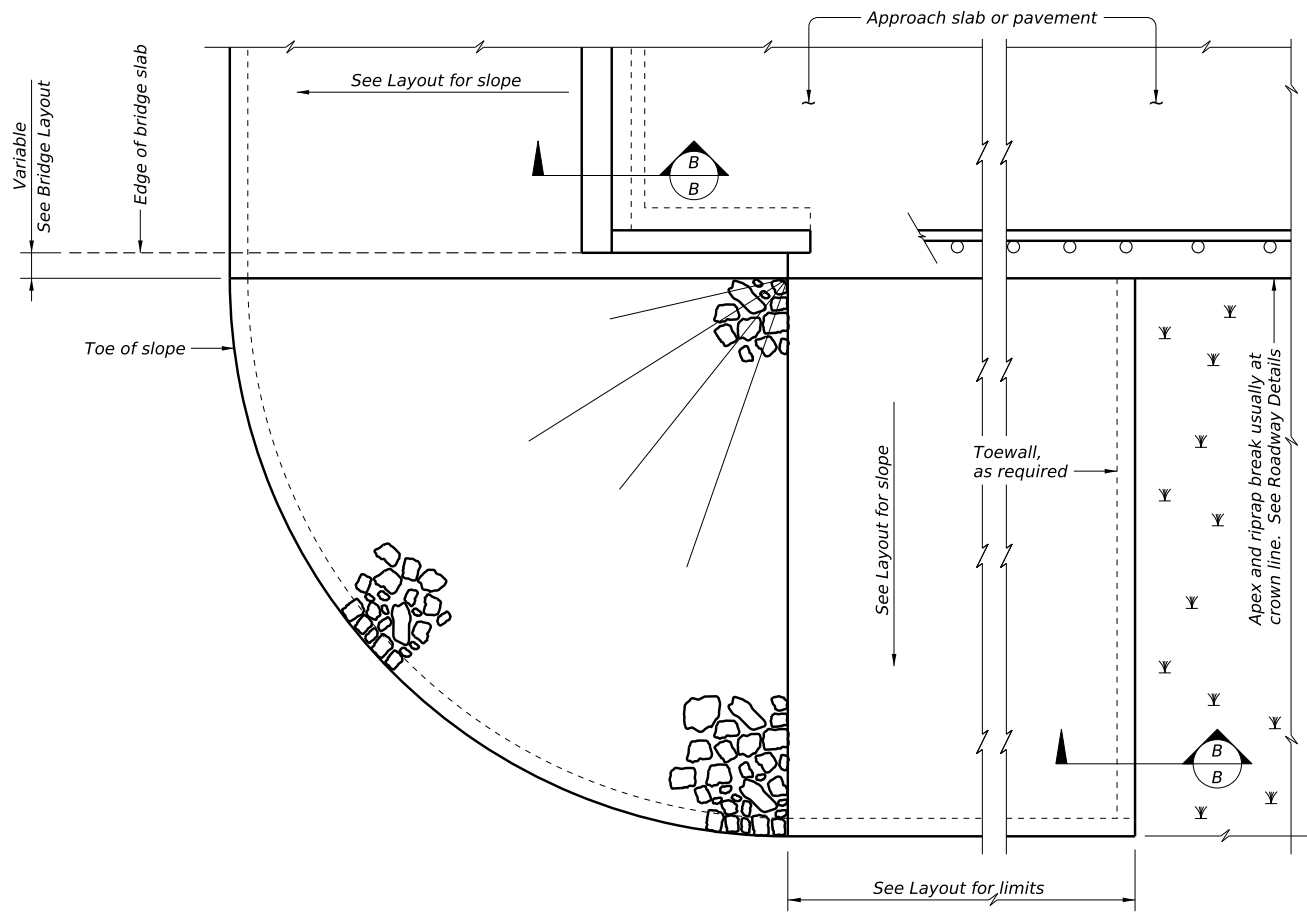
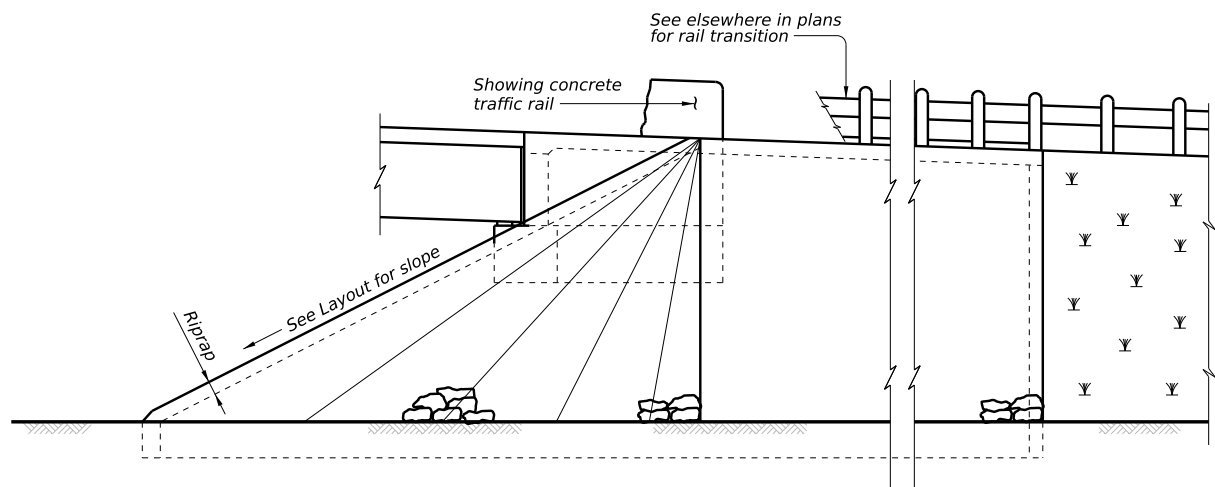


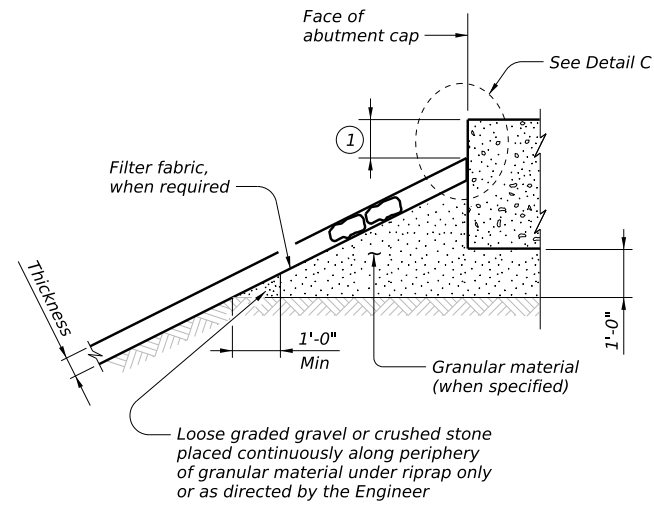
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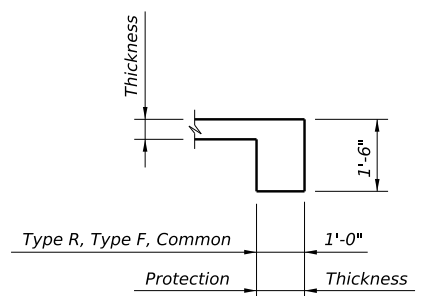
**PLAN**



**ELEVATION**



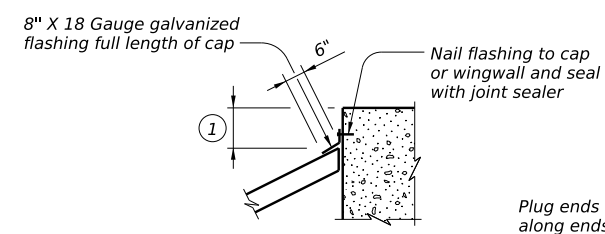
**SECTION A-A AT CAP**



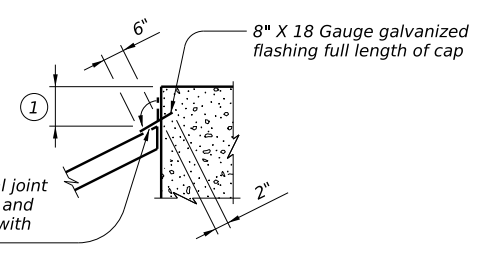
**SECTION B-B**

Provide toewall when shoulder drain is located adjacent to limits of stone riprap. Omit toewall when thickness of protection riprap is greater than 18".

① Top of cap to top of riprap dimension varies as directed by the Engineer. Provide 9" Min for beam/slab type bridges and 1'-6" for slab span, box beam, or slab beam bridges.



**CAP OPTION A**



**CAP OPTION B**

**DETAIL C**

**GENERAL NOTES:**  
 Refer to Item 432, "Riprap" for stone size and gradation, and construction details. See Layout for limits and thickness of riprap specified.  
 See elsewhere in plans for locations and details of shoulder drains.

SHEET 1 OF 2

Texas Department of Transportation Bridge Division Standard

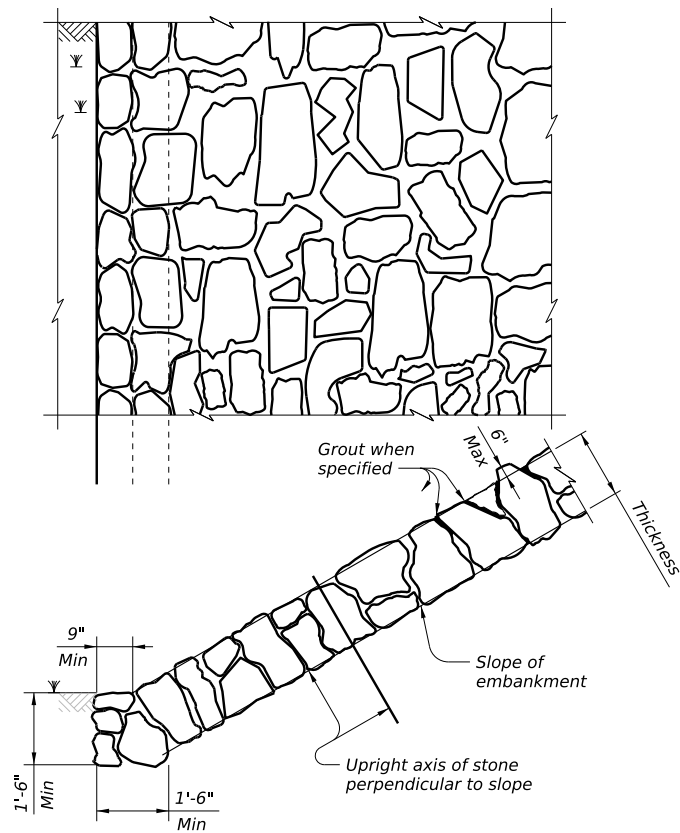
**STONE RIPRAP**

**SRR**

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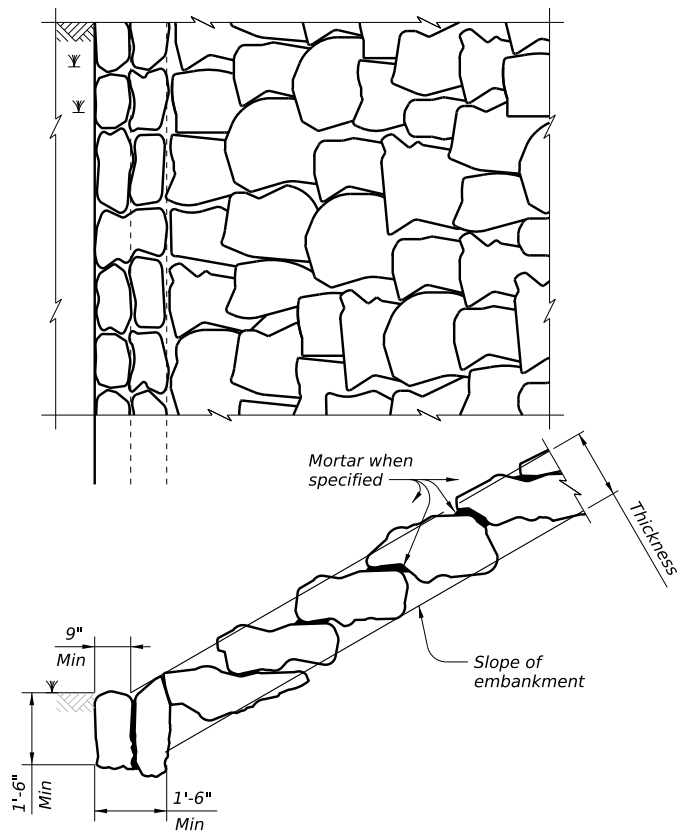
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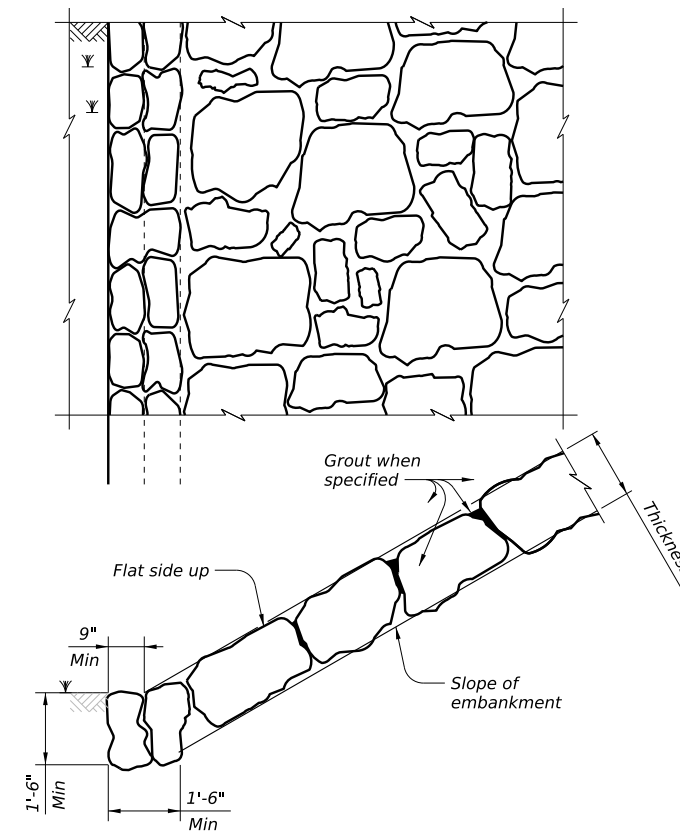
**FIGURE 1 ~ TYPE R STONE RIPRAP**

Dry or grouted



**FIGURE 2 ~ TYPE F STONE RIPRAP**

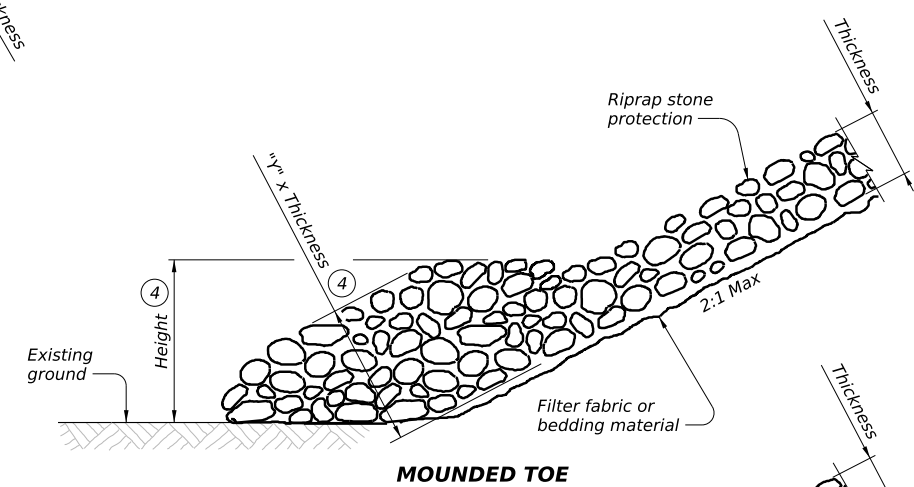
Dry or mortared



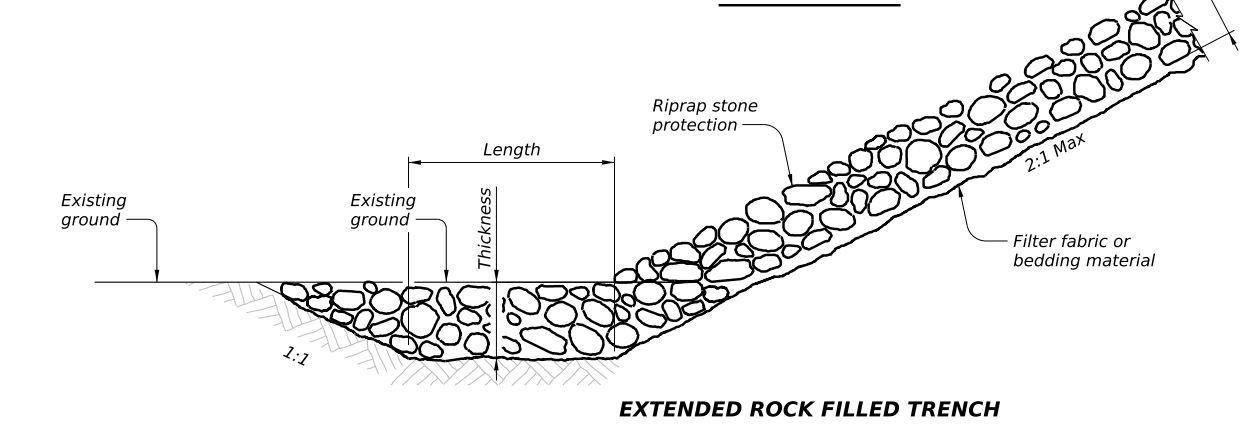
**FIGURE 3 ~ TYPE F STONE RIPRAP**

Grouted

- ② Provide bedding material instead of filter fabric if shown elsewhere in plans. See Layout for thickness of bedding material.
- ③ Minimum toe depth is 2 times the riprap thickness (typical) or as shown elsewhere in the plans.
- ④ "Y" and Height need to be defined. See layout or detail sheet for values if this option is used.
- ⑤ List Stone Protection as size (XX inch) and thickness (YY inch) on the layout.  
Example: Riprap (Stone Protection) XX inch, Thickness = YY inch.

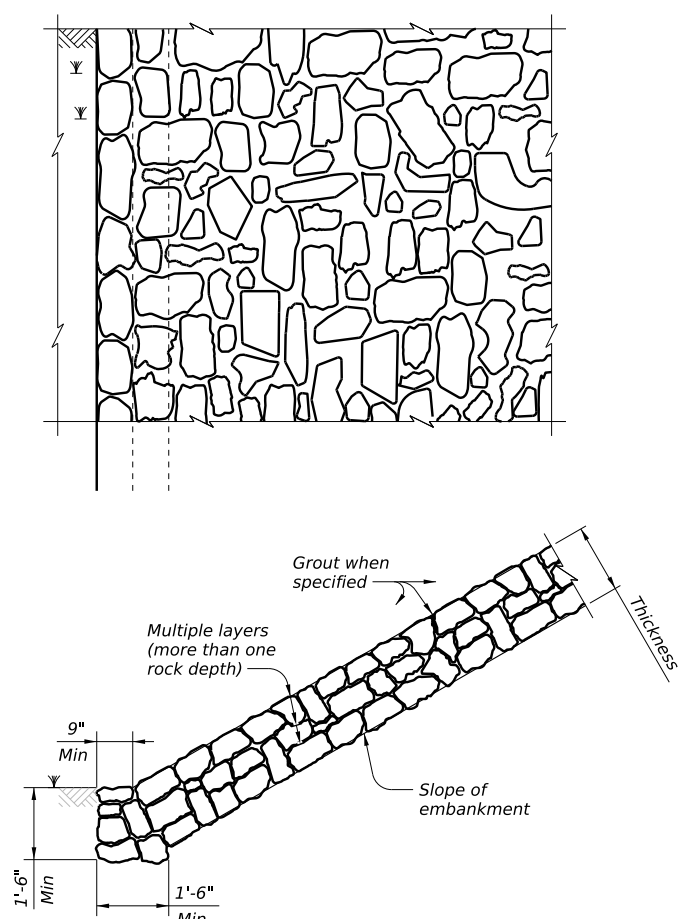


**MOUNDED TOE**



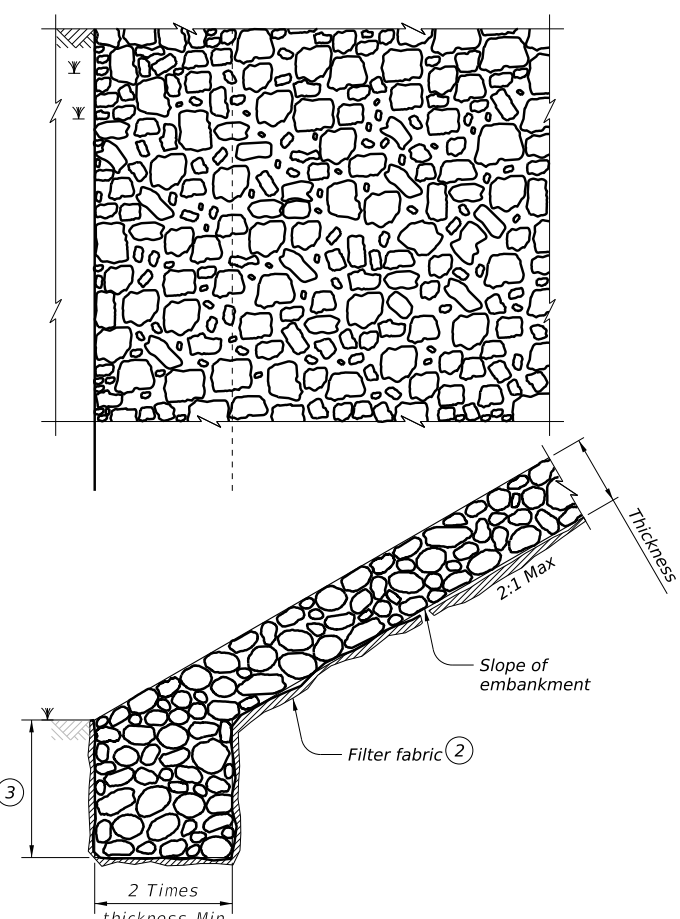
**EXTENDED ROCK FILLED TRENCH**

**PROTECTION STONE RIPRAP TOE OPTIONS ⑤**



**FIGURE 4 ~ COMMON STONE RIPRAP**

Dry or grouted



**FIGURE 5 ~ PROTECTION STONE RIPRAP ⑤**

SHEET 2 OF 2

Texas Department of Transportation  
 Bridge Division Standard

**STONE RIPRAP**

**SRR**

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