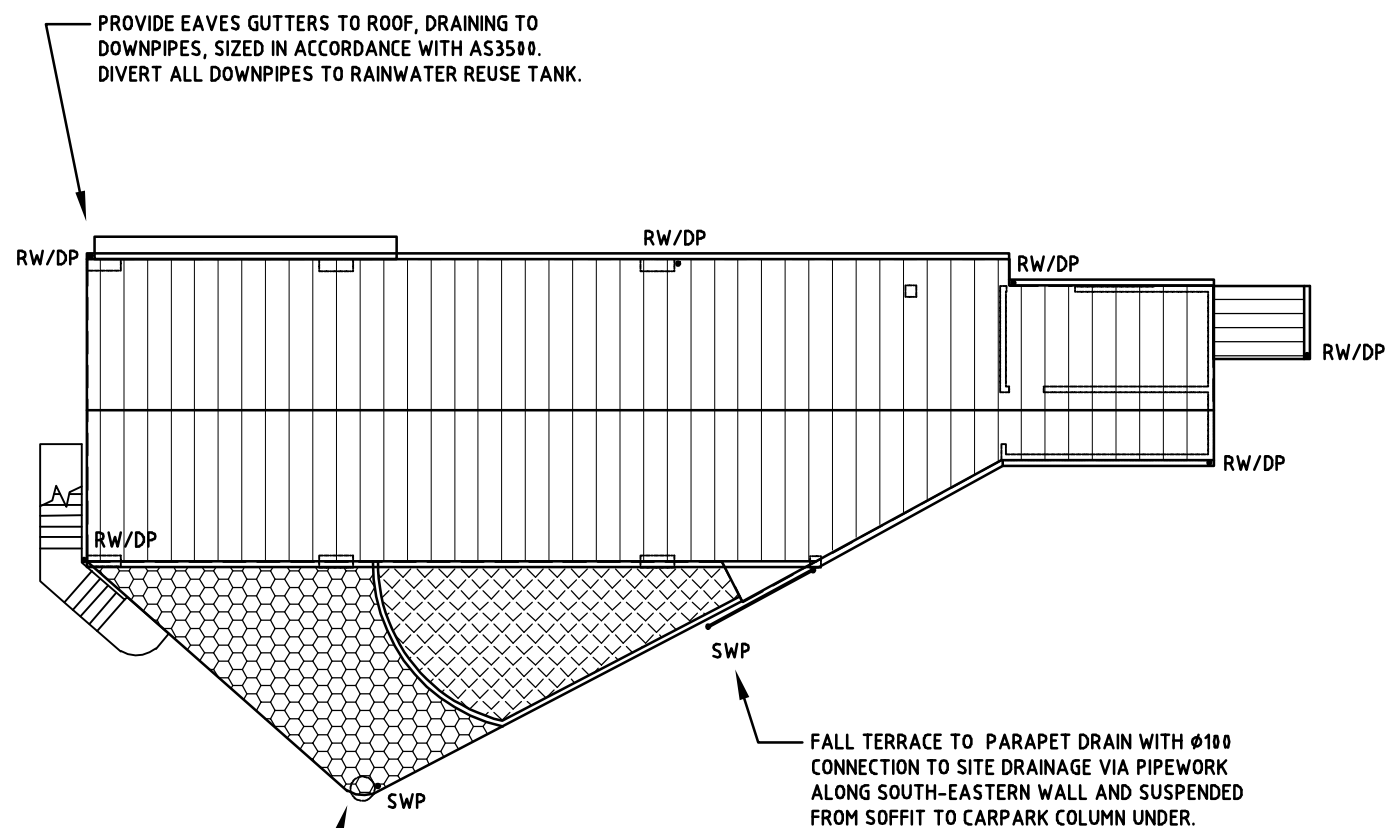


DRAWING No:	REV
11/31/25100	A

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PROVIDE MIN 30mm DRAINAGE CELL WITH GEOFABRIC OVER TO GREEN ROOF. FALL TO PARAPET DRAIN WITH Ø100 CONNECTION TO SITE DRAINAGE.

## ROOF PLAN

### NOTES:

- LEVELS AND SITE LAYOUT BASED ON ARCHITECTURAL PLANS BY BLUE SKY BUILDING DESIGNS AND SITE SURVEY BY C.M.S. SURVEYORS (DATED 08/12/17).
- CONCEPT PLAN ONLY - NOT FOR CONSTRUCTION. REFER TO DWG 11434/2-C1.00 FOR SITE PLAN.
- MIN 8kL RAINWATER REUSE STORAGE TO BE PROVIDED IN ACCORDANCE WITH P21 DCP. REFER TO DWG 11434/2-C1.00 FOR SITE PLAN. TANKS HAVE BEEN LOCATED ABOVE GROUND TO MINIMISE POTENTIAL FOR ACID SULPHATE SOIL MOBILISATION, WITH APPROPRIATE FLOOD COMPENSATORY WORKS OUTLINED IN THE FLOOD ASSESSMENT SUBMITTED WITH THE DA.
- DOWNPIPE LOCATIONS ARE INDICATIVE ONLY AND MAY BE CHANGED TO SUIT. ALL DOWNPIPES TO BE CONNECTED TO ROOFWATER DRAINAGE SYSTEM DISCHARGING TO RAINWATER REUSE TANK, WITH NO SURFACE WATER DRAINAGE CONNECTIONS. ROOF DRAINAGE TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH AS3500. PIPEWORK MAY BE LAID IN GROUND AND CHARGED TO RAINWATER TANK (CHEMICALLY SEALED PRESSURE PIPE) OR SECURED TO SOFFIT OF LEVEL ONE SLAB TO DISCHARGE TO RAINWATER TANK BY GRAVITY.
- RAINWATER TANK(S) TO BE CONNECTED TO EXTERNAL TAP(S) FOR LANDSCAPE IRRIGATION AND PLUMBED TO THE INDOOR WATER SUPPLY IN ACCORDANCE WITH SYDNEY WATER AND BASIX REQUIREMENTS.
- ALL INVERT LEVELS PROVIDED ON THIS DRAWING ARE REDUCED TO AHD AND BASED ON INTERPOLATED SURFACE LEVELS AND SYSTEM REQUIREMENTS.

### SITE CALCULATIONS

SITE AREA	980m <sup>2</sup>
IMPERVIOUS AREAS (m <sup>2</sup> )	
ROOFING	219
DRIVEWAYS & ACCESS	69
TERRACE AND GREEN ROOF	67
TOTAL IMPERVIOUS AREA	355m <sup>2</sup> (36%)
P21 RAINWATER REUSE REQUIREMENT	8kL
OSD - NOT REQUIRED DUE TO LOCATION WITHIN FLOODPLAIN	

### LEGEND:

— SW —	STORMWATER DRAINAGE PIPE
— W —	ROOFWATER DRAINAGE PIPE
• SWP	SURFACE WATER INLET AND PIPEWORK
• RW/DP	DOWNPIPE CONNECTION TO ROOFWATER PIPE
— 2 —	EXISTING SURFACE CONTOUR (mAHD)
154.95	EXISTING SURFACE LEVEL (mAHD)
	CONCRETE SLAB ACCESS
	PAVED TERRACE
	ROOF GARDEN
	PERMEABLE (SEGMENTED) PAVING

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A	ISSUED FOR DEVELOPMENT APPROVAL	KW	KW	09.10.19
ISSUE	DESCRIPTION	BY	APR	DATE

CHARTERED PROFESSIONAL ENGINEERS:



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ACN 130 522 851  
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PROJECT:

PROPOSED RECREATION CENTRE  
at: 39 CABBAGE TREE ROAD, BAYVIEW  
for: J CRAWFORD & J CRAWFORD

DRAWING TITLE:

STORMWATER MANAGEMENT CONCEPT

DESIGN: K.W. DATE: AUG 2019

DRAWN: K.W. SCALE: 1:200

FILENAME: 11434/2-C1.01 (A).DWG

SIGNED:

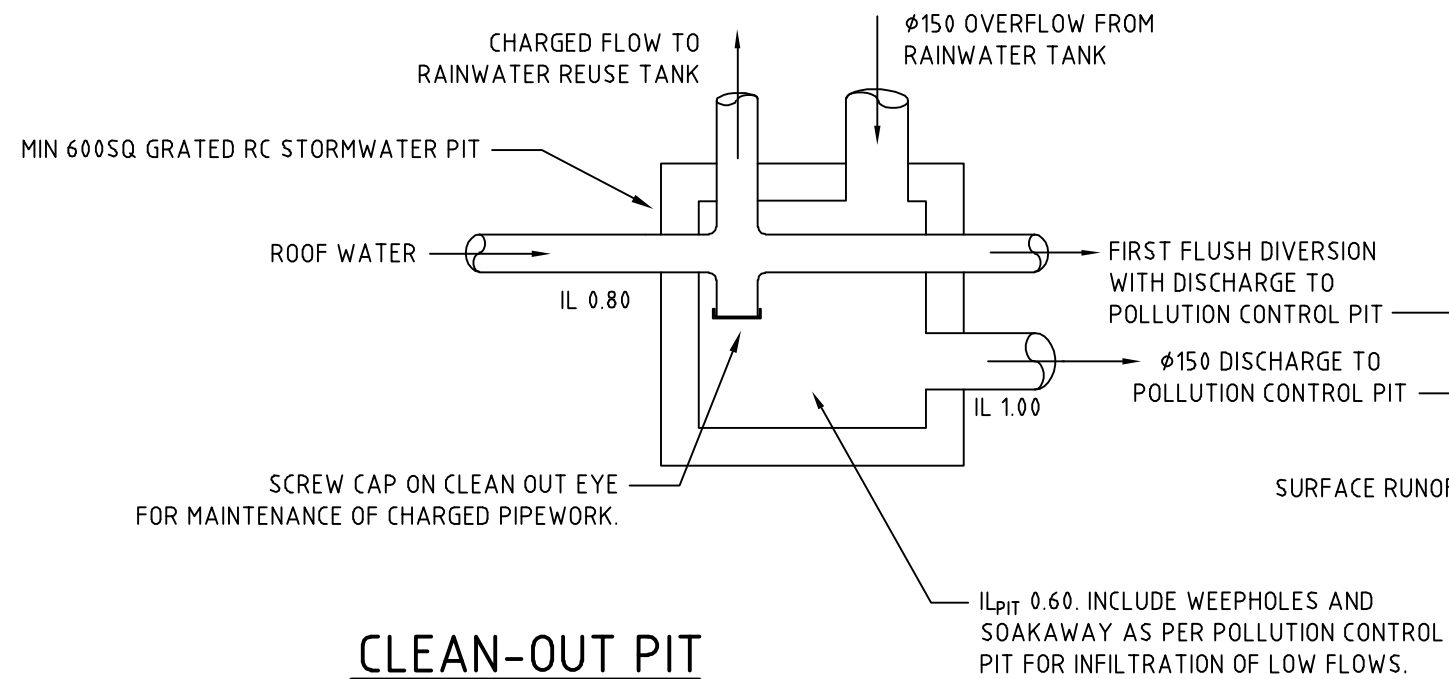
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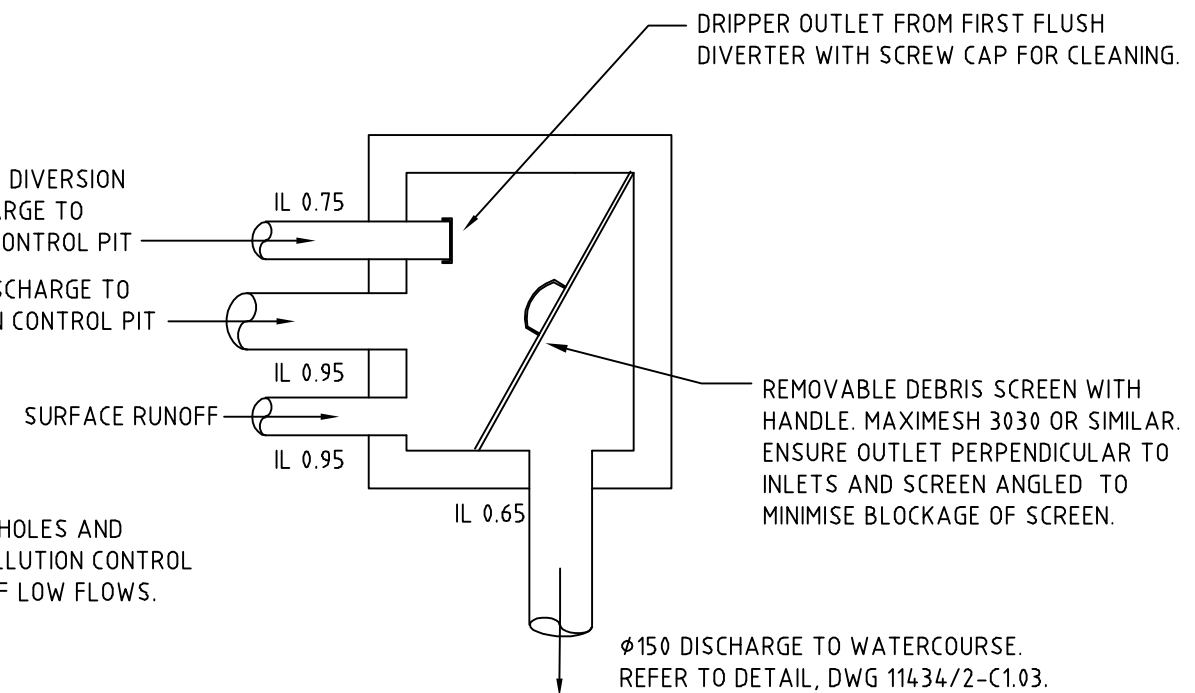
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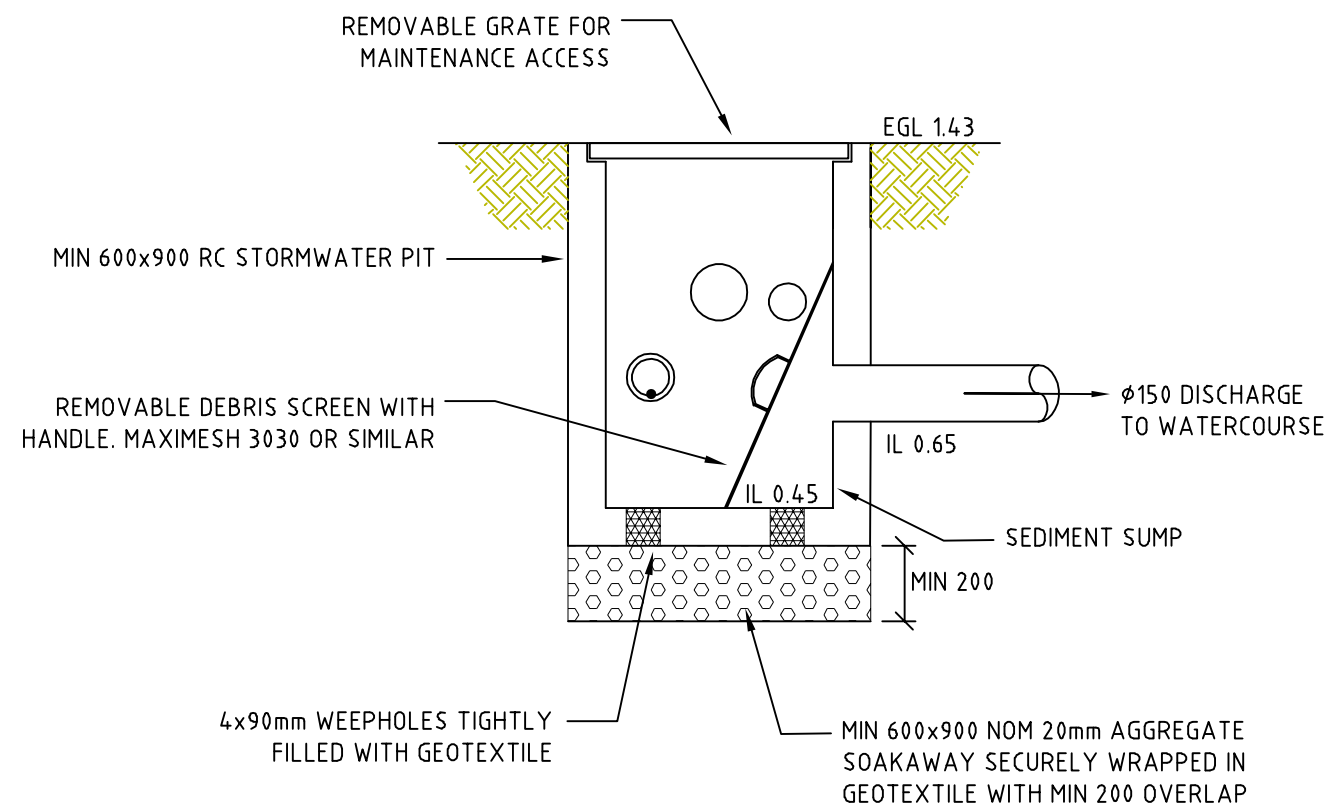
A



**CLEAN-OUT PIT**



**POLLUTION CONTROL PIT**



**POLLUTION CONTROL PIT - SCHEMATIC SECTION**

### WATER QUALITY MANAGEMENT

CATCHMENT AREA	WATER QUALITY TREATMENT MEASURE
ROOF (219m <sup>2</sup> )	RAINWATER TANK - FIRST FLUSH DIVERSION, INLET FILTER, SEDIMENTATION AND REUSE
TERRACE (25m <sup>2</sup> )	POLLUTION CONTROL PIT
ROOF GARDEN (35m <sup>2</sup> )	INFILTRATION, SUBSOIL DRAINAGE TO POLLUTION CONTROL PIT
DRIVEWAY AND ENTRY (69m <sup>2</sup> )	RAINSCLAPING

### NOTES

1. REFER TO DWG 11434/2-C1.00 FOR SITE PLAN AND DWG 11434/2-C1.01 FOR NOTES.

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 for: J CRAWFORD & J CRAWFORD

DRAWING TITLE:

**STORMWATER QUALITY DETAILS**

DESIGN: K.W. DATE: AUG 2019

DRAWN: K.W. SCALE: 1:50

FILENAME: 11434-C1.01 (C).DWG

SIGNED: \_\_\_\_\_

SIZE A3

DRAWING No: \_\_\_\_\_

11434/2-C1.02

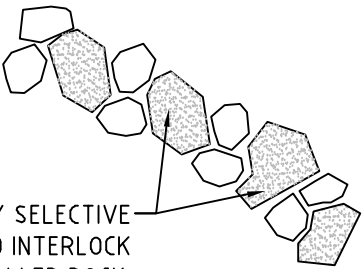
REV A

NOTES:

REFER TO DWG 11434/2-C1.00 FOR SITE PLAN AND DWG 11343/2-C1.01 FOR NOTES

NOTES – RIP RAP

1. ROCK TO BE HARD, DURABLE SANDSTONE, FREE OF DEFINED CLEAVAGE PLANES AND PREDOMINANTLY BLOCKISH OR ANGULAR IN SHAPE.
2. TOE AND PERIMETER ROCKS TO BE PLACED FIRST AND TWO THIRDS OF EACH ROCK IN BASE LAYER TO BE EMBEDDED INTO UNDISTURBED MATERIAL.
3. ALL ROCK TO BE CAREFULLY PLACED AND KEYED INTO POSITION TO CREATE A STABLE, INTERLOCKING MASS WITH NO SIGNIFICANT VOIDS. ROCK SHALL NOT BE DUMPED. VOIDS TO BE FILLED WITH SMALLER ROCKS TO PREVENT WASHOUT OF UNDERLYING MATERIAL. NO ROCKS SHOULD UNDULY PROTRUDE FROM THE BED.
4. SURFACE TO BE SMOOTH AND FREE OF IRREGULARITIES AND PROTRUSIONS PRIOR TO PLACEMENT OF GEOTEXTILE. GEOTEXTILE TO BE SECURELY WRAPPED AROUND ROCKS AT ENDS, WITH MIN 300mm OVERLAP AT JOINS AND ENDS.



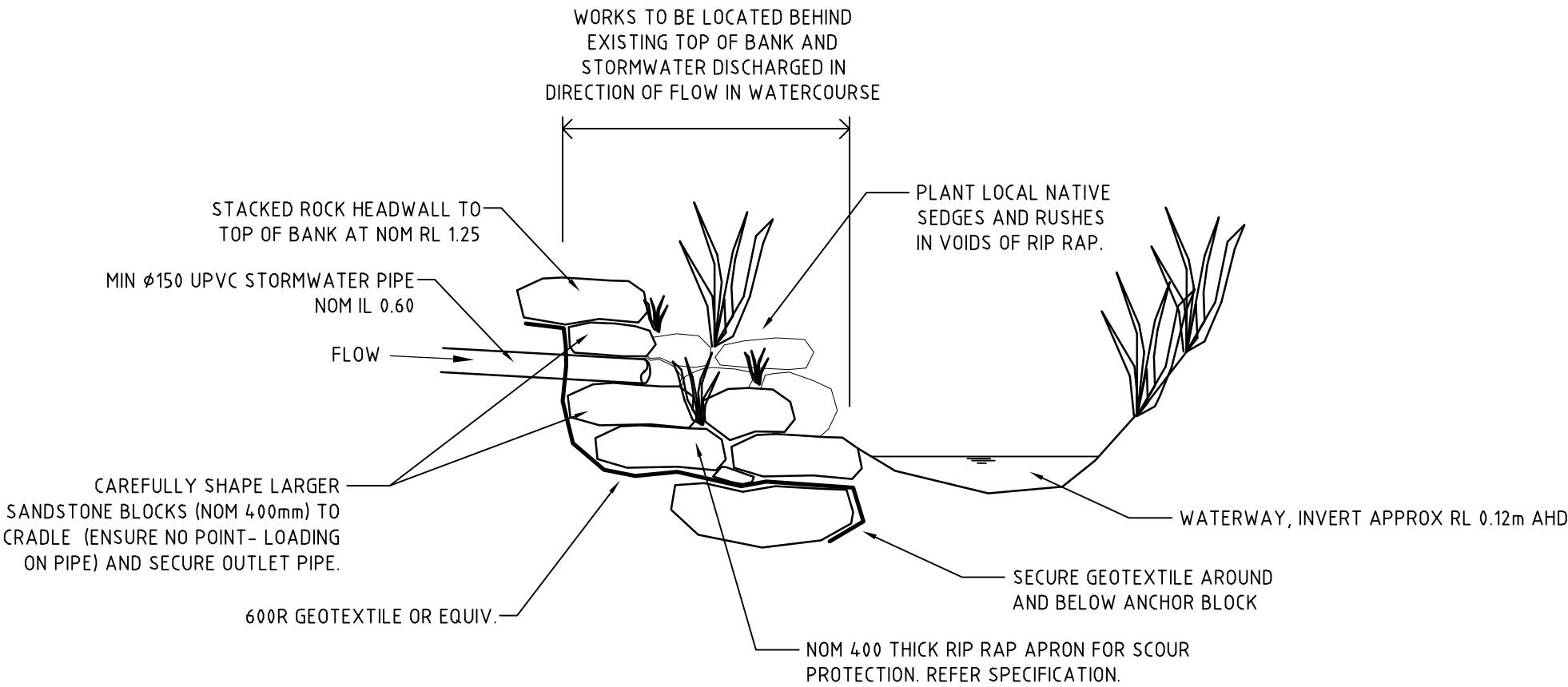
OPTIMISE STABILITY OF RIPRAP BY SELECTIVE PLACEMENT OF LARGER STONES TO INTERLOCK WITH AND ANCHOR SMALLER ROCK.

ROCK GRADATION

EQUIVALENT DIAMETER	% SMALLER
0.3 x D <sub>50</sub>	10-20%
D <sub>50</sub>	50%
1.5 x D <sub>50</sub>	90%
2 x D <sub>50</sub>	100%

ROCK SIZE

EQUIVALENT DIAMETER	SIZE
D <sub>85</sub>	400mm
D <sub>50</sub>	300mm
D <sub>15</sub>	150mm



SECTION – OUTLET TO WATERWAY

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DRAWING TITLE:  
STORMWATER OUTLET DETAILS

DESIGN: K.W.	DATE: AUG 2019
DRAWN: K.W.	SCALE: 1:50
FILENAME: 11434-C1.01 (C).DWG	
SIGNED:	SIZE A3
DRAWING No: 11434/2-C1.03	REV A