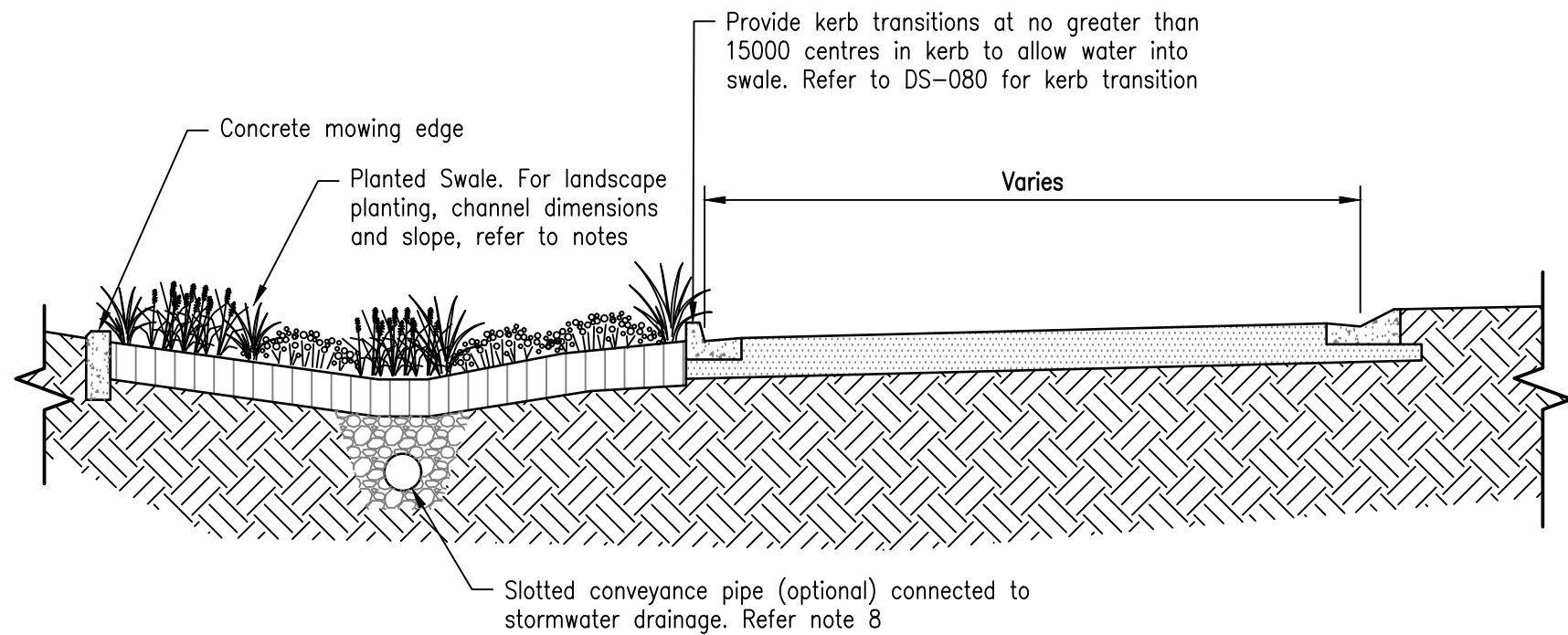


**TYPE 1 SWALE**



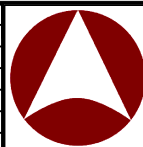
**ALTERNATIVE TYPE 1 SWALE**

**NOTES:**

1. Channel dimensions: swale batter slopes shall not be steeper than 1v:4h. Swale is to have a maximum invert depth (depth from invert to top of batter or kerb edge) of 400mm. Swale can be trapezoidal (i.e. with a base width) or 'v-shaped'.
2. Swale longitudinal gradient: swale gradient must not exceed 5% or be below 1% along any 10m section of the swale. For sections with gradients less than 1%, a bioretention swale is recommended.
3. Maximum flow/depth: velocity depth product for Q2 event must be less than 0.4m<sup>3</sup>/s (which will typically necessitate the use of field inlets within the swale and conveyance pipes). Maximum depth of flow in Q2 event must be less than 300mm. Consideration must be given to major (e.g. Q100) flows and road capacity. Refer to Queensland Urban Drainage Manual or equivalent for hydraulic and safety requirements.
4. Field inlets: field inlets to be located within swale channel upstream of road crossings and/or to convey flows above swale capacity to piped drainage. Maximum field inlet spacing to be determined based on note 3 requirements, but not to exceed 60m. Landscaping (e.g. dense planting of shrubs) should be provided around field inlets to reduce access to field inlets by public.
5. Type 1 swales to be installed adjacent to open space (Forest, Park) only.
6. Traffic controls: Incorporate features that prevent or discourage the driving or parking of vehicles in the swale.
7. For concrete edge details, refer to DS-080.
8. Slotted conveyance pipe is required when grade is less than 2% or local features such as driveways suggest that ponding will be an issue
9. All dimensions in millimetres unless specified otherwise.

These drawings have been developed in consultation between the participating Councils.  
BEFORE USE, the user shall confirm that the drawing has been adopted by the appropriate Council.

Rv.	DATE	ORIGINAL ISSUE	REVISIONS	Original Issue
A	11/15	ORIGINAL ISSUE		



**INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA**  
**STANDARD DRAWINGS**

**STREETScape SWALE – TYPICAL SECTION**  
**SHEET 1 OF 2**

**DS-079**

Rv.