

**NOTES**

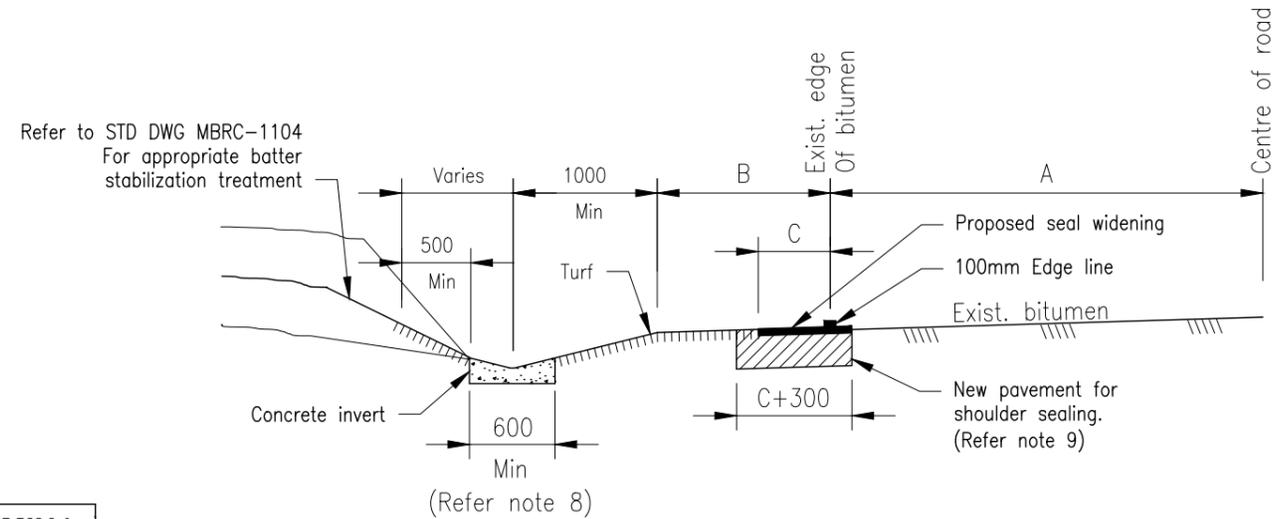
- Catch banks are required at the top of batters in accordance with Std Drg MBRC - 1104
- Where scour is present on batter, an alternative erosion prevention method is to be determined on site in consultation with Council's Engineer.
- In areas to be turfed, the existing surface is to be scarified prior to the placement of turf.
- Turf to be placed on 50mm depth of topsoil, fertilized and watered in.
- Temporary silt fences are to be erected at swale drain outlets prior to commencement of work.
- Where longitudinal grades of swale drains are in excess of 2%, dumped rock protection is to be installed at drain outlets.
- Rock for rock lining shall be min. 100mm size, relatively free of sediments and preferably washed prior to placement. a rounded river rock is preferred to crushed rock.
- 1200mm Concrete invert to be used where grade is in excess of 10% or where required for hydraulic capacity.
- Final pavement depth to be determined from soil tests.
- Pipe crossings or concrete inverts are to be provided at driveways.

**TABLE 1  
(SWALE DRAIN TREATMENT SELECTION)**

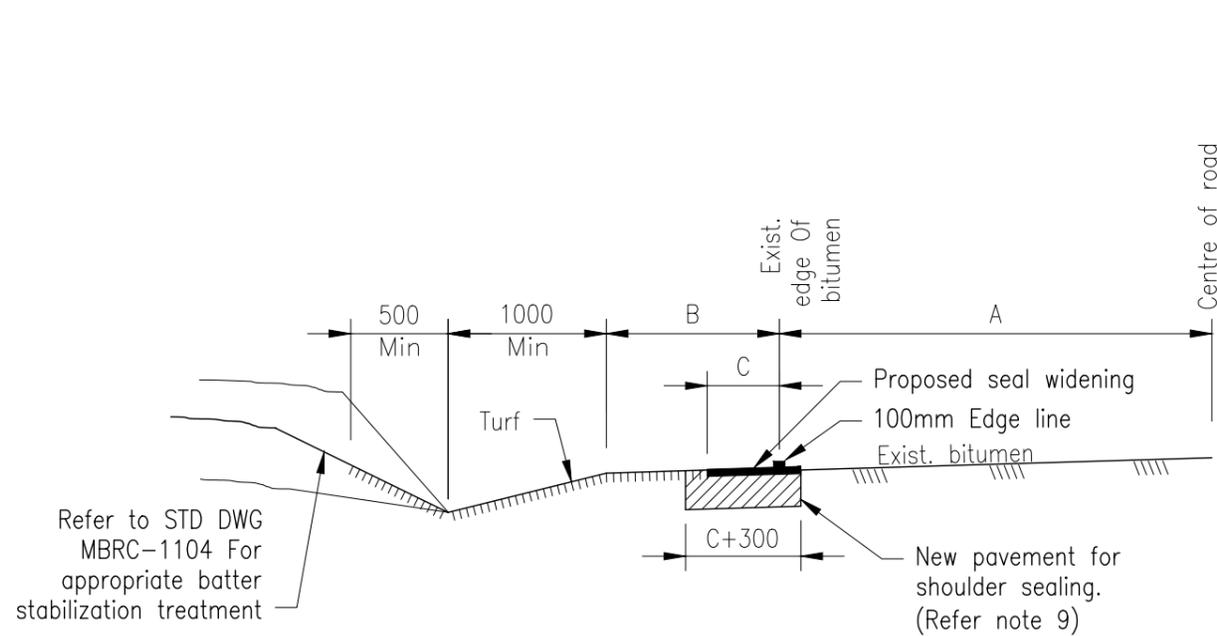
SWALE DRAIN GRADE	TREATMENT
0.4% - 2%	Concrete lined
2% - 5%	Grass lined
5% - 10%	Rock Lined
10% Or greater	Concrete Lined

**TABLE 2  
(TYPICAL DIMENSIONS)**

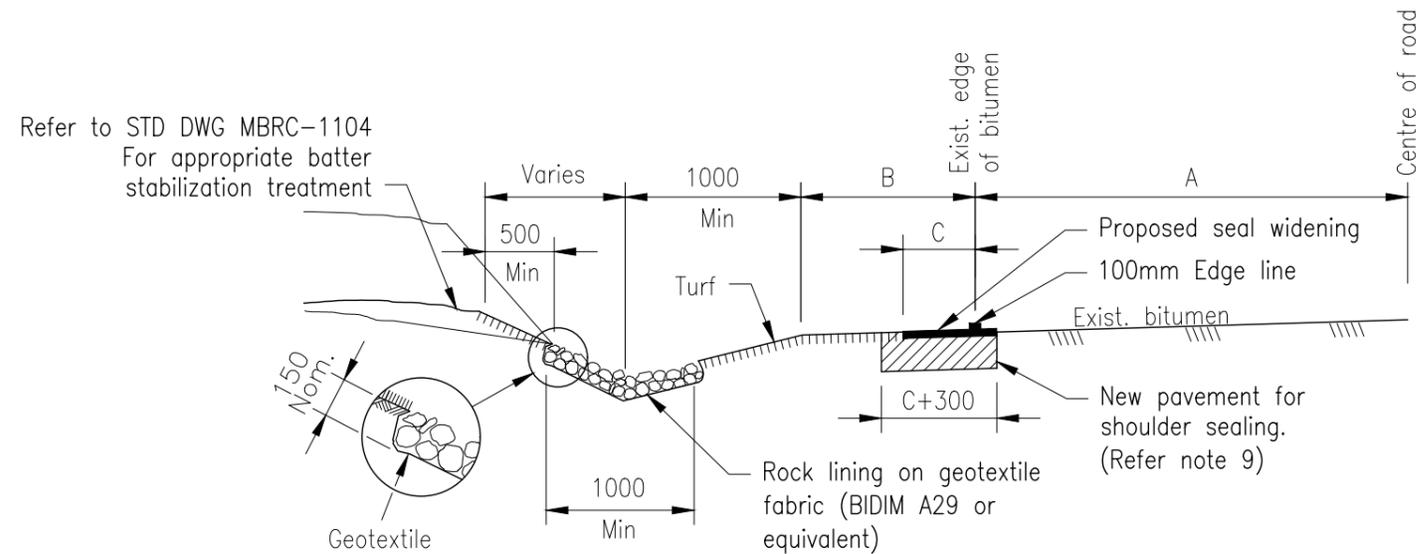
ROAD CLASSIFICATION	DIMENSIONS (MIN.)		
	A	B	C
Access	3000	1200	500
Collector	3500	1500	1000
> Collector	3500	2000	1500



**CONCRETE LINED SWALE DRAIN**



**GRASS LINED SWALE DRAIN**



**ROCK LINED SWALE DRAIN**

REVISIONS	INIT	DATE
E		
D		
C		
B		
A	Review	R.H. 02/16

COUNCIL APPROVED MINUTE PAGE

SCALES	Drawn	Date
	Team Leader	Date
	Coordinator	Date
	AUTHORISED	
	Manager Engineering	RPEQ

**ROADSIDE DRAINAGE  
UPGRADING OF EXISTING ROADS  
SWALE DRAIN**

**Moreton Bay**  
Regional Council

DRG No. **MBRC-1105**

ORIGINAL SIZE **A3** REVISION **A**