

Construction Entrances



(Photo Credit: US Environmental Protection Agency)

Definition

- A stone stabilized pad, “mud rack”, automotive spray, or other measures located at points of vehicular ingress and egress on a construction site.

Purpose

- The purpose of a stabilized construction entrance is to reduce the tracking or flowing of sediment onto adjacent areas and paved surfaces. A properly established construction entrance provides an area where earth and other foreign materials can be removed from construction vehicle tires before they enter a public road.

Applicability

- Any point of construction ingress or egress where sediment may be tracked or flow off the construction site.

Planning and Design Requirements

Preliminary Actions

Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of earth and other foreign material picked up by construction vehicles.

At poorly drained locations, subsurface drainage should be installed before installing the stabilized construction entrance.

Location

The entrance should be located to provide for maximum utility by all construction vehicles. Avoid poorly drained soils, where possible.

Entrance Dimensions

- Thickness: not less than four (4) inches.
- Width: not less than full width of points of ingress or egress.

- **Length:** 50 feet minimum where the soils are sands or gravels or 100 feet minimum where soils are clays or silts, except where the traveled length is less than 50 or 100 feet, respectively.

Material Requirements

- **Aggregate Size:** Use ASTM C-33, size No. 2 or 3, or RIDOT 2" size crushed stone or gravel. Gradations are shown in **Figure 1**.

Figure 1. Materials Size

Square Mesh Sieves	RIDOT 2" Crushed Stone or Gravel % Finer	ASTM C-33 No. 2 % Finer	ASTM C-33 No. 3 % Finer
2-1/2 inches	100	90-100	100
2 inches	95-100	35-70	90-100
1-1/2 inches	30-55	0-15	35-70
1-1/4 inches	0-25	-	-
1 inch	0-5	-	0-15
3/4 inch	-	0-5	-
1/2 inch	-	-	0-5
3/8 inch	-	-	-

(Credit: 2002 Connecticut Guidelines for Soil Erosion and Sediment Control)

- **Geotextile:** Fibers used in the geotextile shall consist of synthetic polymers composed of at least 85% by weight polypropylenes, polyesters, polyamides, polyethylene, polyolefins or polyvinylidene-chlorides. The fibers shall be formed into a stable network of filaments or yarns retaining dimensional stability relative to each other. The geotextile used shall be specifically intended for "road stabilization" applications and shall be consistent with the manufacturer's recommendations for the intended use.

Vehicle Washing May Be Required

If conditions on the site are such that the majority of the earth and other foreign material is not removed by the vehicles traveling over the gravel, then the tires of the vehicles must be washed before entering a public road. If washing is used, provisions must be made to intercept the wash water and trap the sediment before it is carried off-site. Wash water must be carried away from the entrance and must be treated in a sediment basin or alternative control that provide equivalent or better treatment prior to discharge. The settling area must be sized to hold the volume of water used during any 2-hour period. A wash rack may also be used to make washing more convenient and effective.

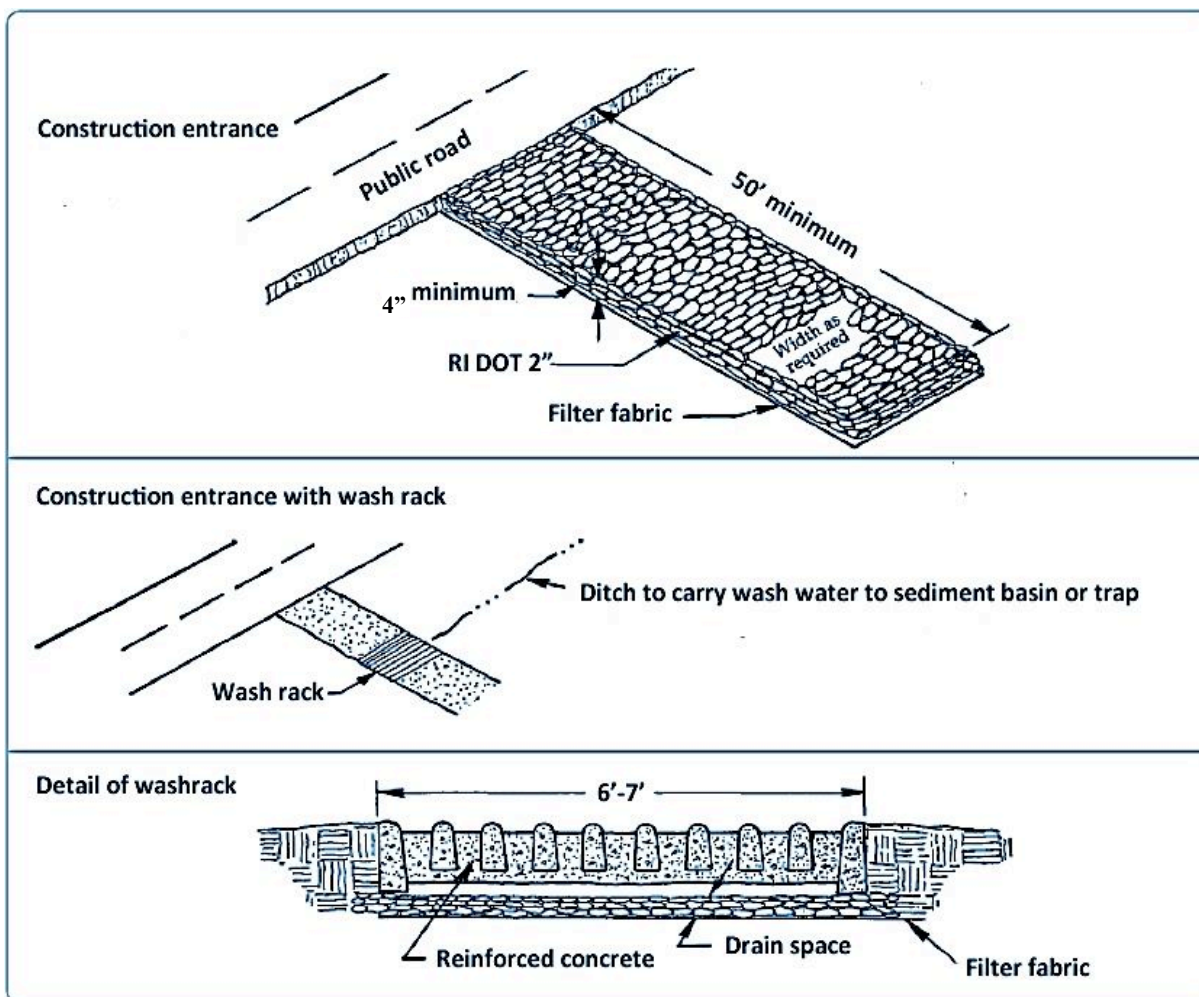
Installation Requirements

- At poorly drained locations install subsurface drainage insuring the outlet to the drains are free flowing.
- The area of the entrance should be cleared of all vegetation, roots, and other objectionable material.
- A road stabilization filter cloth must be placed on the subgrade prior to the gravel

placement to prevent pumping of soil through the aggregate. Unroll the geotextile in a direction parallel to the roadway centerline in a loose manner permitting it to conform to the surface irregularities when the stone is placed.

- Place the stone to the specified dimensions. Keep additional stone available or stockpile for future use. If the grade of the construction entrance drains to the paved surface and it exceeds 2%, construct a water bar within the construction entrance at least 15 feet from its entrance on the paved surface diverting runoff water to a settling or filtering area.
- Construct any drainage and settling facilities for washing operations. If wash racks are used, install according to the manufacturer's specifications. See **Figure 2**.

Figure 2. Construction Entrance (plan view and details)



(Credit: 2002 Connecticut Guidelines for Soil Erosion and Sediment Control)

Inspection, Maintenance, and Removal Requirements

- The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as conditions demand. Repair any measures used to trap sediment as needed. Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces. Roads adjacent to a construction site shall be left clean at the end of each day.

Section Six: Sediment Control Measures

- If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then either: (1) increase the length of the construction entrance, (2) modify the construction access road surface, or (3) install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.
- Roads adjacent to a construction site shall be clean at the end of each day.
- At the completion of construction all entrance and exit points to the site must be restored in accordance with the approved plans.