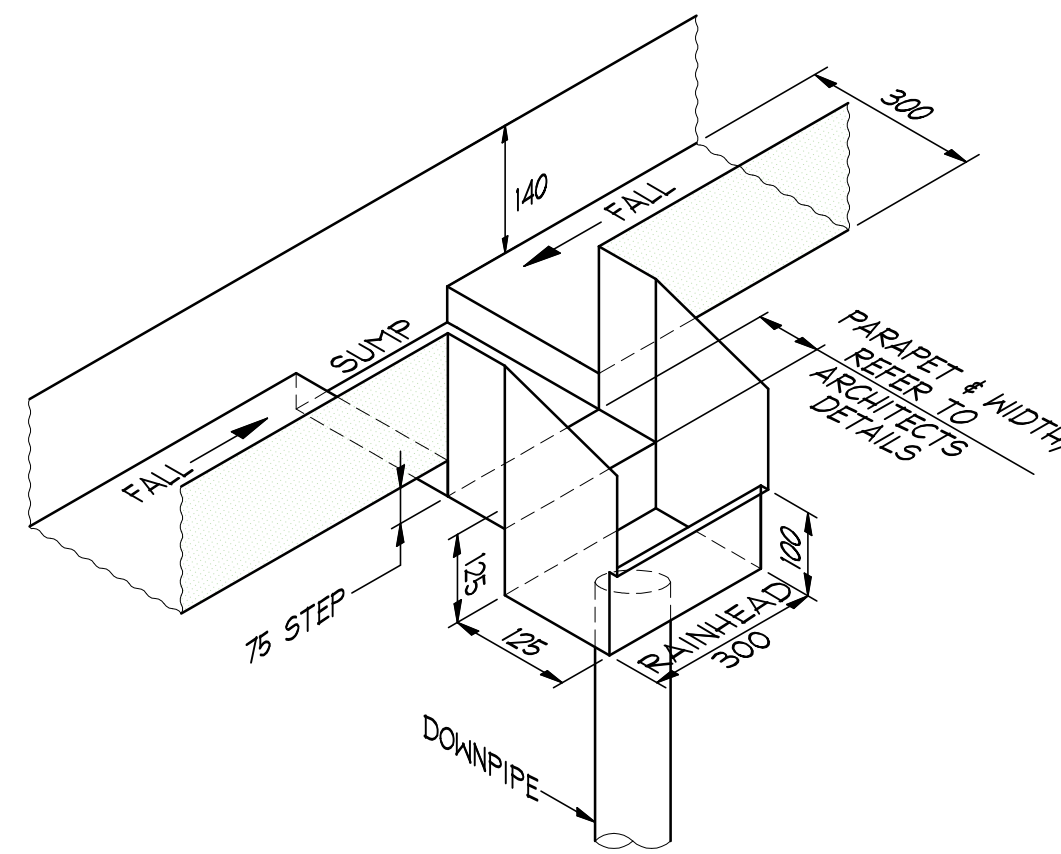
SCALE = NTS



NOTE:
BOX GUTTER DEPTH
TO BE A MINIMUM OF
120mm AT HIGHEST
POINT IN INVERT OF
BOX GUTTER WITH
0.5 % MINIMUM FALL
TO RAINHEAD.

BOX GUTTER BG3 AND RAINHEAD RHD3 DETAIL

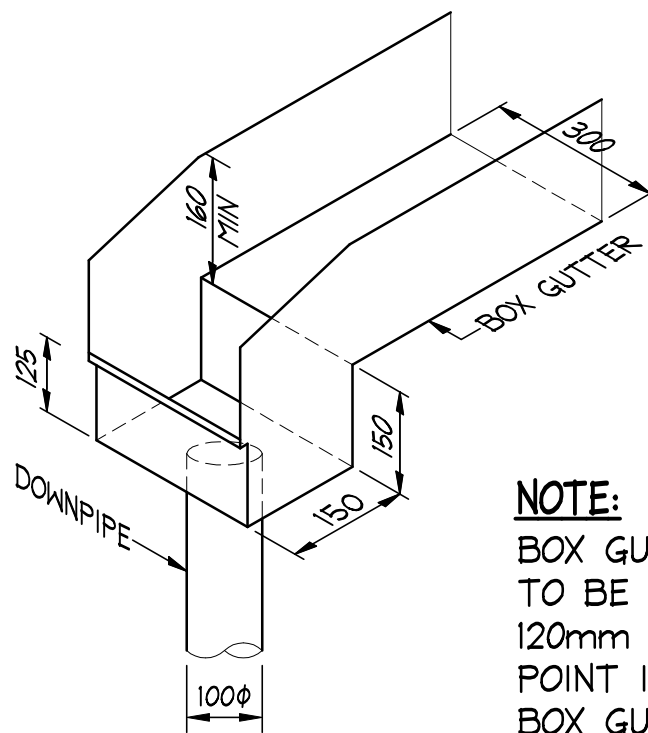
SCALE = NTS



NOTE:
BOX GUTTER DEPTH
TO BE A MINIMUM OF
110mm AT HIGHEST
POINT IN INVERT OF
BOX GUTTER WITH
0.5 % MINIMUM FALL
TO RAINHEAD.

**BOX GUTTER 'BG4'
& RAINHEAD 'RHD4' DETAIL**

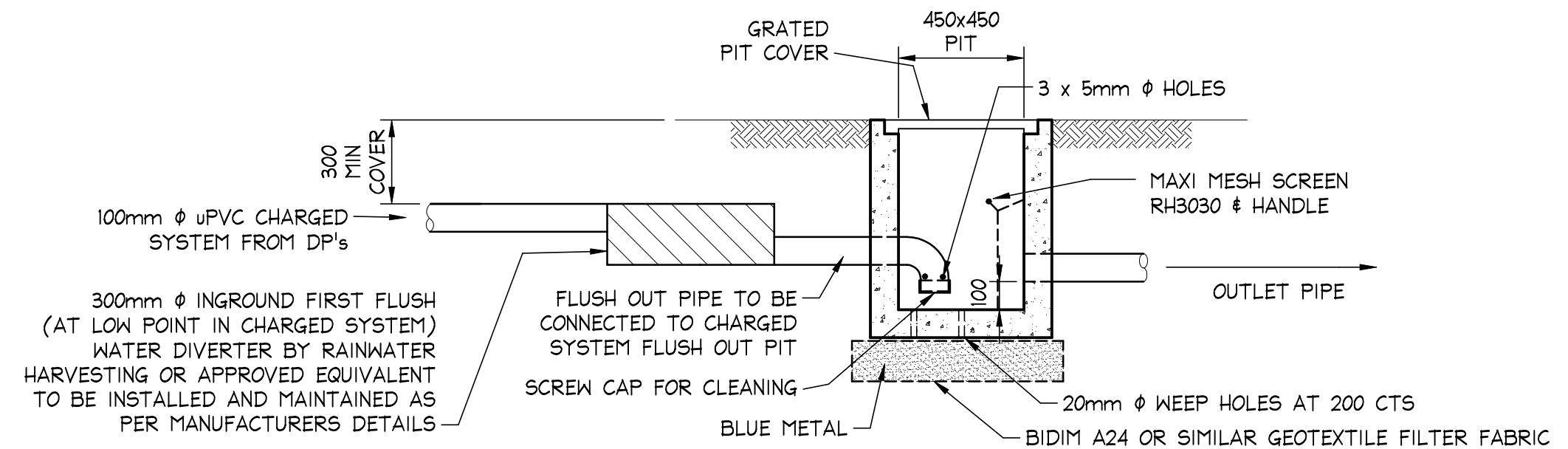
SCALE = NTS



NOTE:
BOX GUTTER DEPTH
TO BE A MINIMUM OF
120mm AT HIGHEST
POINT IN INVERT OF
BOX GUTTER WITH
0.5 % MINIMUM FALL
TO RAINHEAD.

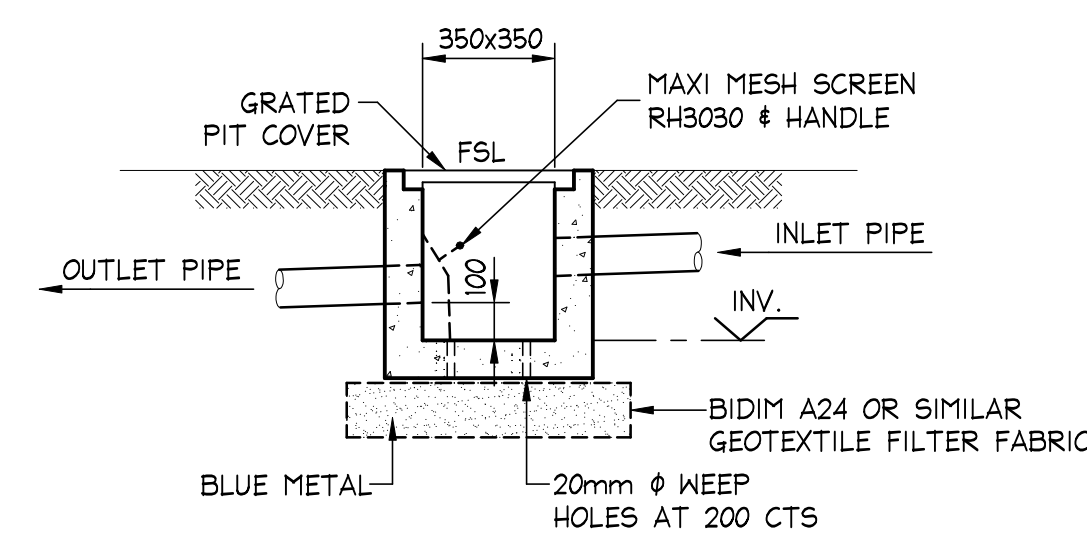
BOX GUTTER BG5 AND RAINHEAD RHD5 DETAIL

SCALE = NTS



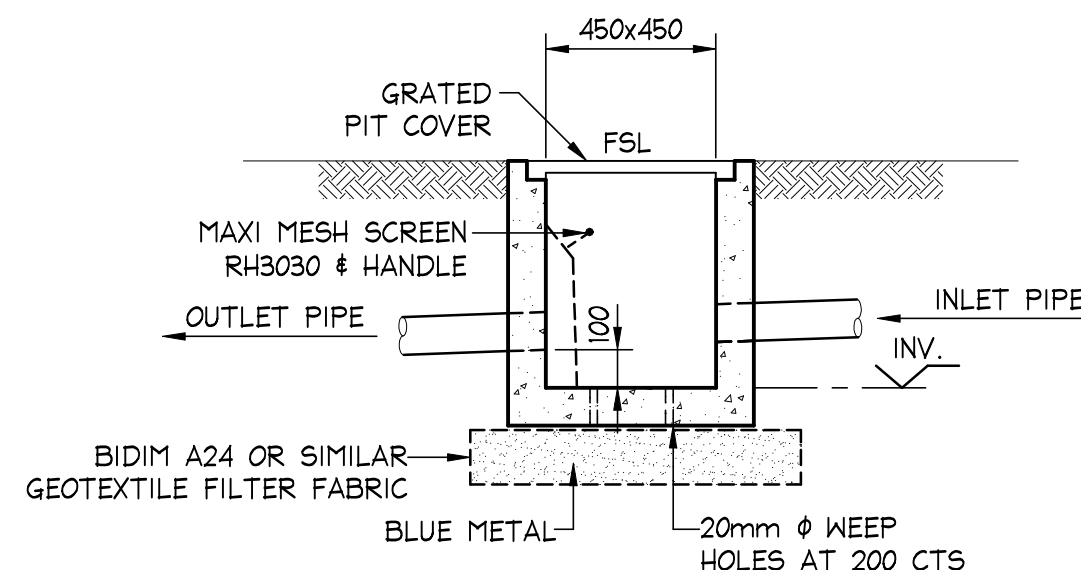
**PRECAST OR CAST INSITU PIT REFER STORMWATER NOTES
450x450 CHARGED SYSTEM FLUSH OUT PIT DETAIL**

SCALE = 1 : 20



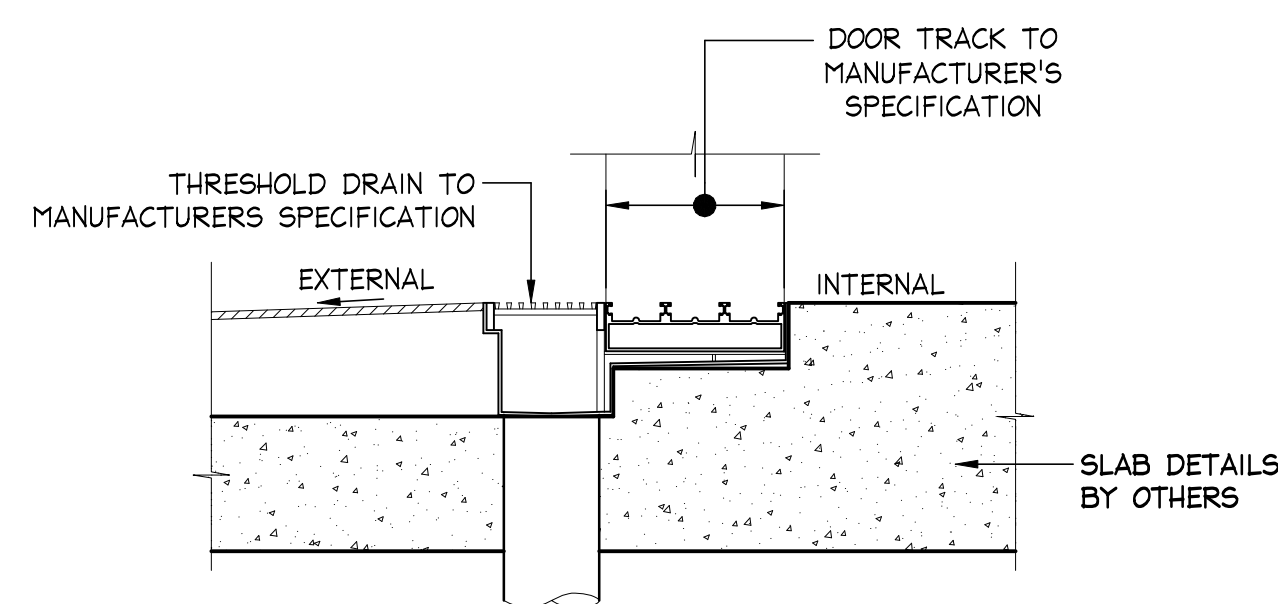
**PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES
ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER
350x350 PIT DETAIL**

SCALE = 1 : 20



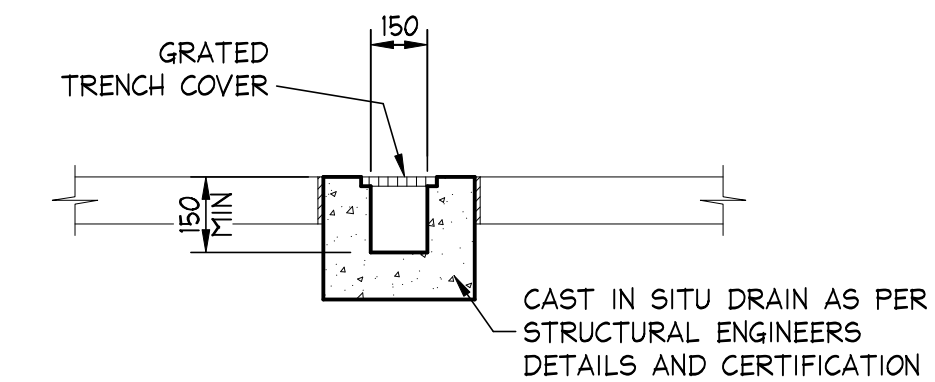
**PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES
ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER
450x450 PIT DETAIL**

SCALE = 1 : 20



TYPICAL THRESHOLD DRAIN

SCALE = 1 : 5



**OR PRECAST GRATED DRAIN BY MANUFACTURER
ALTERNATE POLYPROPYLENE DRAIN BY MANUFACTURER
TYPE 'GDI' GRATED DRAIN**

SCALE = 1 : 20

**ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR
CONSTRUCTION**



MINIMISE YOUR RISK AND CONTACT
www.byda.com.au BEFORE YOU DIG.

IF IN DOUBT ASK

DOCUMENT CERTIFICATION

Date : 01.04.2025
Michael Wachjo
B.E.(Civil), MIEAust., PRE, DEP.
(Director NB Consulting Engineers)
The copyright of this drawing remains with
NB Consulting Engineers

NB Consulting Engineers
STRUCTURAL • CIVIL • STORMWATER • REMEDIAL
A.C.N. 076 121 616 A.B.N. 24 076 121 616
Sydney: Ph: (02) 9984 7000
Unit 11, 1 Vuoko Place, Warriewood NSW 2102
Gold Coast: Ph: (07) 5631 4744
Suite 1, 30B Griffith Street, Coolangatta QLD 4225
E : nb@nbconsulting.com.au W : www.nbconsulting.com.au

Architect:
SITE SPECIFIC DESIGNS
Client:
BRETT & KAMMI BEUZEVILLE

Project:
**ALTERATIONS & ADDITIONS
28 BASSETT STREET, MONA VALE**
Drawing Title:
**STORMWATER DRAINAGE
DETAILS AND SECTIONS SHEET 1**

Design:
WF
Drawn:
LS
Job No:
2502082
Drawing No:
D10
Issue:
A

Scale check - 100mm when printed to scale

A1

NB Consulting Engineers

K1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, SYDNEY WATER AND NSW HEALTH REQUIREMENTS FOR NON DRINKING USE ONLY AS PER BASIX REPORT.

K2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.

K3. REFERENCES: COOMBS P.J. & KUZCERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY AND STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKLE, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS".

K4. 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

K5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH "BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS" BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES.

K6. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m² OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.

K7. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4-6mm AND DESIGNED TO BE SELF-CLEANING.

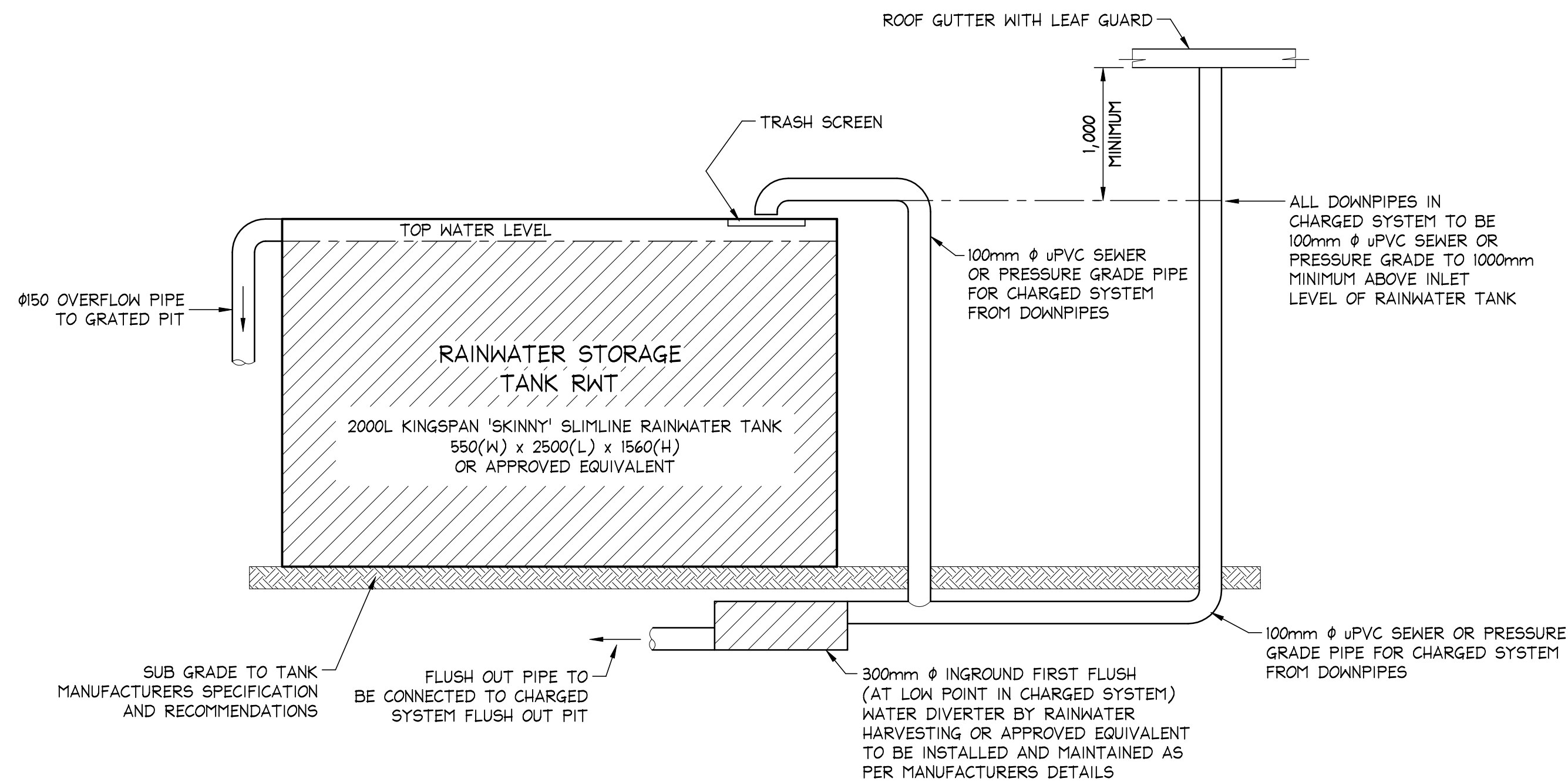
K8. FIRST FLUSH DEVICES, OR APPROVED ALTERNATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS.

K9. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.

K10. PRE-STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.

K11. BUILDER/PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK - HB 230-2008. IF IN DOUBT CONTACT ENGINEER.

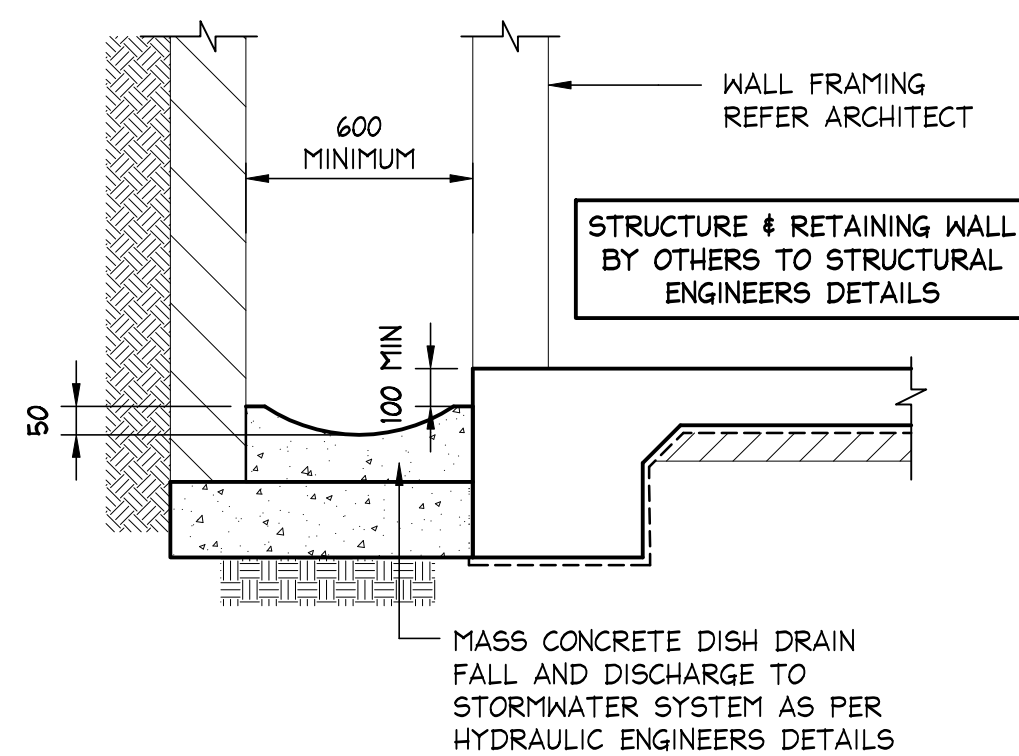
K12. RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230-2008



TYPICAL SECTION RAINWATER RE-USE TANKS WITH CHARGED PIPE SYSTEM

NOT TO SCALE

1. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION IF THE ISSUE DATE PRECEDES THE ISSUE DATE ON THE ARCHITECTURAL DRAWINGS.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BY THE BUILDER BEFORE COMMENCING WITH ASSOCIATED WORK.
4. FOR GENERAL NOTES REFER TO DRAWING NUMBER: DOI.



TYPICAL DRAINAGE VOID DETAIL

SCALE = 1 : 20

- Scale check - 100mm when printed to scale —————→

A1

ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR
CONSTRUCTION



MINIMISE YOUR RISK AND CONTACT
www.byda.com.au BEFORE YOU DIE

IF IN DOUBT ASK

[illegible]

N Consulting Engineers