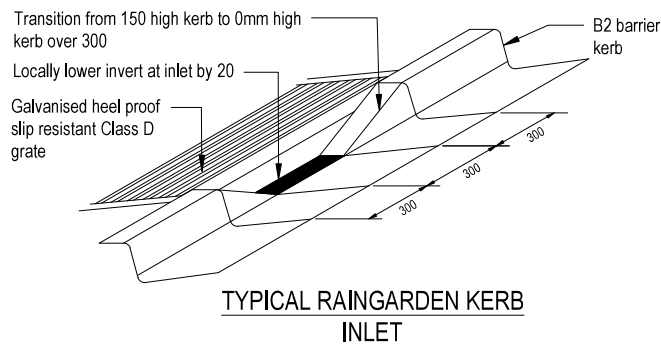


Layer	Depth (mm)			Material description*
	Basic	Combined	Submerged zone	
Filter	Min. 400; Min. 700 for trees	Pipeless	Min. 300	Washed well graded sand, particle size diameter 0.05-3.4mm with hydraulic conductivity of 100-300mm/hr and low nutrient content Total Nitrogen <1,000mg/kg and available phosphate (Colwell) <80mg/kg
Transition*	Min. 100			Well graded coarse sand containing <2% fines, for example A2 filter sand
Drainage†	Dia of underdrain pipe + 50 cover above pipe	n/a	Min. 150	Fine gravel, for example 2-7mm washed screenings (not scoria)
Submerged zone	n/a	n/a	Min. 300-	Sand or fine aggregate mixed with 5% by volume low nutrient carbon source, for example 6-10mm hard wood chips, pine chips without bark, sugar cane mulch, pine saw dust

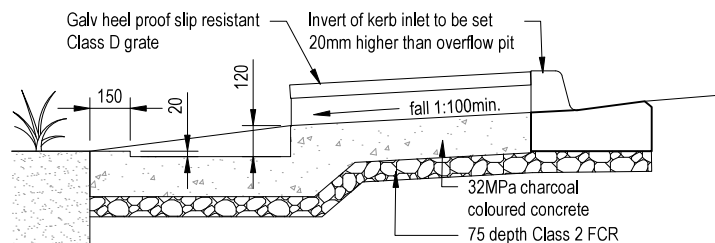
* Biofiltration system layers information, refer to BR7 Biofiltration Systems in Development Services Schemes guideline September 2020

NOTES:

- Drawing in millimetres unless noted otherwise.
 - Where excavation will occur, contractor must conduct a Before You Dig Australia (www.1100.com.au).
 - Use longer lasting submerged zone in dry climates where >3 weeks without rain is common.
 - The top surface of the filter layer, transition layer and drainage layer must be constructed to be level.
 - Option for 75mm thickness of 5-10mm pebble mulch scouring for high amenity areas and rain gardens in streets with steep gradient as agreed with CoPP
 - Services should not traverse the system.
 - Avoid unsafe vertical drops along the edges of biofiltration systems to prevent accidental falls. Use gentle batter slopes (no greater than 1:4), planting of dense vegetation or placement of architectural features along vertical edges.
 - Provide flat extensions at the back of kerbs where biofiltration systems are adjacent to car parking to allow safe access.
 - Installation of the coarse sand transition layer and soil filter media is to be undertaken carefully to avoid displacement of the layers and in lifts of no more than 200 mm
 - For specification of filter media, transition layer and submerged zone sand and carbon source refer to specification on drawing CPP3510
 - Planting palette. Plant species to be suitable for bioretention systems and effective at nutrient removal. Typical species should contain min. 80% of the following species:
 - Baumea juncea
 - Baumea rubiginosa
 - Carex appressa
 - Carex tereticaulis
 - Ficinia nodosa
 - Goodenia ovata
 - Juncus amabilis
 - Juncus flavidus
 - Juncus pallidus
 - Juncus subsecundus
 - Melaleuca ericifolia
 - Melaleuca incana
 - Melaleuca lateritia
- Final plant selection to be approved by Council



TYPICAL RAINGARDEN KERB INLET



TYPICAL FOREBAY

Disclaimer:

The authors and sponsoring organisations shall have no liability or responsibility to the user or any other person or entity with respect to any liability, loss or damage caused or alleged to be caused, directly or indirectly, by the adoption and use of these Standard Drawings including, but not limited to, any interruption of service, loss of business or anticipatory profits, or consequential damages resulting from the use of these Standard Drawings. Persons must not rely on these Standard Drawings as the equivalent of or a substitute for, project-specific design and assessment by an appropriately-qualified professional.



DRAWING NOT TO SCALE

Approved Project Services

Date FEB. 2023

Drawing Title BIORETENTION SYSTEM

Original Size A3 Drawing No: CPP3508

Rev: A

APPROVED FOR USE

FEB 2023

No Revision Date