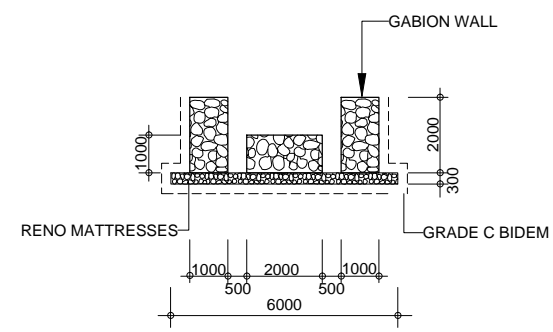
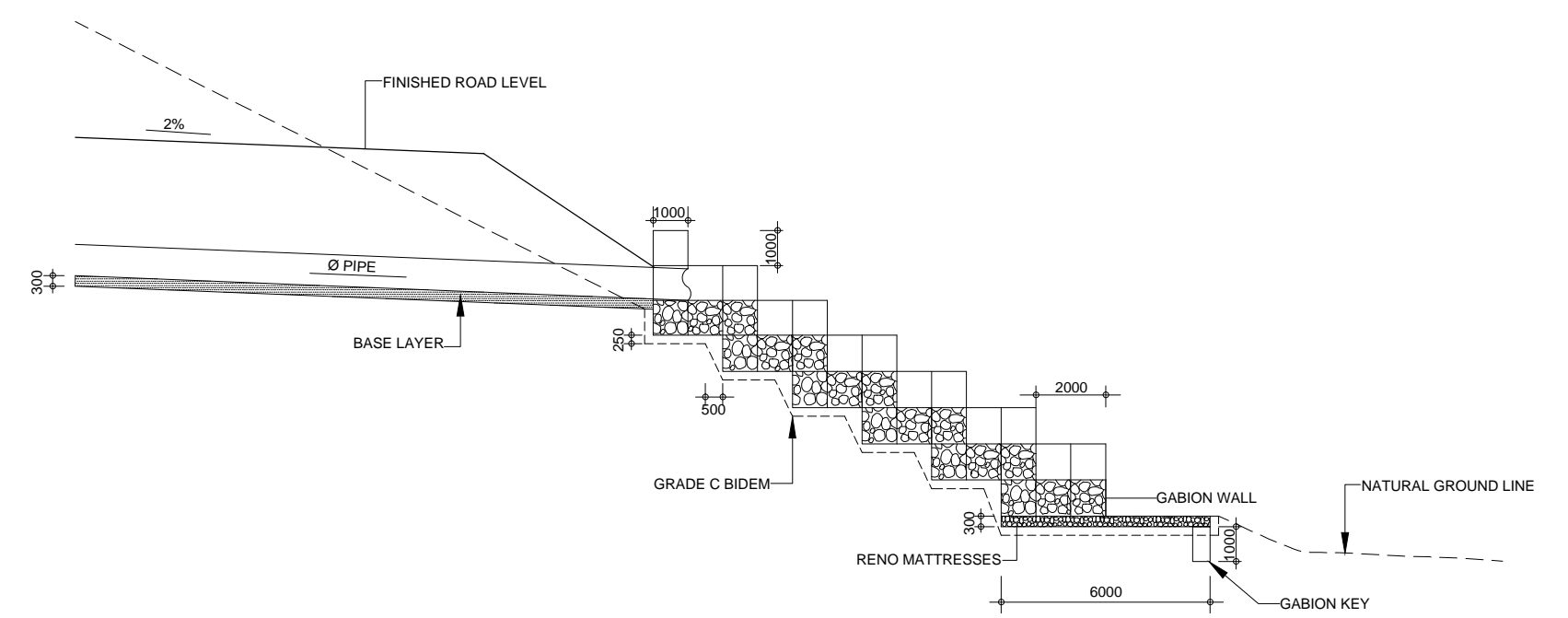


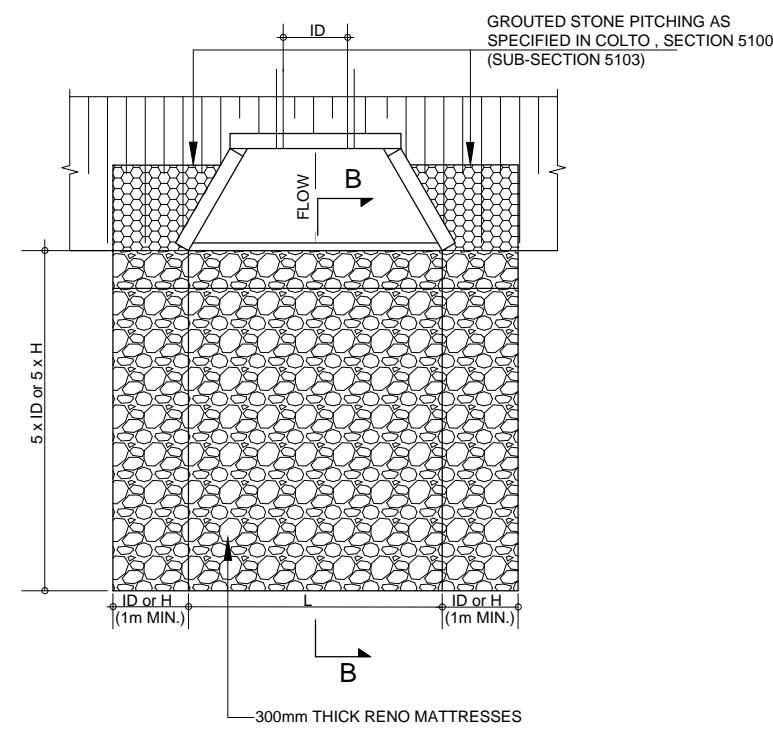
GABION WALL OUTLET DETAIL  
SCALE 1:100



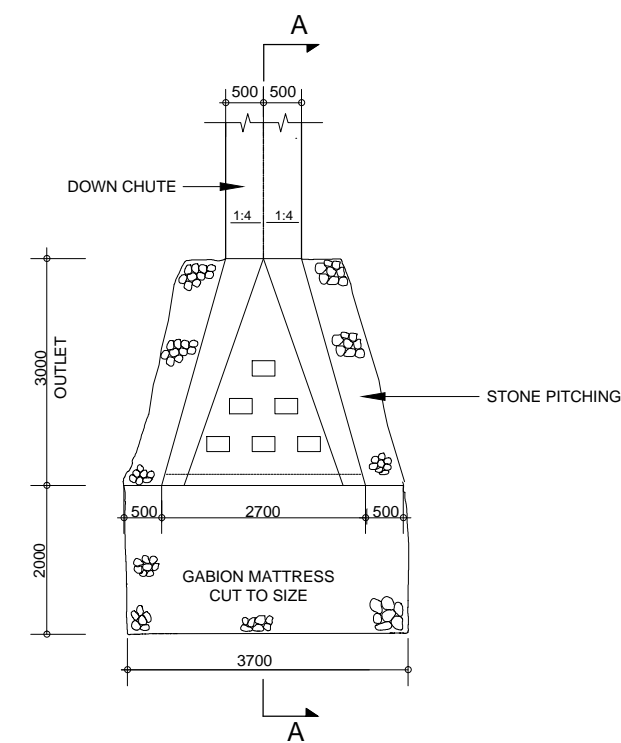
SECTION A - A  
SCALE 1:100



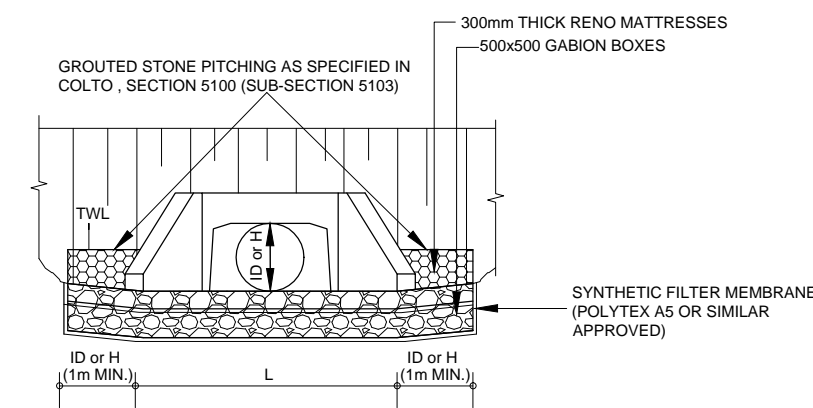
PIPE CULVERT GABION DROP STRUCTURE AT OUTLET  
SCALE 1:100



PLAN OF CULVERT OUTLET  
SCALE 1:50

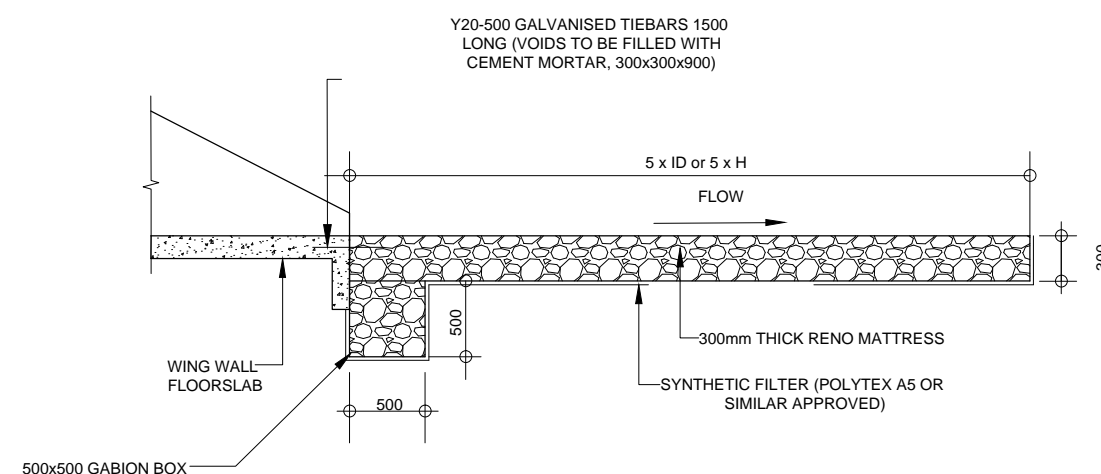


PLAN OF DOWN CHUTE AND ENERGY BREAKER  
SCALE 1:50

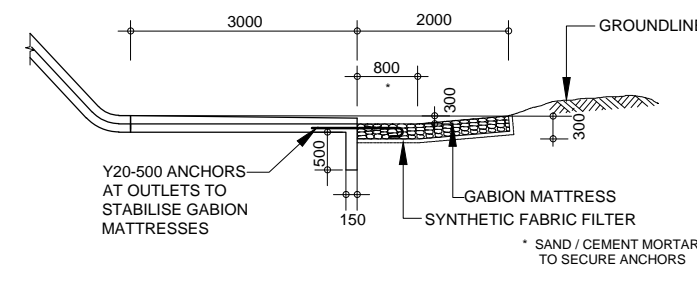


ELEVATION OF CULVERT OUTLET  
SCALE 1:50

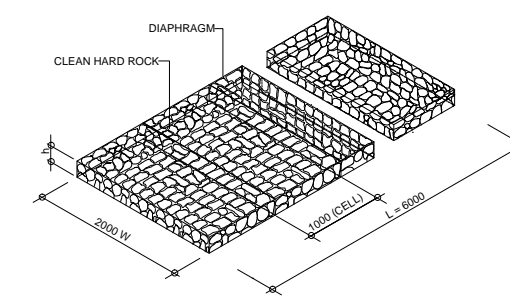
DESIGN INFORMATION FOR GABIONS				
STANDARD SIZES FOR BOXES (mm)				
LENGTH (L)	1000	2000	3000	4000
WIDTH (W)	1000			
DEPTH (H)	500	1000		
DIAPHRAGM SPACING	1000			
STANDARD SIZES FOR MATTRESSES (mm)				
LENGTH (L)	6000			
WIDTH (W)	2000			
DEPTH (H)	170	230	300	
MESH SIZE AND WIRE DIAMETER FOR CAGES (mm)				
DEPTH OF GABION	MESH SIZE	WIRE DIA.		
500 mm AND OVER	80 x 100	2.7		
200 mm TO 300 mm	80 x 100	2.5		
ROCK SIZES FOR FILLING CAGES (mm)				
DEPTH OF CAGE	MIN.	MAX.		
230	100	125		
300	100	200		
500	100	250		
1000	100	300		
GALVANISED STEEL ANCHORS FOR MATTRESSES				
	1500mm			
MATTRESSES	Y10 - 1500 x 1500mm			
INLETS AND OUTLETS	Y20 - 500mm			



SECTION B - B OUTLET  
SCALE 1:25



SECTION A - A OUTLET  
SCALE 1:50



MATTRESSES  
SCALE 1:50

GUIDELINE FLOW VELOCITY (m/s)	PROTECTION MEASURE*
V < 1.5	FIELD GRASS
1.5 < V < 3.5	GRASS SODS
3.5 < V < 6.5	GABION MATTRESS (300mm)
6.58 < V < 8	GABIONS (500mm MIN)

LEGEND	
ID	: INSIDE DIAMETER OF PIPE CULVERT
H	: HEIGHT OF PORTAL CULVERT
TWL	: TAIL WATER LEVEL

EROSION PROTECTION AT STORMWATER OUTLET STRUCTURE

AS BUILT		Continued from:-	-	Designed by:-	K.MAFU		PROVINCE OF KWAZULU - NATAL - ISIFUNDAZWE SAKHAZULU - NATALI DEPARTMENT OF TRANSPORT UMYANGO WEZOKUTHUTHA	Designed by: Royal HaskoningDHV Enhancing Society Together TRANSPORTATION ENGINEERING CHIEF ENGINEER	MAIN ROAD	P752 : NKAMBA TO QUDENI	Staked km distance km0.000 TO km12.200	Sheet :- of :- 1 1
Supervising Engineer		Continued on:-	-	Checked by:-	P.L. FORREST							
Date		Cross Section No:-	-	Drawn by:-	W.SURJOOPERSAD	Signature: _____ Date: _____	HEAD : TRANSPORT	PORTION QUDENI LINK ROAD GABION EROSION DETAILS	Scale AS SHOWN	Plan No. :- C34115/A		
AMENDMENTS		Longitudinal Section No:-	-	Checked by:-	P.L. FORREST							
Symbol		Design Plan No:-	-	Date of approval:-								