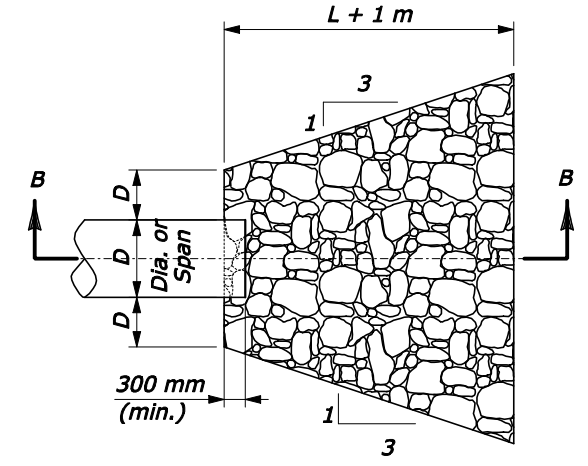
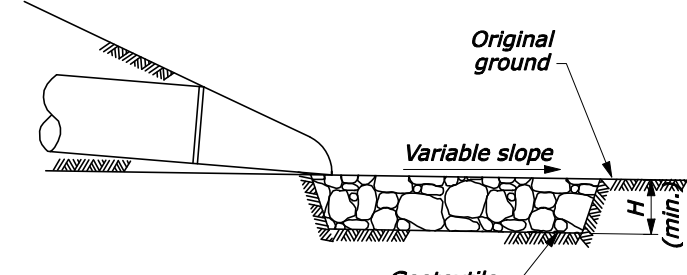


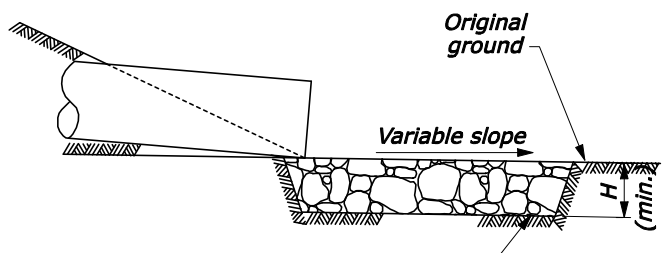
PLAN VIEW



PLAN VIEW

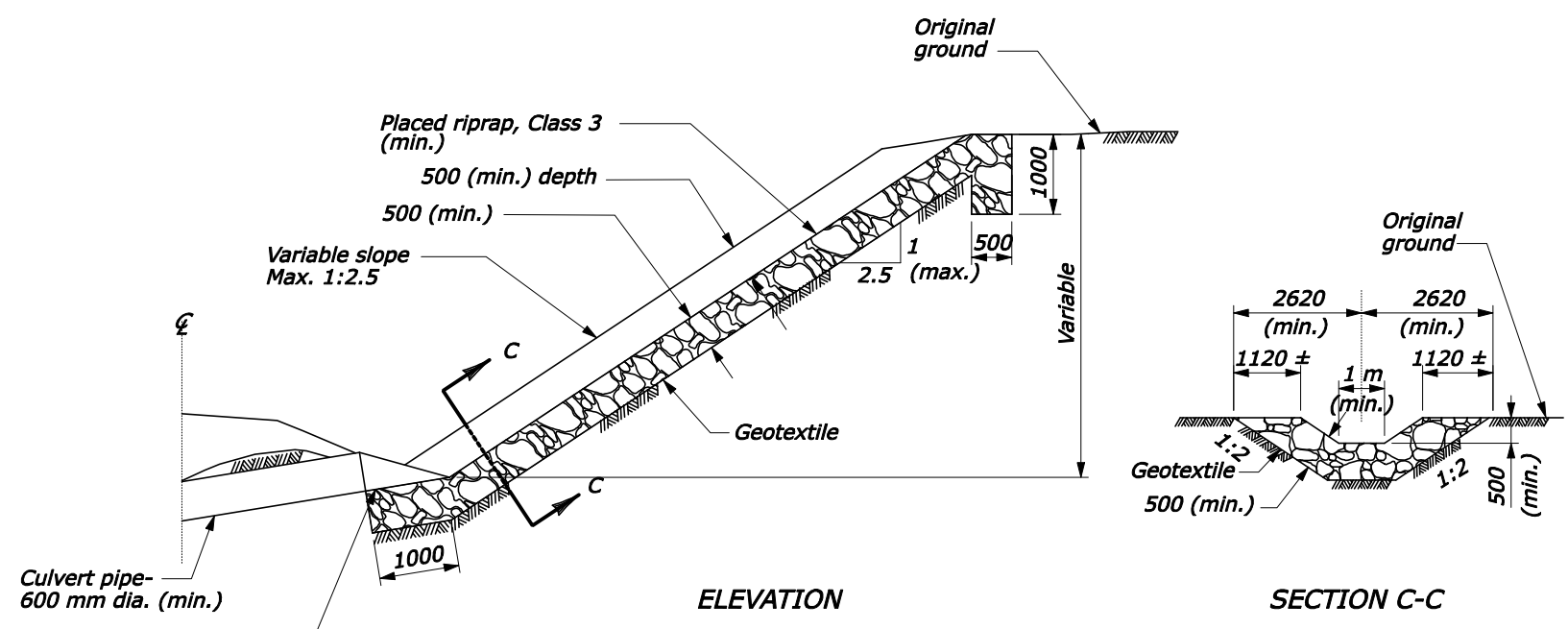


SECTION A-A  
CULVERT WITH STANDARD  
END SECTION



SECTION B-B  
CULVERT WITHOUT STANDARD  
END SECTION

**PROTECTIVE APRON AT CULVERT OUTLET**



ELEVATION

SECTION C-C

**RIPRAP RUNDOWN IN CUT ( $Q_{max} = 0.5 \text{ m}^3/\text{s}$ )**

APRON TYPE	CLASS RIPRAP	LENGTH OF APRON L (METER)	DEPTH OF APRON H (METER)
1	2	4 x D	0.5
2	3	5 x D	0.6
3	4	6 x D	0.8

- NOTE:**
- Excavation for placement of riprap will not be measured for payment.
  - Furnish geotextile conforming to subsection 714.01 (a), type IV-E.
  - Dimensions not labeled are in millimeters.

8/8/2006 9:17:18 AM L:\DESIGN\AD2\CFL Details Team\Web Ready\CM251-50.dgn

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
METRIC DETAIL <b>PLACED RIPRAP          AT CULVERTS</b>	
DETAIL APPROVED FOR USE 07/2004 REVISED: 08/2006	DETAIL <b>CM251-50</b>