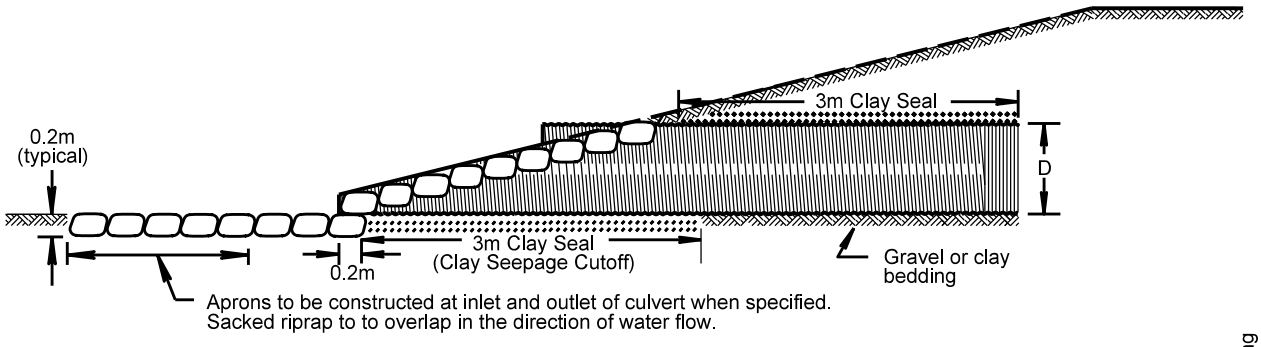
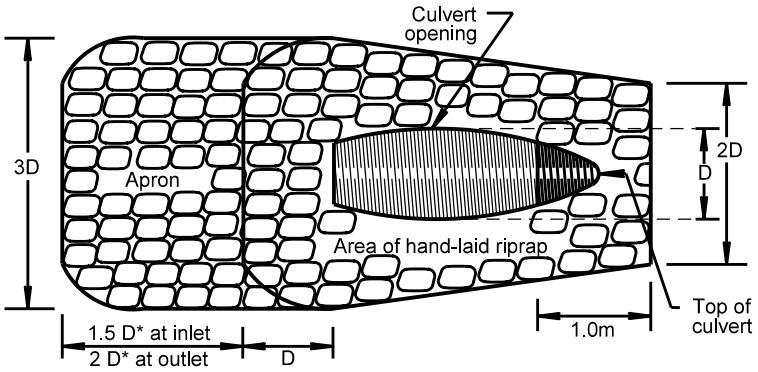
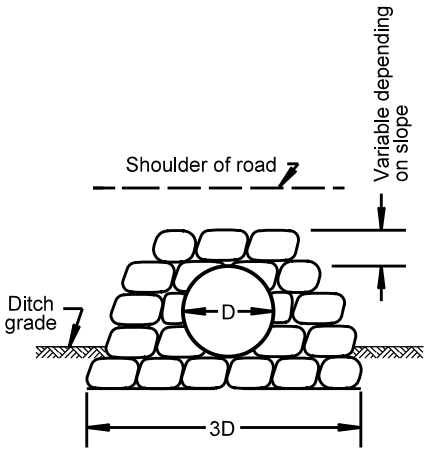


SECTION



* These are typical minimum dimensions.

PLAN VIEW



ELEVATION

NOTES:

1. ROCKS AND BOULDERS SHALL BE SELECTED AS NEARLY CUBICAL IN FORM AS PRACTICAL. THE STONES SHALL BE PLACED WITH THEIR BEDS AT RIGHT ANGLES TO THE SLOPE, THE LARGER STONES BEING PLACED FIRST IN THE BOTTOM COURSES AND THE SMALLER STONES AT THE TOP. THEY SHALL BE LAID IN CLOSE CONTACT SO AS TO BREAK JOINTS AND IN SUCH MANNER THAT THE WEIGHT OF THE STONE IS CARRIED BY THE EARTH AND NOT BY THE ADJACENT STONES. THE FINISHED WORK SHALL PRESENT AN EVEN, TIGHT, AND REASONABLY PLANE SURFACE, VARYING NOT MORE THAN 75mm FROM THE REQUIRED CONTOUR.
2. WHERE NO SPECIAL TREATMENT IS REQUIRED, CULVERT INVERT ELEVATIONS ARE TYPICALLY SET ABOUT (0.15 x DIAMETER) BELOW THE DRAINAGE COURSE ELEVATION.
3. A CLAY SEAL IS TO BE PLACED AT BOTH ENDS OF THE CULVERT FOR A LENGTH OF 3m TO CUT OFF SEEPAGE. THE CLAY SEAL SHALL EXTEND FROM THE BOTTOM OF THE EXCAVATION TO 300mm ABOVE THE CROWN OF THE PIPE, AND FOR THE FULL WIDTH OF THE EXCAVATION.
4. WHERE APRONS ARE REQUIRED DUE TO HIGH VELOCITY FLOW OR EROSION-PRONE SOIL, THE MINIMUM INLET APRON IS (1.5 x DIAMETER) LONG. THE MINIMUM OUTLET APRON (WHERE WATER VELOCITY IS HIGHER) IS TWO DIAMETERS LONG.
5. THIS DRAWING SUPPEMENTS SPECIFICATION 2.5, "RIPRAP" AND APPLIES TO CULVERTS LESS THAN 1500mm EQUIVALENT DIAMETER.

ESTIMATED RIPRAP SURFACE AREAS*

PIPE DIAMETER (mm)	AREA OF ONE END EXCLUDING APRON (m^2)	AREA OF ONE END INCLUDING INLET APRON (m^2)	AREA OF ONE END INCLUDING OUTLET APRON (m^2)
500	2	3	4
600	3	5	6
700	4	6	7
800	5	8	9
900	6	10	11
1000	7	12	13
1100	9	14	16
1200	10	16	19
1400	13	22	25

* THE ESTIMATED RIPRAP SURFACE AREAS SHOWN IN THIS TABLE ARE BASED ON A 4:1 SIDESLOPE.

No.	REVISIONS	BY	DATE
2			
1	UPDATED SIGNATURE. NOTES ADDED	H.C.	Mar 31/22

Approved:

Rob.Lonson Digitally signed by Rob.Lonson Date: 2022.03.31 15:45:16 -06'00'

Executive Director,
Technical Standards Branch

Date: March 31, 2022

Alberta

HAND-LAID RIPRAP (ROCK OR SACKED MATERIAL)

Prepared By: S.L.	Checked By: H.C.	Scale: N.T.S.	Dwg No.: CB6-2.5M1

GRAPHICS FILE: DE#[200.22]\cb625m1.dgn