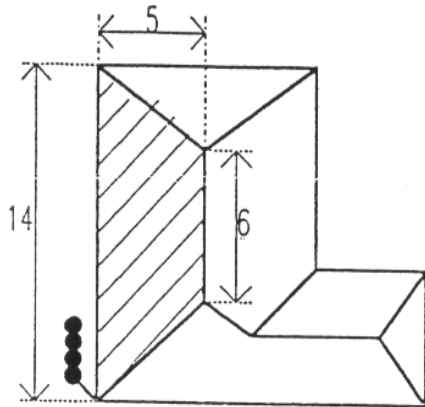


Many people install their own soakwells to deal with stormwater runoff from the roof. For soakwells to work they need to be designed to ensure an adequate storage volume is provided. The following provides information to enable the right number and volume of soakwells is provided for your storage needs.



HOUSE ROOF AREA

**SOAKWELL DETAIL**

- A BUNNINGS GREEN PLASTIC: 550 dia\*600 depth= 0.14m<sup>3</sup>vol
- B RIBLOK PVC :600 dia\*600 depth =0.17m<sup>3</sup> vol
- C RIVERTON CONCRETE : 740 dia\*600 depth =0.26m<sup>3</sup> vol

**DESIGN GUIDE**

STEP 1 :- Calculate area of portion of roof to be drained:

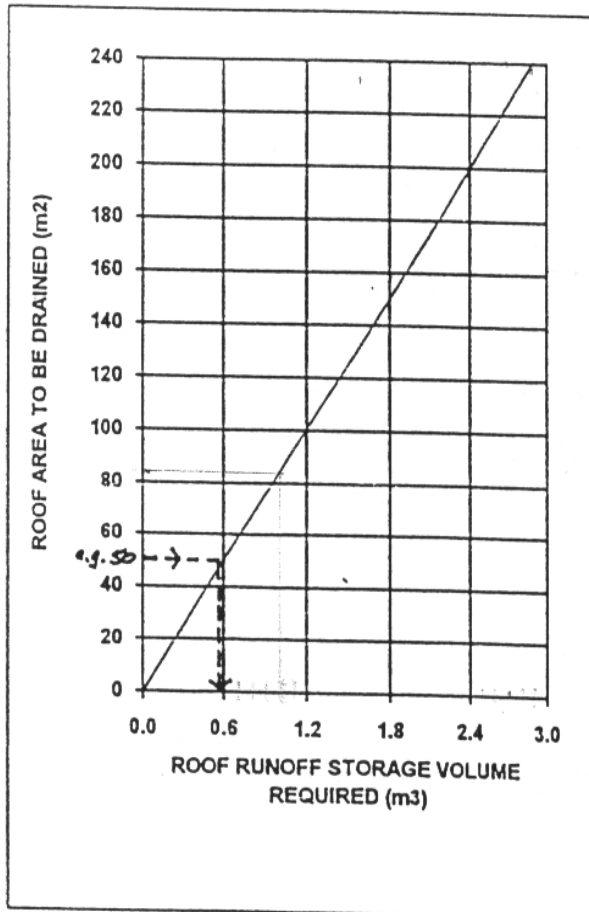
eg.  $0.5 (14+6) * 5 = 50 \text{ m}^2$

STEP 2 :- Refer to Graph 1. Select the area of the roof to be drained and relate to the amount of runoff volume to be handled.

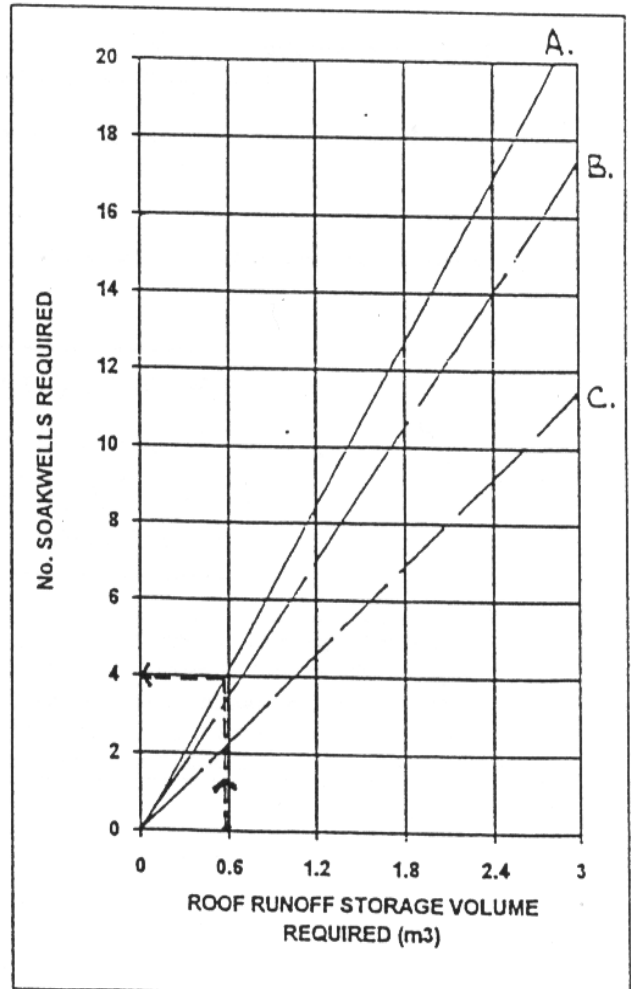
STEP 3 :- Refer to Graph 2. Select the type of soakwell you wish, and then relate the runoff volume to the number of soakwells you need. Go to the next highest number if a fraction is found.

STEP 4 :- Install the soakwells as per the details overleaf.

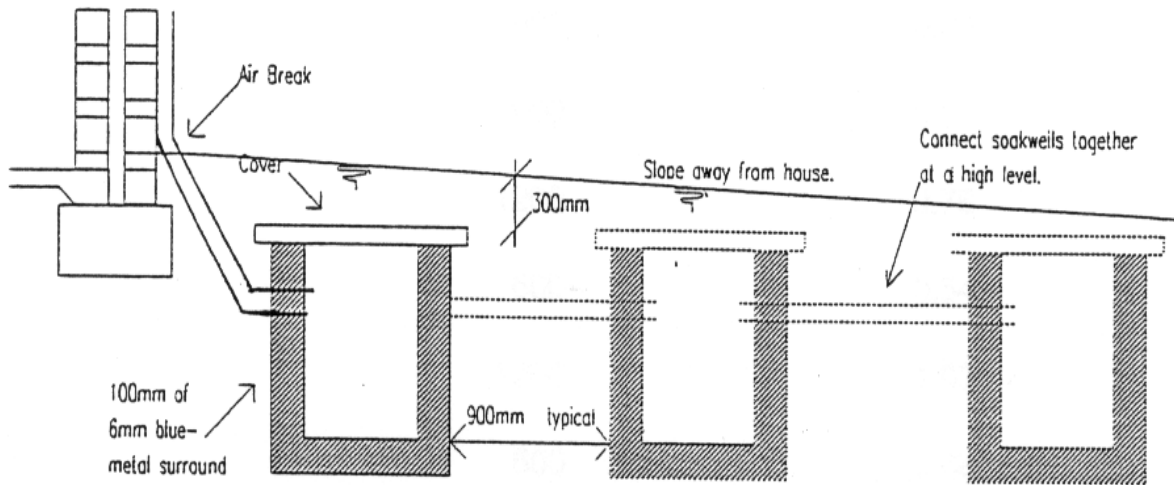
GRAPH 1



GRAPH2



# TYPICAL INSTALLATION



## NOTES:

1. Install the soakwells in lightly trafficked areas to ensure the permeability of the surrounding soil is at a maximum, and not less than 2.0 metres from house footings
2. It is important to install your soakwells with crushed rock (Blue Metal) around the outside face. This ensures that the drainage holes do not get blocked.
3. Provide an 'air-break' between the end of the downpipe and the pipe into the soakwell. An 'air-break' means that there is a gap /or air hole in the pipe to ensure that overflow does not back-up the gutter pipe.
4. Construct soakwells such that they can be accessed reasonably easily. All leaves/dirt should be removed at least once a year to ensure proper functioning.

ASSUMPTIONS: Calculations have been based on actual data on Perth sands in this area as well as Canning Vale rainfall data for 1 in 5 year storm. Storage volumes based on MRD PC-Sump infiltration design method and computer modelling.

**DRAINAGE INFORMATION PROVIDED  
IS A GUIDE ONLY AND SHOULD BE  
CONFIRMED ON SITE PRIOR TO  
COMMENCEMENT OF ANY WORKS.**

The information contained in this guide is intended to be by way of information only and accordingly owners should make their own enquiries as to the Soakwell System Design and Installation required for their lot after taking into account the design of their dwelling and the soil characteristics of their lot. Whilst all care has been taken neither Wood & Grieve nor Towishire Ltd represent or warrant that the above information is accurate or correct and those parties disclaim any responsibility to any part for any mistake, inaccuracy or misstatement.

## SOAKWELL SIZES AND CAPACITIES

| Diameter (mm) | Depth (mm) | Capacity (m <sup>3</sup> ) |
|---------------|------------|----------------------------|
| 900           | 600        | 0.38                       |
| 900           | 900        | 0.57                       |
| * 900         | 1200       | 0.76                       |
| * 1070        | 600        | 0.54                       |
| * 1070        | 1200       | 1.09                       |
| * 1200        | 600        | 0.68                       |
| * 1200        | 900        | 1.02                       |
| 1200          | 1200       | 1.36                       |
| * 1200        | 1500       | 1.70                       |
| * 1500        | 600        | 1.06                       |
| * 1500        | 1200       | 2.10                       |
| * 1500        | 1500       | 2.65                       |
| 1800          | 600        | 1.53                       |
| 1800          | 900        | 2.29                       |
| 1800          | 1200       | 3.05                       |
| 1800          | 1800       | 4.58                       |