

## Notes to the Designer

Updated September 2023

### Rockery

#### General Information

- All graphics and text will be in the design and drawing models. Only use the sheet model for printing.

#### - Project Specific Information

The typical section includes a rockery with paved ditch. Typical sections with other ditch types are shown above the drawing – use the typical sections that fit your project.

Coordinate with Geotech to fill in the information in the Rockery Design Table and to select the geotextile type.

#### - Existing Ground Above the Rockery

If the existing ground slope is steeper than 1:1 above the rockery, coordinate with Geotech (may need to include a concrete v-ditch along the top of the rockery).

#### - Design Guide

Rockery Design and Construction Guidelines are available at

<https://www.fhwa.dot.gov/clas/pdfs/RockeryDesignandConstructionGuidelines013007.pdf>

#### Applicable SCRs

- Section 252:

[https://flh.fhwa.dot.gov/resources/specs/fp-14/cfl/documents/S252-14\\_09112014.docx](https://flh.fhwa.dot.gov/resources/specs/fp-14/cfl/documents/S252-14_09112014.docx)

#### Typical Pay Item Used

- 2510-0000 Rockery [SQFT]

Other items, including structure excavation, foundation fill, granular rock backdrain, and 4-inch drain pipes, are considered incidental (need to show estimated quantities for information only in the rockery summary table on the B sheets)

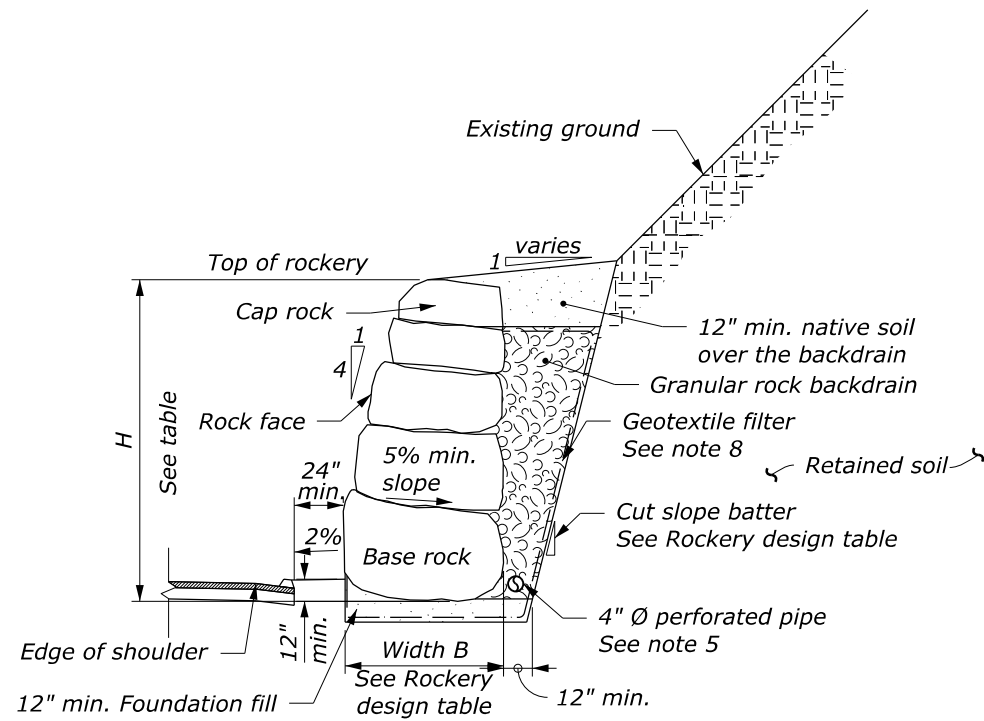
#### Updates

- **May 2021**

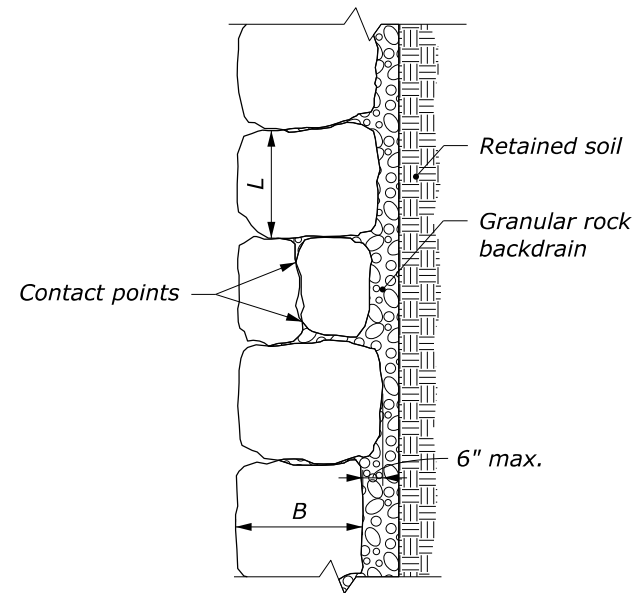
- Updated for OpenRoads Designer

- **September 2023**

- Updated border; updated to international foot seed



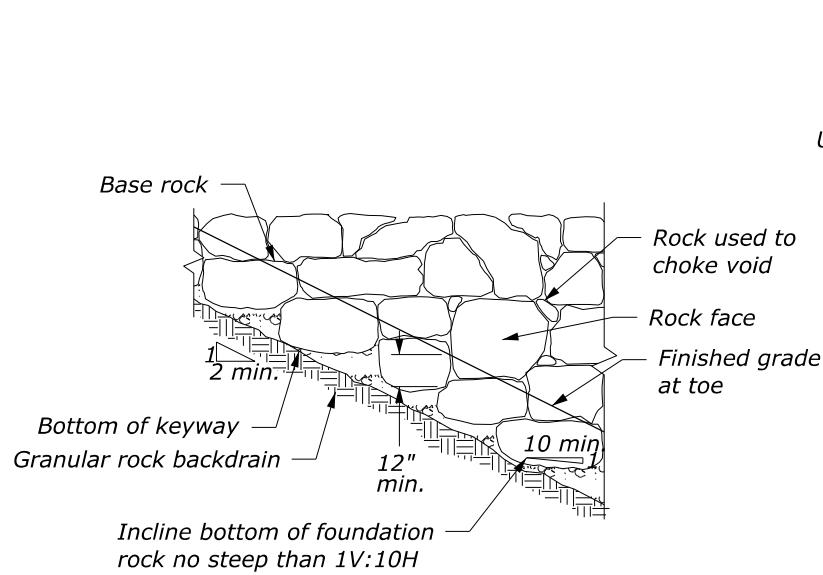
**ROCKERY WITH PAVED DITCH  
TYPICAL SECTION**



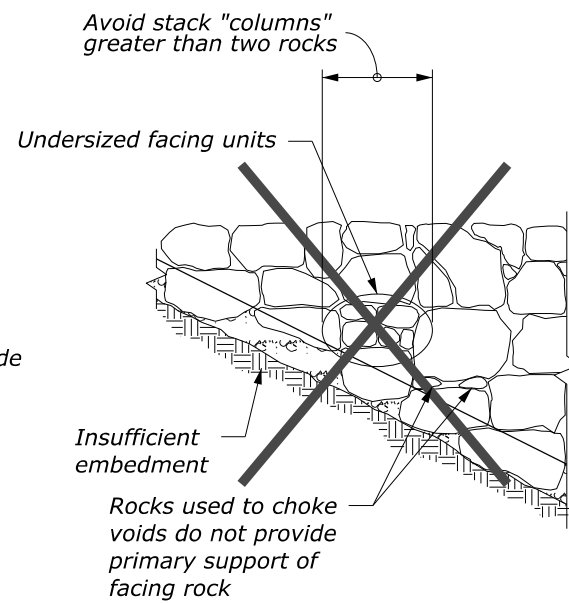
**BASE ROCK PLAN VIEW**

**NOTE:**

1. Construct rockery and place base, facing, and cap rocks according to Section 252. Place each rock individually by equipment suitable for lifting, manipulating, and placing rocks of the size and shape specified. Ensure that each rock is firmly set and supported by underlying materials and adjacent rocks. Reposition or replace loose rocks.
2. A maximum tolerance of 6 inches may be applied toward the total base rock width. Use rock with minimum L of 5 feet 6 inches. Do not consecutively place base rocks with widths less than B.
3. Place base, facing, and cap rocks so that their height dimension is not greater than their width. The longest dimension of the base, facing, and cap rocks is parallel to face of rockery.
4. Where loose, soft, or otherwise unsuitable foundation soil conditions are encountered, contact the CO for supplemental recommendations.
5. Discharge outlet pipes to a protected outlet or other permanent drainage structure at low points in the rockery and at 100 feet maximum spacing.
6. Do not construct rockeries or slopes exceeding the heights shown on the Rockery Design Table without prior written approval.
7. Construct rockeries parallel to curb grade unless otherwise noted.
8. Provide geotextile filter type conforming to subsection 714.01(a). See summary tables for class and type.

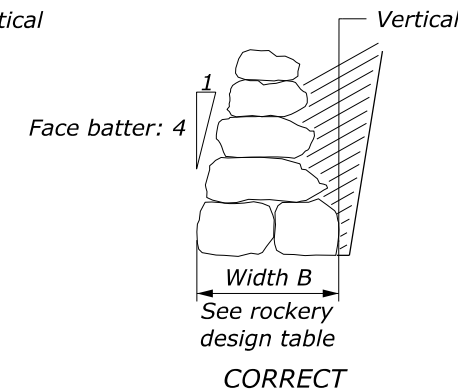
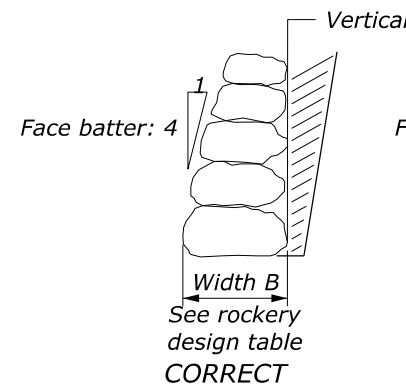


**CORRECT**

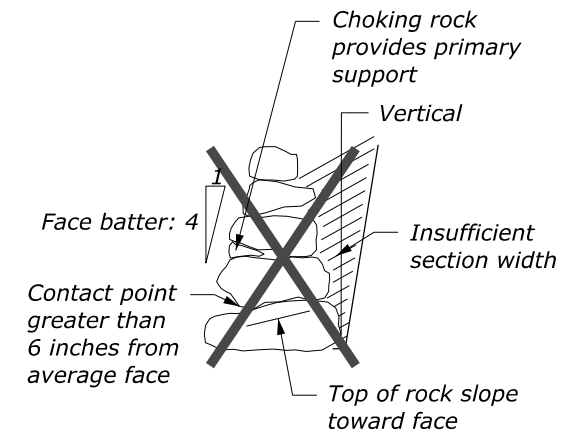


**INCORRECT**

**PARTIAL TYPICAL PROFILE**



**SECTION PROPERTIES**



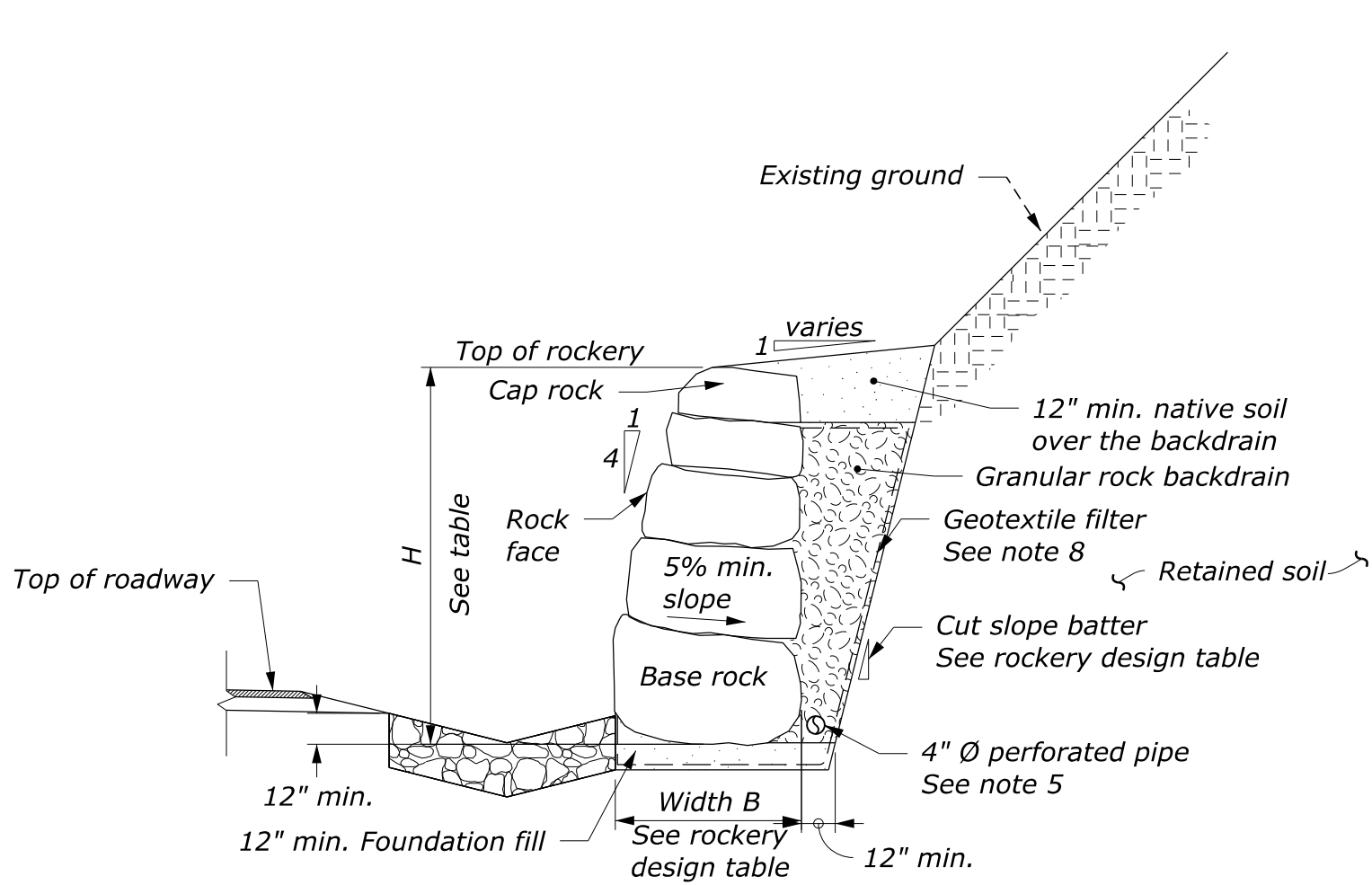
**INCORRECT**

ROCKERY DESIGN TABLE						
Station			Max. Height H	Min. Base Rock Width B	Max. Cut Slope Batter See Note A	Min. Rock Weight (lb)
Begin	End	LT/RT	(ft)	(ft)	V:H	Cap Rock
						Base Rock

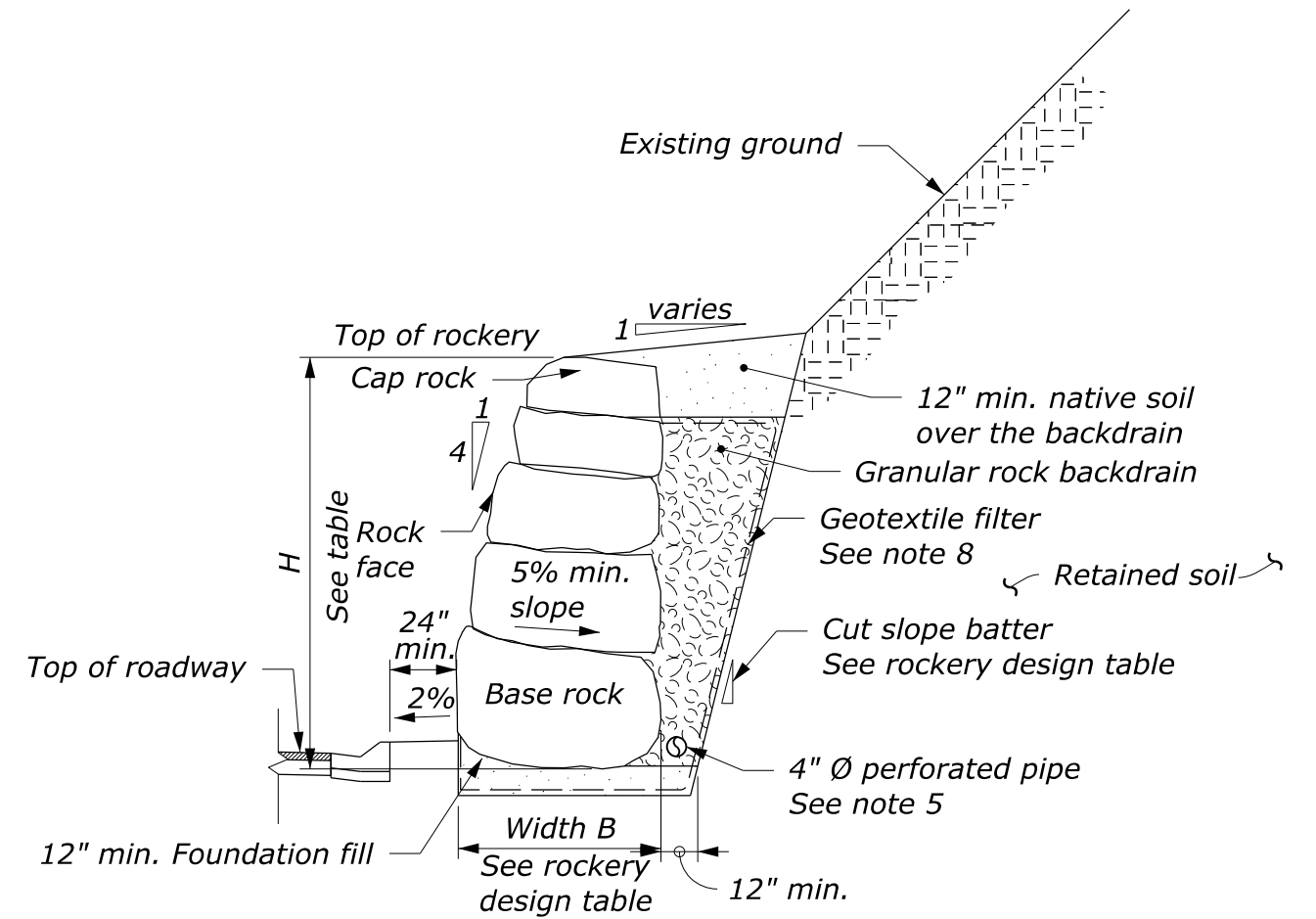
Rockery Design Data:  
Friction angle,  $\phi$  \_\_\_°  
Cohesion,  $c = 0$   
Bulk unit weight,  $\gamma_s = 149.7$  /bf/ft<sup>3</sup>  
Allowable bearing pressure = \_\_\_ lbf/sqft

A. Allowable cut slope batter for design purposes only. Actual cut slope batter may be flatter.

NO SCALE



**ROCKERY WITH RIPRAP-LINED DITCH**



**ROCKERY WITH CURB AND GUTTER**