

# WSUD – Raingarden Configurations C120.07



## DESIGN STATEMENT

Despite having similarities, raingardens can be configured in a variety of ways to suit specific applications and site considerations.

In commercial areas raingardens will require extra attention to include aesthetic details and safety measures due to proximity of pedestrians, vehicles and providing overall visibility. Furniture placement (preferably in steel) near WSUD treatments should be carefully considered. Plants should be low-growing to avoid obstructing vehicle's line of sight around corners.

In residential areas, raingardens are designed to treat local road runoff and do not require as much focus on safety and urban design detailing.

Merri-Bek City Council Streetscape WSUD Raingarden and Tree Pit Design Package (WSUD Package) provides guidance on the design procedure and a suite of design elements and applications to assist WSUD site-specific design at the streetscape level.

## OPTION A

Car park configuration: Car parks (commercial areas).

## OPTION B

Kerb outstand configuration: Residential streets, shopping strips and other shared zone/commercial areas.

## OPTION C

Nature strip configuration: Residential and commercial areas with nature strips present.

## OPTION D

Corner configuration: Residential and commercial areas where there is available space on a street corner.

## CROSS REFERENCE SPECIFICATION

- Merri-Bek WSUD Design Package.

## **MAINTENANCE**

Key design considerations for easily maintainable residential raingardens include:

- Consider maintenance access to inlet and outlet areas and raingarden base
- Consider suitability of tree planting. See tech note WSUD – Raingarden Plants C120.04
- Design using safety measures and edge treatments to prevent vehicles from accidentally entering raingardens. See tech note WSUD – Raingarden Edge Treatment and Fencing C120.06.

For typical ongoing maintenance requirements refer to WSUD Design Package, Section 8. Maintenance Checklist.

## **SIZING**

Raingardens are typically sized to have a filter area of 2% of the upstream impervious catchment area.

## **LEVELS**

Raingardens operate passively and therefore relative levels of key elements of the catchment and the system are crucial. See cross sections for more detail.

## **CONSTRUCTION SUPERVISION**

Construction hold points are dictated by ensuring the designed levels are achieved in construction.

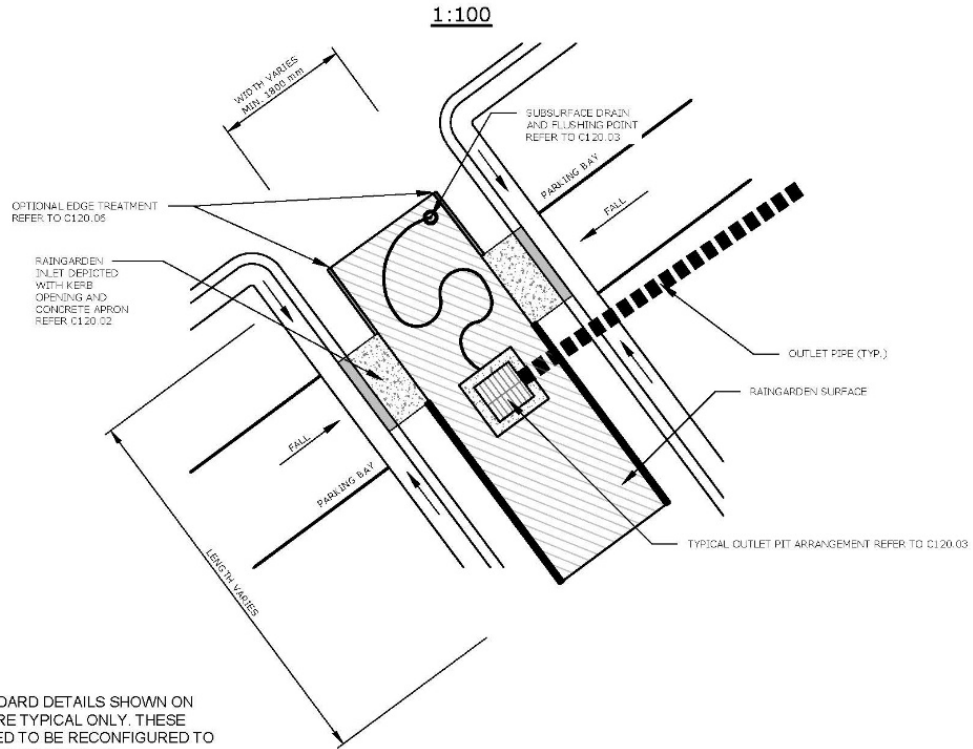
The following elements of the works will constitute hold points for commercial raingardens:

- At the completion of the drainage connections associated with the raingarden and before backfilling with soil material, which includes gravel, sand, soil and filter media to ensure appropriate levels have been maintained
- Upon completion of backfilling of material to ensure appropriate levels have been maintained
- At practical completion of the raingarden.

See cross sections for more detail.

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## C120.07 RAINGARDEN CONFIGURATIONS OPTION A - CAR PARK CONFIGURATION PLAN VIEW



## C120.07 RAINGARDEN CONFIGURATIONS OPTION A - CARPARK CONFIGURATION CROSS SECTION

