# WSUD – Raingarden Inlet Options C120.02

GENERAL


Option A


Option B


Option C


Option D

## DESIGN STATEMENT

Raingarden inlets are critical to the functioning of the asset. Litter, debris, and sediment can quickly accumulate in inlets and prevent stormwater inflow. Inlets should be wide and easily accessible. The inlet design may vary depending on the site requirements.
The three recommended options are:

## OPTION A

Kerb opening with sediment pit/trap. Use a kerb inlet sized according to hydraulic requirements. The portion of raingarden adjacent to the inlet will have a small sediment pit/trap that captures sediment in an easily removable and maintainable way. This pit/trap should have weep holes installed in its base to limit standing water.

## OPTION B

Kerb opening with concrete apron/bay. Use a kerb inlet with a minimum 600mm wide opening. The portion of raingarden adjacent to the inlet will have a concrete apron/forebay with a raised edge that captures sediment in an easily removable and maintainable way.

## OPTION C

Kerb opening with energy dissipation: Use a kerb inlet sized to hydraulic requirements. The portion of raingarden adjacent to the inlet will be protected from scouring using a small area of rock protection or bluestone pavers on a cross-fall.

## OPTION D

Multiple narrow kerb cut inlets with a distribution channel: Use narrow openings in a section of kerb adjacent to the raingarden. The portion of raingarden adjacent to the inlet includes a distribution channel to disperse inflow across the raingarden's surface and capture sediment in an easily removable and maintainable way.

## APPLICABLE LOCATIONS

All raingardens within Merri-Bek municipality.

## CROSS-REFERENCE SPECIFICATIONS

- Council technotes C120.01 to C120.07
- Melbourne Water Biofiltration Systems in Development Services Schemes Guidelines (2020).



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## MAINTENANCE

Key design considerations for easily maintainable raingarden inlets include:

- Utilise wide and clear inlets where possible to allow for easy maintenance access
- Include a sediment bay/trap/pit immediately downstream of the inlet where possible for simple and effective maintenance
- Carefully consider flow routes where inlets are placed at curved sections of kerb.

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

## LEVELS

Design levels are critical to ensure optimal raingarden performance. With respect to the inlet, it is critical that the invert level of the inlet is above both the surface level of the raingarden and the overflow pit level. This will ensure that water can flow through the inlet under gravity and not back up the inlet structure during larger flow events. See cross sections for more detail.

## CONSTRUCTION SUPERVISION

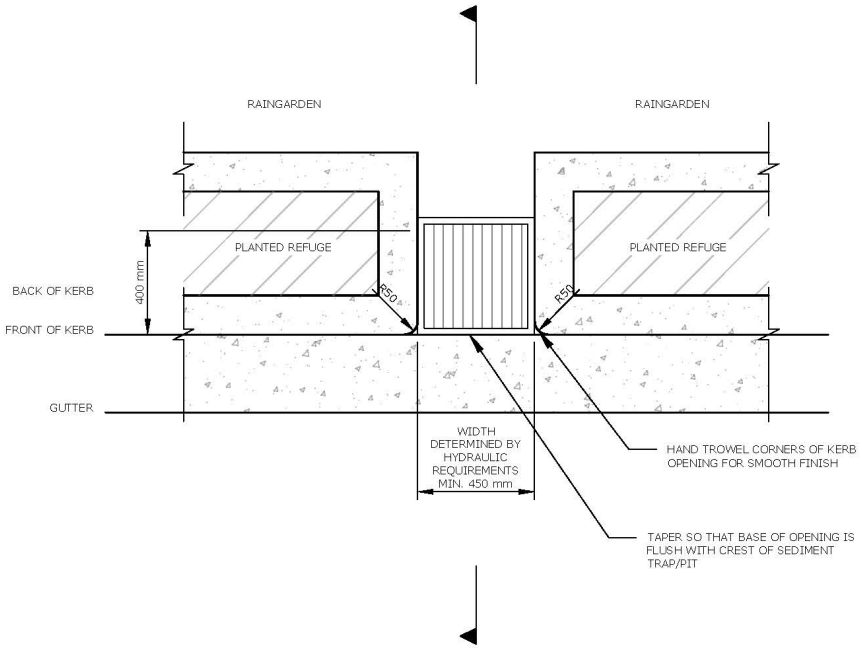
Construction hold points are dictated by ensuring the designed levels are achieved in construction.

The key level of an inlet structure is the invert level and its relative level compared to the surface of the raingarden and the crest of the overflow pit. Construction hold points should be included when these constructed levels are completed.

# C120.02 WSUD – Raingarden Inlet Option A

C120.02 RAINGARDEN INLET - OPTION A
PLAN VIEW

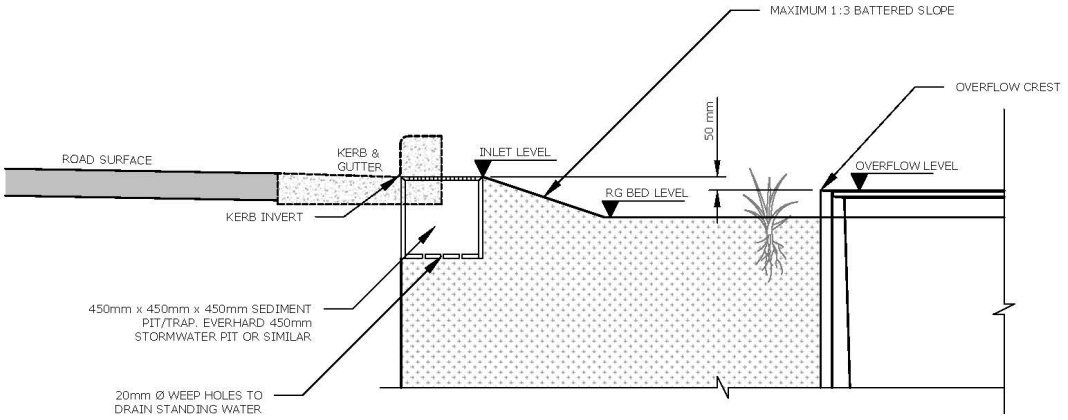
1:30




NOTE: THE STANDARD DETAILS SHOWN ON THIS DRAWING ARE TYPICAL ONLY. THESE DETAILS MAY NEED TO BE RECONFIGURED TO SUIT SITE SPECIFIC CONDITIONS.

C120.02 RAINGARDEN INLET - OPTION A
CROSS SECTION

1:30



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# C120.02 WSUD – Raingarden Inlet Option B

C120.02 RAINGARDEN INLET - OPTION B
PLAN VIEW

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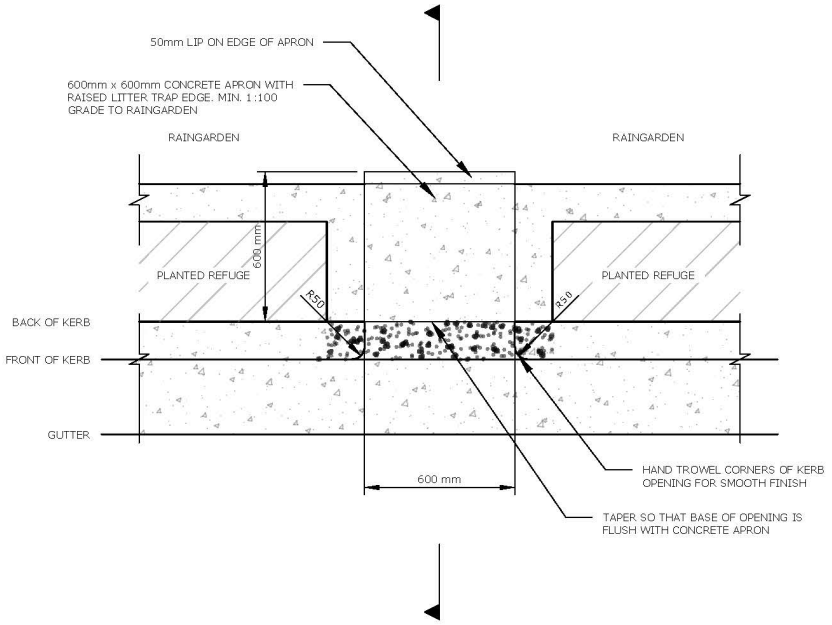


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C120.02 RAINGARDEN INLET - OPTION B
CROSS SECTION

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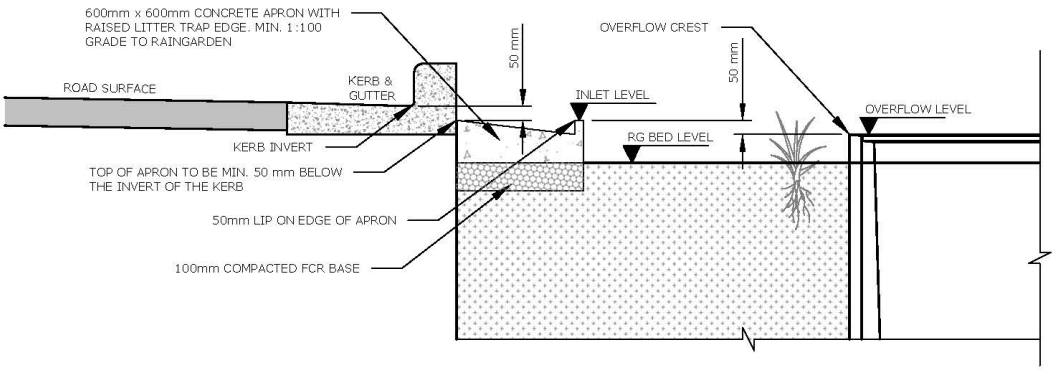




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# C120.02 WSUD – Raingarden Inlet Option C

C120.02 RAINGARDEN INLET - OPTION C
PLAN VIEW

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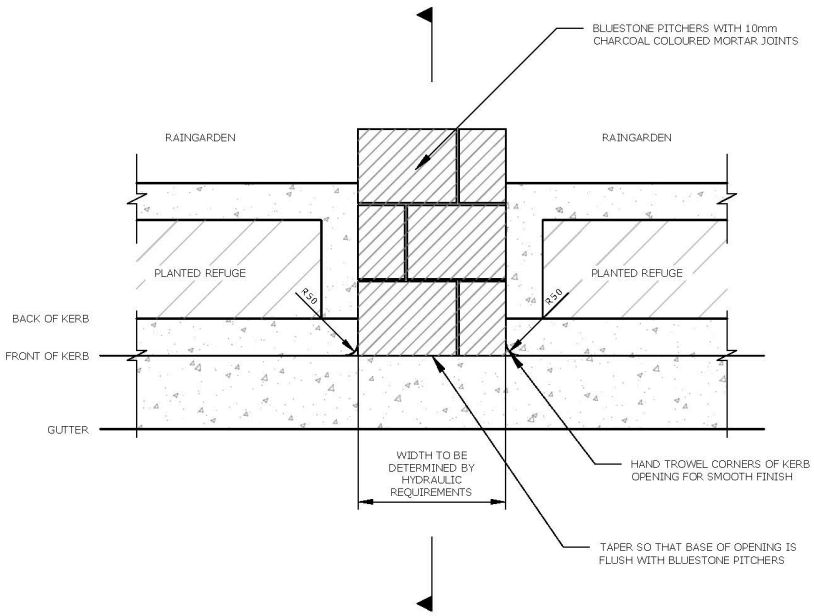


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C120.02 RAINGARDEN INLET - OPTION C
CROSS SECTION

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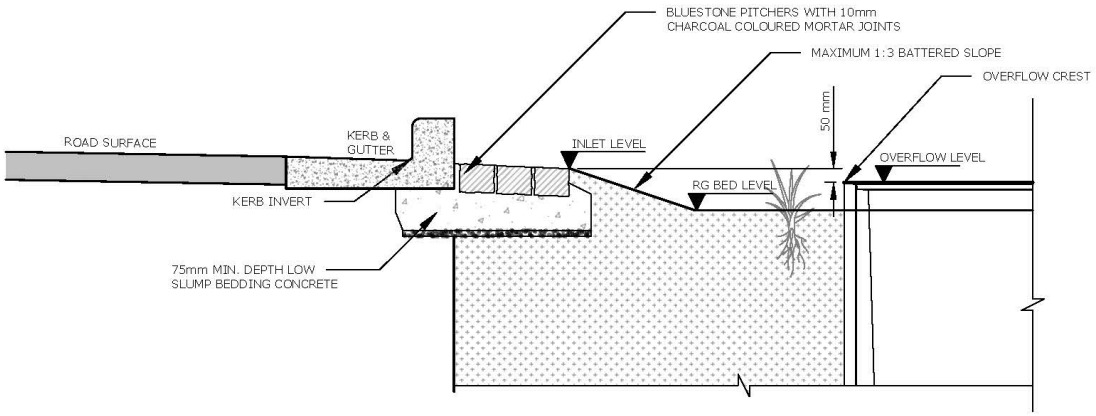


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# C120.02 WSUD – Raingarden Inlet Option D

C120.02 RAINGARDEN INLET - OPTION D
PLAN VIEW

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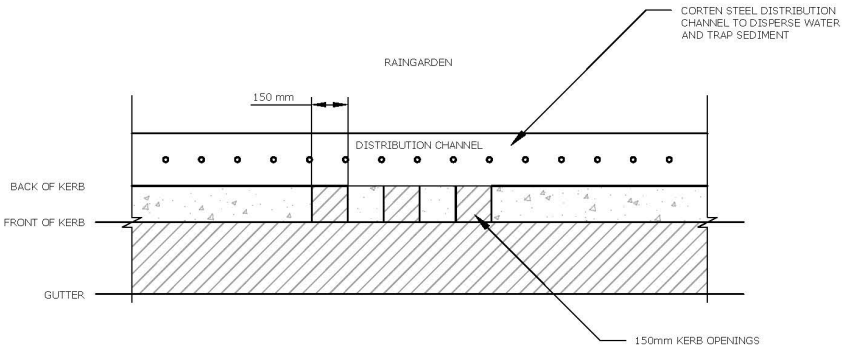


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C120.02 RAINGARDEN INLET - OPTION D
CROSS SECTION

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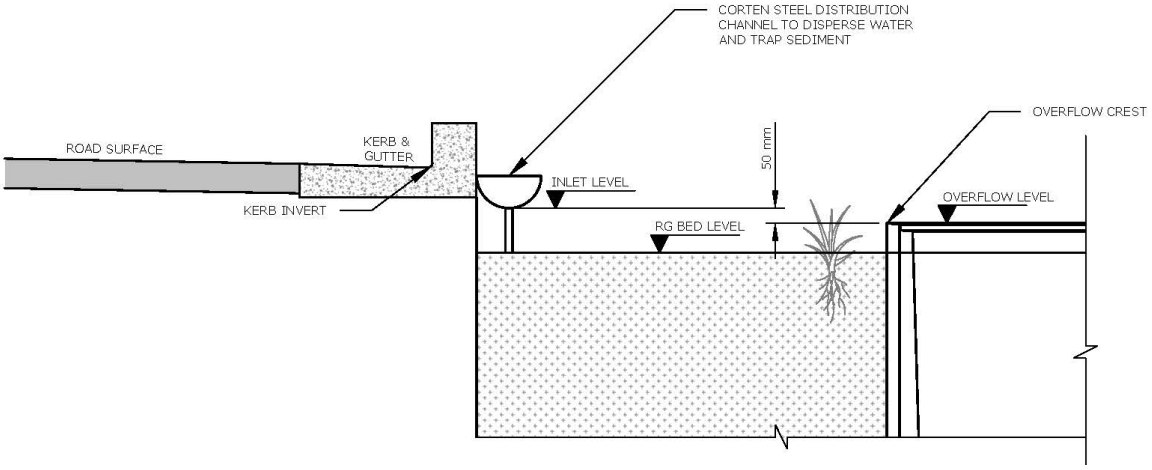




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