

PC-42 AGGREGATE ARMOR

For assistance, contact the Geotechnical Engineer in the ITD Headquarters Resource Center

Refer to: ITD Standards and Specifications for Highway Construction, Sections 303, 306 and 703.

**BMP Objectives**

- Perimeter Control
- Slope Protection
- Borrow and Stockpiles
- Drainage Areas
- Sediment Trapping
- Stream Protection
- Temporary Stabilizing
- Permanent Stabilizing

Definition and Purpose

Permanent erosion control and stabilization of unpaved road surfaces and shoulders through the application of an aggregate base material. Use in areas where plant growth is not desired. See PC-30 for application of rock mulch where vegetative growth is desired.

Appropriate Applications

- Aggregate Armor can be effectively used to protect fine-grained soils from erosion due to surface runoff from stormwater runoff, dust control water, and wind.

Limitations

- Material must be relatively free of erodible fine-grained material (passing #200 sieve).
- A thicker application is the most effective, therefore future revegetation efforts have limited effectiveness in this media.
- Rounded aggregate is not acceptable for this application.

Design Parameters

- Material size should conform to the requirements of ¾" A, ¾" B, 1" A, or 2" of Table 703.04.1, Nominal Maximum Size, of the Standard Specifications. Materials that meet the gradation requirements in Table 703.08-1 can also be used.
- Minimum thickness is 2".

Construction Guidelines

- Key into a roughened surface to prevent slippage.

- Compact to form a shoulder in accordance with contract specifications and in reasonable conformity with the lines and grades shown on the project plans.
- Material should be placed and compacted in a moist condition.
- This work shall include brooming and/or flushing the shoulder, shaping and compacting, and shaping the ditch to drain if necessary.
- The material shall be drawn back to the top edge of road and shaped to form a smooth transition to the ditch or fill line.
- If material from construction obstructs the ditch drainage, the ditch shall be reshaped to drain properly.
- Minimize area of ground disturbance to area of construction and material placement.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications during construction.
- Periodic inspection and maintenance will be required based on post-construction site conditions.
- Make any repairs necessary to ensure the measure is operating properly.