KSC STANDARD DRAWING SCHEDULE - ASD 600 SERIES

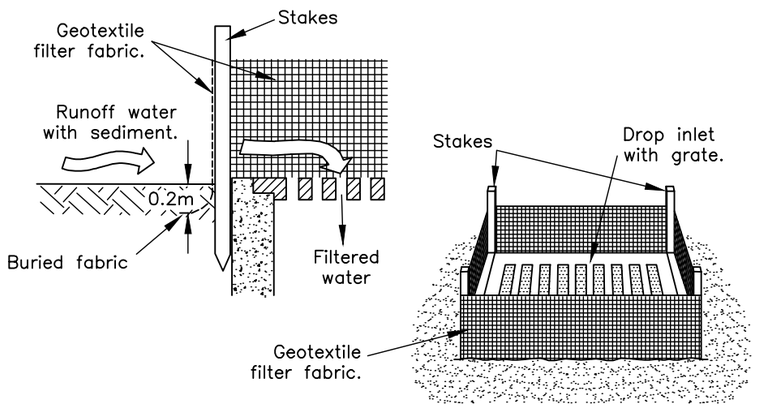
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

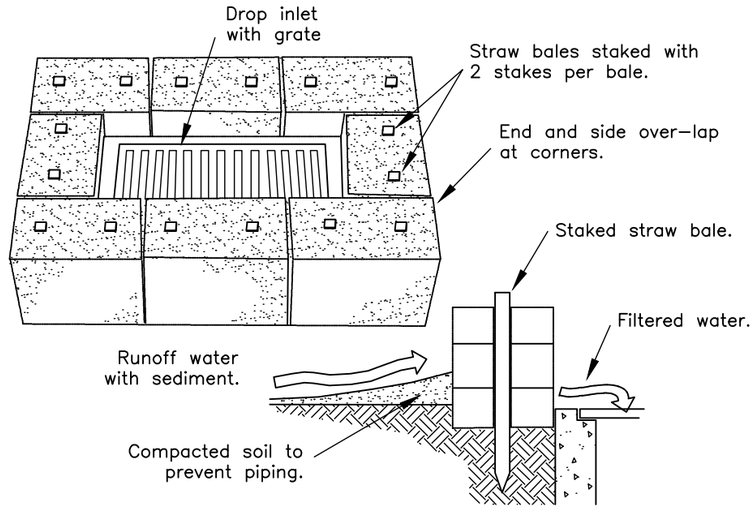
KSC STANDARD DRAWING
ENVIRONMENTAL - ASD 600 SERIES
DRAWING SCHEDULE

NOT TO SCALE

ASD 600



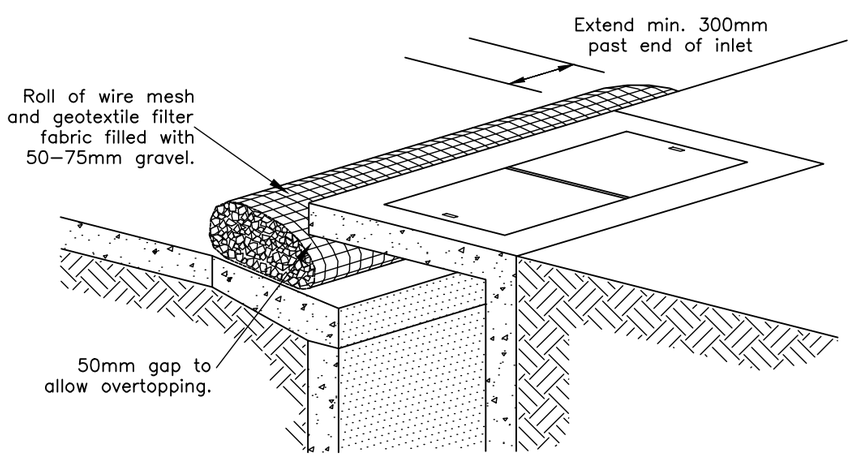
Geotextile Filter Fabric Drop Inlet Sediment Trap.



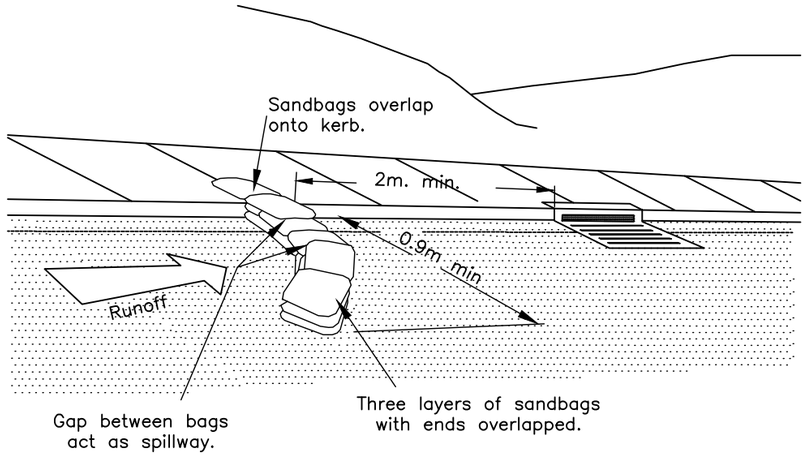
Straw Bale Drop Inlet Sediment Trap.

NOTES:

1. All works are to be in accordance with Landcom's Managing Urban Stormwater: Soils & Construction publication (the Blue Book)
2. Install traps in accordance with drawing prior to commencing construction
3. Install filter fabric instead of strawbales in areas accessible to stock.
4. Remove trapped sediments from site prior to removing sediment trap
5. Filter fabric shall be min 14g/m2 nonwoven geotextile supported on wire fence or an approved woven silt stop fence
6. Provide gap between Sediment Trap & Kerb Inlet
7. Installations to be in accordance with approved erosion control plan



Portable Gravel Kerb Inlet Sediment Trap



Sandbag Kerb Inlet Sediment Trap.

TYPICAL SEDIMENT CONTROL EXAMPLES

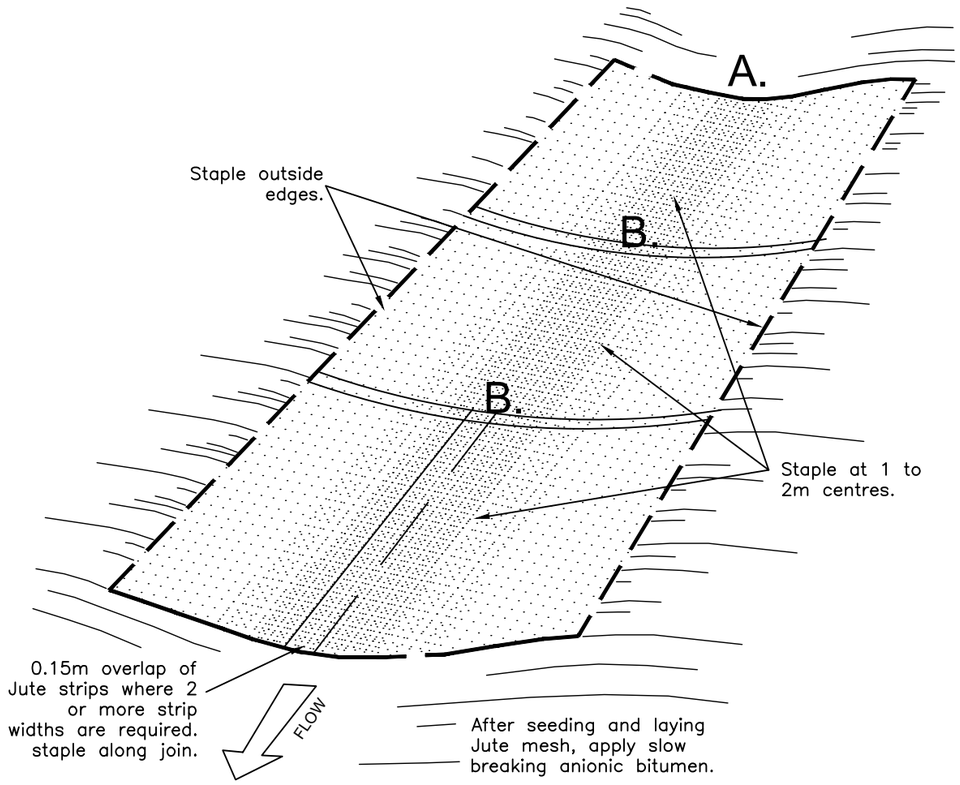
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

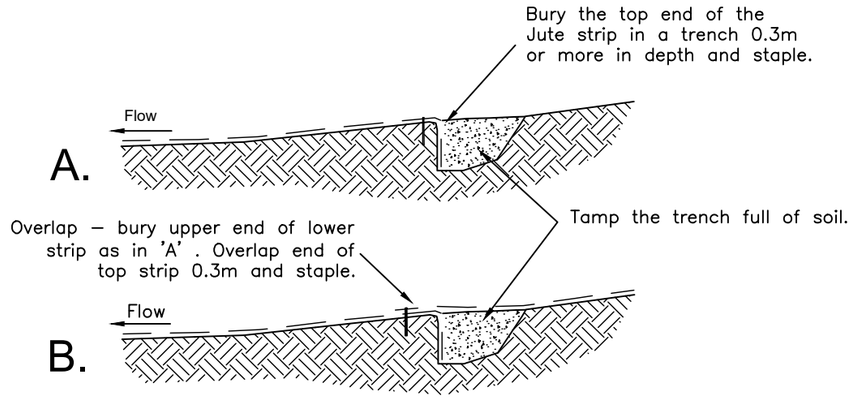
KEMPSEY Shire Council

KSC STANDARD DRAWING
SEDIMENT TRAPS - SURFACE INLETS

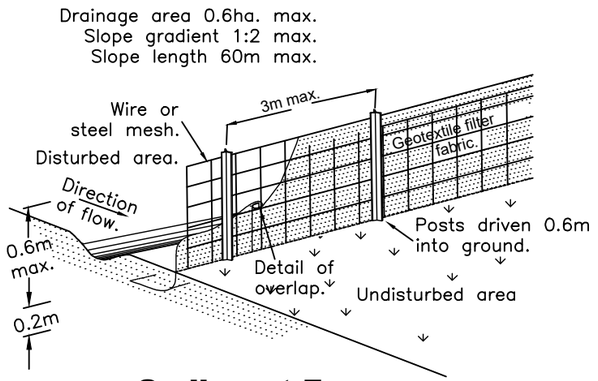
NOT TO SCALE

ASD 601

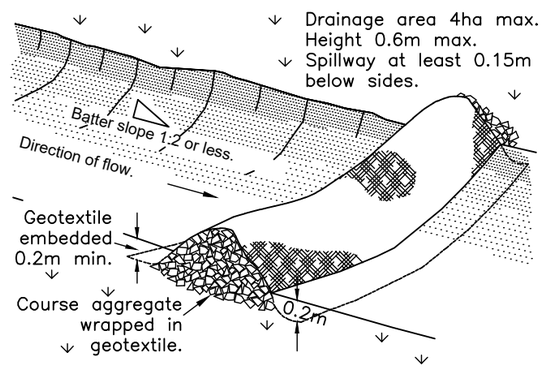




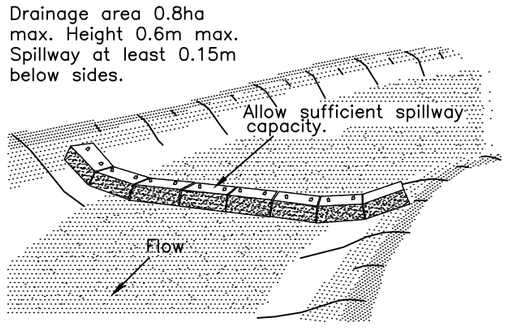
Channel Stabilisation with Jute Mesh and Bitumen.



Sediment Fence



Rock Check Dam



Straw Bale Check Dam

NOTES:

1. All works are to be in accordance with Landcom's Managing Urban Stormwater: Soils & Construction publication (the Blue Book)
2.
3. Install traps in accordance with drawing prior to commencing construction.
4. Install filter fabric instead of strawbales in areas accessible to stock.
5. Remove trapped sediments from site prior to removing sediment trap.
6. Filter fabric shall be min 14g/m2 nonwoven geotextile supported on wire fence or an approved woven silt stop fence.
7. 14g/m2 nonwoven geofabric may be used in lieu of Jute and Bitumen for stablising temporary drains.
8. Provide gap between Sediment Trap & Kerb Inlet
9. Installations to be in accordance with approved erosion control plan.

TYPICAL SEDIMENT CONTROL EXAMPLES

NOT TO SCALE

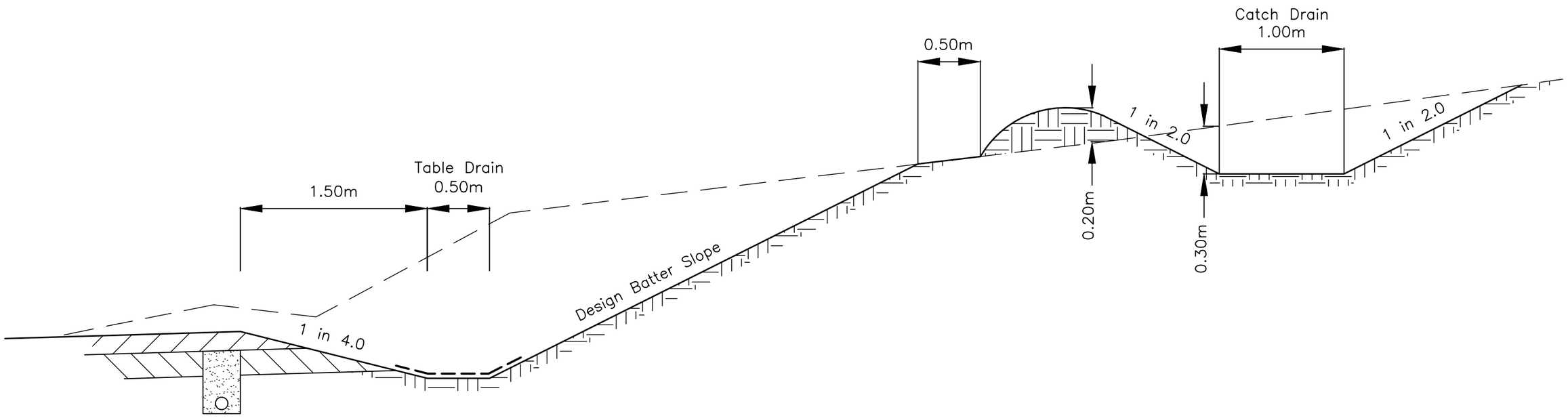
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING
SEDIMENT CONTROL DRAINS

NOT TO SCALE

ASD 602



TYPICAL TABLE DRAIN AND CATCH DRAIN

NOTES:

1. Topsoil to be placed at a minimum depth of 100mm in accordance with the requirements of the current AUS-SPEC #1, construction specification

CATCH DRAINS

2. Catch drains are to be stabilised immediately. Longitudinal grade up to 5.0% to be lined with organic fibre matt & grass seeded to a width of 3.0m (max). > 5.0% catch drains are to be lined with sprayed concrete (50mm thick nom)

TABLE DRAINS - UNLINED

3. If it is necessary to deepen the table drain, the cutting should be widened so that the 1:4.0 slope is maintained. Desirably the depth is not to exceed 1.0m

4. The minimum longitudinal grade in an unlined table drain is 0.50% with the maximum grade to be 5.0%

REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

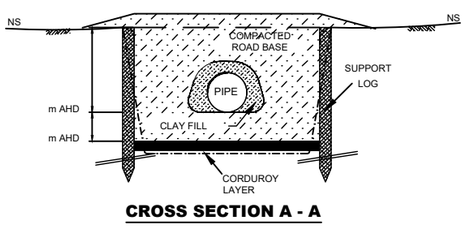
KEMPSEY Shire Council

KSC STANDARD DRAWING
EROSION TREATMENT FOR TABLE DRAINS & CATCH DRAINS

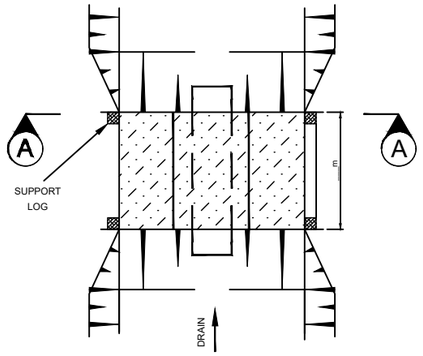
NOT TO SCALE

ASD 603

RAISED EARTHEN WEIR

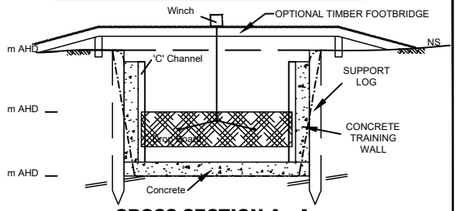


CROSS SECTION A - A

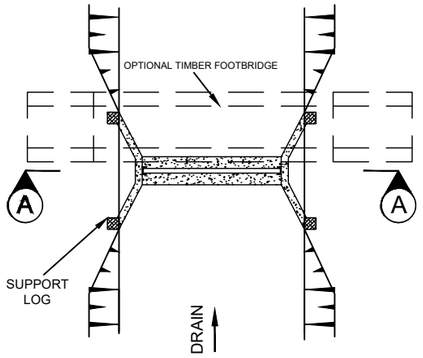


PLAN VIEW

DROPBOARD WEIR - 1

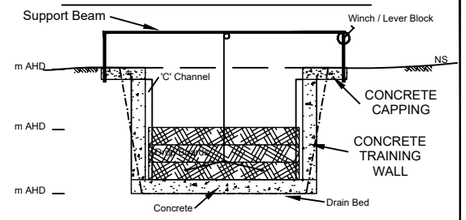


CROSS SECTION A - A

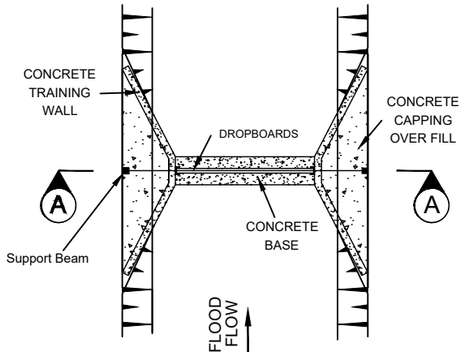


PLAN VIEW

DROPBOARD WEIR - 2

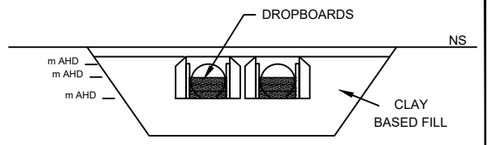


CROSS SECTION A - A



PLAN VIEW

DROPBOARD CULVERTS



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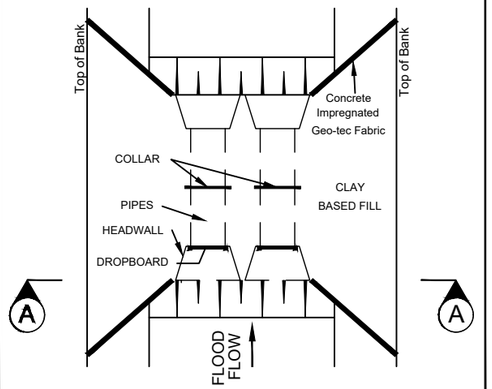
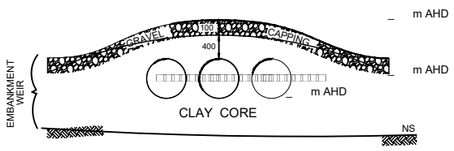
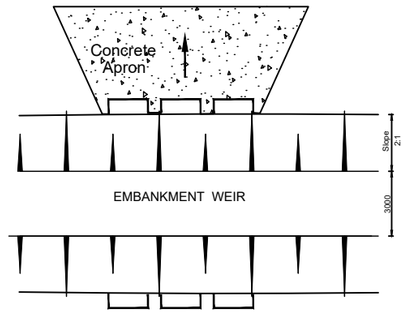


PLAN VIEW

PIPE SPILLWAY

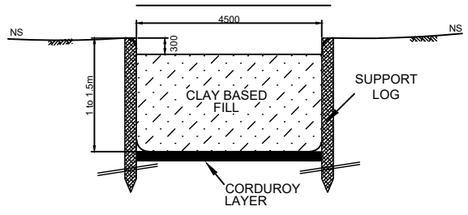


ELEVATION

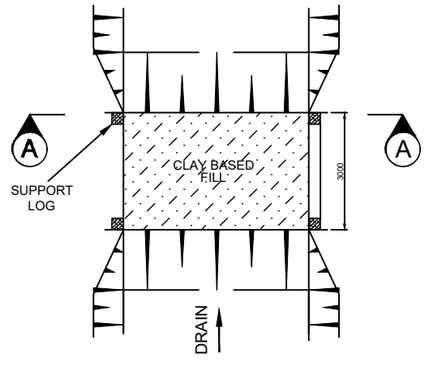


PLAN VIEW

CHECK BANK



CROSS SECTION A - A



PLAN VIEW

NOTES:

1. CONCEPTS ONLY - NOT FOR CONSTRUCTION
2. Sediment fence to be installed downstream of works prior to construction
3. Acid sulphate material extracted from drains is to be limed at a standard rate of 200kg of fine agricultural lime per m3 of soil (Assumes a 5% sulfur content). Excavated acid volatile sulfur sediments are to be limed at a lime: AVS volume ratio of 1:30 using fine agricultural lime
4. Bentonite / soil mix to be placed around pipes to minimise tunnelling
5. 'C' channel for dropboards to be fabricated from marine grade stainless steel
6. All concrete structures to be Grade F, acid / iron resistant cement
7. Clay based fill to contain at least 30% clay sized particles. Fill to be non-dispersive
8. Dropboard culverts are not designed for vehicular access
9. Support logs to be marine grade treated Koppers logs

REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING
CONCEPT DETAILS FOR WATER RETENTION STRUCTURES (ACID SULPHATE ZONES)

NOT TO SCALE

ASD 604

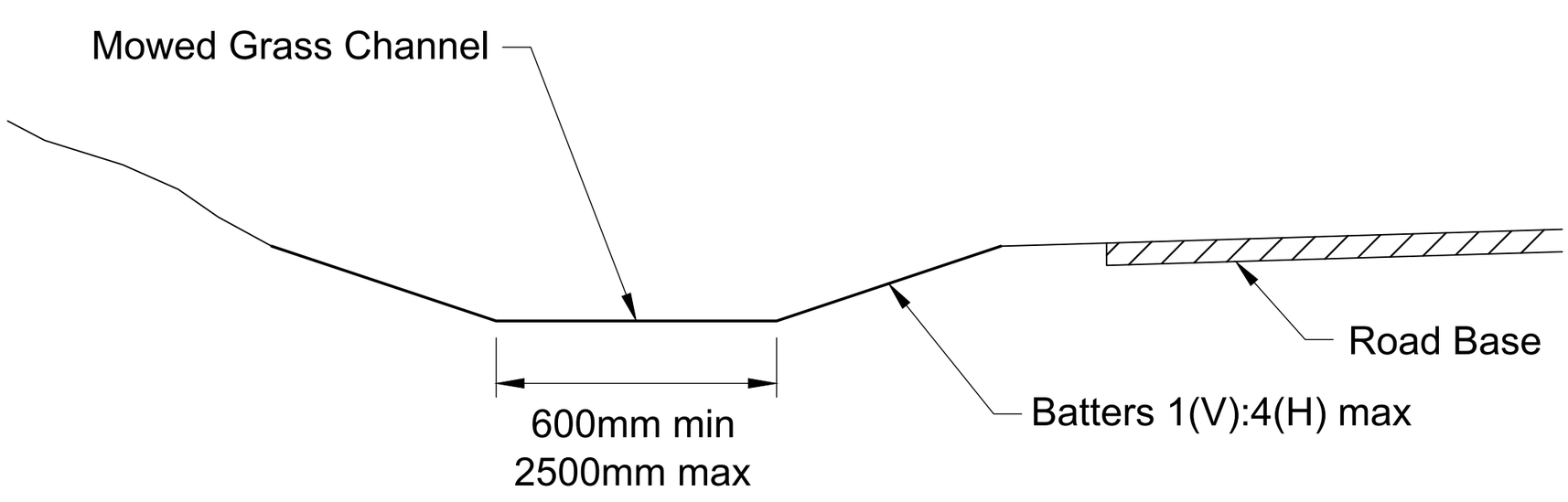
Road slope	Soil Erosion Risk Classes (refer note 7)		
	Moderate (m)	High to Very High (m)	Extreme (m)
>2% (1°)	150	120	70
2%-5% (2-3°)	130	100	50
5%-10% (3-5.5°)	120	90*	40*
10%-15% (5.5-8.5°)	95*	70*	30*
15%-20% (8.5-11°)	50*	35*	30*

TABLE 1:Spacing Between Cut-off or Rock Check Dams
(Metres along roadside drainage)

* Denotes requirement for rock check dam between cut-off drains

NOTES:

1. Cross slope 2% (1°) greater than the road
2. Drain to have a min length of 60m
3. Top width to depth ratio of 6:1 or greater
4. Grassed swale drains established on slope 4% (2.5°) or less with velocities less than 2m/s
5. If slope is greater than 4% (2.5°) rock check dams to be installed as per ASD 605 and Table 1.
6. Drain should have a capacity to convey a 1:2 storm event.
7. Refer KSC GIS Soil Erosion Risk Map



REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

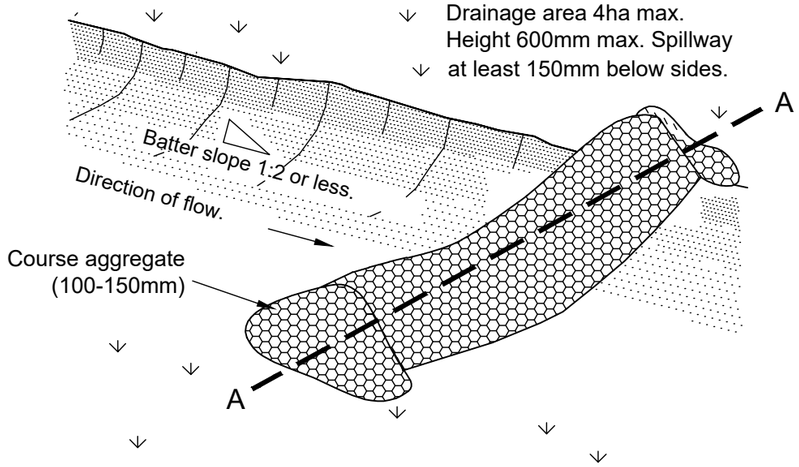
KEMPSEY Shire Council

KSC STANDARD DRAWING
GRASSED SWALE DRAINS - RURAL ROADS

NOT TO SCALE

ASD 605

Grassed Swale



Rock Check Dam
(Refer notes ASD601)

NOTES:

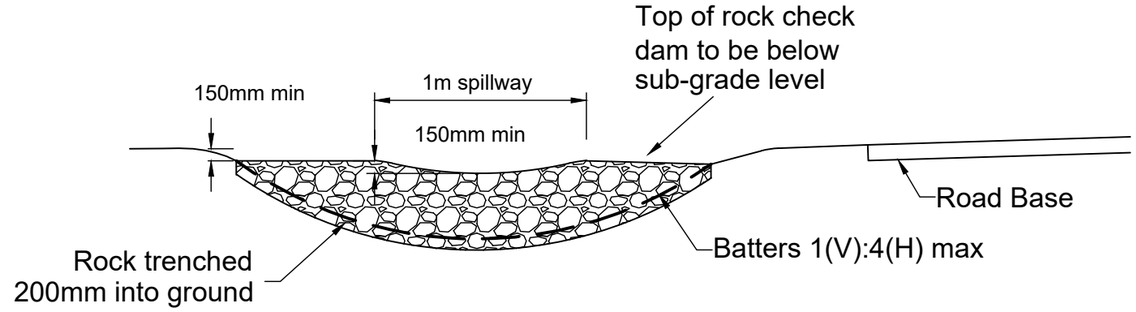
1. Check dams can be built with various materials, including rocks, logs, gravel-filled sandbags. The maintenance program should ensure their integrity is retained

2. Trench the check dam 200mm into the ground across its whole width. Where rock is used, fill the trenches to at least 100mm above the ground surface to reduce the risk of undercutting

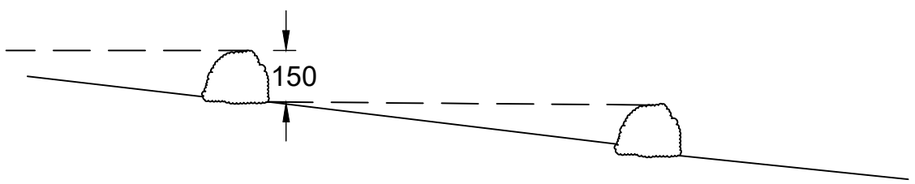
3. Maximum height should not exceed 600mm above the gully floor. The centre should act as a spillway, being at least 150mm lower than the outer edges

4. Space the dams so the toe of the upstream dam is level with the spill way of the next downstream dam

5. Place A14 or equivalent geofabric when working in extreme erosion risk areas (refer KSC GIS Soil Erosion Risk Map)



Section AA through
Rock Check Damn



Typical Rock Check Dam Elevation (Refer Note 4)

REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING
GRASSED SWALE DRAINS >5% (3°) SLOPE FOR RURAL ROADS

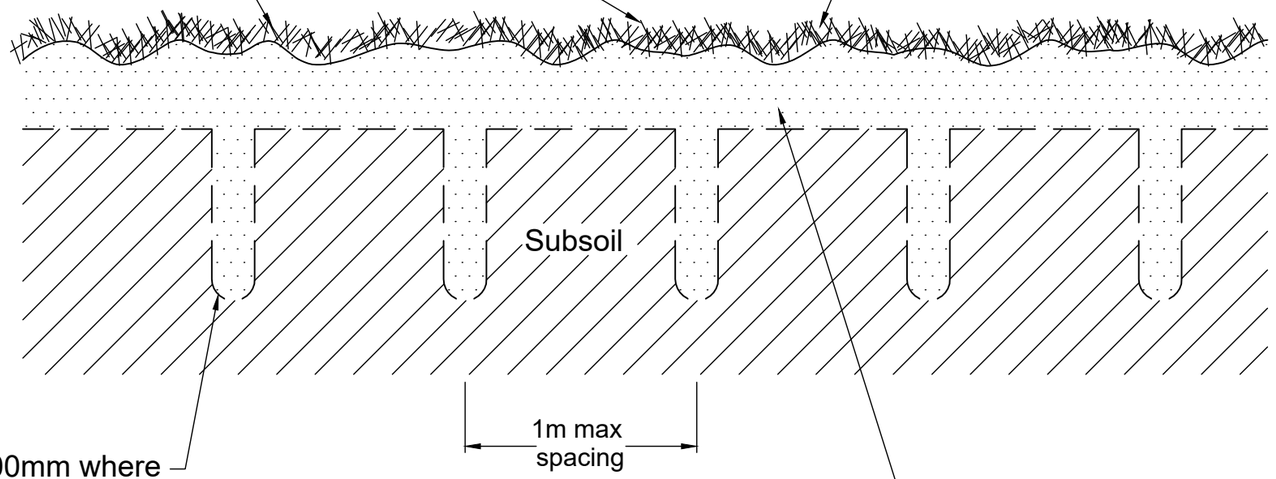
NOT TO SCALE

ASD 606

Seed and fertilise directly into topsoil or broadcast on surface and harrow into soil. Type of seed as determined by works superintendent. Refer Ausspec Construction Specification C273 annexure 273A for application rates.

Provide 150mm surface mulching to improve germination and establishment and protect the soil surface.

Seedbed surface left in roughened uncompacted condition



Rip to a depth of 300mm where a compacted layer occurs

Topsoil Depth: 75mm min. if slopes flatter than 4(H):1(V) 40mm to 60mm if slope is steeper than 4(H):1(V). Refer to Aus-Spec Development Construction Specification C273.06 Vegetation of Batter Slopes for batters steeper than 3 to 1.

NOTES:

1. Loosen compacted soil before sowing any seed. If necessary, rip the soil to a depth of 300mm. Avoid rotary hoe cultivation
2. Minimise ground disturbance during seedbed preparation
3. Avoid cultivation in very wet or very dry conditions
4. Cultivate on or close to the contour where possible, not up and down the slope
5. Reference: Soils and Construction, Volume 1, 4th Edition, March 2004 SD 7-1

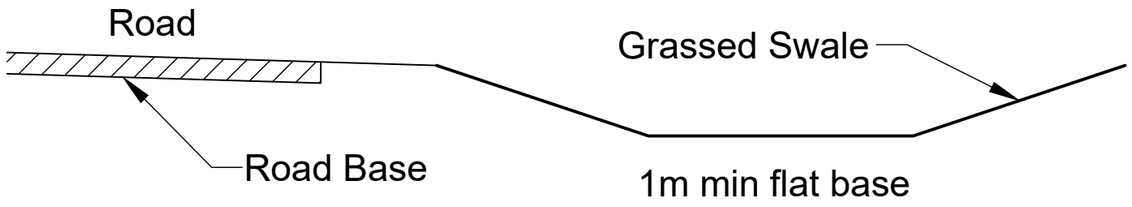
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING
SEEDBED PREPARATION - RURAL ROADS

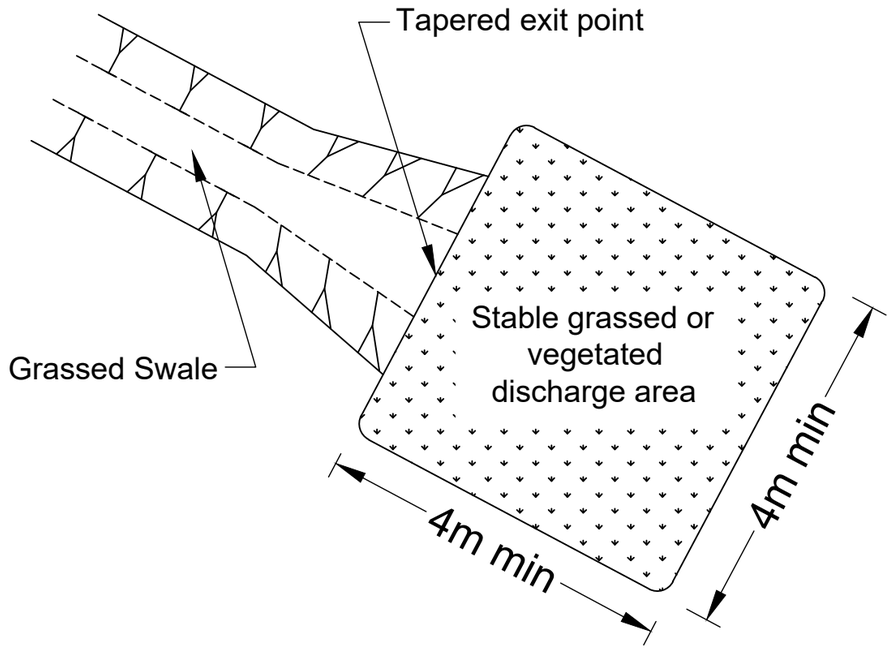
NOT TO SCALE

ASD 607



NOTES:

1. Cut-off drain discharge points not to be located near drainage lines or waterways
2. Space cut-off drains as per table 1, or if site conditions prevent cut-off drains, rock check dams are to be installed as an alternative
3. Grassed discharge point should not service an area >2ha and be positioned on a slope of 5% (3°) or less. Discharge point should have a minimum surface area of 16m²
4. Refer KSC GIS Soil Erosion Risk Map



Road slope	Soil Erosion Risk Classes (refer note 4)		
	Moderate (m)	High to Very High (m)	Extreme (m)
>2% (1°)	150	120	70
2% - 5% (2 - 3°)	130	100	50
5% - 10% (3 - 5.5°)	120	90*	40*
10% - 15% (5.5 - 8.5°)	95*	70*	30*
15% - 20% (8.5 - 11°)	50*	35*	30*

TABLE 1:
Spacing Between Cut-off or Rock Check Dams (Metres along roadside drainage)

* Denotes requirement for rock check dam between cut-off drains

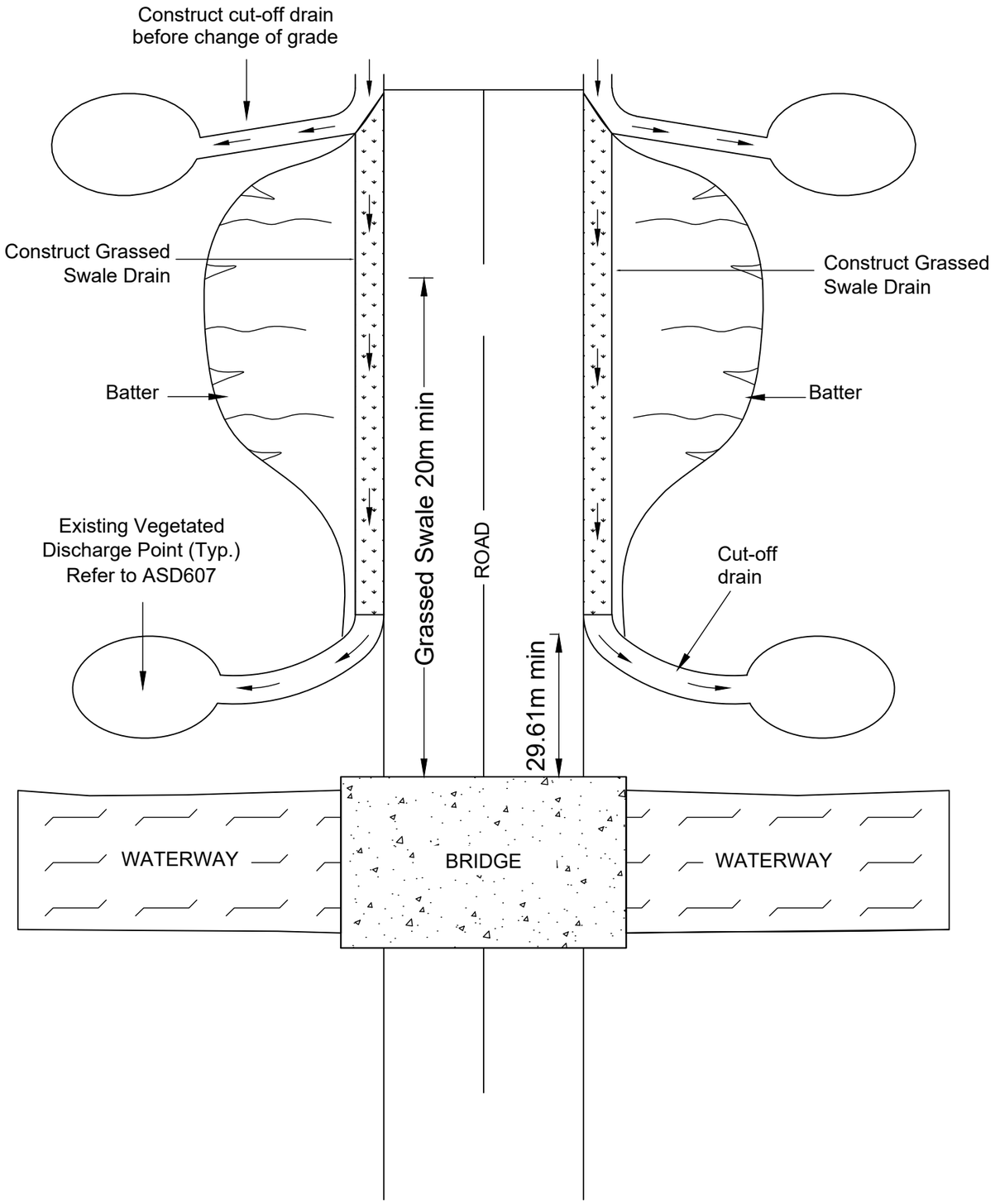
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING CUT-OFF DRAINS - RURAL ROADS

NOT TO SCALE

ASD 608



NOTES:

1. Ensure discharge cannot enter waterway.
2. If road slope exceeds 5% (3°) construct rock check dams as per ASD605

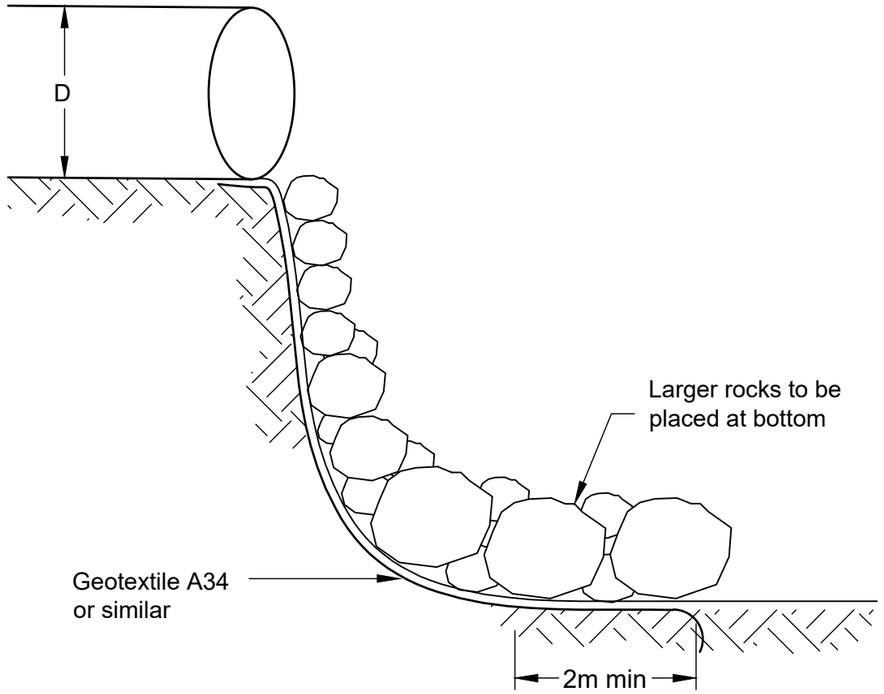
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

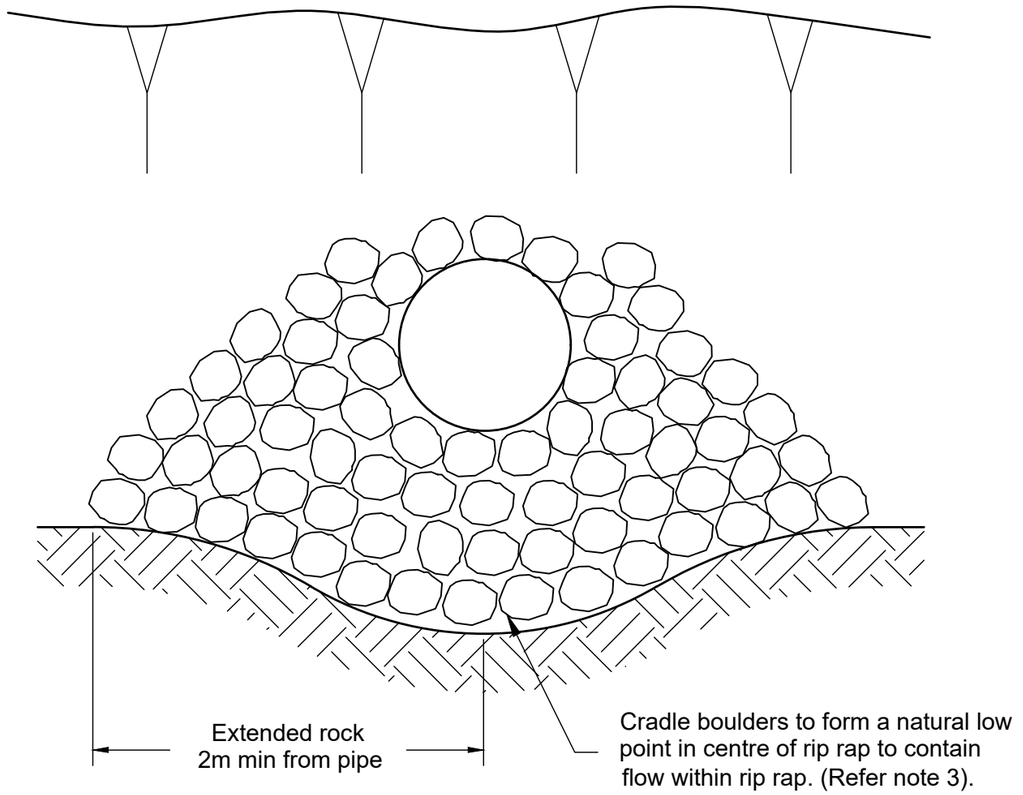
KEMPSEY Shire Council

KSC STANDARD DRAWING
ROADSIDE SWALE DRAINS AT WATERWAY CROSSINGS - RURAL ROADS

NOT TO SCALE

ASD 609





NOTES:

1.Stack boulders from base up to top using larger boulders first
2.Continue rip rap to flat surface or where slope is < 5% (3°)
3.Place rip rap to conform to existing gully / drainage line shape

Pipe (D)	Min. Rock Size (mm)
750	500
900	500
1050	500
1200	800
1500	800
1800	1000
2100	1000

REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

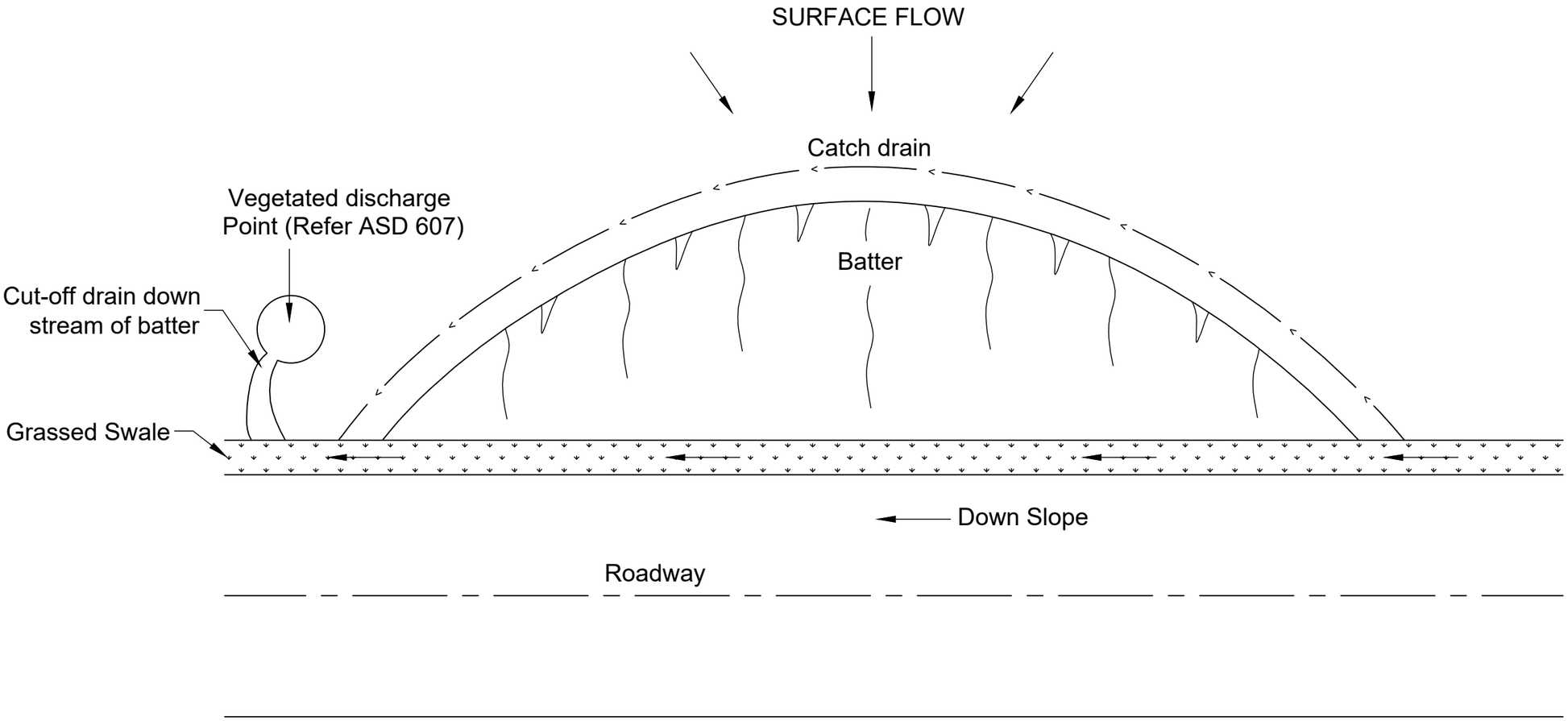
KSC STANDARD DRAWING
RIP RAP IN GULLY - SLOPE > 10% (6°) FOR RURAL ROADS

NOT TO SCALE

ASD 610

NOTES:

1. Catch drain to divert clean water away from batter



REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING
CATCH DRAIN & BATTERS FOR RURAL ROADS

NOT TO SCALE

ASD 611