



# VILLAGE OF KEY BISCAIYNE

## Department of Building, Zoning and Planning

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Mission Statement: "TO PROVIDE A SAFE, QUALITY ENVIRONMENT FOR ALL ISLANDERS THROUGH RESPONSIBLE GOVERNMENT"

## NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL

The Village of Key Biscayne participates, as a co-permittee with Miami-Dade County, in the National Pollution Discharge Elimination System (NPDES) program. This program is aimed at improving storm runoff water quality. The Village of Key Biscayne must address specified activities and program compliance stated within the Annual Reports and permit conditions. The permit conditions require that the Chief Building Official and the Village of Key Biscayne Building, Zoning and Planning Department enforce the following activities as part of Construction Site Erosion and Sediment Control.

1. **Submission of Erosion and Sediment Control Plan:** Applicants for new construction projects or substantial improvements (i.e., additions, pools, etc.) shall submit as part of the mandatory building permit submittal documents an erosion and sediment control plan for the development of the site. The qualifier for the permittee shall attest by his notarized signature that the erosion and sediment control plan will be maintained for the duration of the permitted construction activities (see below).
2. **Best Management Practices (BMPs) for Erosion and Sediment Control:** Two (2) mandatory erosion and sediment control best management practices shall be implemented at each development site. These are:
  - a. **Temporary Gravel Construction Entrance and Exit** (See Attachment 4.03 and Plate 4.03a)
  - b. **Storm Drain Inlet Protection** (See Attachment 4.08 and Plates 4.08a and 4.08g).

**NOTE:** The preceding two elements of the plan must be implemented at the development site, and inspected and approved by the Chief Building Official or a designated inspector prior to the acceptance of the first mandatory Florida Building Code inspection request.

3. **Compliance with Erosion and Sediment Control Plan:** Mandatory Florida Building Code inspections and inspections for erosion and sediment control shall be performed simultaneously with construction inspections. Failure to maintain erosion and sediment control measures during the entire construction phase will result in rejected inspection request and/or Code Enforcement action to be treated as a violation of the Village's Code of Ordinances by the Code Enforcement Officer.

I hereby agree to maintain the attached erosion and sediment control plan for the duration of the construction phase.

\_\_\_\_\_  
General Contractor – Company Name

\_\_\_\_\_  
Notary

\_\_\_\_\_  
Name of Qualifier

\_\_\_\_\_  
License Number of Qualifier

\_\_\_\_\_  
Signature of Qualifier

\_\_\_\_ Day of \_\_\_\_\_, 20 \_\_\_\_

### **4.03 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE & EXIT** **(ES BMP 1.01)**

#### **Definition**

A stone stabilized pad located at points of vehicular ingress and egress on a construction site.

#### **Purpose**

To stabilize entrances to the construction site and reduce the amount of sediment transported onto public roads by motor vehicles or runoff.

#### **Conditions Where Practice Applies**

Wherever traffic will be leaving a construction site and moving directly onto a public road or other paved area.

#### **Planning Considerations**

Construction entrances provide an area where mud can be removed from construction vehicle tires before they enter a public road. If the action of the vehicle traveling over the gravel pad is not sufficient to remove most of the mud, then the tires must be washed before the vehicle enters 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. Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by construction vehicles.

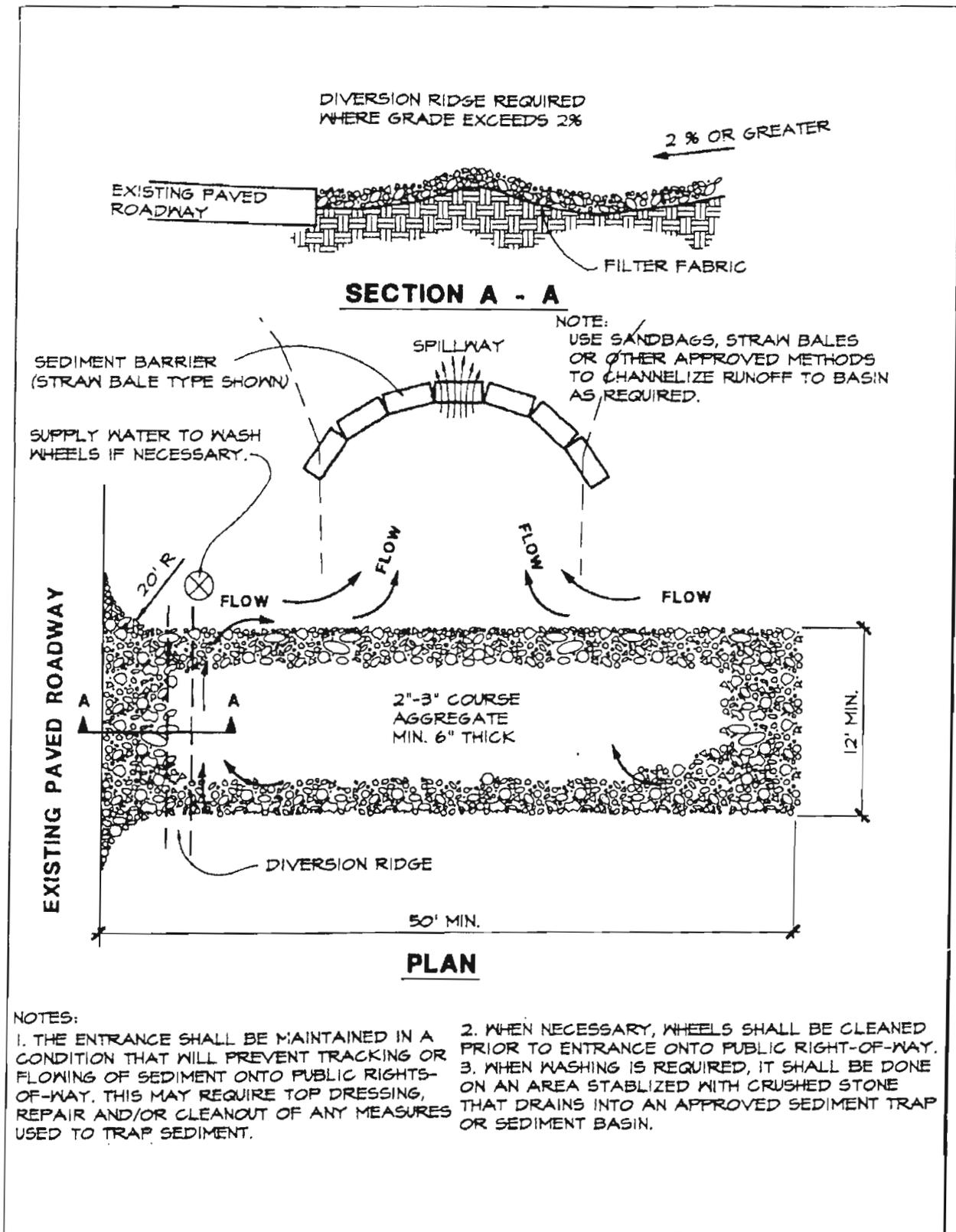
#### **Design Criteria**

##### **Aggregate Size**

FDOT No. 1 Coarse Aggregate (1.5 - 3.5 inch stone)(4 - 9 cm) should be used. Wood chips may be used for single family residential construction, provided that they can be prevented from floating away in a storm.

##### **Entrance Dimensions**

The aggregate layer must be at least 6 inches (15 cm) thick. It must extend the full width of the vehicular ingress and egress area. The length of the entrance must be at least 50 feet (20 m). The entrance must widen at its connection to the roadway in order to accommodate the turning radius of large trucks. (See Plate 4.03a)



**Plate 4.03a** Temporary Gravel Construction Entrance

Source: Erosion Draw

## **4.08 STORM DRAIN INLET PROTECTION** **(ES BMP 1.08)**

### **Definition**

A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.

### **Purpose**

To prevent sediment from entering storm water conveyance systems prior to permanent stabilization of the disturbed area.

### **Condition Where Practice Applies**

Where storm drain inlets are to be made operational before permanent stabilization of the disturbed drainage area. Different types of structures are applicable to different conditions (see Plates 4.08a through 4.08h).

### **Planning Considerations**

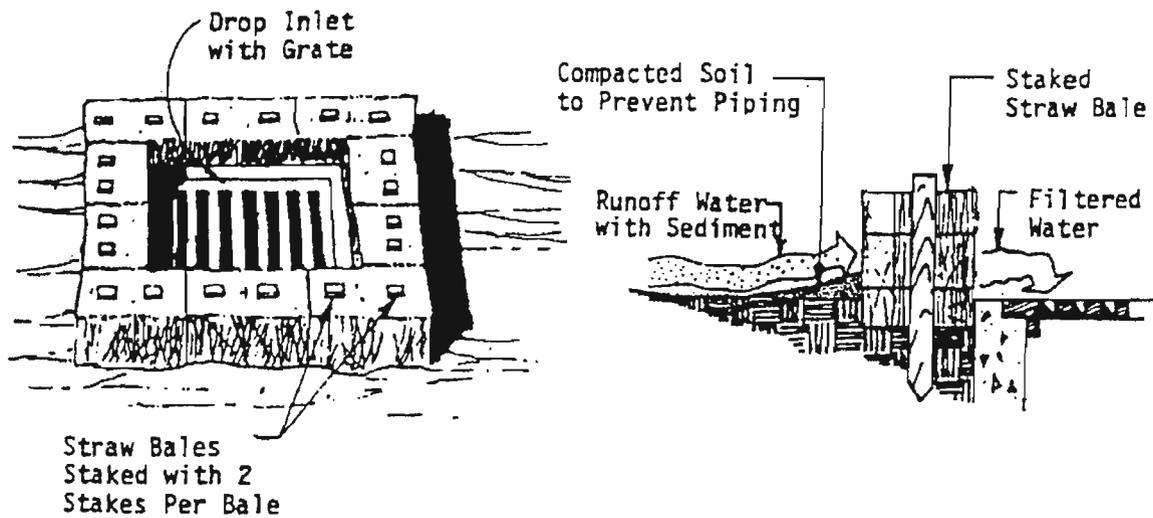
Storm sewers which are made operational before their drainage area is stabilized can convey large amounts of sediment to receiving waters. In case of extreme sediment loading, the storm sewer itself may clog and lose most of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

This section contains several types of inlet filters and traps which have different applications dependent upon site conditions and type of inlet. Other innovative techniques for accomplishing the same purpose are encouraged, but only after specific plans and details are submitted to and approved by the stormwater permitting agency.

Note that these various inlet protection devices are for drainage areas of less than one acre (0.4 ha). Runoff from large disturbed areas should be routed through a TEMPORARY SEDIMENT TRAP - Section 4.25 (ES BMP 1.25).

### **Design Criteria**

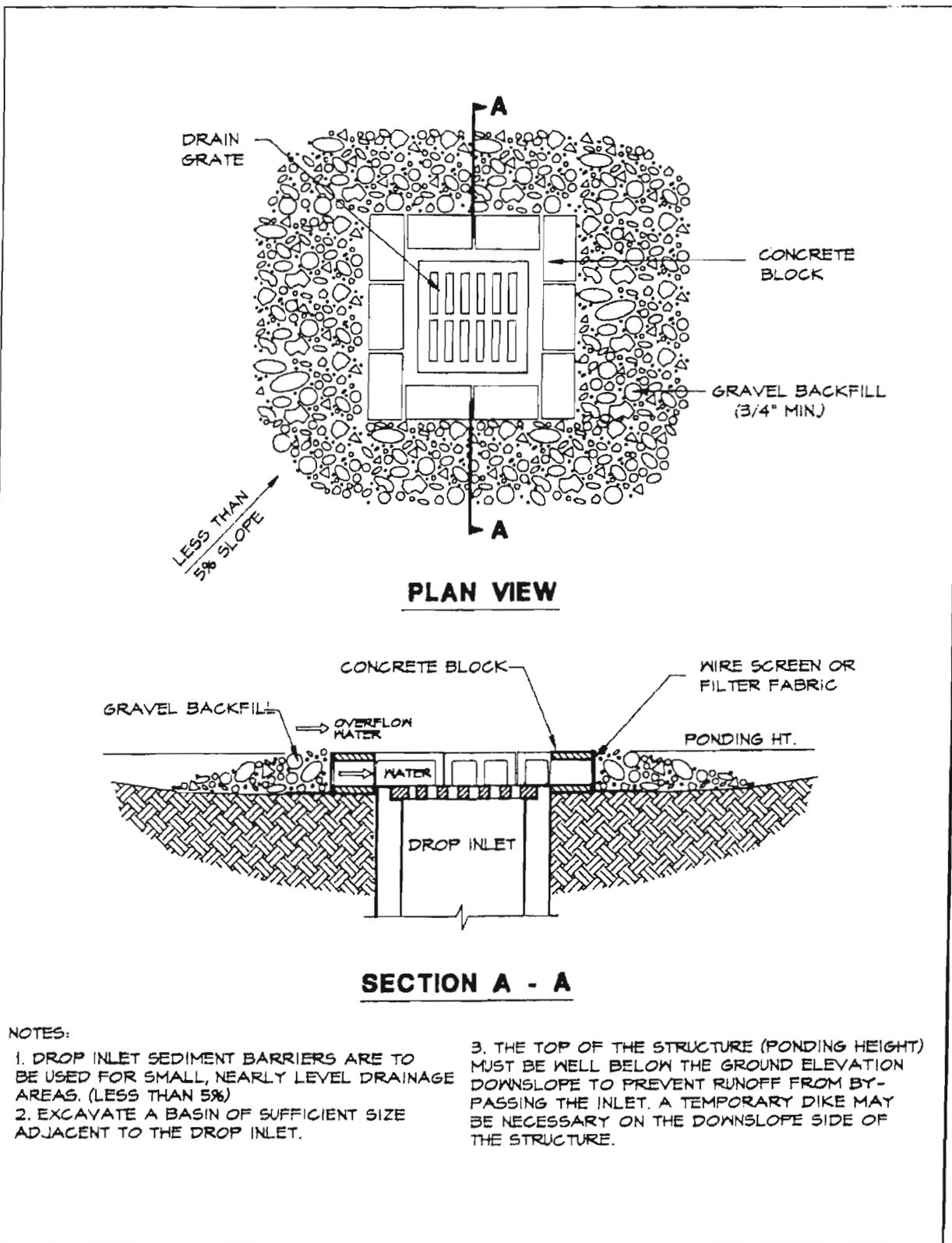
1. The drainage area shall be no greater than 1 acre (0.4 ha).
2. The inlet protection device shall be constructed to facilitate clean out and disposal of trapped sediment and to minimize interference with construction activities.
3. The inlet protection devices shall be constructed so that any resultant ponding or stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
4. Design criteria more specific to each particular inlet protection devices will be found on Plates 4.08a-h.



Specific Application

This method of inlet protection is applicable where the inlet drains a relatively flat area (slopes no greater than 5 percent) where sheet or overland flows (not exceeding 0.5 cfs) are typical. The method shall not apply to inlets receiving concentrated flows, such as in street or highway medians.

**Plate 4.08a** Straw Bale Drop Inlet Sediment Filter  
Source: Michigan Soil Erosion and Sedimentation Control Guidebook



**Plate 4.08g** Block and Gravel Drop Inlet Sediment Filter

Source: Erosion Draw